INTEGRATING GLOBAL KNOWLEDGE FOR DUAL VALUE CREATION AN INTERDISCIPLINARY FRAMEWORK FOR PRACTICE-INFORMED SOCIAL ENTREPRENEURSHIP EDUCATION

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Abstract

Social entrepreneurship (SE) has long demonstrated that social and economic value can be created simultaneously through enterprises generating both community benefit and financial sustainability. Despite the persistence of this practice across cultures, regions, and historical periods, SE scholarship and Social Entrepreneurship Education (SEE) remain fragmented by disciplinary boundaries, competing definitions, and regionally specific models that limit the scaling of SE practice and the development of a coherent and globally applicable SEE approach capable of supporting solutions to complex global problems.

This dissertation addresses the absence of an integrated, interdisciplinary, and globally transferable SEE framework aligned with a complementary pedagogical design. Guided by the Interdisciplinary Research Process (IRP) (Repko & Szostak, 2025), the research integrates disciplinary scholarship, regional educational practice, cultural philosophies, and practitioner knowledge. The study was conducted across three research phases, including interdisciplinary theoretical integration, comparative empirical investigation of SEE ecosystems in Manitoba, Prince Edward Island, Croatia, and Slovenia, and iterative implementation and evaluation of the resulting SEE approach across multicultural and multidisciplinary learning environments.

The dissertation applies redefinition as an IRP integration strategy to establish a globally applicable understanding of SE practices capable of supporting cross-regional investigation. Systems theory and complexity science are subsequently applied as integrative lenses to develop a shared theoretical foundation for interpreting SE as a process emerging through interactions across ecological, social, and economic systems rather than as a normative aspiration. The research further identifies the nested hierarchy of open systems as the broader systems configuration within which social enterprises operate and distinguishes systemic conditions governing cross-system interactions from context-specific socioeconomic variables shaped through institutional and societal design.

The resulting SEE framework organises knowledge into multilevel theoretical and applied domains while distinguishing between globally applicable and context-specific knowledge in order to remain transferable across regions and responsive to different cultural contexts. The framework integrates practitioner-derived and research-derived knowledge within a single educational architecture that was tested and refined through five implementations involving learners across Europe, Asia, North America, and South America. Findings indicate that dual value creation in entrepreneurial practice is consistently recognised across culturally diverse learner groups and regional contexts, providing preliminary empirical support for the broader applicability of the proposed SEE framework.

The dissertation contributes a theoretical proposition positioning SE as a structurally necessary complex phenomenon and social enterprises as complex open systems embedded within a nested hierarchy of open systems, with systemic conditions governing social and economic value creation. The research further proposes a typology of social enterprises distinguishing integration and coordination mechanisms of dual value creation, alongside the integration of cultural philosophies into the SEE knowledge architecture. The findings suggest that culturally grounded traditions across regions independently developed practices aligned with dual value creation long before the emergence of formal SE scholarship. The dissertation concludes by advancing an interdisciplinary, integrated SEE framework that may provide a promising direction for further interdisciplinary research, educational design, and the development of SE practice across diverse institutional and cultural contexts.

Acknowledgments

This dissertation represents the formalisation of a thirty-year journey in global social entrepreneurship practice, made possible through the support of an extraordinary cross-institutional and multidisciplinary network.

First and foremost, I extend my deepest gratitude to my external advisors, Dr. Rick Szostak and Dr. Matthew Pauley. When institutional transitions and systemic friction threatened the completion of this research, they stepped forward onto the bedrock of academic integrity. By volunteering their exceptional expertise, time, and guidance, they provided the essential intellectual anchor required to bring this thesis to fruition. Their belief in the viability of this research, in the importance of the topic, and in the potential impact of the resulting social entrepreneurship education approach has been an invaluable asset.

To the Board of Directors and partners of SOS for Sustainable Future, as well as my former students, entrepreneurs, and community members, who provided their valuable input and time to participate in the data collection and delivery of the Global Social Innovation Labs, thank you for demonstrating daily that human care and relational autonomy are the true negentropic forces capable of transforming our societies to address the global polycrisis.

I thank my daughter, who stood by me, edited and formatted my thesis while providing a youth perspective on the final work, for her patience with my limitations in using writing software and for her honest views on the pertinence of my work for future learners.

This research has been profoundly enriched by the generosity of scholars, institutions, and practitioners from diverse disciplines and regions who shared their expertise, challenged my thinking, and broadened my understanding of social entrepreneurship and education.

I extend my sincere gratitude to Dr. Sean Wiebe for his unwavering support and profound educational expertise, Dr. Amanda Wilson for her thoughtful guidance in ecosystem research, Dr. Helen Yun for her warm friendship and generous sharing of Chinese perspectives on social business and systems thinking, Dr. Pascal Day and the ISIRC community for their valuable feedback, Dr. Danijel Baturina and the EMES community for introducing me to their vibrant research community, Ms. Gabriella Zamarron for her enthusiastic support and professional guidance, and Dr. Gordana Nikolić for her generous insights into social business in Europe. I also acknowledge Dr. Wiebe, Dr. Wilson, Dr. Apostolova, Atelier, Esplanade, Rijeka HUB, and Tierra Nueva for their support of the Mitacs projects.

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My deepest appreciation goes to the social entrepreneurs from Canada, Croatia, Slovenia, Italy, France, Austria, Chile, Colombia, Argentina, Bolivia, Morocco, Kenya, Japan, India, Thailand, and China who generously opened their organisations, shared their experiences, and devoted their time to interviews, observations, and ongoing dialogue throughout this research. Their willingness to reflect critically on their practice and to share both their successes and challenges provided the empirical evidence that informed and enabled the triangulation of the research conducted in parallel with this dissertation.

I am profoundly grateful to the federal funding bodies that recognised the value of this work and trusted in my ability to complete it. The support of the Social Sciences and Humanities Research Council of Canada (SSHRC) through the CGS-D scholarship, alongside two Mitacs Accelerate Entrepreneur Award

grants and entrance scholarships at the University of Prince Edward Island and Saint Paul University, provided not only the essential financial foundation for this research but also empirical validation that social entrepreneurship is critical to Canada's future economic and ecological resilience.

This thesis belongs to our collective community.

I am grateful for the wisdom embodied in the diverse cultural philosophies and traditions explored throughout this thesis, many of which recognised the challenges and opportunities of human organisation long before social entrepreneurship emerged as an academic field. Like all research, this dissertation stands on the shoulders of generations of scholars whose collective pursuit of knowledge made this work possible.

Finally, I acknowledge the unyielding laws of the nested hierarchy itself. The systems within which humanity thrives do not care about disciplinary divisions, bureaucratic bottlenecks, or human limitations. They only record and react to the impact of human activity on systemic balance.

This work stands firmly on that rock.

Preface: Thesis Articles and Publishing Strategy

This doctoral thesis is presented in an article-based format integrating four journal articles that address distinct but interconnected dimensions of the same research question: what kinds of knowledge, education, and skills are required to launch and sustain social enterprises across diverse institutional and regional contexts?

The articles correspond to the three phases of the research design. Phase 1 addressed the development of a knowledge base and pedagogical approaches supporting SEE by identifying and integrating fragmented interdisciplinary knowledge on social entrepreneurship (SE) and Social Entrepreneurship Education (SEE) from global scholarship. Phase 2 examined SEE ecosystems across four regional contexts in Canada and the European Union to compare the knowledge architecture drawn from global research with regional SEE practices. Phase 3 tested and evaluated the resulting SEE framework through Global Social Innovation Lab (GSIL) implementations involving learners across multiple continents.

Each phase of the research resulted in at least one journal article and two conference presentations across Europe, Asia, North America, and South America. Table A introduces articles included in the thesis and their publication status.

Table A: Journal Articles Included in the Thesis

Article	Title/Focus	Journal Publication Status
Article 1	*Scaling Dual Value Creation through Education* Represents the introduction and global literature review establishing the rationale for an interdisciplinary approach	*Brkic, T. (2025). Scaling dual value creation through education.* Manuscript submitted for publication in the *International Journal of Innovative Business Strategies*
Article 2	*From Research to Praxis: Building a Globally Inclusive SEE Framework* Presents the systematic literature review and conceptual framework integrating multiple disciplinary insights using the Interdisciplinary Research Process (IRP).	*Brkic, T. (2024). From research to praxis: Building a globally inclusive SEE framework.* Manuscript under review with *Economic Alternatives (University of National and World Economy, Sofia, Bulgaria).*
Article 3	*Social Entrepreneurship Education Across Cultures: Toward Inclusive Models* Presents comparative case studies of SEE ecosystems in Slovenia, Croatia, Prince Edward Island, and Manitoba, analysing institutional actors, instructional practices, and knowledge sources.	*Brkic, T. (2025). Social entrepreneurship education across cultures: Toward inclusive models.* Manuscript submitted for publication in the *International Journal of Technology and Inclusive Education.*
Article 4	*Global Social Innovation Lab: Theoretical Perspectives* Analyses the implementation of the SEE approach through the GSIL model, drawing theoretical and pedagogical insights from the initial delivery of the SEE model across four universities on four continents.	*Brkic, T. et al, (2022). Global Social Innovation Lab: Theoretical perspectives. Canadian Journal for New Scholars in Education,* 13(3), Special Issue.

Table A shows that Article 2, Article 3, and Article 4 are integrated verbatim within the thesis chapters with additional introductory and contextual material linking each article to the broader research design. Article 1 has been distributed across Chapter 1, Chapter 2, and Chapter 3, and is included in Appendix 1 in its original form because its compressed journal format required substantial expansion when incorporated into the full thesis narrative. The four articles document the progression of the research from problem identification and interdisciplinary knowledge integration to empirical investigation and pedagogical testing, resulting in the development of a globally applicable SEE framework.

The thesis was developed under the guidance of Dr. Rick Szostak, coauthor of The Interdisciplinary Research Process (Repko & Szostak, 2021, 2025) and Emeritus Professor at the University of Alberta, and Dr. Matthew Pauley, an award-winning entrepreneurship scholar at Salem University, who generously volunteered their time to support this work. The research was supported by the SSHRC CGS-D Award, the Mitacs Accelerate Entrepreneur Award, and entrance scholarships from Saint Paul University and the University of Prince Edward Island.

Co-Authorship Statement

Article 1, Article 2, and Article 3 were solely authored by the researcher. Article 4, Global Social Innovation Lab: Theoretical Perspectives, was co-authored with three graduate students from the Master of Education program at the University of Prince Edward Island who served as both GSIL facilitators and learners during the 2021-2022 implementation. As principal author, the researcher designed the research methodology, developed the SEE model, and conducted all data collection, analysis, and interpretation. Co-authors contributed reflections on their experiences implementing educational theories during GSIL delivery. These reflections were treated as primary data, analysed thematically by the principal author, and integrated into the paper's discussion and conclusion sections.

Research Dissemination

The publishing approach followed a dual-pathway strategy, with conference presentations of papers and journal publications. This strategy enabled early engagement with academic and practitioner communities while building toward consolidated peer-reviewed publications. Table B provides an overview of the articles published in conference proceedings during doctoral studies.

Table B: Conference Papers Resulting from the Thesis

Year	Conference/Proceedings Publication	Region and Discipline
2025	*Brkic, T. (2025). A Transdisciplinary Approach to Social Entrepreneurship Education.* In Proceedings of the Canada International Conference on Education (CICE-2025) (pp. 194–195). Infonomics Society. https://doi.org/10.20533/CICE.2025.0058	Canada Education
2025	*Brkic, T. (2025). Social Entrepreneurship Education Challenges and Opportunities: A Comparative Case Study Canada–European Union.* In Proceedings of the Canada International Conference on Education (CICE-2025) (pp. 145–146). Infonomics Society. https://doi.org/10.20533/CICE.2025.0044	Canada Education
2025	*Brkic, T. (2025). Education as a Catalyst for Global Social Entrepreneurship Practice: A Transdisciplinary Approach.* Invited paper presented at the 10th EMES International Research Conference on Social Enterprise, Rotterdam, Netherlands.	Netherlands Social Entrepreneurship
2025	*Brkic, T. (2025). Scalable and Inclusive Cooperation: Knowledge Co creation by Social Entrepreneurs, Cooperatives, Young People, Policymakers and Academics.* Speaker in the Practitioners' Lab, 10th EMES International Research Conference on Social Enterprise, Rotterdam, Netherlands	Netherlands Social Entrepreneurship
2024	*Brkic, T. (2024). Global Entrepreneurship for Social Good.* Invited paper presented at the International Symposium on Cross Border Education, Foshan, China.	China International Education
2024	*Brkic, T. (2024). Global Social Innovation Lab: Scaling Social Entrepreneurship.* Invited paper presented at the Social Entrepreneurship Summit, Sofia, Bulgaria.	Bulgaria Social Entrepreneurship
2024	*Brkic, T. (2024). Charting a Pathway to Interdisciplinary Research in Social Entrepreneurship Education.* Invited paper presented at the International Social Innovation Research Conference (ISIRC), Bern, Switzerland.	Switzerland Social Innovation
2023	*Brkic, T. (2024). Transformative Leadership in Social Entrepreneurship* Invited paper presented at the PILC Conference, Opatija Croatia	Croatia Business
2022	*Brkic, T. (2022). Post-COVID Entrepreneurship Education: Solutions from PEI.* In Proceedings of the Canadian Society for the Study of Education (CSSE 2022) Annual Conference.	Canada Education

Table B details the dissemination strategy covering presentations across disciplines and regions. The dissemination approach was designed to balance scholarly rigour with practical relevance, reaching academic researchers, educators, policymakers, and practitioners across multiple regions. The researcher also benefited from scholarly feedback and evaluation of the research findings through exchanges with senior scholars at international research gatherings, gaining insights into differences in perspectives and interpretations of the proposed SEE approach.

In addition to academic publications, the researcher has advanced three publications as a practicing social entrepreneur supported by the Mitacs Accelerate Entrepreneur Award including:

- Academic and Social Entrepreneurs' Perspectives on Global Social Entrepreneurship Education (Brkic T., Baturina D., Zamarron G., Yun H., Maki K., Kassen D., Wiebe S.) in preparation for presentation and publication at the 11th EMES Conference.
- Transversal Knowledge in Social Entrepreneurship: Integrating AIs as a Third Voice was presented at the 10th EMES International Research Conference on Social Enterprise, in Rotterdam, Netherlands in 2025 (Brkic, T. 2025).
- Learning from Social Entrepreneurs: What It Takes to Succeed in Europe, Canada, and South America was presented as an invited paper at the Social Entrepreneurship Summit (SES 2025), Barranquilla, Colombia and is under review for journal publication by Academia Revista Latinoamericana de Administración (ARLA), an Emerald Q2 journal specialising in management and administration scholarship across Latin America.

Research Participants

The doctoral research engaged over 300 participants across two complementary dimensions, including empirical research and educational implementation. The empirical investigation in Phase 2 involved more than 100 participants through interviews with educators, policymakers, social entrepreneurs, and ecosystem stakeholders across four regional case study contexts in Canada and the European Union.

Phase 3, the educational implementation phase, engaged over 200 participants through five GSIL iterations across Europe, North America, South America, Asia, and Africa. Partner institutions included 12 universities, with the Erasmus Program iteration involving students from additional European institutions beyond the 10 explicitly named host partners.

Together, these research and implementation activities produced 15 scholarly outputs presented or published across seven countries. This dissemination strategy was designed to ensure that findings addressing urgent global challenges reached academic, practitioner, and policy audiences without delay (Lawrence, 2010).

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Chapter 1 Introduction

1.1 The Landscape of Social Entrepreneurship

In a world marked by escalating social and environmental challenges alongside persistent demands for economic growth, the capacity to create sustainable solutions that address complex global problems while generating both social and economic value has become an urgent global priority. The need to identify mechanisms capable of simultaneously generating economic growth and positive social impact is reflected in international policy frameworks such as the United Nations Sustainable Development Goals (SDGs) and Organisation for Economic Co-operation and Development (OECD) innovation agendas. Moreover, at the 2025 United Nations General Assembly, international delegates reaffirmed the necessity of pursuing global solutions to global problems, highlighting growing tensions between countries prioritising regional economic growth and those advocating coordinated global action that considers both social and economic resilience (United Nations, 2025; OECD, 2024). Leading international organisations, including the OECD, United Nations Development Programme (UNDP), and World Economic Forum (WEF), recognise social entrepreneurship (SE) as a critical pathway to achieving the Sustainable Development Goals and explicitly call for the scaling of SE practices (OECD, 2024; UNDP, 2024; WEF, 2024).

SE is rooted in centuries of community practice, predating its entry into academic discourse by generations (Teasdale et al., 2023; Mao et al., 2025). The phenomenon has been termed SE by Dees (1998) in scholarly discourse. However, the entrepreneurial pursuit of economic prosperity alongside social well-being has far deeper historical roots. Research identifies enterprise practices of dual value creation as early as the 16th century. Confucian traditions in Asia integrated commercial activity with obligations to community welfare, Ubuntu practices in Africa embedded reciprocity and mutual care within livelihood practices, and solidaristic economies in Latin America combined income generation with collective well-being (Nabudere, 2005; Hsu, 2020; Villalba-Eguiluz & Pérez-de-Mendiguren, 2019). These regional traditions demonstrate that social and economic value generation by a single entity is not a new phenomenon but a long-standing practice across cultures. However, despite this documented historical persistence across regions without dedicated organisational structures or widely adopted policies, no accepted theory explains why this practice emerged or accounts for its enduring global presence (Santos, 2012).

This thesis examines the knowledge that sustains this practice by extending beyond SEE and SE scholarship and engaging insights from political economy, systems theory, and complexity science to identify what forms of knowledge can explain the historical resilience of dual value creation and its persistence across regions. The investigation led to the establishment of the systemic rationale for dual value creation at the micro enterprise level and the integration of cultural philosophies that have sustained dual value creation through community practices independent of socioeconomic and institutional architectures (Bermúdez-Restrepo & Vaca-López, 2026; Fashina, 2025; Metz, 2023; Stephan et al., 2022).

The study examines SEE content in both academic scholarship and practice, analysing knowledge developed in the literature and knowledge taught by universities, community organisations, incubators, and peer networks in Canada and the European Union (EU),

complemented by the researcher's insights gained through delivering SEE content to learners from Asia, Africa, and South America. The thesis also examines instructional approaches proposed in the literature and implemented in practice that support effective delivery of SEE content. Although the process of generating both social and economic value in entrepreneurial practice is described under different terms in literature and education, this thesis adopts the term SE to capture the phenomenon, irrespective of terminological variation or context-specific organisational structures.

This introductory chapter analyses the sources and consequences of knowledge fragmentation across disciplinary traditions, regional contexts, and educational approaches, establishing the basis for the problem statement and solution framework that follow. The analysis demonstrates how divergent framings contribute to knowledge base fragmentation within SEE and to misalignment between human-designed systems and the planetary constraints within which all human activity unfolds (Bacq & Lumpkin, 2021; Stephan et al., 2022).

The chapter proceeds by proposing a redefinition of SE suitable for investigating knowledge supporting globally applicable SEE, then examines the sources of fragmentation in SE scholarship and differing perspectives on SEE, analysing how definitional ambiguity, disciplinary divides, regional variations, and transdisciplinary gaps constrain the development of a coherent educational foundation. The chapter concludes by synthesising these findings into a problem statement and solution framework, mapping the interconnected dimensions of knowledge fragmentation, positioning education as the mechanism for integration, and articulating the research questions and objectives that guide the investigation.

1.1.1 The Promise and Challenges of Social Entrepreneurship and Education

The socioeconomic contribution of social enterprises is well documented, with multiple studies confirming that SE stimulates economic growth, creates employment, and delivers essential services in underserved communities (Defourny & Nyssens, 2017; Dacin et al., 2010). Social enterprises have achieved substantial documented impact, generating over two trillion dollars annually in economic value while addressing critical social needs across healthcare, education, sustainable agriculture, forestry, energy production and inclusive finance among other sectors (OECD, 2022; Wang & Zhou, 2021). Innovative practices such as microfinance (Yunus, 2008), biomimicry design (Aguilar-Planet & Peralta, 2024), and renewable energy cooperatives (Villalba-Eguiluz et al., 2023) have transformed local economies and empowered communities. In the European Union, social enterprises account for approximately 3% of GDP (European Commission, 2020), while in China, social enterprises in clean energy and the sharing economy contribute more than 10% to the country's GDP (Wang & Zhou, 2021).

In response to the growing recognition of the success of SE practice, SEE programmes have been established across academic and community contexts worldwide to support the scaling of SE practice through education (Al Issa et al., 2024; Chen & Shabbir, 2025). SEE scholarship has advanced considerably, with researchers proposing increasingly sophisticated pedagogical approaches including experiential, project-based, and community-embedded learning designs (Chen & Shabbir, 2025; Al Issa et al., 2024; Miço & Cungu, 2023). Pedagogical advances have not, however, been matched by corresponding development of a coherent interdisciplinary

knowledge base. Consequently, while teaching approaches have become more refined, the content delivered remains uneven across programs, with educators drawing on different concepts, definitions, and frameworks (Bonfanti et al., 2024; Xanthopoulou & Sahinidis, 2025).

Despite the demonstrated impact of SE practice, the proliferation of SEE programmes, decades of sustained research, and recognition by national and international institutions, no common pathway for scaling SE globally has emerged. The lack of a universally adopted SEE content reflects deeper fragmentation within SE scholarship itself, where competing frameworks proliferate across disciplinary silos and regional contexts. Scholars focused on SE remain unable to achieve consensus on either a common definition or the fundamental theoretical foundations of the field (Zeyen et al., 2025; Klarin & Suseno, 2023). The limited coherence in SE research constrains the systematic accumulation and transfer of knowledge necessary to support practice at scale, contributing to a persistent gap between demonstrated impact and the capacity to replicate success globally (Zeyen et al., 2025; Hota, 2023).

Efforts to scale SE practice have been undertaken across the domains of policy, research, education, and practice. Existing scholarship has not, however, sufficiently identified a domain capable of systematically integrating and transferring universally applicable knowledge about SE across diverse institutional and cultural contexts. Integrative capacity of this kind is essential for translating SE insights into coordinated global action (Defourny & Nyssens, 2017; Kerlin, 2013). The persistence of this gap between scholarship and practice reinforces the necessity of interdisciplinary integration capable of drawing on both academic and practitioner knowledge to construct a coherent and transferable foundation for SEE.

1.1.2 Toward a Definition of Social Entrepreneurship

A key challenge contributing to fragmentation in the SE field is the absence of a universally accepted definition of social entrepreneurship (SE) (Bacq & Janssen, 2011; Saebi et al., 2019). While scholars and policymakers broadly converge on dual value creation, defined as the simultaneous generation of social impact and financial sustainability, as the defining characteristic of SE (Santos, 2012; Bacq & Lumpkin, 2021; Dees, 2007), conceptualisations of SE vary considerably beyond this shared premise. Since Dees (1998) introduced the term, definitions have been shaped by disciplinary perspectives, incorporating elements such as governance structures and innovation processes (Martin & Osberg, 2007), organisational forms (Kerlin, 2013), and institutional contexts (Mair & Martí, 2006). In parallel, research approaches grounded in different disciplinary perspectives distinguish social enterprises based on their dominant objective, classifying them according to whether social value creation or economic performance is prioritised (Santos, 2012; Porter, 1998).

Further divergence in perspectives on SE comes from different descriptions of the SE process, with dual value creation being described as continuous economic activity with an explicit social aim (Defourny & Nyssens, 2017) or as a business operation centred on the reinvestment of profits. Despite these scholarly differences in emphasis on elements other than value objectives and the relative priority accorded to social versus economic objectives, all major definitions

converge on a fundamental principle: social enterprises simultaneously generate social and economic value.

International policy frameworks further support the integration of social and economic objectives as SE's defining characteristic. The OECD recognises social enterprises as entities combining market-based activity with explicit social objectives (OECD, 2024), while the United Nations Development Programme emphasises sustainable business models achieving both financial viability and social outcomes (UNDP, 2024). Similarly, the World Economic Forum identifies social outcomes supported by revenue generation as the distinguishing feature of social innovators building inclusive markets (WEF, 2024). Through embedding this duality within policy frameworks, guidelines, and guidance documents, international organisations validate dual value creation as the foundational element transcending regional models and institutional variations.

Recent empirical research also supports dual objective as the critical characteristic distinguishing SE from both profit-oriented enterprises and purely philanthropic initiatives (Bacq et al, 2022; Bonfanti et al., 2024; Defourny & Nyssens, 2014; Nyssens et al., 2023; Weerawardena et al., 2021). Empirical investigations demonstrate that, regardless of governance structures, legal frameworks, or regional practices, SE remains consistently characterised by the integration of social and economic objectives (Bonfanti et al., 2024).

Paradoxically, SE has primarily evolved as a practice pioneered by entrepreneurs responding to unmet social needs, rather than as a construct derived from academic theorisation or policy frameworks (Defourny & Nyssens, 2017; Weerawardena et al., 2021). For practitioners, clarity on what constitutes social and economic wealth creation is essential to guide strategic choices and operational models. Moreover, best practices are shared through collaborative networks among social entrepreneurs across industry sectors.

In contrast, academic research and policy increasingly recognise that beyond agreement on social and economic outcomes, a worldwide definition of SE may remain elusive, given the diversity of contexts and institutional logics in which social enterprises operate (Saebi et al., 2019; Stephan et al., 2022). Addressing this definitional ambiguity and conducting globally relevant research requires an analytical approach capable of examining how different disciplinary traditions conceptualise the phenomenon.

The thesis adopts the Interdisciplinary Research Process (IRP) (Repko & Szostak, 2025) throughout the investigation as a guiding approach defining the sequence of the investigation. Doctoral theses conducted within a single discipline typically organise the investigation around an established theoretical tradition and review literature primarily within the boundaries of that field. The present study addresses a problem that spans multiple disciplinary domains and therefore follows the IRP approach in constructing a definition of SE that allows investigation across scholarly traditions. Within this approach, relevant disciplinary insights need to be considered to define the problem and the levels of analysis. Consequently, the thesis engages with scholarship from several disciplinary traditions from the outset and organises the investigation according to the sequential logic of interdisciplinary inquiry rather than the conventions of a single discipline.

The purpose of this structure is not only to review existing scholarship but also to set the stage for the systematic integration of disciplinary perspectives necessary to construct an explanatory framework for the phenomenon under investigation. Since none of the existing definitions has achieved global acceptance, a redefinition rooted in characteristics that universally describe the practice is required to study the knowledge that supports SE practice across regions.

1.1.3 Redefinition of Social Entrepreneurship

Dual value creation remains the only universally recognised characteristic that unites social enterprises across diverse contexts (Defourny & Nyssens, 2017; Bacq et al., 2022). Building on this observation, the thesis applies Repko and Szostak's (2025) redefinition strategy to conceptualise SE as a practice that simultaneously generates economic value through financial self-sustenance and positive societal outcomes, thereby transcending formal organisational structures and terminological variations. Conceptual redefinition constitutes one of the recognised common ground techniques within the IRP, whose focus is on allowing researchers to reconcile divergent disciplinary meanings by modifying or redefining concepts across fields of inquiry to bring out a common meaning (Repko & Szostak, 2025). To establish clear conceptual boundaries necessary for systematic knowledge analysis and integration, Table 1.1.3 presents a summary of major SE definitions against the criterion of dual value creation.

Table 1.1.3: Confirmation of Dual Value Creation Across Major SE Definitions

Author	Short Verbatim Definition	Confirms Dual Value (Social and Economic)
Dees (1998)	Social entrepreneurs play the role of change agents… adopting a mission to create and sustain social value… pursuing new opportunities… and acting boldly without being limited by resources.	Yes
Seelos & Mair (2018)	Social entrepreneurship creates new models for sustainable social value creation by using business principles and market-based activities to serve the poor.	Yes
Mair & Martí (2006)	Social entrepreneurship is a process of creating value by combining resources in new ways to address social problems.	Yes
Peredo & Anderson (2006)	Social entrepreneurship is exercised where some person or group aims at creating social value through innovative activity.	Yes
Zahra et al. (2009)	Social entrepreneurship involves activities and processes undertaken to discover, define, and exploit opportunities to enhance social wealth.	Yes
Yunus (2010)	A social business is a non loss, non dividend company designed to address a social objective while covering its full costs.	Yes
Bacq & Janssen (2011)	Social entrepreneurship is the pursuit of sustainable solutions to social problems through entrepreneurial behaviour.	Yes
Santos (2012)	Social entrepreneurship focuses on value creation rather than value appropriation… ensuring financial sustainability.	Yes

Author	Short Verbatim Definition	Confirms Dual Value (Social and Economic)
Battilana & Lee (2014)	Social enterprises combine social purpose with commercial activities.	Yes
Defourny & Nyssens (2014) – EMES	Social enterprises pursue a social aim through continuous economic activity.	Yes
European Commission (2021)	Social enterprises combine social objectives with market-based activities.	Yes
OECD (2017/2023)	Social enterprises pursue explicit social objectives through economic activities.	Yes
Social Enterprise UK (2012/2015)	Businesses that exist to achieve a social or environmental mission through trade.	Yes
UNDP / United Nations	Social enterprises pursue social and environmental objectives through sustainable economic activities aligned with development goals.	Yes
Uzzol & Uddin (2025)	Social entrepreneurship is the process of pursuing innovative solutions to social problems through entrepreneurial principles.	Yes
BDC Canada (2026)	Social entrepreneurship is a business model employed by companies to help address some of the world's most pressing social and environmental problems.	Yes

The definitions presented in Table 1.1.3 were selected from widely cited academic, policy, and practitioner sources to capture dominant conceptualisations of social entrepreneurship across disciplines and regions. While several definitions explicitly combine social and economic value creation through references to market-based activity, revenue generation, or financial sustainability, others do not state the economic dimension directly but imply it through their reliance on entrepreneurial principles and processes. For example, Dees (1998), Peredo and Anderson (2006), and Uzzol and Uddin (2025) emphasise entrepreneurial action and innovation in addressing social problems, which inherently involves resource mobilisation and value generation within economic systems. Across both explicit and implicit formulations, dual value creation emerges as a consistent structural feature of SE.

Applied to SE scholarship, this approach reveals that while all definitions agree on the simultaneous pursuit of social and economic value through entrepreneurial action, they diverge significantly in organisational structures noted in definitions, including variations in legal forms, governance models, and ownership patterns across regional contexts (Defourny & Nyssens, 2017; Kerlin, 2013). Some scholars emphasise entrepreneurial profiles, examining individual traits or motivations, as distinguishing features (Martin & Osberg, 2007). Additional definitional elements include socioeconomic implementation variables such as human capital architecture, dividend distribution policies, or financial incentive structures (Bacq et al., 2022), as well as exclusive social targeting or beneficiary restrictions that mandate serving only specific populations such as the poor or marginalised groups (Santos, 2012; Yunus, 2010).

The redefinition strategy employed in this thesis directly addresses this definitional plurality by establishing the core characteristic of SE as a shared defining element. The redefinition explicitly excludes elements of organisational structures such as legal forms, governance models, and ownership patterns (Defourny & Nyssens, 2017; Kerlin, 2013), entrepreneur characteristics including individual traits, motivations, or demographic backgrounds (Martin & Osberg, 2007), institutional implementation variables such as profit distribution policies, or financial incentive structures (Bacq et al., 2022), as well as exclusive social targeting or beneficiary restrictions (Santos, 2012; Yunus, 2010).

Although the excluded elements remain empirically relevant to understanding contextual variation in how dual value creation manifests across settings, they constitute implementation mechanisms that vary across regions and disciplinary perspectives rather than definitional criteria (Repko & Szostak, 2025). By excluding variables where scholars diverge while preserving the characteristic on which they converge, the redefinition establishes conceptual boundaries that enable systematic comparison across heterogeneous practices without imposing false uniformity, positioning the pursuit of dual value in entrepreneurship as the necessary and sufficient condition for inclusion within the SE category.

Accordingly, this thesis defines SE as the entrepreneurial activity that results in creation of social and economic value at the same time, regardless of organisational structure. Within this redefinition, social value is understood as encompassing both human and ecological wellbeing, recognising that environmental degradation directly erodes the social foundations of human life by undermining health, security, and cohesion (UNDP, 2024; Raworth, 2017). Climate change, biodiversity loss, and resource depletion therefore represent social, not separate environmental, challenges because they jeopardise humanity's capacity to survive and thrive within safe ecological limits (Hickel, 2021; Spash, 2024). Integrating ecological interdependence within the social dimension repositions sustainability from a peripheral concern to a central component of social value creation and applies extension as an IRP strategy for integration. Extension as an IRP integration strategy is applied to expand the scope of an existing concept by incorporating additional dimensions necessary for its coherence within a broader analytical framework (Repko & Szostak, 2025).

Ecological value is treated as a component of social value because human society is asymmetrically dependent on ecological and planetary systems: society requires viable ecological conditions to persist, whereas those systems do not require human society (Steffen et al., 2015). Planetary boundaries define the biophysical conditions within which human societies can survive and develop, and six of the nine have already been transgressed (Rockström et al., 2009; Richardson et al., 2023). Preserving ecological viability therefore preserves the conditions necessary for human life and social continuity, making ecological value a mechanism of societal self-preservation rather than a separate environmental concern (Raworth, 2017).

Moreover, all terms used to describe SE as redefined, whether presenting the practice as social business, social enterprise, or social innovation in business, are interpreted within the redefinition framework. The redefinition provides a coherent analytical structure that enables

comparative engagement with heterogeneous literature and establishes the foundation for examining SEE as a vehicle for transmitting integrated knowledge across regions and contexts, thereby supporting the development of a globally coherent educational framework. The observed definitional convergence provides the sole point of consensus across otherwise fragmented literature, making it the only characteristic capable of establishing boundaries for systematic comparative analysis. Following Repko and Szostak's (2025) IRP approach, the strategies of redefinition and extension identify common ground by focusing on shared characteristics of SE practices while excluding points of divergence that prevent knowledge integration across disciplinary and regional boundaries. Through this process, previously discrete regional and disciplinary formulations of SE become analytically comparable through the shared mechanism of dual value creation. Building upon this common ground, the extension of social value to include ecological value further integrates ecological, social, and economic value as interconnected dimensions of the same value generation process.

The redefinition also enables further exploration of SE as a systemic response to complex social and ecological challenges. Building on the redefinition, Chapter 2 and Chapter 4 establish why dual value creation across micro and macro levels represents a systemic necessity rather than an ethical aspiration. Application of systems theory and complexity science combined with the redefinition's focus on dual value creation as SE's defining characteristic enables analysis of SE practice as a response to systemic imperatives rather than ethical choice.

1.1.4 Social Entrepreneurship as a Response to Systemic Challenges

Complex global problems such as climate change, wars and pandemics, function as mutually reinforcing crises. Therefore, solutions that separate environmental sustainability from economic viability, or social welfare from wealth generation, cannot achieve adequate scale or coordination (UNDP, 2024). Dual value creation, properly understood and systematically scaled, offers a mechanism through which planetary ecological limits and human social needs can be simultaneously addressed within economically sustainable structures (Raworth, 2017; OECD, 2024).

At the same time, the capacity of SE to function as a scalable global response depends on the systematic integration of fragmented knowledge describing how dual value is created, sustained, and scaled across diverse contexts. Insights about mechanisms supporting simultaneous social and economic objectives in SE remain dispersed. Knowledge is siloed across domains of research, policy, education, and practice. Within these domains, disciplines study wealth creation in isolation, regions develop policy without consistent coordination, and institutional structures limit knowledge exchange between academic research and entrepreneurial practice (Saebi et al., 2019; Stephan et al., 2022)

This thesis argues that education, rather than research or policy, is best positioned to bridge this fragmentation because it operates at the intersection of knowledge production and knowledge application, responding directly to learners who require coherent guidance for creating dual value enterprises across institutional settings (Al Issa et al., 2024; Pan et al., 2024). However, SEE that does not include content that supports the practice across regions leaves learners without the

knowledge required to start, operate, and scale SE initiatives globally. Education that draws on fragmented research risks reproducing divergent perspectives on what leads to success in practice. The following sections examine the fragmentation in SE knowledge and the impact of differing perspectives on SEE.

1.1.5 Social Entrepreneurship and Social Entrepreneurship Education

The field of SE has gained momentum in research and policy over the last two decades, prompting academic institutions, policymakers, and community organisations to attempt to formalise and scale SEE to equip future practitioners with the knowledge and strategies required to start and operate social enterprises (Nicholls & Cho, 2006; Azqueta et al., 2023). The commonly recognised learning objective of SEE, whether delivered in formal or informal contexts, is to support the scaling of dual value creation through entrepreneurial action (Al Issa et al., 2024; Chen & Shabbir, 2025).

Despite this global expansion, the proliferation of SEE has not translated into substantial growth in the number or scale of social enterprises required to achieve measurable impact in addressing global social challenges (Karatas-Ozkan et al., 2023). Recent studies have sought to identify structural deficiencies within prevailing SEE models that limit graduates' capacity to translate academic learning into the generation of measurable social and economic value. Contributing factors documented in the literature range from the lack of interdisciplinary integration of SEE content to regional variations in institutional and educational contexts (Kickul et al., 2022; Bacq et al., 2022; Al Issa et al., 2024).

The principal limitations of SEE noted in the reviewed literature stem from the fragmentation of SE research and insufficient knowledge integration across disciplines and regions. The identified limitations undermine the relevance and applicability of the knowledge conveyed through SEE (Weerakoon, 2024; Azqueta et al., 2023). The cumulative effect of these factors prevents SEE from supporting the incubation, operation and scaling of SE practice. The following sections further explore identified challenges.

1.1.5.1 Fragmentation of SE Research and Education

One of the main constraints impairing the effectiveness of SEE is the absence of both a coherent, interdisciplinary, and integrated theoretical framework and a body of operational knowledge that systematically explains how social enterprises function in practice across diverse contexts (Bonfanti et al., 2024; Phillips et al., 2024). The fragmentation of knowledge across disciplines exploring SE creates a fundamental challenge for SEE. A comparable issue does not exist in established professional fields such as business, entrepreneurship, medicine, or engineering, where theoretical and conceptual frameworks from well established disciplines inform educational content (Shulman, 2005; Lattuca & Stark, 2009). However, despite decades of research, academia has not produced a universally accepted interdisciplinary theory of dual value creation. Current contributions remain fragmented across competing approaches and partial models (Zeyen, 2025; Silva et al., 2024;).

SE represents an interdisciplinary field of study to which scholars from multiple traditions contribute including economists, sociologists, anthropologists, psychologists, institutional

theorists, and business and management scholars. However, each discipline within SE scholarship approaches the subject from a fundamentally different angle, shaped by distinct theoretical frameworks and analytical priorities. Answers to dual value creation logic in SE are sought within specific disciplinary boundaries with limited cross-fertilisation among these distinct academic viewpoints (Weerakoon, 2024). As a result, persistent gaps remain in both theoretical and operational understanding of dual value creation at both societal and enterprise levels.

Fragmentation constrains scaling because cumulative advancement in any field depends on a shared knowledge foundation, a common language and set of concepts through which practitioners recognise a domain of practice, compare experiences, and transfer effective approaches across contexts (Wenger, 1998; Wenger et al., 2002). Where knowledge bases lack this common ground, the capacity to integrate specialised knowledge and to recognise, assimilate, and apply new knowledge is severely constrained (Grant, 1996; Cohen & Levinthal, 1990), and differences in language and meaning impede its transfer across communities (Carlile, 2004; Bechky, 2003). In social entrepreneurship, three decades of definitional and typological development have not yet produced such an integrated, transferable foundation (Al Issa et al., 2024; Zeyen et al., 2025), leaving effective practice localised and directly constraining the global transferability and scaling of dual value creation.

1.1.5.2 Disciplinary Perspectives in Social Entrepreneurship Research

Researchers from different disciplines approach SE from multiple perspectives. Santos (2012) observes that economists often characterise social enterprises as organisations burdened with additional costs associated with providing social benefits, creating a structural problem of competitiveness when compared to conventional firms. Within this framing, social value is subsumed under consumer surplus and treated as a positive externality and financial burden rather than being recognised as an autonomous and distinct form of value (Santos, 2012). The viability of social enterprises is therefore assumed to hinge on their ability to generate sufficient economic surplus to compensate for added social costs or to accept reduced profitability.

Proposed solutions within this economic framing include monetising social value as a positive externality through government subsidies, designing products that create consumer synergies, or leveraging market-based mechanisms to translate social benefit into economic return (Santos, 2012). This economic framing prevents the conceptualisation of climate mitigation, ecosystem restoration, or inequality reduction as wealth-generating activities, treating them instead as costs to be subsidised. This disciplinary perspective separates social and economic values that must be simultaneously generated to address systemic environmental and social challenges at scale.

From a business perspective, scholars argue that firms have traditionally prioritised profit maximisation while treating social needs as externalities, which limits opportunities for enterprises that aim to generate both social and economic value. To address this, several frameworks have been proposed. Porter & Kramer (2011) advance the concept of Creating Shared Value (CSV), positioning social problems as opportunities for innovation and competitiveness. Prahalad and Hart (2002) introduced the Bottom of the Pyramid (BoP) strategy, which demonstrates that serving

low-income populations can create profitability while simultaneously addressing pressing social needs. Elkington (1997) developed the Triple Bottom Line (TBL) framework, advocating for measuring business success across profit, people, and planet. Together, these contributions reposition social impact as a complement to business strategy and provide models that link competitiveness with the pursuit of social objectives. However, this business-oriented framing of dual value creation as integration of social objectives in business strategy contrasts sharply with perspectives emerging from other disciplinary traditions.

Sociologists and social scientists who focus on social innovation view mission drift as the central problem in SE practice, warning that when revenue generation becomes necessary, social objectives risk being subordinated to economic imperatives (Ebrahim et al., 2014; Battilana & Lee, 2014). Aligned with the sociology and psychology logics, Defourny & Nyssens (2017) propose maintaining a dual focus through organisational mechanisms such as participatory governance, restrictions on profit distribution, and reinvestment obligations as safeguards needed to maintain social primacy. By positioning revenue generation as inherently threatening to social mission, this framing treats financial sustainability as a problem requiring organizational safeguards rather than as an enabling condition for scaling social impact, preventing the development of models where economic viability and social outcomes function as mutually reinforcing.

Further adding to the discourse, psychologists explain dual value creation through characteristics of the individual entrepreneur, interpreting the problem as one of sustaining prosocial motivation in contexts where financial pressures are unavoidable. Their solution emphasises cultivating and supporting entrepreneurial traits and identities that reinforce social commitment despite market constraints (Miller et al., 2012). Locating dual value creation in exceptional individual characteristics renders it inaccessible as a systematic, learnable practice and obscures the organisational, institutional, social and ecological conditions through which social and economic objectives can be routinely integrated across diverse contexts.

Anthropological research brings yet another lens, treating the problem as one of cultural embeddedness, where social enterprises must align their practices with community traditions of reciprocity, solidarity, and mutual obligation. From this perspective, the solution is to design ventures that are culturally legitimate and embedded within community logics, ensuring that social and economic values are seen as naturally integrated rather than artificially combined (Doherty et al., 2014). While recognising integration as culturally embedded practice, confining dual value creation to specific cultural logics prevents the identification of transferable mechanisms that could support coordinated responses to global challenges requiring action across diverse cultural contexts.

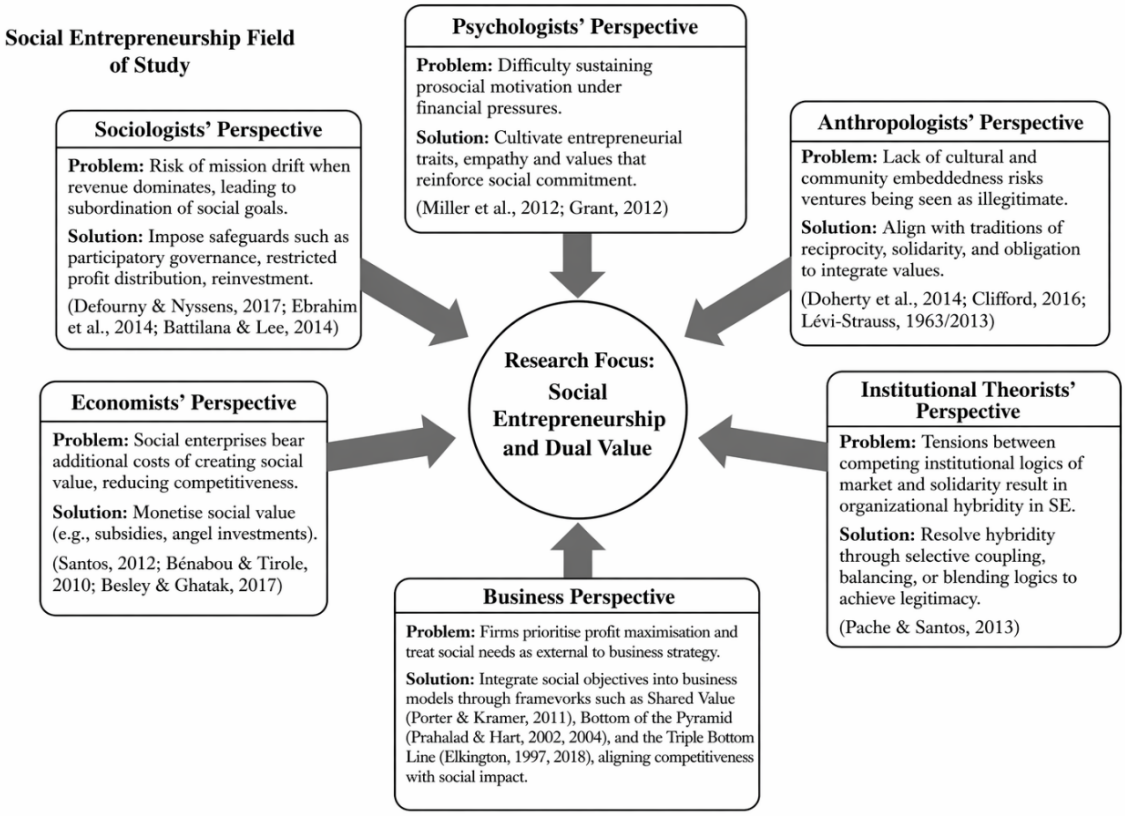
Another perspective on SE comes from institutional theorists, who draw primarily from organisational sociology and management studies as disciplines. The institutional theory scholars conceptualise social enterprises as a theoretical category of hybrid organisation, positioned at the intersection of market efficiency and social solidarity logics (Pache & Santos, 2013; Battilana & Lee, 2014). Within this framing, organisational survival depends on strategies reconciling competing demands related to organisational form. One proposed mechanism is selective coupling,

in which enterprises adopt and compartmentalise elements from market logics such as revenue generation and competition alongside social welfare logics such as inclusion and solidarity, depending on context, thereby satisfying divergent stakeholder expectations without fully merging them (Pache & Santos, 2013). Institutional theorists propose blending logics, as a dual value creating mechanism where economic and social imperatives are deliberately integrated into a coherent organisational identity that balances financial sustainability with social mission (Battilana & Lee, 2014).

Both strategies introduce organisational hybridity as a way to describe SE offering theoretical perspectives on how social enterprises, conceptualised as hybrids, may pursue legitimacy and operational sustainability in environments characterised by institutional contradictions (Mair & Marti, 2006). Conceptualising social enterprises as hybrids managing competing logics reinforces rather than resolves the positioning of social and economic objectives as fundamentally incompatible, preventing frameworks that treat their integration as a systemic condition necessary for addressing challenges where ecological sustainability and social welfare cannot be separated from economic activity.

Figure 1.1.5.2 illustrates how social enterprises have been conceptualised across disciplinary perspectives contributing to the emerging SE field. Each disciplinary perspective is part of the emerging SE field.

Figure 1.1.5.2 Disciplinary Perspectives in SE Scholarship



As presented in Figure 1.1.5.2, each viewpoint highlights a distinct problem and proposes specific solutions, ranging from economic concerns with competitiveness and profitability of social enterprises to sociological safeguards against mission drift, psychological emphasis on sustaining prosocial motivation, anthropological calls for cultural embeddedness, and institutional theorising of organisational forms enabling perceived hybridity.

The proposed perspectives reveal both the richness and the fragmentation of SE scholarship. Although all viewpoints converge on the centrality of realising social and economic outcomes, they diverge in the mechanisms, priorities, and contextual conditions through which social and economic objectives are pursued. Examined through interdisciplinary lenses, the above-described disciplinary framings in SE scholarship illustrate how economists, sociologists, psychologists, anthropologists, and institutional theorists each identify a different "problem" in dual value creation and prescribe corresponding solutions.

Figure 1.1.5.2 highlights the distance between scholarly perspectives and a unified theoretical and operational framework that would support the incubation and scaling of SE in practice. To date, the efforts to integrate disciplinary perspectives in SE scholarship have had mixed results, with no scholarly perspective gaining universal recognition.

1.1.5.3 Efforts to Integrate Disciplinary Perspectives

SE scholars have recognised and extensively examined divergent perspectives on mechanisms supporting SE practice. The lack of interdisciplinary integration has been identified as a research gap that perpetuates incomplete and differing understandings of SE and obstructs the development of a coherent and transferable knowledge base for both education and practice (Santos, 2012; Defourny & Nyssens, 2017; Pache & Santos, 2013). Over the past two decades, scholars from diverse disciplines have attempted to bridge conceptual divides by constructing typologies that integrate economic, sociological, and managerial perspectives into unified explanatory frameworks. The proposed typologies embedded the definition of dual value creation as SE's core logic and its operational mechanisms within institutional and socioeconomic architectures that predefine how these mechanisms operate and their conformity with regionally grounded governance, financing, and ownership structures (Santos, 2012; Kerlin, 2013; Battilana & Lee, 2014; Defourny & Nyssens, 2017). Efforts to integrate disciplinary knowledge have been constrained by differences in disciplinary perspectives as well as by variation in socioeconomic and institutional structures across regions.

Santos (2012) proposed one of the earliest integrative models by categorising social enterprises according to ways used to balance value creation and value capture. Kerlin (2006, 2013) advanced a comparative typology linking regional SE models to variations in welfare regimes and institutional contexts. Battilana and Lee (2014) contributed a typology focused on hybridity, while Zahra et al. (2009) distinguished opportunity-, mission-, and system-oriented social entrepreneurs depending on their scope of impact. Although these frameworks expanded interdisciplinary dialogue, they revealed persistent limitations that constrained their utility for guiding practice and education.

Typologies were developed primarily from disciplinary standpoints and top-down analytical approaches rather than from practice, limiting their capacity to capture the situated, context-dependent realities of dual value creation (Defourny & Nyssens, 2014; Nyssens et al., 2023; Vidović & Baturina, 2021). Across the proposed models, dual value creation was implicitly conditioned upon alignment with specific institutional mechanisms treated as necessary mediators of that outcome (Pache & Santos, 2013; Smith et al., 2013). These limitations were compounded by a deeper divide in perspectives, wherein region-specific organisational types, financing mechanisms, and governance models assumed universal validity despite empirical evidence that models developed in one socioeconomic context do not transfer seamlessly into others (Rakar & Uršič, 2025; Rihter & Zidar, 2018). Western scholarship conceptualises social and economic value as distinct or even conflicting domains, whereas perspectives from the Global South and East regard them as integral and mutually reinforcing dimensions of the same process (Longweni & Mdaka, 2023; Hsu, 2020; Banerjee et al., 2020).

Recognising both the analytical detachment from practice and the regional divergences limiting the proposed typologies, the EMES International Research Network sought to establish a more inclusive framework. Rather than defining typological categories, EMES introduced the concept of the ideal-type social enterprise, articulated through nine indicators spanning economic activity, autonomy, community benefit, participatory governance, and limited profit distribution that allowed organisations to self-identify according to their alignment with both social and economic objectives (Defourny, 2001; Defourny & Nyssens, 2010, 2014, 2017). Over time, however, the granularity of these indicators contributed to the model shifting from a descriptive analytical framework toward a normative reference model. As policymakers adopted the indicators as eligibility criteria for formal recognition, conformity with institutional architectures became a proxy for the presence of dual value creation, thereby relocating the mechanism of value integration from adaptive practice to structural compliance (Defourny & Nyssens, 2010, 2014). Many enterprises that demonstrably generate integrated dual value were consequently excluded from the SE sector and from preferential policy support structured around the EMES ideal type (Nyssens et al., 2023).

Building on EMES work, the ICSEM project engaged more than 230 researchers from over 50 countries to map the diversity of social enterprise models worldwide (Defourny & Nyssens, 2017; Nyssens, Defourny, & Adam, 2023). While ICSEM generated an unparalleled comparative dataset, it remained strongly influenced by the original EMES framework, and practitioners have frequently criticised both programmes as reflecting top-down academic perspectives that fail to align with practice-led realities (Vidović & Baturina, 2021; Rihter & Zidar, 2018). Although EMES and ICSEM achieved substantial interdisciplinary synthesis across economics, sociology, political science, and management, integration remained largely confined to academic knowledge domains, with practitioner approaches not systematically incorporated into theory construction (Hlady-Rispal & Servantie, 2018).

The EMES and ICSEM research programmes demonstrate that the central limitation in SE scholarship lies not merely in disciplinary fragmentation but in the analytical logic that has defined

the boundaries within which integration has occurred (Defourny & Nyssens, 2014; Nyssens et al., 2023). Typological frameworks operate at the level of socioeconomic architecture, whereas practitioner rationales emerge from systemic constraint navigation within open and environment-dependent settings. When analytical models privilege factors such as institutional form or financing mechanisms over the nature of the open systems hierarchy in which social enterprises are embedded, a structural gap arises between classification and the operational logic through which dual value creation develops in practice.

Empirical studies drawing on qualitative and practice-based approaches confirm that, in some contexts, dual value creation is enacted through value-integrated solutions embedded in local relationships and feedback dynamics rather than through coordination of competing institutional logics (Hlady-Rispal & Servantie, 2018). Research drawing on systems and complexity perspectives suggests that the limited transferability of the proposed typologies can be traced to reliance on analytical categories historically grounded in disciplinary traditions that conceptualise social and economic objectives as distinct domains (Polanyi, 1944; Weber, 1922; North, 1990). This challenge is further addressed in Chapter 4 through the development of a theoretical framework grounded in systems theory and complexity science, offering a global perspective on SE. The approach is consistent with the redefinition advanced in this study, which focuses on the process of dual value creation rather than on socioeconomic or institutional structures.

1.1.5.4 Social Entrepreneurship Scholarship and Practice

Recent research indicates that the tensions between social and economic objectives identified in SE scholarship may not be reflected in practice to the extent that theoretical models suggest. Empirical evidence points to practitioners routinely operationalising both objectives as interconnected and complementary rather than as competing imperatives (Zeyen et al., 2025).

Despite differences in SE scholars' perspectives, the field's predominant theoretical positioning frames social and economic objectives as competing imperatives subject to inherent tension and organisational trade-offs (Saebi et al., 2019; Battilana et al., 2017). This theoretical stance, however, is not necessarily aligned with empirical evidence from practice, where social entrepreneurs consistently operationalise both objectives as mutually constitutive and interdependent rather than oppositional (Stephan et al., 2022; Zeyen et al., 2025). Moreover, despite sustained scholarly attention, the field has yet to explain how dual value is simultaneously generated and operationalised across contexts despite differences in financing, governance and organisational structures (Silva et al., 2024; Bonfanti et al., 2024). Practitioner input can serve as a means of answering these questions. The exclusion of practitioner knowledge from SE scholarship constitutes a structural limitation in knowledge production and contributes to partial representations of practice (Weerawardena et al., 2021). However, although scholars continue to identify the absence of practitioners' perspectives as a critical gap, this gap persists, with genuinely co-created research between academics and entrepreneurs remaining exceedingly rare (Defourny & Nyssens, 2017; Phillips et al., 2024). A review of the literature cited in this thesis confirms these scholarly observations and indicates that practitioner generated contributions remain notably limited. Among more than 300 references addressing SE included in this study, only three sources

could be clearly traced to direct input from social entrepreneurs, despite deliberate efforts to identify literature developed by practitioners.

Incorporating practice into knowledge cocreation is essential because practitioners hold situated expertise grounded in real-world contexts of resource scarcity, institutional constraints, and community needs, offering insights that theory alone cannot generate (Barki et al., 2023). Without transdisciplinary integration, defined as integration beyond disciplines to include practice (Repko & Szostak, 2025), SEE risks reproducing abstract models that are poorly aligned with the operational realities of social enterprises. The resulting misalignment undermines SEE's capacity to equip learners with actionable skills and strategies (Al Issa et al., 2024).

Furthermore, the persistence of binary framings in academic discourse has produced prescriptive conceptualisations that present social enterprises as anomalies, emerging only where entrepreneurs are assumed to sacrifice profitability for social mission, embody exceptional ethical values, or operate in institutional voids requiring extraordinary agency (Battilana & Lee, 2014; Mair & Martí, 2006; Saebi et al., 2019). Divergent viewpoints reinforce the perception of SE as a phenomenon that cannot be defined and an exception rather than a resilient socially embedded practice (Doherty et al., 2014; Defourny & Nyssens, 2017).

Newer research indicates that social enterprises are neither anomalous nor rare. Ventures that create social and economic value are present across multiple sectors defined by the United Nations as socially entrepreneurial, including sustainable agriculture, forestry, tourism, recycling, and green technology. However, their visibility may be obscured by regional research and policies that legitimise only a limited subset of social objectives and types of ventures (Bonfanti et al., 2024; Barki et al., 2023; OECD, 2024).

Moreover, ambiguity surrounding the concept of social value may obscure the presence and recognition of SE practice (Nicholls, 2010). Scholars note that while economic value has well-established indicators such as revenue and productivity, social value lacks both a clear definition and consistent measurement frameworks, as interpretations vary across contextual, cultural, and institutional settings. The concept of social value therefore remains inconsistently defined across academic, policy, and regional contexts, reflecting fundamental differences in how value is conceptualised and assessed within and across disciplines (Rawhouser et al., 2019). In addition, some regional jurisdictions prioritise distinct social goals, such as inclusion in Europe or pollution reduction in East Asia, contributing to variation in how social enterprises are recognised across contexts (Karatas-Ozkan et al., 2023; Lashitew & Rosca, 2025). As a result, enterprises classified as social in one region may be excluded from such categorisation in another, depending on how social objectives are defined in policy and institutional practice (OECD, 2024; Bonfanti et al., 2024).

Such variations in defining social value create barriers to practitioner knowledge integration and sectoral cohesion (Hlady Rispal & Servantie, 2018; Vidović & Baturina, 2021). Enterprises that enact integrated social and economic logics may not recognise themselves within the category of social enterprise where institutional definitions prioritise alternative social objectives (Defourny & Nyssens, 2017; Nyssens et al., 2023). This conceptual ambiguity

complicates the legitimisation and evaluation of social enterprise impact, as well as the development of coherent educational frameworks in SEE (Santos, 2012; Pache & Santos, 2013; Hlady-Rispal & Servantie, 2018). The misalignment between scholarship and practice persists even as researchers acknowledge that practitioners generate essential knowledge for understanding dual value creation in SE (Barki et al., 2023). The structural barriers maintaining this divide include academic incentive systems that privilege theoretical contributions (Azqueta et al., 2023), epistemological hierarchies that treat practitioner insights as data rather than co-produced theory (Karatas-Ozkan et al., 2023), and geographic concentration of research in the Global North despite more developed SE practice in the Global South and East (Cardella et al., 2021; Lashitew & Rosca, 2025).

Consequently, cocreation between academia and practice remains marginally represented across both Global North and South contexts, with research and practice continuing to operate in parallel rather than through sustained collaboration (Barki et al., 2023). This transdisciplinary gap undermines the relevance of educational offerings that draw primarily from academic research while excluding the operational knowledge of those who successfully create and sustain dual value enterprises (Kickul et al., 2022; Al Issa et al., 2024).

In conclusion, the divergence of disciplinary perspectives, the limited cross-regional interdisciplinary integration, and the absence of transdisciplinary insights, together, suggest that a unifying and universally accepted theory of dual value creation, one that accurately reflects the realities of SE practice, remains distant within current research trajectories (Stephan et al., 2022; Saebi et al., 2019).

1.1.5.5 Implications of SE Scholarship Fragmentation on Education

When examined through the lens of education in established professional fields such as medicine or engineering, in which theoretical and operational knowledge are aligned, the fragmentation within SE assumes direct relevance for the organisation of SEE. The fragmented nature of SE research obstructs the development of a theoretically grounded SEE curriculum and contributes to persistent misalignments between research, education, and practice (Al Issa et al., 2024; Bacq et al., 2022; Roy & Grant, 2020).

High-level theoretical contributions, including Polanyi's (1944/2001) analysis of the economy as an embedded social institution, sustainability theory articulated through the planetary boundaries framework that situates economic activity within biophysical limits (Rockström et al., 2009), and Raworth's (2017) Doughnut Economics model positioning economic activity within ecological ceilings and social foundations, have enriched debates on how markets operate within broader social and planetary systems. However, while conceptually significant, these frameworks do not clarify how SE emerges, operates, or sustains integrated social and economic value across diverse contexts.

Existing theoretical formulations therefore do not adequately explain either the relevance of SE practice or the mechanisms through which dual value can be simultaneously generated and maintained within contemporary socioeconomic and environmental constraints. In addition to definitional fragmentation, SEE faces a related challenge associated with the limited consolidation

of applied, operational knowledge explaining how social objectives are sustainably achieved in practice (Banerjee et al., 2020; Bonfanti et al., 2024). Conceptual advances such as hybrid organising (Battilana & Lee, 2014), financing and impact measurement models (Bugg-Levine & Emerson, 2011; Rawhouser et al., 2019), institutional logics and social innovation processes deepen academic understanding, while remaining insufficient in guiding operational decision-making (Pache & Santos, 2013).

Although the academic literature contains numerous illustrative case studies, researchers have not sufficiently identified common patterns that could provide a coherent basis for understanding how social and economic value can be sustained across diverse socioeconomic and organisational contexts (Barki et al., 2023; Bacq et al., 2022). Due to divergent disciplinary perspectives, comparative case studies frequently conflate fundamentally different operational models, ranging from entities that rely almost entirely on public funding to ventures that generate fully self-sustaining revenue. The heterogeneous examples of SE practices are often employed to illustrate and legitimise proposed definitions or disciplinary frameworks, rather than to identify consistent and generalizable patterns that explain the relationship between social value delivery and sustainable economic performance (Battilana et al., 2019; Defourny & Nyssens, 2017).

The redefinition provides a consistent selection criterion for cross-regional comparison based on operational intent rather than institutional form. A typology informed by generative mechanisms of dual value creation, rather than by socioeconomic architectures, may offer greater analytical and practical transferability, since mechanisms can potentially adapt across institutional settings, whereas organisational forms are embedded within specific systemic configurations (North, 1990; Pache & Santos, 2013).

While systematic cross-regional compilation of case studies illustrating SE practice extends beyond the empirical scope of this thesis, existing scholarship suggests that similar patterns of dual value integration appear across regions and institutional contexts (Battilana & Lee, 2014; Bacq et al., 2022; Hlady Rispal & Servantie, 2018). Scholars in sustainability education, SEE, and entrepreneurship education (EE) have proposed multiple pedagogical strategies to bridge the research–practice divide, including experiential, project based, and community embedded learning approaches designed to connect learners with real-world practice (Kolb, 1984; Lackéus, 2015; Leal Filho et al., 2018). These pedagogical innovations are essential in all professional fields. However, in SEE they cannot fully compensate for the absence of a consolidated and contextually grounded knowledge base (Shulman, 2005; Lattuca & Stark, 2009). Experiential learning may enhance engagement and reflective capacity (Dewey, 1916; Schön, 1983).

At the same time, without sufficiently developed SEE-specific theoretical and operational foundations, learners lack the structured analytical tools necessary to interpret examples and systematise practice (McMurtry, 2024; Morin, 2008). Wilson (2016) suggests that social entrepreneurs seeking guidance frequently encounter SEE organised around institutional classifications and theoretical frameworks that do not reflect their lived experience. As a result, practitioners may not find SEE relevant to their practice, reducing its practical value. Recent studies identify a persistent “relevance gap” in SEE, indicating that programs often fail to meet

practitioners' needs, while entrepreneurs' limited engagement in formal education is interpreted as a preference for practice-based learning (Kyurova et al., 2024; Wilson, 2016).

The fragmentation of SE research across disciplines and domains therefore underscores the need for a domain capable of integrating dispersed insights into coherent and actionable knowledge. Having established the nature and consequences of fragmentation across SE scholarship, the analysis now turns to education as the domain uniquely positioned to construct such a knowledge base for SE practice, examining both its structural advantages and the persistent barriers it must overcome.

1.2 Education as a Solution: Advantages and Persistent Barriers to Integration

Education occupies a structural position that makes it capable of knowledge integration where research and policy have not succeeded. Unlike academic research, which operates within disciplinary reward structures that privilege disciplinary contributions over knowledge synthesis (Azqueta et al., 2023), education answers directly to learners' need for actionable, integrated knowledge. Unlike policy, which remains constrained by national and regional jurisdictions, education transfers knowledge across borders through both formal curricula and informal networks (Chen & Shabbir, 2025).

Several structural characteristics distinguish education from the other domains and position it as an integrative site for SE knowledge. Formal and informal educators remain accountable to learners who aspire to create ventures that generate social and economic value (Al Issa et al., 2024; Pan et al., 2024). Teachers across disciplines share the same learning outcome, namely empowering learners to start and operate social enterprises. The very roots of the field underscore this accountability. In direct response to student demand for guidance on creating businesses with explicit social objectives, Gregory Dees coined the term social entrepreneurship and introduced the first university-level course on the subject at Harvard in the late 1990s (Dees, 1998; Nicholls, 2009). The origin of SE highlights the ethos of education as a vocation rooted in responsiveness to learners' needs, a dynamic that continues to position SEE as the most promising domain for integrating fragmented knowledge and preparing future generations of social entrepreneurs (Mair & Marti, 2006; Al Issa et al., 2024).

Beyond the identified accountability, education possesses the capacity to bridge divides across the domains of research and practice. Educators work directly with aspiring practitioners who will create the next generation of social enterprises. In contrast to policy and research, which operate in fragmented institutional and disciplinary silos, education can transmit knowledge across domains and disciplines through both formal and informal channels (Chen & Shabbir, 2025). Emergent patterns in practice can therefore be captured and disseminated through educational networks before they crystallise into academic theory or policy structures (Barki et al., 2023).

Educators also operate in connected global networks that transcend the regional silos characterising policy development (Al Issa et al., 2024), enabling the domain to serve as a cross-regional bridge between research and practice (Barki et al., 2023). When dual value creation is recognised through formal and informal education as a practice shared by entrepreneurs across regions, SEE can serve as the vehicle for translating fragmented insights into globally actionable

knowledge (Bonfanti et al., 2024). Knowledge developed in one educational context can be adapted and transferred across cultures more rapidly than research or policy frameworks.

A further advantage lies in resource availability. Unlike the practice domain, where social entrepreneurs lack the resources to create networks, identify global patterns, and build sustained communities of practice, education is supported by public funds. Public funding allows educators to build bridges across regional practices that are not accessible to social entrepreneurs operating independently.

By contrast, the other domains face structural constraints that limit their integrative capacity. Academic research requires systematic interdisciplinary synthesis to consolidate theoretical insights and render them transferable across institutional and regional contexts; however, disciplinary reward structures continue to discourage integrative work that SEE demands (Ouragini & Lakhal, 2023; Al Issa et al., 2024). In policy, the political and economic structures required to establish unified frameworks at global scale have proven elusive, leaving social enterprises operating within inconsistent regulatory environments that fragment rather than coordinate responses to systemic challenges (Defourny & Nyssens, 2017; OECD, 2024; UNDP, 2024; Euclid Network, 2025). The practice domain, although central to implementation, lacks the infrastructure and coordination mechanisms necessary to facilitate the level of knowledge integration needed to generate global impact.

Among the existing domains, education therefore has the most immediate need and no better alternative for creating a knowledge base for SEE by integrating knowledge across research, policy, and practice. Without such integration, educators risk operating within fragmented systems that provide neither coherent guidance nor applicable frameworks for teaching SE effectively. Under these conditions, educators may be forced to navigate inconsistent definitions and a disjointed theoretical landscape, relying on partial frameworks and an incoherent body of knowledge lacking integration (Stephan et al., 2022). Instruction in SE practice may consequently default to teaching learners how to overcome policy-related systemic barriers within socioeconomic structures rather than how to improve processes of social and economic value creation.

Effective SEE therefore depends either on the establishment of a coherent theoretical foundation and corresponding operational knowledge in research (Roslan et al., 2022; Shahid & Alarifi, 2021) or on the capacity of educators to actively collect and integrate pertinent insights from research, policy, and practice (Chen & Shabbir, 2025; Ndou, 2021) to meet learning outcomes and equip learners with the skills to create and operate social enterprises. Although education possesses these structural advantages, SEE remains an emerging field whose integrative potential is largely unrealised.

The following sections examine persistent barriers that prevent SEE from fulfilling this potential. These include regional variations that hinder cross-border collaboration (Bonfanti et al., 2024; Hietschold et al., 2023), delivery structures that reinforce disciplinary silos (Al Issa et al., 2024; Shahid & Alarifi, 2021), barriers facing aspiring entrepreneurs from vulnerable demographic groups (OECD, 2024; Tam et al., 2024), Western dominance that marginalises Global South and

East knowledge (Lashitew & Rosca, 2025; Cardella et al., 2021), and the persistent separation of academic research from practitioner-generated insights (Barki et al., 2023). Understanding these barriers is essential for identifying the specific points where intervention can enable education to fulfil its integrative potential.

1.2.1 Regional Variations in Social Entrepreneurship Education

In addition to differences in SEE stemming from SE research fragmentation, significant disparities in content transferred to learners arise from regional variations in SE policies, organisational structures, and governance mechanisms that define how social enterprises are created, regulated, and scaled within specific national and regional contexts (Hietschold et al., 2023; Shahid & Alarifi, 2021).

Research generated in the Global North often describes countries and regions with comprehensive legal frameworks, targeted funding instruments, and specialised intermediary organisations as better positioned to support the long-term sustainability of social enterprises. In contrast, regions and nations lacking robust judicial framing and supportive institutional structures around social enterprise are seen as facing persistent barriers to capacity development, operational stability, and scalability in SE (Defourny & Nyssens, 2017; Euclid Network, 2025). Empirical studies, however, indicate that the presence of dedicated financing mechanisms and intermediary organisations in Europe and North America has not translated into a proportional increase in the number of sustainable SE ventures (Bonfanti et al., 2024; Stephan et al., 2022).

Evidence suggests that despite weaker institutional support, social enterprises in the Global South and East are often more numerous and demonstrate greater scalability, frequently driven by necessity-based entrepreneurship and embedded community networks in the Global South (Azqueta et al., 2023; Barki et al., 2023) and by policy in the Global East (Guan et al., 2024). Comparative analysis of the literature examining the practical SE landscape underscores that institutional density in the Global North does not guarantee more effective SE development. Global South and Global East contexts demonstrate that practice-led and policy-led models of dual value creation can achieve resilience and growth under resource constraints (Hlady-Rispal & Servantie, 2018; Al Issa et al., 2024). University based SEE in the Global South frequently reproduces conceptual frameworks generated in the Global North, where the majority of theoretical SE research originates, reinforcing a structural imbalance between educational content derived from academic knowledge production and conclusions drawn from practice (Azqueta et al., 2023; Bonfanti et al., 2024).

In the Global East, by contrast, dual value creation is embedded within government policies and cultural traditions (Fu & Yan, 2025; Ng et al., 2025). Educators across the Global East teach about social objectives in entrepreneurship implicitly through policy-oriented and practice-based curricula, without drawing on the research and terminology of SE proposed in the North. Such an approach reflects a pervasive normalisation of social value creation across business practices as part of broader developmental and cultural logics (Fu & Yan, 2025; Ng et al., 2025).

The identified regional differences in institutional arrangements lead to divergent interpretations of SE and SEE, hindering the development of comparable curricula and restricting

opportunities for cross-border collaboration among SE learners (Bonfanti et al., 2024). These divergences also complicate the development of common SEE textbooks or foundational teaching materials. Textbooks tend to stabilise knowledge by presenting consolidated definitions, typologies, and institutional pathways as shared reference points. When SE is conceptualised differently across regions and disciplines, however, attempts to codify the field into unified educational materials risk privileging one regional model over others or remaining so abstract that they offer limited practical guidance. The absence of widely adopted foundational texts therefore both reflects and reinforces fragmentation within SEE, limiting the emergence of a coherent and transferable educational framework (Defourny & Nyssens, 2017; Bacq & Janssen, 2011).

Empirical studies in SE nevertheless continually identify common characteristics of social enterprises linked to social and economic objectives, particularly in operational capabilities and strategies for scaling social impact, that recur across diverse contexts (Barki et al., 2023). The coexistence of divergences in research and policy frameworks alongside convergence in dual value-creating entrepreneurial practices indicates that cross-regional studies focused on value creation mechanisms may provide a critical means of identifying recurring traits that transcend local policy and institutional boundaries. Such traits can then be integrated into SEE to enhance its coherence and applicability (Bonfanti et al., 2024; Hietschold et al., 2023).

1.2.2 Knowledge-Transfer Challenges in SEE Practice

Adding to the challenges associated with the SEE knowledge base arising from limitations in SE research and regional variations, the emerging field of SEE faces several related constraints in the delivery and transfer of knowledge to learners. Challenges associated with structures supporting SEE delivery are particularly significant for educators and curriculum designers across disciplines and regions. SEE is offered across a wide range of academic faculties and non-academic platforms, from business schools and engineering departments to incubators and civil society organisations, each applying its own logic and emphasising either theoretical or operational knowledge, as well as prioritising either the social or economic dimensions of value creation (Al Issa et al., 2024; Shahid & Alarifi, 2021).

Emerging comparative studies in SEE indicate both similarities and differences in educational approaches across regions. Across contexts, programmes share common learning objectives aimed at preparing learners to create social enterprises in practice, a centrality of focus on dual value creation, and a two-tier organisation of SEE content combining high-level theories depicting wealth creation with applied knowledge describing pathways to implementation (Al Issa et al., 2024; Shahid & Alarifi, 2021). At the same time, differences persist among the theories and wealth creation philosophies taught in different regions and within different disciplines (Shahid & Alarifi, 2021), as well as in operational knowledge that guides the social enterprises' incubation and operational sustainability (Hlady-Rispal & Servantie, 2018; Stephan et al., 2022). A balanced examination of both these similarities and differences in SEE, presented in this thesis, is needed to provide the basis for developing SEE frameworks that can be understood across disciplines and regions while remaining adaptable to local variation.

Several trends may explain the diversity in regional and disciplinary approaches to achieving the same learning outcomes. Across diverse contexts, SEE is implemented primarily within business programs, where curricula are shaped by frameworks originating in entrepreneurship education (EE) that provide structured knowledge for developing business and innovation skills (Shahid & Alarifi, 2021). The integration of content emphasising social or dual value creation, however, remains inconsistent and frequently underdeveloped, with economic value prioritised and social dimensions treated as secondary additions (Bonfanti et al., 2024). In social innovation programs and in fields such as social work, the pattern is reversed, with SEE prioritising social value and economic sustainability introduced as a secondary or supporting element (Bonfanti et al., 2024; Shahid & Alarifi, 2021; Azqueta et al., 2023).

Non-university pathways compound these disciplinary emphases. Civil society organisations often prioritise social value, embedding SEE within community-based settings and social innovation initiatives (Azqueta et al., 2023), whereas entrepreneurship incubators introduce SEE as an extension of their core business incubation activities, framing social value as complementary to market-oriented goals (Bonfanti et al., 2024). Peer learning networks function as informal education platforms, transferring knowledge about the practical implementation of SE within the specific regions or sectors in which they operate (Al Issa et al., 2024). Together, these pathways extend SEE beyond formal academic programs while reinforcing variations in emphasis on social or economic value depending on institutional orientation and context.

1.2.3 Educational Barriers Facing Missing Entrepreneurs

Further, scholars and policymakers note that current SEE models inadequately serve "missing entrepreneurs" (MEs) (OECD, 2024), defined as individuals from underrepresented or marginalised groups, such as women, youth, immigrants, seniors, and people with disabilities (Tam et al., 2024). Although learners from these demographics are often attracted to SE and frequently among the closest to the complex social issues that SE aims to address, they continue to face systemic barriers to inclusion in SEE (Barki et al., 2023). Evidence shows that women and youth in particular remain underrepresented in entrepreneurship due to persistent gaps in training and limited access to tailored educational programs (OECD, 2023; OECD, 2021).

Access to education of any kind remains limited for MEs, many of whom are also reluctant to participate in highly competitive pitch competitions and boot camps fostering "hustle culture" that dominate business incubation spaces in traditional entrepreneurship education (OECD, 2024; Bonfanti et al., 2024). For aspiring social entrepreneurs, especially those close to the roots of global problems and already facing systemic barriers, the lack of clear educational pathways to SE limits access to knowledge that can assist them in addressing challenges they experience. The challenge of integrating MEs into SEE is further heightened by the fact that, unlike conventional entrepreneurship education, SEE is often developed and taught by academics and mentors who come from a business entrepreneurship culture or purely academic backgrounds and who lack lived SE experience (Al Issa et al., 2024).

Curricular fragmentation compounds these access barriers. Programmes grounded in management and entrepreneurship studies frequently emphasise opportunity recognition, market

sustainability, and hybrid organising, whereas programmes informed by sociology, public policy, or development studies often prioritise welfare systems, institutional design, or community mobilisation (Santos, 2012; Kerlin, 2013; Defourny & Nyssens, 2017).

Learners trained within one disciplinary or regional framework may therefore encounter difficulty relating their acquired knowledge to alternative interpretations of social enterprise emerging from different institutional or theoretical traditions. Competencies developed within one socioeconomic or disciplinary context may not transfer readily to another, limiting the practical applicability of SEE in increasingly interconnected and transnational settings. Such divergence in approaches places MEs in a particularly complex position. Individuals from vulnerable demographics are often disproportionately affected by complex global challenges while simultaneously facing limited access to education and institutional support. When these learners engage with SEE, however, they may encounter divergent conceptual frameworks and operational guidance for enacting the same SE practice, complicating their ability to translate shared global problems into coherent and sustainable entrepreneurial practice.

1.2.4 Barriers to a Globally Inclusive SEE Framework

Existing SEE frameworks remain reflective of Western approaches that prioritise competition and market logic over cooperation and impact-driven approaches, reflecting the dominance of perspectives from the Global North present in SE research (Berglund & Verduijn, 2018). Recent bibliometric mappings of SEE, including those by Al Issa et al. (2024), Chen & Shabbir (2025), and analyses of leading SE journals (Weerakoon, 2024), demonstrate that publications, leading institutions, and collaborative networks are disproportionately concentrated in North America and Europe, evidencing a persistent Global North influence on SEE agendas and frameworks. Bibliometric analyses further confirm that 88% of SE scholarship originates in the Global North, particularly in the United States and Europe, which continue to define the dominant conceptual frameworks of the field (Cardella et al., 2021).

Northern academic and policy networks institutionalise these models by transplanting Global North logics of SE into Global South contexts, often replacing or marginalising culturally embedded logics of dual value creation and indigenous philosophical traditions (Lashitew & Rosca, 2025). SEE's reliance on business school traditions embedded in Global North perspectives, where entrepreneurial success is primarily measured through competitiveness, growth, and financial performance, reinforces this pattern (Shahid & Alarifi, 2021; Azqueta et al., 2023; Bonfanti et al., 2024).

The prevalent approach in regions associated with the Global North also relies on a conceptual separation of social and economic values, yet this separation is not a global phenomenon. Non-Western approaches frequently embed social value directly within economic activity. As discussed in Section 1.1, traditions grounded in the bottom of the pyramid paradigm (Mair, Martí & Ventresca, 2012; Banerjee et al., 2020), Ubuntu (Nabudere, 2005; Longweni & Mdaka, 2023), and Confucianism (Hsu, 2020) all treat social and economic objectives as integrated rather than competing. Dominant SEE curricula nevertheless often fail to leverage knowledge supporting successes of dual value-creating ventures informed by these traditions, while also

failing to address global structural inequalities or context-specific barriers in non-Western ecosystems (Karatas-Ozkan et al., 2023). The divergence between approaches that treat social and economic values as conflicting and those that view them as inherently integrated has consequently hampered the theoretical consolidation of SEE curricula and restricted the development of an inclusive, globally applicable SEE knowledge base (Azqueta et al., 2023; Bonfanti et al., 2024).

Despite the widespread adoption of innovative pedagogies, SEE therefore struggles to prepare learners to launch enterprises that balance impact and financial viability in diverse contexts (Al Issa et al., 2024). SEE cannot evolve into a globally applicable and inclusive educational strategy by drawing on competitive models of entrepreneurship education and research dominated by the Global North, as both approaches obscure the collaborative practices and logics of wealth creation that characterise SE globally (Karatas-Ozkan et al., 2023; Lashitew & Rosca, 2025). Without inclusive curricular design and alignment with practice, SEE risks reinforcing disciplinary and regional divergences in SE related research and policies, rather than enabling globally coordinated and practice-relevant education that can facilitate systematic knowledge exchange across contexts (Saebi et al., 2019).

1.2.5 Transdisciplinary Perspectives in Social Entrepreneurship Education

The barriers identified in the preceding sections are compounded by the limited direct inclusion of practitioner knowledge in SE research and SEE content creation. While SE originates in practice, research in the field has primarily focused on examining and interpreting practice rather than engaging in systematic cocreation of knowledge with practitioners. This tendency reflects broader patterns in SE research, where conceptual development has been largely driven by academic analysis of practice (Nicholls & Cho, 2006; Mair & Martí, 2006). As a result, insights derived from practice remain only partially integrated into formal knowledge frameworks, limiting their contribution to the development of SEE.

The lack of transdisciplinary knowledge integration in SE research undermines the relevance of educational offerings drawing from that research (Kickul et al., 2022). As established in Section 1.1.5, practitioners generate knowledge essential for informing SEE, having demonstrated the feasibility of combining social impact and economic sustainability without coherent theoretical frameworks (Defourny & Nyssens, 2017; Barki et al., 2023). The necessity for knowledge cocreation between academia and practice is repeatedly noted as an essential pathway for producing robust, context-sensitive educational frameworks capable of guiding social enterprises in aligning operational practices with their dual mission (Azqueta et al., 2023).

Experience-based learning has become a widespread pedagogical feature of SEE, intended to incorporate practitioner perspectives through internships, guest lectures, and field projects. Recent research, however, shows that learners frequently struggle to connect practical experiences with the abstract theories and policy frameworks emphasised in SEE curricula, revealing a persistent misalignment between what is taught and what is practised (Han, Li, & Zhang, 2023; Roslan et al., 2022). As discussed in Section 1.1.5.4, this misalignment extends into the classroom, where theoretical frameworks emphasising competing objectives are difficult to reconcile with the operational approaches learners encounter in field settings. Practitioner insights will consequently

remain of limited value to learners as long as practitioners are underrepresented in SE research and SEE content cocreation (Azqueta et al., 2023; Al Issa et al., 2024; Barki et al., 2023).

Social enterprise practice has also expanded across diverse institutional and cultural contexts beyond the Western world, while a substantial proportion of the formal theoretical literature has been produced within Global North academic institutions (Defourny & Nyssens, 2017; Bacq & Janssen, 2011; Kerlin, 2013). In response, incubators and community organisations in the Global South frequently adapt and hybridise models originating in the Global North with locally embedded institutional arrangements, cultural philosophies, and policy environments (Kerlin, 2013; Lashitew & Rosca, 2025). Comparative studies suggest that social enterprises operating in the Global South often contribute to institutional experimentation and locally embedded innovation, rather than replicating Western organisational templates (Bacq et al., 2022).

Given the global nature of social challenges, education needs to bridge the misalignments between research, policy, and practice. Evidence from the Global South underscores the potential of practice-led innovation, which can be adapted and transferred across cultural contexts (Lashitew & Rosca, 2025). The absence of systematic South–North–East knowledge integration capable of informing SEE represents a missed opportunity to build an educational foundation that can address challenges confronting humanity as a whole.

1.2.6 Toward an Inclusive Interdisciplinary Social Entrepreneurship Education

In conclusion, knowledge addressing the simultaneous generation of social and economic value through entrepreneurial practice remains dispersed across domains of research, education, policy, and practice, as well as across disciplinary traditions and regional contexts (Defourny & Nyssens, 2017; Bonfanti et al., 2024). The absence of an integrative framework that synthesises across disciplines, regions, and domains continues to hinder the consolidation of these perspectives into a coherent understanding of dual value creation capable of guiding coordinated responses to systemic challenges (Saebi et al., 2019; Stephan et al., 2022; Al Issa et al., 2024).

The stakes of this integration extend beyond academic coherence. Climate disruption, widening inequality, and mass displacement are interrelated challenges that require responses exceeding the capacity of any single domain (OECD, 2024; UNDP, 2024). SE offers an effective response to complex problems (Azqueta et al., 2023), while educators seeking to prepare practitioners for this work lack access to a unified knowledge base (Kickul et al., 2022).

Aligning regional policies with global agendas, integrating scholarship across geographies, and translating research into educational practice represent concurrent necessities rather than sequential steps (Ouragini & Lakhal, 2023). The pace at which these crises intensify may leave little time for incremental convergence (Bonfanti et al., 2024). Despite widespread recognition of the challenges identified in introductory sections, existing scholarship has not produced a systematic integration of interdisciplinary research with cross-regional educational practice to develop a globally applicable SEE framework.

While researchers have documented fragmentation across disciplines (Saebi et al., 2019; Stephan et al., 2022), regional variations in educational delivery (Bonfanti et al., 2024; Hietschold et al., 2023), and the disconnect between scholarship and practice (Barki et al., 2023), no study has

synthesised these insights into a structured knowledge base that can guide SEE curriculum development across diverse contexts.

This thesis addresses the identified gap by collecting and integrating pertinent knowledge from global research and regional educational practice, structuring this knowledge into a coherent framework, and testing its applicability with learners across five continents through proposed SEE model in Global Social Innovation Lab (GSIL) format. The fragmentation documented in Sections 1.1 and 1.2 has direct consequences for the capacity of SE to generate impact at scale needed to effectively address global complex problems.

1.3 Problem Statement and Solution Framework

Although SEE has expanded globally across academic and community contexts, this growth has not produced a proportional increase in the effectiveness or scalability of social enterprises capable of generating measurable impact at a global scale (Al Issa et al., 2024; Kickul & Lyons, 2020). The absence of an integrated structured foundation linking theoretical insight, practitioner-informed applied knowledge, and educational practice constrains the capacity of SEE to equip social entrepreneurs to address interconnected global challenges (UNDP, 2024; WEF, 2024).

While researchers consistently identify the lack of integrated interdisciplinary content supporting SEE, the knowledge supporting this education remains fragmented, with regional silos and divergent knowledge traditions limiting the global transferability and scaling of practice (Kickul et al., 2022; Defourny & Nyssens, 2017). The challenges confronting SEE, and the imperative to construct a shared interdisciplinary knowledge base, are situated within broader concerns regarding society's capacity to generate social, economic, and ecological value across micro, or organisational, meso, or societal, and, or macro global levels. This social capacity is constrained by fragmented understandings of how social enterprises generate dual value across contexts and how their cumulative efforts translate into global impact. The multifaceted nature of this problem necessitates systematic examination through problem mapping, which delineates the interconnected dimensions of knowledge fragmentation and their implications for dual value creation practice.

1.3.1 Problem Mapping

The complexity of the problem challenging SEE examined in this thesis can be regarded through the lens of knowledge fractures that exist across multiple interconnected dimensions. Knowledge needed to address global problems through entrepreneurial action focused on dual value creation remains fractured across the key domains of policy, research, education, and practice, with limited integration and knowledge exchange between the domains (Kickul et al., 2022). Within each of these domains, accumulated findings and perspectives on SE lack systematic integration into unified conceptual frameworks (Cardella et al., 2021; Al Issa et al., 2024). Both the cross-domain fractures and the intra-domain fragmentation are compounded by regional differences in perspectives on dual value creation, SE, and SEE, resulting in diverse conceptual frameworks that operate largely in isolation from one another (Bacq & Janssen, 2011; Trabskaia et al., 2023; Weerakoon, 2024).

Together, these areas of fragmentation create a heterogeneity in perspectives and theoretical understanding that inhibits the development of a unified, structured teachable knowledge base capable of effectively supporting SEE across contexts. Despite fragmented SE research, SEE is expected to generate tangible outcomes that support the incubation of social enterprises without the ability to rely on a coherent knowledge base or a unifying definition of SE (Hlady-Rispal & Servantie, 2018; Chen & Shabbir, 2025).

Research repeatedly indicates that persistent social issues require integrated, cross-regional strategies rather than isolated initiatives or regional educational models (OECD, 2024). Recent studies, however, indicate that SE learners across regions are exposed to divergent theories and conceptual frameworks, as well as discipline-specific models, which impedes the development of shared competencies and a common language for collaboration (Shahid & Alarifi, 2021; Al Issa et al., 2024). The resulting lack of coherence in SEE approaches restricts the ability of both learners and practitioners to align efforts, collaborate internationally, and scale best practices (Hlady-Rispal & Servantie, 2018; Chen & Shabbir, 2025). Building on interdisciplinary scholarship, the problem can be framed as the systematic lack of a structured knowledge base supporting SEE caused by the fragmentation of knowledge needed to start and operate social enterprises across and within the domains of research, policy and practice compounded by regional variations (Cardella et al., 2021; Fu & Yan, 2025).

Figure 1.3.1 presents a problem map adapted from the Repko and Szostak (2021, 2025) interdisciplinary research process, illustrating interactions across domains and the nature of knowledge flows. The figure underscores the root causes underlying the failure to scale SE as a global solution to persistent social challenges.

Figure 1.3.1: Problem Map

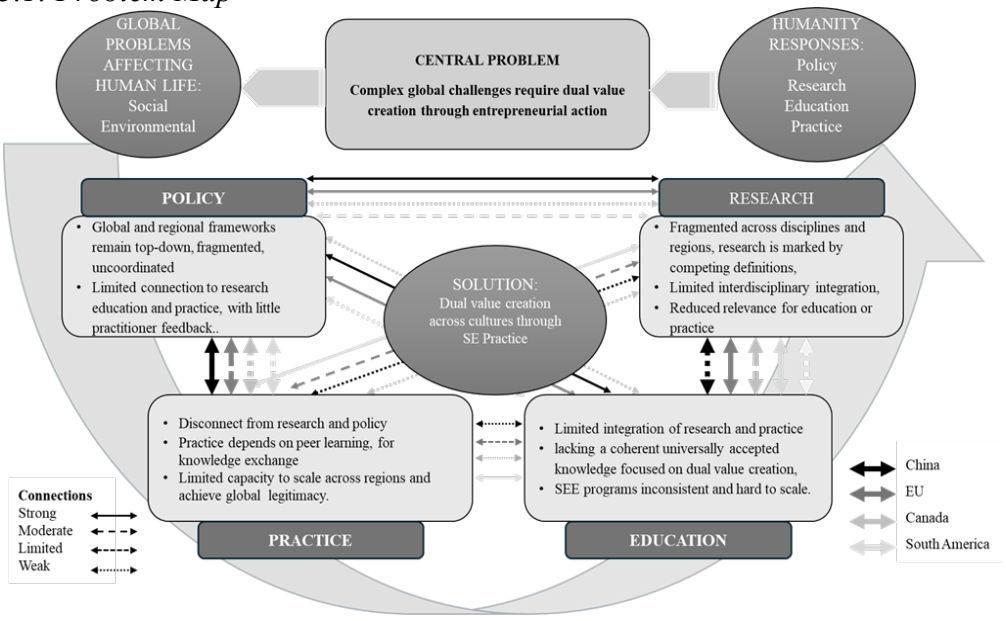


Figure 1.3.1 presents a problem map illustrating how knowledge required for dual value creation flows unevenly across policy, research, education, and practice. Solid arrows indicate

strong connections; dotted lines signal weaker or absent feedback loops (Repko & Szostak, 2021; 2025). China, the European Union, Canada, and South America are presented as illustrative cases demonstrating regional variations in these knowledge flows. The visualisation reveals that systemic barriers in knowledge generation and exchange constrain the scaling of SE practice globally (Hlady-Rispal & Servantie, 2018; Chen & Shabbir, 2025).

The capacity to develop coordinated responses adequate to the systemic nature of these challenges depends on collecting, integrating and structuring interdisciplinary knowledge about how social and economic value can be simultaneously created. Global problems demand a synchronised human response and coherent impact-driven action. The knowledge required to support such an effort moves slowly and unevenly across and within the domains of research, policy, and practice. Each domain refracts insights much like a prism disperses light, fragmenting rather than integrating understanding, and thereby constraining the formation of a coherent knowledge base capable of advancing both SE and SEE (Hlady-Rispal & Servantie, 2018).

Regional variations in knowledge flows are observable across diverse geographical contexts. In Figure 1.3.1 China, the European Union, Canada, and South America are presented as illustrative cases, informed by both research and the thesis author's lived experience, including decades of teaching SEE in the represented regions, acting as a policy consultant for international organisations, and working as a social entrepreneur over the last five years. For example, in China, policy frameworks act as a connector providing direction, while practice, research, and education are cross coordinated through the implementation of policies responsive to regional priorities. The knowledge exchange across research, practice and education occurs primarily through alignment with policy (Fu & Yan, 2025). In the European Union, policy and research demonstrate closer ties, with influence flowing in both directions, while education and practice across member states demonstrate synergies shaped by this policy-research alignment (Vidović & Baturina, 2021).

In Canada, SEE education, policy, research, and practice show limited integration, with neither research nor education sufficiently influencing policy or entrepreneurial realities (Ip, 2024). In South America, practice is vibrant and locally embedded, with varied policy support and limited integration with research and education. However, educators and researchers maintain closer connections with practice, enabling the diffusion of best practices beyond local contexts (Shahid & Alarifi, 2021). While these regional variations serve as illustrative examples drawn from specific contexts, they exemplify representative patterns of structural differences in the integration and dissemination of knowledge observable across diverse geographical settings globally.

Global problems, at the same time, need a coordinated response. The interconnected global challenges do not respect the disciplinary categories, institutional boundaries, or regional jurisdictions through which knowledge and policy are organised. Climate mitigation cannot be addressed through environmental science alone without considering economic development. Inequality reduction requires simultaneous attention to wealth generation and its distribution, and displacement demands integrated responses across humanitarian aid, employment creation, and community cohesion.

To address this challenge and create a focused global SE response to complex challenges, it is necessary to collect and structure pertinent insights from each discipline and domain to understand how research, policy, education, and practice can each contribute to the knowledge required for developing social enterprises capable of synchronised global action. The construction of such integrated knowledge can enable individuals to recognise and draw upon the perspectives and insights of each domain, fostering a shared language and mutual understanding among social entrepreneurs. This common foundation supports the translation of fragmented knowledge into coherent practice, facilitating dual value creation at scale and generating meaningful impact on global challenges.

Thus, the problem map demonstrates how humanity's capacity for rapid, coordinated responses to escalating global challenges is constrained by the very structures through which knowledge is organised and shared. By partitioning knowledge according to disciplinary boundaries, regional contexts, and domain-specific purposes, these mechanisms obscure the integrated understanding necessary for collective action. The existing fragmentation produces a condition in which focused attention on discrete elements prevents comprehension of the systemic whole, rendering the core architecture of dual value solutions invisible to those working within isolated components (Roundy et al., 2018; Repko & Szostak, 2025).

1.3.2 Education as the Mechanism for Integration

Without stronger and more efficient knowledge exchanges across policy, research, education, and practice, the capacity of social entrepreneurs to create and scale dual value solutions will remain constrained (OECD, 2024; UNDP, 2024). The urgency of addressing escalating global challenges through dual value creation cannot be overstated. Climate change is advancing at an unprecedented pace, with scientific assessments confirming that human activity is significantly increasing the frequency and severity of extreme weather events worldwide, including record-breaking heat waves and wildfires (Environment and Climate Change Canada, 2025). At the same time, widening inequality intensifies social instability and compounds environmental vulnerabilities, producing interconnected crises that evolve more rapidly than isolated responses can address.

The generations presently alive collectively represent a planetary force whose decisions will determine the trajectory of humanity within the Earth's carrying capacity (Grinspoon, 2016). Younger and middle-aged cohorts, especially those born after 1980, are projected to endure the greatest cumulative impacts of unresolved global problems, facing significantly more extreme climate and social disruptions over their lifetimes than earlier cohorts (Parsons et al., 2024; Grant et al., 2025). If SE and dual value creation are to serve as effective responses, equipping these generations with all available global knowledge becomes imperative. Achieving this goal requires a domain capable of integrating fragmented insights across regions and disciplines and transmitting consolidated understanding to new generations of entrepreneurs who will confront compounding social and environmental pressures.

This thesis positions SEE and the education domain as the most promising space for integrating such knowledge and transmitting it rapidly to learners. In this research, dual value

creation encompasses both economic value through financial self-sufficiency and social value through societal and environmental impact. Integrating environmental challenges within the social value dimension reflects a fundamental recognition: environmental degradation does not threaten the planet itself but humanity's capacity to survive and thrive, as ecological systems essential for human life deteriorate (UNDP, 2024; Raworth, 2017).

The thesis identifies SE as a viable pathway to addressing global problems and proposes education as the domain that can serve as a vehicle for structuring and transferring pertinent knowledge directly to individuals who can put it into action by creating social enterprises. Constructing a globally relevant and effective framework for SEE requires collecting and structuring disparate insights from regional policies, academic research, practitioner experience, and educational practice into a globally understandable educational framework that can empower learners to create and sustain social enterprises capable of collectively addressing shared problems facing humanity (Al Issa et al., 2024; Chen & Shabbir, 2025).

This research question and objective are predicated on positioning education not merely as a domain for integrating knowledge, but as the provider of a navigation compass for aspiring social entrepreneurs. The central problem outlined in this chapter is the fragmentation of knowledge across domains and disciplines, creating a complex landscape of often contradictory theories and models (Saebi et al., 2019; Stephan et al., 2022). A definitive map of this terrain is unattainable and likely undesirable, as the challenges social enterprises address are themselves complex, adaptive systems characterised by uncertainty (Roundy et al., 2018). However, alignment around a common global objective, built on shared knowledge, can provide a starting point for interpreting different ways of establishing SE practice across diverse contexts.

1.3.3 Education as a Pathway to Global Impact

Therefore, this doctoral research aims to construct a globally applicable SEE model that integrates existing knowledge around a shared objective, namely dual value creation through entrepreneurship. The resulting SEE framework explains why social enterprise practice emerges in response to conditions regulating interactions across enterprise, social and ecological systems within planetary boundaries and outlines pathways through which dual value creation can be generated and sustained across diverse institutional settings. The theoretical proposition developed in Chapter 4 emerged from interdisciplinary integration of complementary insights drawn from systems theory, complexity science, SE scholarship, political economy, and other contributing disciplines. The theoretical proposition responds directly to the absence of a unified interdisciplinary theory of dual value creation identified throughout the preceding analysis. The theoretical framework guiding this research draws on the theoretical proposition, complemented by andragogy as its pedagogical foundation. Together, the globally applicable content and complementary pedagogy provide an integrated basis capable of bridging the disciplinary, regional, and domain-level fragmentation that has constrained both SE scholarship and SEE practice.

The proposed SEE approach does not prescribe a single path to establishing social enterprises across cultures. The knowledge architecture constructed in this thesis delineates

globally applicable knowledge from context-sensitive content. The proposed SEE architecture is intended to support curriculum development capable of guiding learners in creating dual value solutions within varying institutional logics and cultural perspectives.

The resulting educational approach is aligned with andragogy, understood as a theory of adult learning (Knowles, 1984; Mezirow, 1991). The framework recognises adults as self-directed agents while providing structured analytical orientation and guided pathways that support informed decision-making in the implementation of dual value creation. The proposed pathway to scaling SE practice through education is presented in Figure 1.3.3.

Figure 1.3.3: Education as an Engine for Scaling the Practice

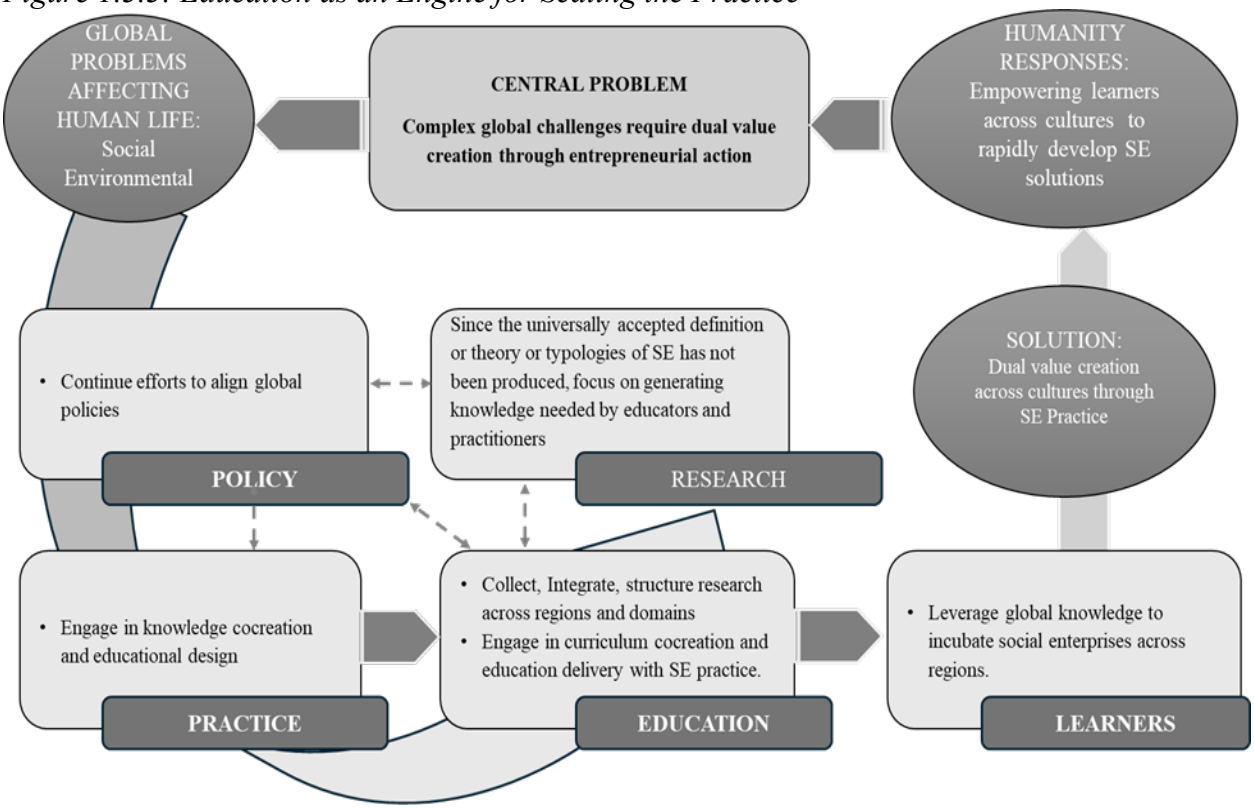


Figure 1.3.3 illustrates how education can serve as an integrating domain to address knowledge fragmentation constraining dual value creation. Global problems affecting human life generate a central challenge: complex global issues require entrepreneurial action grounded in dual value creation. The arrows illustrate the current state of limited cross-domain knowledge flows, with research unable to produce universally accepted definitions, theory, or typologies of SE.

The proposed solution positions education as a mechanism for knowledge integration and transfer. By enabling cross-regional knowledge flows, SEE can cultivate globally applicable competencies while remaining responsive to local conditions, thereby strengthening collective capacity to address complex and persistent global challenges through SE.

1.4 Research Question and Objectives

The lack of cross-domain, interdisciplinary integration of knowledge reduces the capacity of SE learners and practitioners to align their efforts toward shared objectives, collaborate across

borders, and scale effective solutions. Existing ventures therefore frequently operate without the support of globally applicable analytical frameworks or coherent educational support. Consequently, social enterprises cannot achieve the scale required to meaningfully address complex social issues (Hlady-Rispal & Servantie, 2018; Chen & Shabbir, 2025).

Limited access to pertinent knowledge contributes to higher failure rates relative to conventional businesses (WEF, 2024; Ip, 2024). In the context of emerging technologies and increasingly complex social problems, education emerges as an integrating domain, possessing the capacity to connect research and practice, accelerate the diffusion of knowledge, and facilitate the formation of global communities of practice capable of responding inclusively and adaptively to systemic social challenges.

Against this background, the present doctoral study was guided by the following central research question: What kinds of knowledge, education, and skills are needed to empower individuals to successfully launch and sustain social enterprises globally? The overall objective of this investigation was to develop an inclusive SEE framework, informed by research and educational practice, that addresses the needs of learners worldwide, with particular attention to at risk demographics included in MEs categories (OECD, 2024).

Considering the asymmetry between pedagogical advancement and content development in SEE (Satar, 2025; Shahid & Alarifi, 2021), the primary focus of the thesis is on developing a knowledge architecture that can be used to develop curricula across cultures. The objective is to identify the knowledge required for SE practice and to propose a content architecture structured across theoretical and applied domains. In accordance with Shulman's (1987) Pedagogical Content Knowledge, which establishes that effective education requires alignment between subject matter and instructional approach, the thesis further aims to propose a pedagogical approach suited to delivering this knowledge in a manner consistent with the ontological characteristics of the content it conveys.

Education in this thesis is not limited to university-based instruction. The knowledge architecture and pedagogical approach are designed to support knowledge transfer through community-based organisations, incubators, and informal practitioner networks, recognising that SE learning occurs across institutional settings and that globally inclusive SEE must reach learners who may not access formal higher education (OECD, 2024). The thesis therefore aims to identify knowledge that is transferred not only by universities but also through community-based organisations and practitioner networks that constitute the broader SEE ecosystem.

The research process was designed to collect pertinent insights from the domains of research and education, which have been identified in this investigation as the primary knowledge sources informing SEE. Knowledge collection within each domain addressed distinct research questions while collectively contributing to the overarching aim of creating a globally relevant SEE framework. In collecting the insights from research, the exploration of knowledge embedded in scholarly work was guided by the following research question: What kind of research is needed to generate knowledge that can be meaningfully integrated into SEE to support SE in addressing complex global challenges?

The redefinition of SE established in Chapter 1 directly informs the research question. By establishing definitional boundaries around simultaneous social and economic value creation (Repko & Szostak, 2025), the redefinition provides the conceptual anchor for determining which disciplinary insights remain relevant to SE practice despite terminological variation across fields. The redefinition also reveals the extent of fragmentation across disciplines that examine economic and social value creation in isolation, demonstrating that existing research has not generated integrated knowledge capable of supporting dual value creation at scale. The redefinition therefore enables the research to trace the phenomenon across different terminologies, contributing to the development of a globally applicable knowledge base for SEE.

To construct a knowledge architecture applicable across cultures, the thesis conducts interdisciplinary research integration following the IRP methodology (Repko & Szostak, 2025), rather than simply adding insights from different fields of study. The analysis integrates insights from IPE, SE scholarship, and education to develop a coherent knowledge base structured across theoretical and applied domains, capable of informing globally inclusive SEE that supports practice across diverse contexts. The sub-objective in this process was to identify pertinent disciplinary insights, conduct interdisciplinary integration, knowledge synthesis and knowledge base structuring to create the research-based foundation for an inclusive SEE approach that considers regional, disciplinary, and cultural diversity.

The second source of knowledge considered in this investigation was SEE practice. The empirical investigation of SEE approaches aimed at collecting pertinent knowledge from the domain of education by addressing the following research question: How is SEE designed, structured, and delivered across diverse regions in Canada and the European Union? The SE redefinition provided an analytical lens for examining whether curricula focus on dual value creation and, if so, whether they regard it as integrated goal or as the pursuit of two separate objectives requiring subsequent coordination. The sub-objective in this research phase was to analyse regional SEE practices, compare the roles of key actors in SEE ecosystems, and contrast the knowledge bases supporting curricula, research, and pedagogical approaches used in different contexts.

The insights from global research and cross-regional education were integrated into a model of SEE, which was subsequently evaluated and tested with learners across Europe, Africa, Asia, North America and South America. The testing phase focused on observing learners' perceptions of the presented content and pedagogical approach. The experiences of learners and facilitators in delivering the SEE model were analysed to further inform the design and delivery of a globally relevant SEE approach.

The specific research question guiding this phase was how the discipline of education can contribute to inclusive global SEE. Drawing on five iterative implementations of the evolving SEE model developed during the doctoral project, the researcher examined how knowledge content and educational theories can be combined with lived experience to design and implement innovative SEE approaches. The analysis explored how such approaches can build a common understanding

of SE practice among learners from different regions while enhancing the accessibility, relevance, and impact of SEE across cultures.

Together, the three phases of the research generated an interdisciplinary, practice-informed SEE model drawing upon global research, regional educational practices, and empirical testing. The following table summarises the questions guiding the research investigation, presenting the central research question, overall objective, and the three sequential phases, each with corresponding specific research questions and sub-objectives.

Table 1.4: Research Design, Questions and Objectives

Central Research Question	**Overall Objective**	
What kinds of knowledge, education, and skills are needed to successfully launch and sustain social enterprises across diverse regional and institutional contexts?	To develop an inclusive SEE framework, informed by research and educational practice, that meets the needs of learners globally.	
Phase	**Specific Research Question**	**Sub-Objective**
Phase 1: Collecting Knowledge from Global Research	Research Question: What kind of research is needed to generate knowledge that can be meaningfully integrated into SEE to support SE in addressing complex global challenges?	Identify pertinent interdisciplinary research and propose a knowledge synthesis and integration that can serve as a foundation for an inclusive SEE approach reflecting regional, disciplinary, and cultural diversity.
Phase 2: Collecting the Knowledge for Educational Practice	Research Question: How is SEE designed, structured, and delivered across diverse regions in Canada and the European Union?	To identify examples of best practice; compare the knowledge base and pedagogical approaches found in educational practice with components identified through interdisciplinary research synthesis.
Phase 3: Evaluating Resulting SEE Framework	Research Question: How can education as a discipline contribute to inclusive, global, and virtual SEE?	To analyze learner and facilitator experiences in a cross-cultural SEE program and extract implications for curriculum development and pedagogy.

As presented in Table 1.4, the research employed sequential research approaches across three distinct phases to address the multifaceted nature of the central research question. A sequential multi-phase design was necessary to accommodate the article-based structure of the thesis detailed in the next sections.

Each phase of the research process built upon the findings of the previous one, creating a cumulative knowledge base that addressed different dimensions of the central research question while maintaining methodological coherence throughout the investigation. Having established the

systemic need for integrated SEE and positioned education as the domain capable of bridging fragmented knowledge, Chapter 2 and Chapter 4 articulate the philosophical foundations, methodological approaches, and research design that enabled the collection, integration, and structuring of knowledge across disciplines, domains, and regions into a globally applicable SEE framework.

Chapter 3 implements the interdisciplinary literature review, systematically examining SE and SEE scholarship across disciplines and regions to identify pertinent insights for knowledge integration. The architecture of this thesis integrates three levels of knowledge organisation. At the theoretical level, Chapter 4 establishes why dual value creation constitutes a systemic necessity through integration of systems theory, complexity science, and andragogy. At the conceptual level, Chapter 4 and Chapter 5 structure knowledge into theoretical foundations and operational applications, distinguishing systemic conditions from socioeconomic variables. Chapter 6 presents the empirical investigation of SEE ecosystems across four regional contexts: Prince Edward Island and Manitoba in Canada, and Croatia and Slovenia in the European Union, analysing how SEE is designed, structured, and delivered in practice. At the operational level, Chapter 7 demonstrates how the GSIL model translates this architecture into cross-cultural pedagogical practice tested across global regions.

Chapter 2 Research Architecture

2.1 Designing a Research-Informed Global SEE Framework

Chapter 1 demonstrated that fragmentation across disciplines, regions, and knowledge traditions constrains the advancement of SEE and positioned education as the domain capable of consolidating dispersed knowledge while equipping practitioners to design and operate SE initiatives. Chapter 2 introduces the research design, philosophical foundations, theoretical, conceptual, and methodological orientation guiding the study. In monodisciplinary research, these elements are typically grounded in an established theoretical tradition that can be adopted prior to the literature review. In the present investigation, however, no single disciplinary theory provides a comprehensive explanation of the phenomenon under examination. The ontological position and theoretical framework are therefore introduced at this stage to clarify the analytical perspective guiding the interdisciplinary review of literature. The interdisciplinary theoretical framework emerges through interdisciplinary integration and is presented in Chapter 4 following the systematic literature review and analysis conducted in Chapter 3.

The research design presented in this chapter mirrors how educators develop academic programs and courses in practice. Program design typically involves systematic engagement with relevant scholarship, consultation with peer practice, the structured synthesis of insights into a coherent knowledge architecture, and iterative refinement through educational delivery and evaluation in practice. The investigation replicates this sequence within the IRP approach (Repko & Szostak, 2025). Phase 1 of the research engages interdisciplinary scholarship, Phase 2 examines peer SEE practice across regions, and Phase 3 implements iterative testing and refinement. This alignment between research design and educational practice ensures that the research process itself models the knowledge transfer practice the investigation seeks to advance.

The investigation required explicit articulation of ontological and epistemological foundations where society is conceptualised as an open, complex, and dynamic system. Enterprises are understood as nested open subsystems operating under shared system level conditions. These philosophical foundations informed the selection of research methodologies, including the IRP and the two-tier conceptual framework organising knowledge into theoretical foundations and applied operational content.

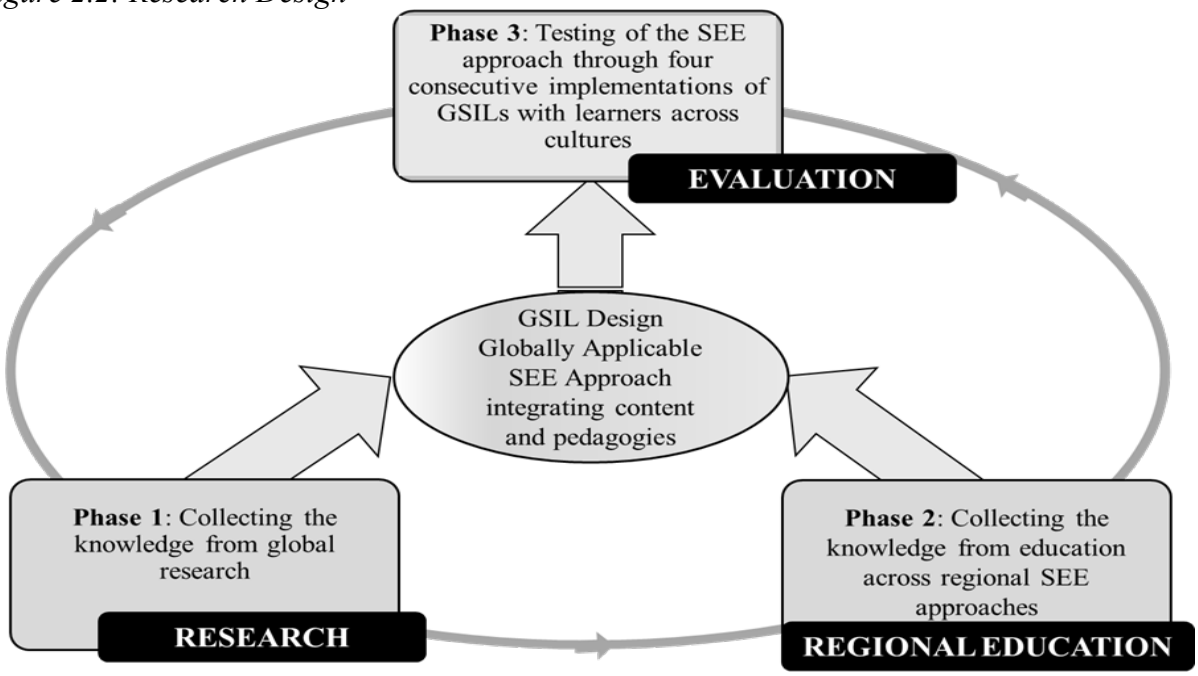
The theoretical and conceptual frameworks are introduced in Chapter 2 in summarised form and are subsequently fully developed and rigorously elaborated in Chapter 4 to follow the sequence of the IRP. Within the IRP, theoretical integration occurs after relevant disciplinary insights have been identified and critically examined rather than before the literature review, as is more common in monodisciplinary research (Repko & Szostak, 2021, 2025). Chapter 2 therefore provides an initial overview of the philosophical foundations, theoretical framework, and conceptual framework guiding the study, while Chapter 3 presents the interdisciplinary literature review conducted in accordance with IRP steps that identify and analyse relevant disciplinary perspectives. The analysis undertaken in Chapter 3 then informs the integration of relevant insights in Chapter 4, where the theoretical and conceptual frameworks are fully developed and the ontological position is justified.

2.2 Research Design and Phases

The investigation was designed to systematically examine insights from academic literature and regional educational ecosystems and to integrate these findings into the architecture of a globally applicable SEE model. The process followed an iterative feedback loop in which new insights from research, educational practice, and learner feedback were progressively incorporated into four consecutive iterations of the educational framework. The guiding principle of the research design was to gather, structure, and synthesise knowledge capable of supporting the development of SEE as a globally transferable and contextually adaptable educational practice.

The investigation proceeded through three sequential and interlinked phases: global secondary research, empirical investigation of regional SEE ecosystems, and model testing through iterative implementation. The insights obtained in each phase were progressively integrated into the SEE framework, forming the knowledge base and pedagogical strategies for a globally relevant educational model. Figure 2.2 illustrates the iterative nature of the research design.

Figure 2.2: Research Design



As illustrated in Figure 2.2, Phase 1 collected and synthesised global scholarly knowledge, Phase 2 gathered empirical data from regional SEE ecosystems in Canada and the EU, and Phase 3 tested the emerging framework across five continents through five consecutive GSIL implementations.

The following sections detail each phase of the research and explain how the insights were organised within a shared conceptual framework encompassing high-level theories, applied operational knowledge, and pedagogical approaches derived from professional education. The conceptual framework is further elaborated in the methodology section, Section 2.4.

2.2.1 Overview of the Three-Phase Investigation

The identification of knowledge needed to support the creation of a coherent and structured SEE knowledge base proceeded through three phases aimed at identifying pertinent content and pedagogies, as well as evaluating the SEE model in real life settings. The following section outlines the research design of each phase and provides the rationale for the selected investigative process.

2.2.1.1 Phase 1: Global Research

Phase 1 was designed to collect pertinent knowledge from academic research, complemented by policy reports across disciplines including economics, business, anthropology, international political economy (IPE), SE, environmental sciences, philosophy, and education. The collection of insights focused on dual value creation, SE, and SEE. The broad literature review resulted in the identification of relevant disciplines, specifically education, SE, and IPE, with sources critically analysed to integrate knowledge into a coherent knowledge base supporting the design of an SEE model that is both globally applicable and context-specific (Repko & Szostak, 2025).

Phase 1 examined pertinent knowledge across macro, meso, and micro levels of analysis, including theories and applied insights that addressed dimensions of social, economic, or ecological value creation relevant to SE and SEE. Considering that SE and IPE remain interdisciplinary fields where integration and synthesis are incomplete, developing a unified perspective within each of the examined disciplines would exceed the scope of this investigation, which aims to support SEE. The priority was to integrate and organise relevant insights from different disciplines into teachable content that enables learners from diverse disciplinary backgrounds to recognise how different theoretical frameworks and operational approaches contribute to understanding SE across contexts. This research approach builds a much-needed common language and conceptual bridges across disciplines, thereby supporting cross-disciplinary, cross-cultural dialogue essential for scaling SE practice. The Phase 1 follows interdisciplinary research principles that prioritise the integration of relevant insights overachieving definitional or terminology consensus (Repko & Szostak, 2025).

Pertinent insights from relevant disciplines were examined using the analytical and theoretical frameworks developed in Chapter 4. The analytical framework distinguishes between the system configuration in which social enterprises operate as open, dynamic systems and the systemic conditions that maintain the viability of this configuration, which apply universally, and socioeconomic factors, including governance structures, financing mechanisms, and legal forms, that vary by context. Phase 1 followed Repko and Szostak's (2025) interdisciplinary research process (IRP), supported by a systematic literature review (SLR) as a method to synthesise fragmented knowledge across disciplines and regions, producing a coherent knowledge foundation for SEE. Figure 2.2.1.1 outlines the research process within Phase 1.

Figure 2.2.1.1: Research design in Phase 1

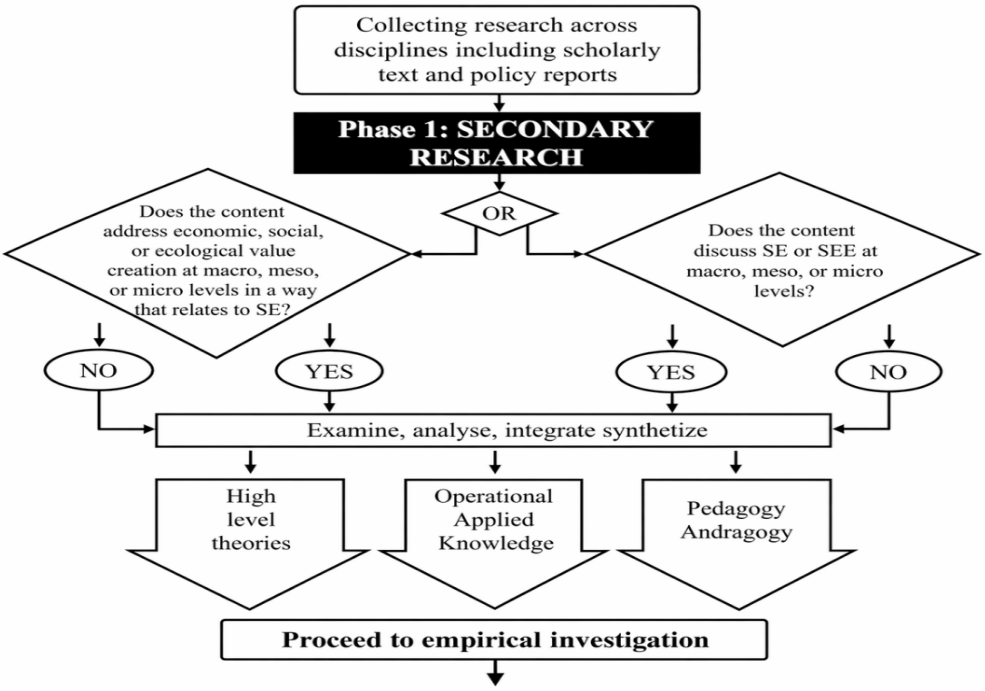


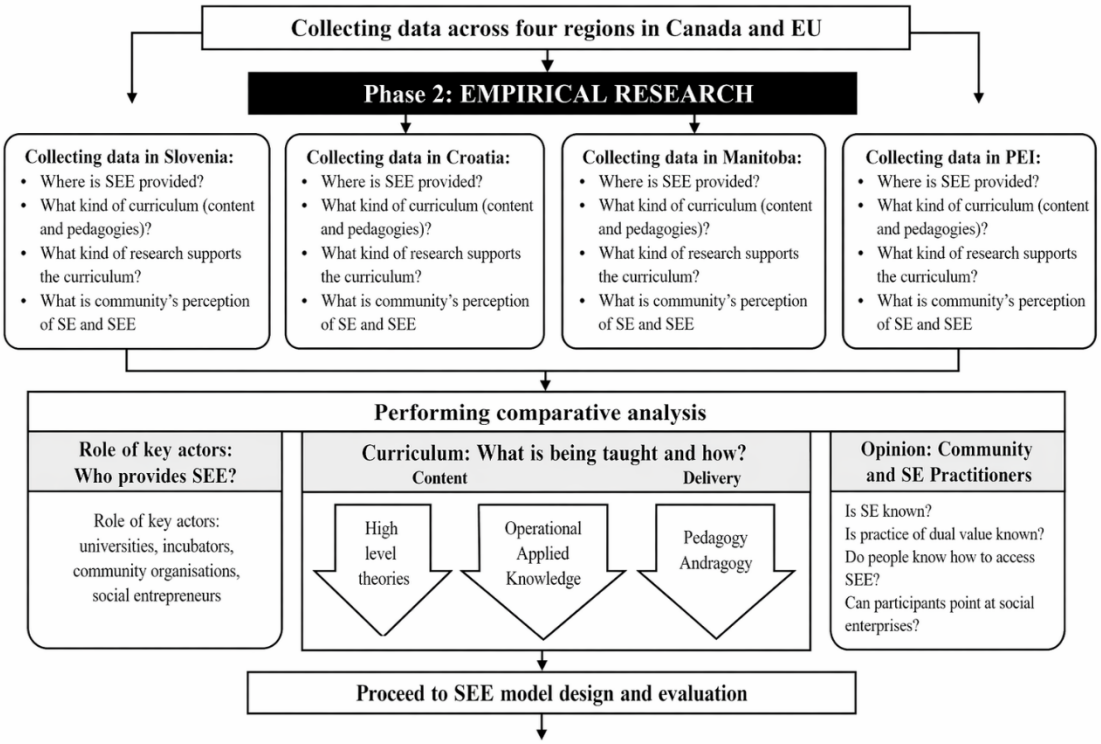
Figure 2.2.1.1 illustrates the systematic collection and analysis of scholarly and policy literature across disciplines. Relevant contributions were evaluated against two criteria, including relevance to dual value creation and applicability to SE and SEE practice. Literature meeting these criteria was reviewed, analysed, and synthesised into two knowledge categories, namely high-level theories and operational applied knowledge. Additionally, sources addressing pedagogical approaches for SEE and EE, as well as strategies appropriate for interdisciplinary and global education, were identified to complement this content in designing a novel SEE approach. The insights from Phase 1 collectively informed the empirical investigation in Phase 2.

2.2.1.2 Phase 2: Regional Education

The integrated interdisciplinary knowledge base structured through Phase 1 provided the theoretical and operational foundation for examining how SEE is designed and delivered in practice. Phase 2 shifted from secondary research to empirical investigation, examining regional SEE ecosystems to determine the extent to which knowledge taught in educational practice aligns with insights emerging from global research.

Phase 2 collected insights from regional SEE practice through comparative case study analysis of SEE ecosystems in Slovenia, Croatia, Manitoba, and Prince Edward Island (Bartlett & Vavrus, 2017; Creswell & Poth, 2018). Figure 2.2.1.2 outlines the investigation design of a second phase.

Figure 2.2.1.2: Second Phase of the Research Process



The diagram illustrates the empirical investigation design across four regional SEE ecosystems in Canada and the European Union. Regional selection was guided by criteria ensuring both variability and comparability, consistent with theoretical sampling approaches that maximise variation while preserving analytical coherence across cases (Eisenhardt, 1989; Yin, 2018). All four regions are embedded within federal or supranational governance structures, Manitoba and Prince Edward Island as Canadian provinces, Slovenia and Croatia as European Union member states, enabling comparison across contexts that share comparable socioeconomic conditions, including universal healthcare systems and subsidised post-secondary education, while maintaining distinct institutional arrangements (Baturina & Babić, 2021; Pauley, 2021).

Despite these structural similarities, the four regions demonstrate substantial variation in SEE approaches, providing opportunities to identify transferable patterns across diverse implementation models. Slovenia's SE practice operates within highly regulated policy frameworks closely aligned with EU directives (Rakar & Uršič, 2025), while Croatia maintains greater flexibility within policy guidelines, fostering diverse SEE curricula spanning disciplines from social work and business to tourism, law, and culinary arts (Vidović & Baturina, 2021). Manitoba's SEE approaches draw extensively on Indigenous spirituality and community-based knowledge systems (Henderson, 2018; Picton & Skinner, 2015), whereas Prince Edward Island emphasises community-driven SEE rooted in local solidarity economies (Pauley, 2021).

Regional selection also reflected the researcher's positionality as a long-term resident and active participant in SE and SEE communities across all four contexts, providing insider understanding of ecosystem development dynamics, access to established networks, and linguistic

competence necessary for systematic investigation (Brkic, 2017; Brkic, 2019) The analysis compared key actors providing SEE in each region, regional literature and research output, curricular design, knowledge content, and perspectives on SE and SEE articulated by local community members. This phase focused on identifying differences and similarities among educational approaches, with the overarching aim of gathering effective practices and assessing the viability of each approach for global implementation.

Data collection in each region examined five dimensions: SEE provision structures, curricular content and pedagogical approaches, supporting research, and community perceptions of SE and SEE. The insights collected across the four regions were examined in relation to their emphasis on dual value creation, and the content taught was analyzed using the two-tier typology structuring knowledge into high-level theories and operational applied knowledge.

The content taught across SEE ecosystems was then compared with the knowledge base that emerged from global research to evaluate the level of alignment and propose possible content enrichment or reduction that could contribute to the global applicability of the SEE model resulting from this research.

The comparative analysis evaluated empirical evidence from three dimensions including institutional actors delivering SEE, curricular content and pedagogical structures, and community stakeholders. Examining interactions among these dimensions revealed distinct regional configurations of SEE. The resulting patterns across high-level theories and operational knowledge were compared with Phase 1 insights, directly informing the design of the proposed SEE model and evaluative criteria implemented in Phase 3.

2.2.1.3 Phase 3: Evaluation and Model

Phase 3 involved testing the SEE framework and content that emerged from Phases 1 and 2 through implementation of Global Social Innovation Labs (GSILs) with learners across Europe, Asia, Africa, North America, and South America. The knowledge gathered in the first two phases was shared with learners from diverse disciplines and contexts, including participants from missing entrepreneur (ME) demographics (OECD, 2021; Tam et al., 2024).

The researcher observed learner reactions to the presented material, collected participant input, assessed the viability of pedagogical approaches, and refined the SEE model through five consecutive GSIL implementations conducted between 2021 and 2026. Each iteration integrated insights from previous implementations, creating an iterative feedback loop in which learner experiences directly informed successive refinements to both content organisation and pedagogical delivery (Brkic & Shah, 2022). This research design depicted in Figure 2.2.1.3 enabled systematic evaluation of the SEE framework's cross-cultural applicability and pedagogical effectiveness while generating empirical evidence regarding learner engagement, comprehension, and capacity to apply dual value creation concepts in diverse regional contexts.

Figure 2.2.1.3: SEE Module Design in GSIL Format and Testing

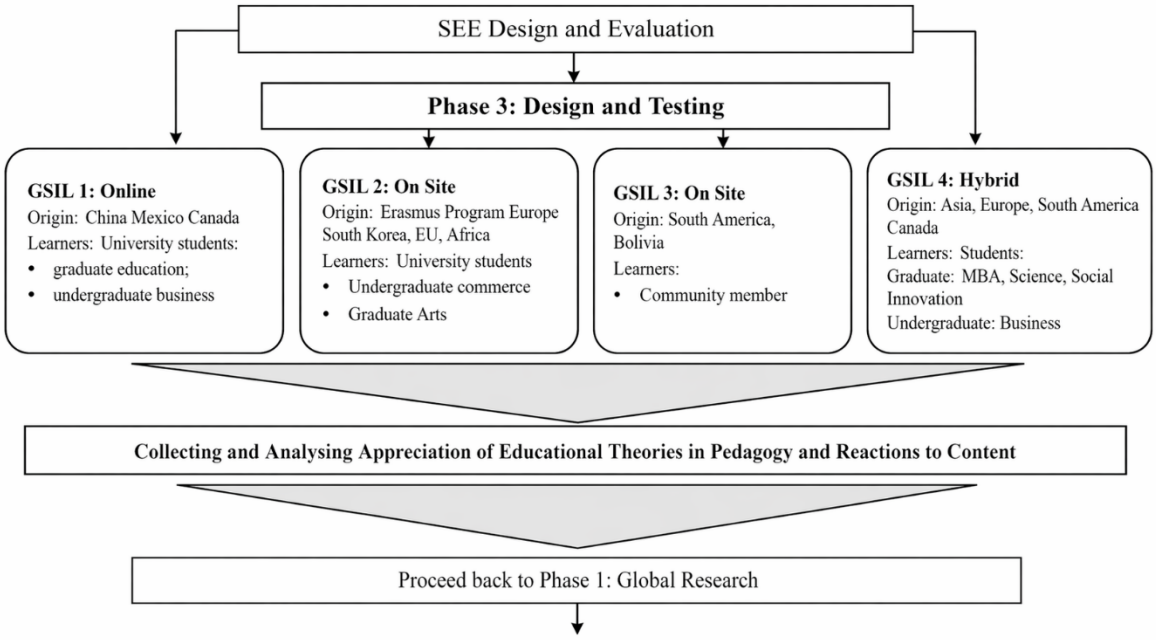


Figure 2.2.1.3 illustrates the iterative design and testing of the SEE framework through four Global Social Innovation Lab (GSIL) implementations conducted between 2021 and 2025. Each GSIL iteration engaged learners from diverse geographical origins, disciplinary backgrounds, and educational levels, ranging from undergraduate business students to graduate programs in commerce, arts, science, and social innovation, as well as community practitioners. Data collection focused on learner appreciation of pedagogical approaches and reactions to content, with insights from each iteration informing refinements to the framework. The feedback loop connected Phase 3 findings back to Phase 1, enabling continuous integration of empirical learner experiences into the evolving knowledge base supporting globally applicable SEE. Having established the investigation phases, the next sections introduce research paradigm, ontological and epistemological foundations of the research.

2.3 Research Paradigm

The three-phase research design outlined in Section 2.2 rests on explicit philosophical foundations that inform both the investigation's structure and the resulting SEE framework. The doctoral research operates within a post-positivist paradigm suited for research integrating theoretical, policy, and practice-based insights across disciplines. Post-positivism maintains that reality exists independently of human perception while recognising that knowledge claims remain fallible and require validation through multiple methodological approaches (Guba & Lincoln, 1994). The fallibility commitment is essential to this investigation because post-positivism holds that all knowledge claims, including those embedded within established disciplinary traditions, remain subject to revision through critical scrutiny (Popper, 1959). This paradigm recognises that systemic coherence across research, policy, education, and practice domains cannot be achieved

through linear synthesis alone but through dynamic pattern recognition consistent with complexity science (Holland, 1995).

The paradigm supports stratified investigation in which universal structural constraints, referred to in this thesis as systemic conditions, are distinguished from contextually variable institutional arrangements, referred to as socioeconomic variables, requiring different validation approaches while maintaining a unified analytical framework (Creswell & Poth, 2018). Post-positivism's commitment to methodological pluralism and triangulation enables rigorous investigation of both objective biophysical constraints and socially constructed institutional diversity without collapsing epistemological distinctions between these domains.

The complexity of developing a globally relevant SEE model requires methodological pluralism and flexibility while maintaining analytic rigour appropriate to each research phase, as demonstrated by Tracy (2020) in qualitative research design. The ontological position, epistemological commitments, and pragmatic orientation through which the thesis operationalises this paradigmatic foundation are elaborated in the sections that follow.

2.3.1 Ontological Position

The thesis adopts an open systems ontology in which human activity occurs within a nested hierarchy of open systems governed by systemic conditions that determine the viability of the entire hierarchy, including the social enterprise. This ontological position is justified by the nature of the phenomena the investigation addresses. Goldstein et al. (2010) conceptualise SE as a complex phenomenon emerging from interactions across complex open systems within which social enterprises operate, thereby providing theoretical support for this ontological framing.

Global challenges including climate disruption, biodiversity collapse, and widening inequality arise from cross-system interactions across planetary, ecological, social, and economic domains (Rockström et al., 2009; Steffen et al., 2015; Richardson et al., 2023). These challenges are complex, affect the entirety of humanity, and are not within the control of any single institution, discipline, or region (Meadows et al., 2004; UNDP, 2024; WEF, 2024). When subsystems generate outputs that exceed the absorptive capacity of containing systems, entropy accumulates across nested boundaries, destabilising the conditions upon which all embedded subsystems depend (von Bertalanffy, 1968; Prigogine & Stengers, 1984; Meadows, 2008). Understanding these challenges and the organisational responses available to social enterprises requires an ontological position capable of analysing cross-system interactions across the hierarchy of systems within which social enterprises operate.

Human society functions as an open, complex, and dynamic system embedded within and materially dependent upon planetary ecological systems (von Bertalanffy, 1968; Meadows, 2008). Within this nested structure, social enterprises constitute open dynamic subsystems that operate through continuous exchange of energy, matter, and information with broader social, economic, and ecological systems (Katz & Kahn, 1966; Holland, 1995; Dessureault, 2020). The interactions across nested hierarchy operate in both directions. The interdisciplinary integration presented in Chapter 4 draws on complexity science and systems theory to establish the configuration of systems pertinent to social entrepreneurship and to identify the systemic conditions that determine

the viability of social systems within that configuration. Systemic conditions constrain what enterprises need to do to remain viable, while enterprise level activity in turn affects the viability of the containing systems within which the enterprise is embedded. An enterprise that externalises social and ecological costs transfers entropy to containing systems, contributing to the destabilisation of the conditions on which its own operation depends. Conversely, an enterprise that integrates social and economic value within its operations reduces entropy export, contributing to systemic stability across the nested hierarchy.

This ontological foundation has been derived through interdisciplinary integration of insights from natural and social sciences including systems theory, complexity science, IPE, and SE scholarship originating from Asia, Europe Africa South and North America, and the full derivation is developed in Chapter 4. The analysis distinguishes systemic conditions, representing structural constraints derived from the properties of nested open systems that govern all human activity regardless of institutional configuration, from socioeconomic variables, representing human-designed institutional arrangements subject to deliberate modification, cultural variation, and adaptive reconfiguration (North, 1990; Hall & Soskice, 2001; Kerlin, 2013). This distinction between globally shared systemic conditions and regionally variable socioeconomic factors enables the research to separate the structural causes of global problems and the emergence of SE as a response from the elements subject to human modification. Distinguishing between systemic conditions not subject to human design and variable socioeconomic factors that can be modified enables the identification of which knowledge related to dual value creation transfers across contexts, and which remains context sensitive.

The system configuration pertinent to SE and the systemic conditions are not assumed as starting premises but are derived in Chapter 4 through a causal chain integrating insights across 11 disciplines. The interdisciplinary integration presented in Chapter 4 demonstrates that SE emerges from the structural properties of the systems within which human activity occurs, rather than from normative preferences or policy aspirations.

The first systemic condition encompasses planetary boundaries, which Rockström et al. (2009) identify as the biophysical thresholds defining Earth's safe operating space for humanity. The second systemic condition comprises the dual value imperative, representing the requirement that viable human systems simultaneously generate both social and economic value. This imperative reflects an observable structural characteristic of nested open systems rather than a normative ethical position derived from philosophical traditions. The interdisciplinary integration in Chapter 4 establishes the dual value imperative through systems theory and complexity science (von Bertalanffy, 1968; Prigogine & Stengers, 1984; Georgescu-Roegen, 1971; Meadows, 2008). Economic activity that generates throughput without maintaining social coordination functions, or social distribution that occurs without sustainable resource generation, produces systemic imbalances that exceed the regulatory capacity of the planetary and social systems within which enterprises are embedded (Meadows, 2008; Daly, 1996). The simultaneous generation of both value dimensions therefore represents a mechanism required to prevent entropy accumulation rather than an ethical preference regarding enterprise objectives.

The thesis employs thermodynamic reasoning as an explanatory principle establishing the directionality of systemic degradation within nested open systems rather than as a framework for quantifying entropy in social systems. Rather than deriving precise predictions from thermodynamic equations, the argument depends on the structural logic of cross-boundary exchange and the directionality of degradation, consistent with how Georgescu-Roegen (1971), Prigogine and Stengers (1984), Daly (1996), and Schneider and Kay (1994) employ thermodynamic principles in economic and ecological analysis, establishing biophysical constraints on long-run viability.

Systems that appear to violate the dual value imperative while persisting over limited time horizons do so by externalising costs to broader planetary or social systems, accumulating entropic effects that eventually trigger destabilisation (Raworth, 2017; Steffen et al., 2015; Rockström et al., 2009). Viability in the systems-theoretic sense therefore refers to sustained functioning within planetary boundaries and social foundations rather than to temporary organisational persistence achieved through externalisation.

Socioeconomic variables, in contrast to systemic conditions, represent the domain where solutions to global challenges can be designed and implemented. These variables encompass governance structures, legal frameworks, organisational forms, financing mechanisms, cultural logics, and innovation paradigms through which societies organise collective action (North, 1990; Hall & Soskice, 2001; Defourny & Nyssens, 2017). Institutional innovation through socioeconomic variables remains bounded by the systemic conditions identified above, and the social and economic architectures that societies design constitute responses to systemic requirements rather than determinants of them.

The distinction between systemic conditions and socioeconomic variables carries direct implications for how social enterprises are understood and how they are classified. Chapter 4 derives two architecturally distinct pathways through which enterprises can align with systemic conditions. The integration pathway produces dual value within the enterprise itself, such that the revenue-generating activity and the impact-delivering activity are one and the same. Under the coordination pathway, responsibility is distributed across separately optimised activities, relying on governance and organisational mechanisms to align aggregate outcomes. Both pathways constitute legitimate responses to systemic conditions, though they carry different structural implications for enterprise design and sustainability, as Chapter 4 establishes. Integration and coordination represent the logical boundary limits of a spectrum along which enterprise-level responses to the dual value imperative can be situated.

This ontological position directly informs the design of SEE by clarifying the relationship between systemic imperatives and organisational practices that depend on socioeconomic institutional structures varying across regions. By distinguishing systemic conditions that shape dual value creation across contexts from socioeconomic arrangements that vary regionally, the research framework guides the selection and analysis of scholarship and empirical material. Literature and cases are examined not according to their conformity with particular governance

models or policy regimes but in relation to shared systemic constraints and the ways in which dual value creation is implemented within different contexts.

The ontological lens enabled the identification of scholarship from traditions not typically foregrounded in dominant SE research, including cultural philosophies such as Ubuntu, Buen Vivir, and Daoist thought that reflect comparable assumptions regarding the systemic conditions identified in the framework (van Norren, 2020; Fashina, 2025; Yang, 2026). This lens also guided the expansion of sources beyond dominant SE literature, facilitating the inclusion of scholarship from Asia, Africa, and South America where systems-informed and complexity-informed logics underpin entrepreneurial practice even when different terminology is employed (Trivedi & Misra, 2015; Dompere, 2017; Wang et al., 2025). Across these traditions, the analysis indicated a common starting point within scholarship that explains why dual value creation emerges in entrepreneurial practice irrespective of historically and regionally variable socioeconomic structures.

The open-systems ontological position therefore establishes the foundational categories that structure the investigation including systems configuration and systemic conditions as universal constraints, socioeconomic variables as context-dependent responses, and social enterprise as an open subsystem whose viability depends on alignment with the conditions governing the nested hierarchy within which it operates. In the absence of a universally adopted interdisciplinary theory of SE or SEE, the thesis advances a theoretical framework by integrating insights from systems theory, complexity science, and andragogy to support SEE design, as introduced in Section 2.5 and elaborated in Chapter 4.

2.3.2 Epistemological Position

The ontological distinction between systemic conditions and socioeconomic variables establishes what must be known about dual value creation. This section addresses how this doctoral research generates, validates, and structures knowledge claims about SE and SEE. Two epistemological commitments govern the research: epistemological pluralism, which determines how knowledge claims are validated across levels of analysis, and pragmatism, which determines what the knowledge is for (Morgan, 2014).

The open-systems ontology requires a stratified epistemological approach because knowledge operates differently at different levels of the nested hierarchy. Knowledge claims regarding systemic conditions are validated through correspondence with observable dynamics of nested open systems (von Bertalanffy, 1968; Holland, 1995; Meadows, 2008). Knowledge regarding socioeconomic variables, including governance structures, legal frameworks, financing mechanisms, and institutional architectures, is recognised as shaped by cultural and historical context and cannot be generated through any single disciplinary or regional framework (Hall & Soskice, 2001; Kerlin, 2013; North, 1990). The universality of systemic constraints combined with the contextual variability of institutional arrangements necessitates epistemological pluralism bounded by non-negotiable systemic parameters.

Epistemological pluralism in this research follows from the differentiation between levels of analysis rather than from epistemic relativism (Guba & Lincoln, 1994). Systemic conditions, derived from open-systems analysis, are treated as structural constraints operating across contexts.

Planetary boundaries and the dual value imperative function as analytical parameters that delimit viable configurations of socioeconomic activity and are examined as constraints on system viability, not as culturally variable interpretations (Meadows, 2008; Rockström et al., 2009). Pluralism arises at the level of theoretical explanation and institutional enactment, where distinct disciplinary traditions offer different accounts of value creation, institutional coordination, and organisational purpose (Saebi et al., 2019; Roundy et al., 2018), and where diverse regional architectures represent legitimate alternative implementation pathways. No single theoretical or regional framework exhaustively explains how dual value creation is operationalised within all institutional environments.

Multiple implementation pathways are therefore recognised as valid provided they maintain alignment with systemic conditions, while pathways that violate these constraints are excluded as non-viable regardless of regional institutional support. Integration across disciplines is achieved through the derivation of systemic conditions, where systems theory and complexity science are combined with social and natural sciences scholarship to establish dual value creation as a universal structural requirement and planetary boundaries define shared biophysical constraints (von Bertalanffy, 1968; Rockström et al., 2009). Plurality is maintained at levels where diverse disciplinary traditions and regional institutional architectures represent legitimate alternative implementation pathways that education cannot and should not attempt to unify (Kerlin, 2013; Hall & Soskice, 2001). This stratified position resolves the apparent tension between the research objective to advance coherent SEE and the preservation of theoretical plurality.

The pragmatic orientation governing the thesis complements epistemological pluralism by establishing the criterion against which all knowledge claims are ultimately evaluated. The thesis asks what needs to be known to create and sustain social enterprises that produce dual value across diverse institutional contexts. This question, rooted in Dewey's (1916) pragmatist epistemology, determines which knowledge to collect, which to integrate, and which to structure for educational purposes. Knowledge is relevant insofar as it serves the purpose of empowering learners to design and sustain dual-value enterprises within the conditions the ontology identifies. Theoretical elegance and disciplinary coherence are not rejected, but they are subordinated to the criterion of whether the resulting knowledge enables effective SE practice (Dewey, 1916; Garrison, 1994).

This pragmatic orientation carries a direct consequence for how the thesis treats theoretical fragmentation in SE scholarship. Competing theoretical traditions have produced divergent legal structures, contradictory policy frameworks, and regionally incompatible financing mechanisms that constitute the operational reality within which social enterprises must be created and sustained (Defourny & Nyssens, 2017; Kerlin, 2013). Rather than awaiting theoretical consensus that would precede institutional convergence, the thesis acknowledges this fragmentation as the condition learners will encounter and structures knowledge to equip them to navigate it (Dewey, 1916; Schön, 1983). As Schön's (1983) concept of reflective practice establishes, professional competence emerges through the capacity for adaptive response to complex and uncertain conditions rather than through the application of unified theory to predictable contexts. Pragmatism therefore requires that SEE provide learners with honest structural understanding of

the conditions they will encounter, including realistic assessment of institutional barriers, coordination costs, and the limits of available support across socioeconomic contexts.

From this epistemological position, knowledge generation in the research proceeds through systematic integration that preserves disciplinary contributions while distinguishing systemic conditions from socioeconomic variables. The research question can therefore be understood as: how can plural disciplinary knowledge be systematically integrated and structured to generate coherent understanding adequate for informing SE practice and the educational frameworks that support it?

Consistent with this epistemological position, knowledge about phenomena that emerge from practice is strengthened when it remains grounded in and responsive to the practice it aims to explain. This research therefore carries an axiological responsibility to remain accountable to practice and to generate knowledge that advances both theory and practice (Van de Ven, 2007)

2.3.2.1 Knowledge Validation Criteria

This research validates knowledge claims through criteria appropriate for complex phenomena rather than criteria designed for stable, bounded systems. Literature selection required explicit criteria given the breadth of potentially relevant scholarship. Theories presented in relevant literature were included based on whether they explain how social, economic, or environmental value is created, thereby addressing the value dimensions included in the SE redefinition established in Chapter 1. Literature examining value creation at the macro global level, meso societal level, and micro enterprise level was analysed across disciplines to support a coherent multilevel understanding of SE practice.

Knowledge was assessed in terms of its explanatory relevance to dual value creation within nested open systems, rather than its point of origin. Insights derived from scholarly traditions, cultural philosophies, Indigenous and communal practices, and practitioner experience are assessed against the same criteria, recognising that knowledge about cross-system interactions may emerge from any tradition that engages with the structural conditions the ontology identifies. Where competing claims from different traditions explain the same phenomenon differently, the ontological position established in Section 2.3.1 provided the boundary for evaluation. Claims that maintained alignment with the open systems ontology and the structural constraints it identifies were recognised as legitimate alternative accounts, while claims that violated those constraints were excluded as nonviable regardless of their disciplinary or cultural provenance. For instance, the same nested hierarchy of open systems encompassing society, ecology, and the planet is identified in Buen Vivir philosophy (Acosta, 2013) and in Raworth's (2017) work in ecological economics. This recognition of nested hierarchy is also reflected in practice, where Ubuntu-oriented entrepreneurs, as documented by Garnier (2025), design enterprises that generate dual value, a phenomenon further described in the research of Wang (2025).

Within the scope of the research, knowledge claims demonstrated adequacy through the capacity to recognise systemic patterns operating across contexts. Adequacy was further demonstrated through identifying domain variation in descriptions of dual value creation mechanisms aligned with the boundary conditions implied by open system dynamics. Rather than

asserting unlimited generalisability or applying overly narrow criteria, knowledge was validated by demonstrating cross-regional transferability through adaptation rather than mechanical replication (Repko & Szostak, 2025; Ostrom, 2009).

The proposed criteria were operationalised throughout the research process. For example, the capacity to recognise systemic patterns operating across contexts informed the distinction between systems theory, which identifies structural conditions associated with dual value creation across nested open systems, and institutional theory, which explains regionally specific governance arrangements and organisational configurations. The requirement to demonstrate cross-regional transferability through adaptation rather than mechanical replication shaped the decision to examine the educational framework across different regions rather than optimising it for a single cultural or institutional context.

The empirical investigation of SE and social enterprises lies beyond the scope of this thesis, whose object is SEE rather than SE. The thesis is concerned with the knowledge that practitioners of SE require to operate with the implications of that knowledge requirement for the design of SEE. Thus, empirical evidence concerning SE is drawn from scholarship and it enters the argument in support of analytical and theoretical claims about the nature of the practice for which education is being designed. Where evidence from SE practice is invoked, it is drawn exclusively from peer reviewed sources whose authors have independently validated the entities under study as enterprises creating dual value aligned with redefinition and on the basis of documented evidence of both social and economic value generation within the same organisational unit. Entities that produce social value alone, including those theorised within the broader categories of social innovation, social economy or third sector organisations are excluded from the empirical base supporting the argument. This inclusion criterion is applied consistently across all empirical references cited and is intended to ensure that the empirical corroboration drawn upon is congruent with the theoretical object of the thesis, namely the practice of SE as dual value creation.

2.3.2.2 Interdisciplinary Research Process and Knowledge Integration

Repko and Szostak's (2025) Interdisciplinary Research Process (IRP) provided the primary framework guiding systematic integration of knowledge across disciplinary boundaries while maintaining epistemic rigour. SEE and SE represent the kind of complex phenomena the IRP was developed to address, since both phenomena involve multiple interacting causes distributed across disciplinary domains, where no single disciplinary perspective is capable of generating a sufficiently comprehensive explanation of the phenomena. The IRP operationalises the epistemological position adopted in this dissertation by establishing structured procedures for interdisciplinary inquiry and for evaluation of disciplinary contributions and limitations. The framework provides sequential guidelines for identifying relevant disciplinary insights, evaluating conflicts and complementarities among perspectives, establishing common ground where disciplinary assumptions diverge, and integrating insights into a more comprehensive understanding of the phenomenon under investigation (Repko & Szostak, 2025).

This dissertation applies the IRP across all 10 stages of the IRP process. Chapter 1 defines the research problem and research question. Chapter 3 justifies the interdisciplinary approach,

identifies the relevant disciplines, develops disciplinary adequacy, and undertakes a systematic literature review to determine which disciplinary traditions provide the most relevant and defensible explanations of the problem. Chapter 4 and Chapter 5 analyse disciplinary insights and assumptions, identify contradictions and complementarities among disciplinary explanations, establish common ground through integration of natural and social scientific perspectives, and construct a more comprehensive explanation of SE and SEE than individual disciplinary perspectives can provide independently. Chapters 6, 7, and 8 complete the IRP process through empirical evaluation and critical reflection, complemented by Articles 2, 3, and 4 as part of research dissemination.

Integration of disciplinary insights was conducted throughout Chapter 1, Chapter 4 and Chapter 5 through the four common ground strategies identified by Repko and Szostak (2025) within the IRP framework including redefinition, extension, organisation, and transformation. Redefinition modifies or redefines concepts in different texts and contexts to bring out a common meaning, addressing tensions at the linguistic level. Extension addresses differences or oppositions in disciplinary concepts and assumptions by extending their meaning beyond the domain of the discipline that originated them into the domains of other relevant disciplines.

Organisation maps systems of causal relationships linking a set of phenomena, identifying latent commonalities across concepts and arranging them to bring out the relationships between them. Transformation reorganises opposing concepts, assumptions, or explanations into a more comprehensive explanatory structure by identifying continua through which apparent opposites become interpretable as positions on a continuous variable. The integration strategies were applied recursively throughout the thesis, with each stage of integration establishing the analytical conditions necessary for subsequent levels of interdisciplinary integration.

Redefinition was applied in Chapter 1 through systematic comparison of 15 SE definitions drawn from disciplinary and regional traditions. The comparison identified dual value creation as the only invariant characteristic recurring across all definitions. The principal contradiction emerged from regionally and historically specific interpretations of SE grounded in different organisational forms, governance arrangements, financing systems, and institutional traditions. Redefinition established common ground by isolating dual value creation as the shared mechanism underlying otherwise divergent manifestations of SE. Governance arrangements, financing systems, organisational forms, and other socioeconomic factors were therefore repositioned as context-specific socioeconomic variables rather than as defining characteristics of the phenomenon itself. The identification of dual value creation as the shared characteristic across otherwise fragmented SE definitions provided the analytical conditions necessary for subsequent interdisciplinary integration by enabling practices emerging across different regional, institutional, and historical contexts to become interpretable through a shared analytical lens.

Extension was applied concurrently through expansion of the concept of social value to include ecological value on the basis that ecological viability is necessary for sustaining human life. The initial contradiction emerged from fragmented and opposing perspectives treating economic, social, and ecological value creation as analytically separate or competing domains

within SE practice. Extension established common ground by recognising economic, social, and ecological value creation as interconnected dimensions of the same value generation process in SE practice. The application of extension enlarged the analytical boundary of the dissertation beyond social systems in isolation and established the analytical conditions necessary for integrating pertinent insights across natural and social sciences within a shared analytical framework.

Transformation as an IRP integration strategy was subsequently applied in Chapter 4 and Chapter 5 to generate five interconnected theoretical contributions, including the conceptualisation of the environment of social enterprise and systemic conditions governing cross-system interactions within the nested hierarchy of open systems spanning individual, enterprise, societal, global, ecological, and planetary levels. The theoretical proposition positioning SE as a structurally necessary organisational response to systemic conditions and the typology of social enterprises emerged through further integration of insights from systems theory, complexity science, SEE relevant disciplines, cultural philosophies, and pertinent natural and social sciences. The application of transformation as an IRP strategy for integration bridged opposing perspectives regarding the environment of social enterprise, tensions between social and economic values, and explanations for the cross-regional and historical emergence of dual value creating practice. Following Repko and Szostak's (2025) explanation that transformation may reposition apparent opposites along continua, transformation within this dissertation reorganised previously fragmented or opposing perspectives into continua operating across scales, institutional arrangements, and knowledge traditions. Social and economic value creation, social enterprise typologies, and competing political economy perspectives therefore became interpretable as differentiated yet related responses operating within the same systems configuration and systemic conditions governing cross-systems interactions across micro enterprise, meso societal, and macro levels.

Drawing on knowledge transformed into a shared interpretation of SE practice and dual value creation across regional contexts, organisation as an IRP strategy for integration was applied in Chapter 4 and Chapter 5 to construct the multilevel SEE knowledge architecture and complementary instructional approach. The principal contradiction addressed during this stage emerged between fragmented disciplinary, regional, and practice-based approaches that appeared incompatible across micro, meso, and macro levels or overly dependent on regional context. Repko and Szostak (2025) describe organisation as identifying systems of causal relationships and recognising that different disciplines and knowledge traditions emphasise different causal relationships within the same broader concept. Organisation established common ground by identifying systems of causal relationships linking the nested systems configuration in which social enterprises operate, the systemic conditions governing interactions across systems, and the recurring cross-regional and historical emergence of SE practice.

Different disciplinary and knowledge traditions explained dual value creation and SE emergence through different causal relationships, including entrepreneur characteristics, financing mechanisms, organisational structures, governance arrangements, institutional systems, and cultural traditions. The organisation process demonstrated that these explanations, while

analytically valuable, do not sufficiently explain the recurring emergence of SE practice when treated independently from the broader nested systems configuration and systemic conditions established through transformation. The IRP strategy mapped three theoretical clusters and six applied knowledge domains in relation to the theoretical proposition as the macro-level analytical foundation, while distinguishing globally applicable knowledge from context-specific socioeconomic variation. The differentiation of knowledge applicability into globally pertinent and context-specific dimensions emerged through distinction between globally transferable knowledge focused on dual value creation mechanisms across levels and context-specific socioeconomic variation shaping regional implementation. Additionally, organisation was applied to integrate SEE content and instructional approach through application of Dewey's pragmatism (1916, 1938), Knowles' andragogical principles (1984), and Shulman's pedagogical content knowledge (1986) to propose an instructional approach complementary to the SEE knowledge architecture. The application of organisation as an IRP strategy for integration identified complementary pedagogical relationships across educational traditions and structured them into a cohesive instructional framework suitable for teaching SEE content describing SE as an entrepreneurial tradition emerging from professional and community practice across regions and contexts.

The application of IRP integration strategies across the 10 stages of interdisciplinary investigation enabled identification of convergent disciplinary and cultural perspectives transcending regional contexts while simultaneously remaining context sensitive. The resulting SEE knowledge architecture therefore integrates pedagogy with globally applicable theoretical and applied knowledge while retaining sensitivity to context-specific socioeconomic variation.

2.3.2.3 Transdisciplinary Knowledge Component

This research extended beyond interdisciplinary integration of academic literature to incorporate practitioner generated knowledge as legitimate epistemic source. SE practice generates essential operational knowledge that remains largely absent from scholarly literature (Defourny & Nyssens, 2017; Barki et al., 2023). Practitioner knowledge encompasses tacit understanding of operational dynamics, contextual adaptation strategies, stakeholder relationship management, and entrepreneurial judgement under uncertainty (Kucher & Raible, 2022). Transdisciplinary research recognises that addressing complex real-world problems requires integrating insights across academic disciplines with knowledge generated through practice (Gibbons et al., 1994; Nowotny et al., 2013).

The researcher's experience as SE educator, social enterprise operator, and policy consultant provided direct access to practitioner generated knowledge that informed identification of practice relevant insights and operational knowledge gaps within academic literature. This experiential knowledge functioned as epistemic resource rather than anecdotal illustration, validated through systematic documentation, triangulation with scholarly sources, and empirical testing across four Global Social Innovation Lab implementations detailed in subsequent chapters.

The resulting investigative pathway exemplifies Mode 2 knowledge production, in which complex real-world problems are addressed through transdisciplinary collaboration between

research and practice domains, as elaborated by Gibbons et al. (1994) and Nowotny et al. (2013). The theoretical framework distinguishing systemic conditions from socioeconomic variables emerged not only from interdisciplinary scholarship presented in this thesis but also from sustained collaboration with universities, incubators and communities engaged in SEE across India and China in Asia, France, Italy, Austria, Slovenia and Croatia in Europe, and Canada, Mexico and Bolivia in North and South America.

Working with multi-regional learner cohorts revealed that discussions often shift to normative comparison of socioeconomic systems rather than focusing on shared planetary challenges. Establishing systemic conditions as a common knowledge foundation is intended to enable learners to recognise that diverse regional approaches represent alternative pathways toward common systemic objectives of economic, ecological and social sustainability, rather than competing claims about social, economic or political arrangements. This practitioner generated insight was subsequently formalised through interdisciplinary theoretical development and empirically evaluated through iterative testing across diverse educational contexts.

Therefore, this research integrates two primary approaches to knowledge generation. Interdisciplinary integration through IRP structures plural theoretical perspectives into coherent frameworks while incorporating transdisciplinary practitioner expertise as epistemic resource. Validation criteria appropriate for complex phenomena ensure knowledge claims demonstrate adequacy for informing educational practice across diverse contexts (Nowotny et al., 2013). Together, these approaches enabled the research to generate knowledge adequate for addressing the central research question: what kinds of education, and skills are needed to successfully launch and sustain social enterprises across diverse regional and institutional contexts?

2.4 Methodology

The investigation employed three distinct methodological approaches corresponding to the three sequential research phases. Each phase adopted methodology appropriate to its specific research question, objectives, and empirical context. The methodological design reflects the necessity of matching research approach to the nature of knowledge being generated, moving from interdisciplinary synthesis through comparative empirical analysis to iterative testing and refinement.

2.4.1 Phase 1 Methodology: The Interdisciplinary Research Process

Phase 1 adopted Repko and Szostak's (2025) Interdisciplinary Research Process as its overarching approach, operationalised through Systematic Literature Review as the primary research method. This approach enabled systematic collection, analysis and synthesis of fragmented knowledge across disciplines addressing dual value creation, SE, and SEE.

The IRP approach provided structured procedures for identifying relevant disciplines, conducting literature reviews, analysing disciplinary contributions and limitations, evaluating conflicts and complementarities among perspectives, and synthesising integrated understanding (Repko & Szostak, 2025). The methodology was selected to support theoretical plurality, consistent with the epistemological pluralism, while creating navigable frameworks, recognising

that disciplines generate valid but incomplete insights requiring integration rather than elimination of diversity.

The Systematic Literature Review method, following Snyder (2019), enabled collection, analysis, and synthesis of peer reviewed academic literature alongside policy reports from international organisations including the World Economic Forum, Organisation for Economic Co-operation and Development, and United Nations agencies. Texts were selected based on pertinence to dual value creation with emphasis on identifying both theoretical contributions and practice-oriented insights. Critical literature analysis was performed within each discipline and across disciplines, followed by integration and synthesis of knowledge organised according to theoretical frameworks and operational insights (Mayring, 2019).

The methodological approach produced a structured knowledge base, distinguishing theoretical frameworks that explain system-level dynamics from operational approaches that require contextual specification across disciplines.

2.4.2 Phase 2 Methodology: Comparative Case-Study Analysis

Phase 2 employed a comparative case study approach grounded in qualitative research traditions (Yin, 2018; Stake, 2006) to investigate regional SEE ecosystems in Canada and the European Union. This phase examined program design, content, pedagogical approaches, and mechanisms of knowledge transfer within real-world educational contexts. Methods of data collection included on-site structured observations with community and social entrepreneur participants, document and curriculum analyses, regional literature reviews, and key informant interviews with educators, policymakers, and ecosystem stakeholders. Triangulation of data ensured contextual validity and reliability of interpretations (Creswell & Poth, 2018).

The comparative case study approach facilitated identification of patterns transcending local contexts alongside recognition of contextual variations requiring adaptation. Regional selection reflected comparable socioeconomic conditions enabling meaningful comparison while demonstrating substantial variation in SEE implementation models. The methodology operationalised the ontological distinction between systemic conditions operating universally and socioeconomic variables subject to regional specification.

Multiple research methods supported data collection in each regional context. Document and curriculum analyses examined program structures, content organisation, and learning outcomes. Regional literature reviews identified locally generated research informing educational practice. Informative interviews with educators, policymakers, and ecosystem stakeholders elicited perspectives on program design and effectiveness. On site observations with community members and social entrepreneurs provided direct evidence of redefinition viability and impact of research fragmentation on education. Triangulation across these methods ensured contextual validity and reliability of interpretations (Creswell & Poth, 2018). The comparative analysis revealed alignment and divergence between knowledge taught in educational practice and insights emerging from global research synthesis completed in Phase 1.

2.4.3 Phase 3 Methodology: A Single-Case Study with Iterative Testing

Phase 3 utilised a qualitative research methodology and a single case study method to test and evaluate the proposed SEE framework through five consecutive Global Social Innovation Lab (GSIL) implementations involving learners from universities across natural and social sciences, as well as community members and social entrepreneurs. The Phase 3 research design operationalises the pluralist epistemological orientation guiding the overall research and is complemented by a pragmatist epistemological orientation that treats knowledge claims as provisional insights refined through successive cycles of implementation, observation, and reflection in real-world practice (Dewey, 1916; Denzin, 1978; Creswell & Poth, 2018).

This phase builds on the initial GSIL implementation presented in Article 4, included in this thesis. Article 4 was authored under an education disciplinary case study methodology by the lead author together with three graduate education students. The post-article analysis presented in Section 7.5 applied SEE model constructed in Phases 1 and 2, across all five iterations of GSIL curricular design, providing continuity of case study approach while extending the analytical scope beyond a single SEE delivery.

Data were collected from participant reflections, facilitator journals, educator feedback, and feedback from social entrepreneur mentors involved in delivering the SEE model. A multimethod approach was employed to triangulate evidence across complementary perspectives (Denzin, 1978; Creswell & Poth, 2018), including structured researcher observations, semi-structured interviews with 12 learners across the five implementations (Kvale & Brinkmann, 2009), and structured written input from participating academics and SE practitioners.

Observational data, learner reflections, and educator and practitioner accounts were analysed through qualitative descriptive analysis preserving participants' language and categories (Sandelowski, 2000), with convergence across descriptive accounts and resource access patterns examined as methodological triangulation (Greene et al., 1989). Patterns identified within each implementation were compared across iterations through cross-case analysis enabling cumulative insights across cultural and disciplinary settings (Stake, 2006). The researcher adopted a practitioner-scholar position combining insider and outsider perspectives (Dwyer & Buckle, 2009), with reflexive journaling maintained throughout the research process to examine positionality and potential bias (Finlay, 2002; Lincoln & Guba, 1985). Feedback from each GSIL iteration informed further refinement of the SEE model design and guided expanded research to develop additional content and integrate findings from testing into an improved SEE approach. Table 2.4.3 outlines research phases, description, methodologies and methods adopted.

Table 2.4.3 Research Phases, Descriptions and Methodologies

Phase	Description	Methodologies and Methods
Phase 1: Global Research	Collect, analyse, integrate, and synthesise fragmented knowledge pertinent to SE, SEE, and dual value creation across disciplinary research and international policy sources to establish a coherent knowledge foundation for SEE.	Interdisciplinary Research Process (IRP) (Repko & Szostak, 2025) supported by a Systematic Literature Review (SLR) (Snyder, 2019). Critical literature analysis conducted within and across disciplines, interdisciplinary integration and synthesis
Phase 2: Regional Education	Examine SEE ecosystems and pedagogical practices in Canada and the European Union to identify contextual variations, delivery mechanisms, and effective pathways for knowledge transfer.	Comparative case study approach within qualitative research traditions (Yin, 2018; Stake, 2006). Methods included key informant interviews, document and curriculum analyses, and on-site structured observations, followed by comparative analysis of SEE program content, delivery, structure and pedagogies.
Phase 3: Evaluation and Model Testing	Test the recognition of the integrated SEE model with learners across cultures and disciplines through iterative GSIL implementations.	Single-case study approach (Yin, 2018; Merriam, 2018) employing iterative testing through five Global Social Innovation Labs (GSILs) across five continents under a Mitacs Accelerate Entrepreneur grant partnership. Multimethod evidence collection including researcher observation, semi-structured interviews, structured written input from academics and SE practitioners, and access logs Qualitative descriptive analysis.

Table 2.4.3 summarises the three phases of the research, describing the process undertaken in each phase and the methodologies and methods used. The methodological design is incorporated within the thesis' interdisciplinary architecture described in the following section. Combined, methodologies and methods applied across the three phases provided theoretical and empirical validation of the framework's relevance and its capacity to foster cross-cultural learning.

2.5 Theoretical Framework

The ontological position and epistemological commitments established in the preceding sections require a theoretical framework capable of connecting the structural analysis of social enterprise as an open, dynamic system and SE as a complex phenomenon to educational design. In the absence of a truly integrated interdisciplinary theory suitable for the global investigation of SE and SEE, the research conducted in this thesis required the development of a theoretical framework (Worsham, 2012; Zhu et al., 2016). The framework developed in this thesis integrates SE, education, and political economy with systems theory, complexity science, and pertinent social and natural sciences to propose a systems configuration that gives rise to SE and the viability conditions that govern social enterprises. Systems theory and complexity science informed SE research provide the foundation for interpreting SE and SEE scholarship and explain why dual

value creation emerges as a structural requirement within nested open systems. The full interdisciplinary integration of the framework is presented in Chapter 4. This section introduces its components and their relationships.

Drawing on systems theory informed SE scholarship (Goldstein et al., 2010; Dessureault, 2020), the interdisciplinary integration performed in Chapter 4 establishes social enterprise as an open system embedded within a nested hierarchy of complex, dynamic systems, including individuals, social enterprises, economic and social systems, the ecological system, and the planetary system. This configuration defines the structural environment within which SE operates. The integration further identifies two viability conditions governing cross-system interactions within this hierarchy, namely planetary boundaries and dual value creation. These systemic conditions apply universally across contexts and constrain the range of viable organisational responses. Building on this systems configuration, the thesis advances the theoretical proposition that SE emerges as a theoretically possible and structurally necessary organisational response to nonlinear feedback loops characterising cross-system interactions within the nested hierarchy, rather than as an isolated or context dependent phenomenon.

The theoretical framework developed in this thesis and applied in the design of a globally applicable SEE model complements this structural interpretation of SE with an instructional approach rooted in andragogy. The framework therefore consists of two interdependent domains, the theoretical proposition and the educational approach, through which this theoretical content becomes accessible to learners. Within this structure, three analytically distinct dimensions are specified. The nested hierarchy of open systems defines the environment within which social enterprises operate, while systemic conditions define the nonnegotiable constraints that govern the viability of all systems within that hierarchy. Socioeconomic variables such as governance, organisational forms and financing mechanisms, represent context-specific, institutionally constructed arrangements that operate within these constraints and remain subject to deliberate modification. The andragogical dimension integrates interdisciplinary education requirements, in formed by global education principles, interdisciplinary approaches and Dewey's pragmatism to specify how learners develop the capacity to distinguish between structurally given conditions and modifiable variables, and to act effectively across both.

By explicitly linking system configuration, viability conditions, and learning processes, the framework moves beyond descriptive accounts of SE and establishes an explanatory and operational foundation for SEE. Therefore, the theoretical framework clarifies not only why SE emerges across contexts but also how this understanding can be translated into an educational approach capable of supporting SE practice in diverse institutional and cultural environments. The integration of systems theory and complexity science perspectives on SE and andragogy produces a framework in which the ontological distinction between systemic conditions and socioeconomic variables is translated into educational architecture. Learners acquire universal knowledge about systemic conditions and their implications for organisational design as transferable foundations, while developing the diagnostic capacity to assess which socioeconomic variables, coordination mechanisms, and institutional arrangements govern the specific context in which they intend to

operate. This framework supports the research presented in this thesis that directly addresses the central research question, what kinds of knowledge, education, and skills are needed to successfully launch and sustain social enterprises across diverse regional and institutional contexts.

The theoretical framework operationalises andragogical principles by establishing the nested hierarchy and systemic conditions as shared analytical ground applicable globally, while presenting socioeconomic variables as the domain within which learners exercise contextual judgement and adaptive design. This architecture aligns with conditions identified in complexity science as conducive to innovation, neither excessive constraint through prescriptive curricula nor uncontrolled variability through unstructured exploration, but structured frameworks providing sufficient guidance for coherent learning while maintaining sufficient flexibility for contextual adaptation (Kauffman, 1995). Achieving meaningful global impact through SE practice demands educational approaches that transcend disciplinary fragmentation by equipping learners with both systems literacy for understanding constraints and adaptive capacity for innovating within those constraints across diverse institutional and cultural settings (Repko & Szostak, 2025). Rather than prescribing universal solutions optimised for particular contexts, effective globally applicable SEE enables learners to recognise systemic patterns while contextualising operational strategies, thereby supporting the scaling of SE practice through knowledge transfer rather than through replication of regionally specific models (Holland, 1995; Defourny & Nyssens, 2017).

This theoretical framework was introduced in Article 1, Scaling Dual Value Creation Through Education, currently in the publication process, which has been expanded in this thesis and provided in Appendix 1. The full interdisciplinary integration substantiating the framework, including the causal chain that establishes systems configuration and systemic conditions pertinent to SE, the integration coordination typology of social enterprise, and the critical analysis of IPE, SE, and education scholarship conducted within this theoretical framework, is presented in Chapter 4.

2.6 Conceptual Framework: Two-Tier Knowledge Organisation

The theoretical framework developed in Section 2.5 establishes the analytical commitments guiding the research but does not specify how knowledge should be organised for curriculum design and instructional sequencing. The conceptual framework addresses this requirement by adapting the two-tier structure characterising professional education across established fields, dividing educational content into high-level theoretical frameworks explaining underlying principles and applied operational knowledge guiding practical implementation (Shulman, 2005; Lattuca & Stark, 2009).

This knowledge structure appears consistently across professional disciplines. In medicine, pathophysiological theories provide foundational understanding while clinical protocols guide diagnostic and treatment practice (Cooke et al., 2010). In engineering, physics and mathematics underpin design principles that inform construction and problem-solving processes (Crawley et al., 2014). In EE, economic theories and business model frameworks provide conceptual grounding for practical venture creation tools and strategies (Neck & Greene, 2011). The persistence of this two-tier structure across professional fields reflects fundamental pedagogical

principles regarding knowledge transfer and application. Learners require both conceptual understanding of why systems function as they do and procedural knowledge of how to operate effectively within those systems (Biggs & Tang, 2011). Theoretical knowledge without operational guidance produces graduates unable to implement solutions in practice, while procedural knowledge lacking theoretical grounding generates practitioners who cannot adapt to novel contexts or respond to systemic changes (Kolb, 1984; Schön, 1983).

As demonstrated in Chapter 1, SEE currently lacks this integrated two-tier knowledge structure. Fragmented theoretical foundations prevent establishment of coherent high-level frameworks explaining dual value creation mechanisms, while operational knowledge remains dispersed across practitioner networks without systematic codification or validation through research (Bonfanti et al., 2024; Bacq et al., 2022; Al Issa et al., 2024). Unlike business entrepreneurship, where economics provides macro-level explanations of economic wealth creation and business theory translates these into firm-level objectives, SE lacks a single disciplinary foundation that coherently explains how dual value creation operates at a societal level in a way that directly aligns with social enterprise objectives. The existing bodies of knowledge illuminate different dimensions of SE rather than addressing the same phenomena from compatible angles across macro, meso, and micro levels (Bacq, 2021; Hlady-Rispal & Servantie, 2018).

The conceptual framework developed through this research addresses this structural deficit by organising knowledge collected from both global research and regional educational practice into the two-tier architecture. The proposed typology of professional education is distinct from frameworks that classify social enterprises by organisational form (Defourny & Nyssens, 2017; Kerlin, 2013) or from models that differentiate socioeconomic systems by political orientation or wealth generation mechanisms (Hall & Soskice, 2001; Nölke & Vliegenthart, 2009), both of which are contested within regional contexts (Bacq & Janssen, 2011; Becker, 2014). The educational framework does not match individual theories to specific operational tools but instead enables learners to synthesise insights across disciplinary domains through contextual analysis and andragogical processes of critical reflection (Knowles, 1984; Mezirow, 1991).

The full specification of what constitutes each tier, how the tiers relate to the theoretical framework's distinction between systemic conditions and socioeconomic variables, and how knowledge content is classified into globally applicable and context-dependent categories is developed in Chapter 4 and operationalised through the knowledge synthesis in Chapter 5. Chapter 7 examines how these principles were applied across five GSIL implementations with learners from diverse cultural and professional backgrounds spanning diverse regions.

2.7 Article-Based Thesis Structure

This thesis is presented in an article-based format and is organised around Repko and Szostak's (2025) IRP approach, which provides a systematic framework for developing a comprehensive SEE model. This section introduces the IRP architecture of the thesis and explains how the published and submitted articles are integrated into the text.

2.7.1 Article Integration in Thesis Structure

The four core articles forming the foundation of the thesis have been adapted and expanded into a cohesive thesis manuscript in alignment with the doctoral formatting requirements of Saint Paul University. The four articles integrated into this thesis address distinct but interconnected dimensions of the overarching research question through a sequential three-phase investigation. Each article corresponds to a specific research question, employs targeted methodologies, and has been disseminated through international conferences and peer-reviewed journals. Table 2.7.1a demonstrates the iterative nature of inquiry through the three research phases and outlines research questions and methodology adopted in each article. The research questions in each article are identical to the specific research question defined in each phase of the investigation with the same methodology presented in both articles and in the methodology section of the introduction.

Table 2.7.1a: Article Research Questions and Methodological Approach

Journal Article	Research Question	Phase	Methodology
Article 1 ***Scaling dual value creation through education*** **Under review,** ***International Journal of Innovative Business Strategies***	What kind of research is needed to scale SE globally through education?	1,3	IRP approach (phases 1-4) supported by SLR; interdisciplinary analysis; outcome evaluation through testing of SEE model
Article 2 ***From research to praxis: Building a globally inclusive SEE framework*** **Under review,** ***Economic Alternatives***	What kind of research is needed to generate knowledge that can be meaningfully integrated into SEE to support SE practice?	1	IRP approach (phases 5-9); knowledge integration and synthesis; SEE conceptual framework development
Article 3 ***Social Entrepreneurship Education across cultures: Toward inclusive models*** **Under review,** ***International Journal of Technology and Inclusive Education***	How is SEE designed, structured, and delivered across diverse regions in Canada and the European Union?	2	Comparative case study analysis (Slovenia, Croatia, PEI, Manitoba); analysis of institutional actors, curricula, and knowledge sources
Article 4 ***Global Social Innovation Lab: Theoretical perspectives*** **Published** ***Canadian Journal for New Scholars in Education, 13(3)***	How can education as a discipline contribute to inclusive, global, and virtual SEE?	3	Case study analysis of pedagogical delivery across five GSIL iterations (2021-2025)

Table 2.7.1a demonstrates the systematic progression of inquiry from theoretical knowledge synthesis in Phase 1 through empirical investigation of regional practices in Phase 2 to pedagogical testing and implementation in Phase 3. To ensure timely dissemination and peer validation of findings, each article followed a dual-pathway publication strategy: initial

presentation at international conferences followed by submission to peer-reviewed journals. Table 2.7.1b presents the conference presentation and current journal publication status for each article.

Table 2.7.1b: Article Dissemination and Publication Status

Article	Conference Publication Title and Status	Journal Articles Title and Status
1	*A transdisciplinary approach to social entrepreneurship education.* In Proceedings (CICE-2025) (pp. 194–195). https://doi.org/10.20533/CICE.2025.0058	*Scaling dual value creation through education* Under review, *International Journal of Innovative Business Strategies* Infonomics Society.
2	*Charting a pathway to interdisciplinary research in social entrepreneurship education,* ISIRC 2024 Proceedings Published for conference attendees only	*From research to praxis: Building a globally inclusive SEE framework* Under review, *Economic Alternatives*
3	*Social entrepreneurship education challenges and opportunities: A comparative case study Canada–European Union.* (CICE-2025) (pp. 145–146). https://doi.org/10.20533/CICE.2025.0044	*Social Entrepreneurship Education across cultures: Toward inclusive models* Under review, *International Journal of Technology and Inclusive Education* Infonomics Society.
4	*Post-COVID Entrepreneurship Education: Solutions from PEI,* CSSE 2022 Proceedings Published for conference attendees only	*Global Social Innovation Lab: Theoretical perspectives* Published *Canadian Journal for New Scholars in Education*, 13(3)

As shown in Table 2.7.1b, the articles and presentations reflected in dissemination strategy ensured timely communication of findings through conferences while building toward consolidated peer-reviewed journal publications. The combination of completed and in-progress publications reflects the ongoing contribution of this research to the developing field of SEE, with each article addressing knowledge gaps identified through the interdisciplinary research process while collectively constructing a comprehensive framework for globally relevant SEE.

The three sequential research phases address central research question: what kinds of knowledge, education, and skills are needed to successfully launch and sustain social enterprises across diverse regional and institutional contexts? Each investigation phase and article in this thesis correspond to specific research questions, methodologies, and scholarly outputs. Each phase generated conference presentations and journal articles (detailed in the Preface) that collectively address the central research question through distinct but interconnected investigations.

Phase 1, along with both conference and journal publications, employed the Interdisciplinary Research Process (IRP) supported by the Systematic Literature Review (SLR) to synthesise fragmented knowledge across disciplines and regions. Phase 2 and the corresponding publications utilised a comparative case study methodology to examine regional SEE ecosystems in Canada and the European Union.

Phase 3 and the journal publication applied a single-case-study design with iterative testing through five Global Social Innovation Labs (GSILs) to evaluate the pedagogical effectiveness and

cross-cultural applicability of the resulting SEE framework. The convergence of these three phases produced both the doctoral thesis and an implementation-ready SEE model evaluated through GSIL delivery that integrates research-informed content with empirically evaluated pedagogical approaches. The articles and phases of the research, aligned by exploring the same research questions and drawing upon the same methodology, are presented in Figure 2.7.1

Figure 2.7.1: Integration of Research Phases, Articles, and Doctoral Outcomes.

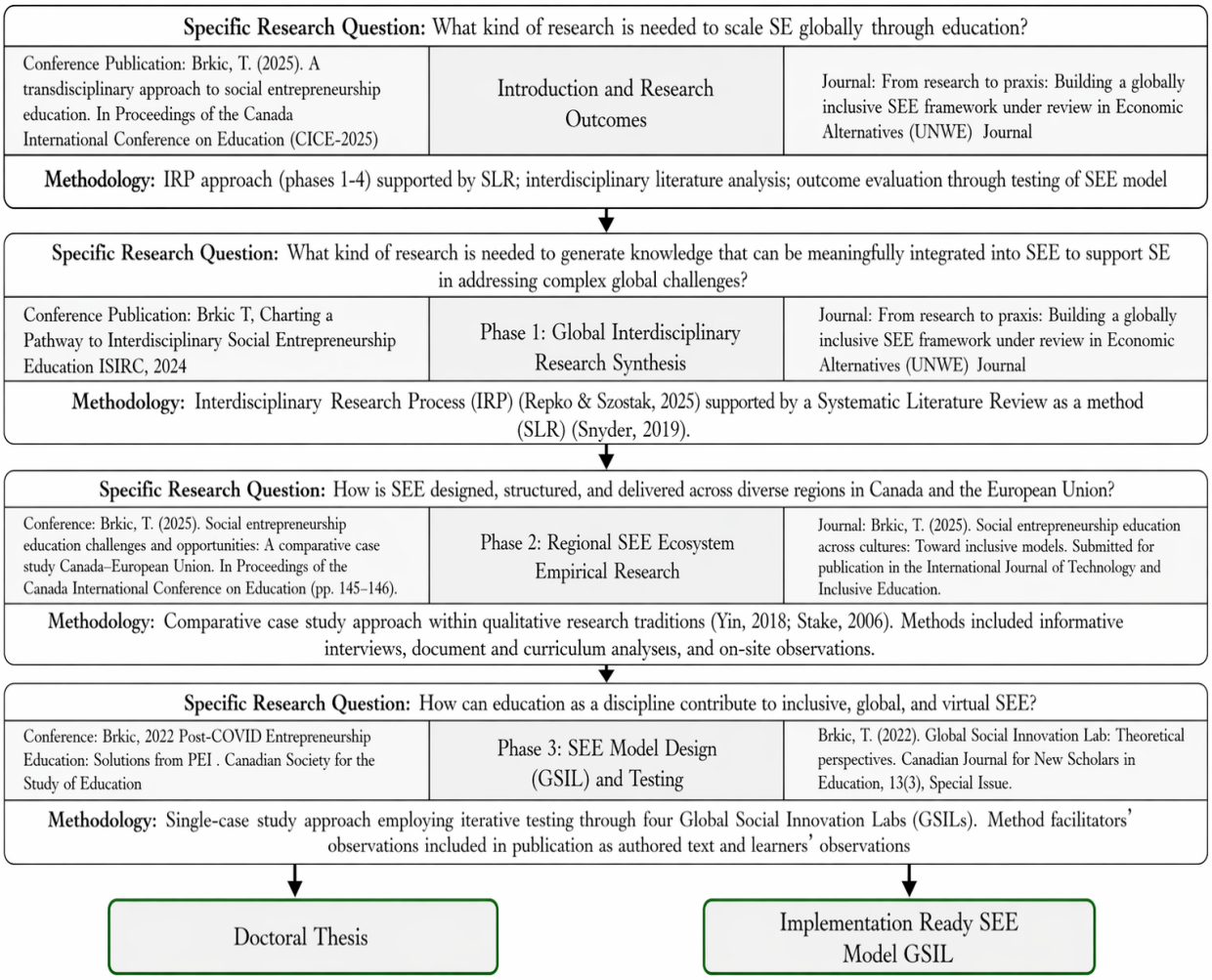


Figure 2.7.1 illustrates the alignment among the articles, conference disseminations, research questions, and research outcomes. The next section describes how the articles are integrated into the chapter structure of the thesis.

2.7.2 Structure of the Thesis by Articles and Chapters

The thesis follows an article-based format, integrating theoretical, empirical, and applied contributions within its chapters and a coherent research design. Each chapter contributes to the overarching objective of redefining and advancing globally applicable SEE as a vehicle for dual value creation across cultures. The chapters are organised to ensure continuity between conceptual development, comparative analysis of regional SEE approaches, and applied testing of the SEE

framework. Table 2.7.2 below summarises the structure of the thesis, outlining the focus of each chapter and its relationship to the corresponding research article.

Table 2.7.2: Chapter Descriptions and Corresponding Articles

Chapter	Description	Corresponding Article
Chapter 1: Introduction	Introduces the topic, defines the research problem, and explains what is being studied and why. Establishes the context and rationale for redefining social entrepreneurship through the lens of dual value creation.	
Chapter 2: Philosophical and Methodological Foundations	Explains how the research is conducted, presenting the philosophical foundations, three-phase methodology, theoretical and conceptual frameworks, article integration, and research outcomes.	*Scaling dual value creation through education* Under review, *International Journal of Innovative Business Strategies Infonomics Society.* (Appendix 1) The content of the article was extensively expanded and presented in the first three chapters.
Chapter 3: Global Literature Review	Identifies relevant disciplines and provides a critical literature review for each, followed by interdisciplinary analysis that reveals conceptual gaps in current SEE research.	
Chapter 4: Literature Analysis and Integration	Provides interdisciplinary analysis that reveals conceptual gaps in current SEE research and produces theoretical and conceptual framework	
Chapter 5: Phase 1: Research Synthesis	Represents the first research phase, identifying and synthesising relevant theoretical, applied, and pedagogical knowledge on SEE from global research.	*From research to praxis: Building a globally inclusive SEE framework* Under review, *Economic Alternatives*
Chapter 6: Phase 2: Comparative Study or Regional SEE	Represents the second research phase, examining how SEE is taught across four regions through empirical data collection and analysis.	*Social Entrepreneurship Education across cultures: Toward inclusive models* Under review, *International Journal of Technology and Inclusive Education Infonomics Society.*
Chapter 7: Phase 3: Testing and Evaluation	Presents the testing and evaluation of the initial SEE model in GSIL format and provides analysis of pedagogical validation processes.	*Global Social Innovation Lab: Theoretical perspectives* Published *Canadian Journal for New Scholars in Education, 13(3)*
Chapter 8: Conclusion	Discusses how research findings and pedagogical insights were integrated to propose the final SEE model, summarising contributions to theory, methodology, and practice.	

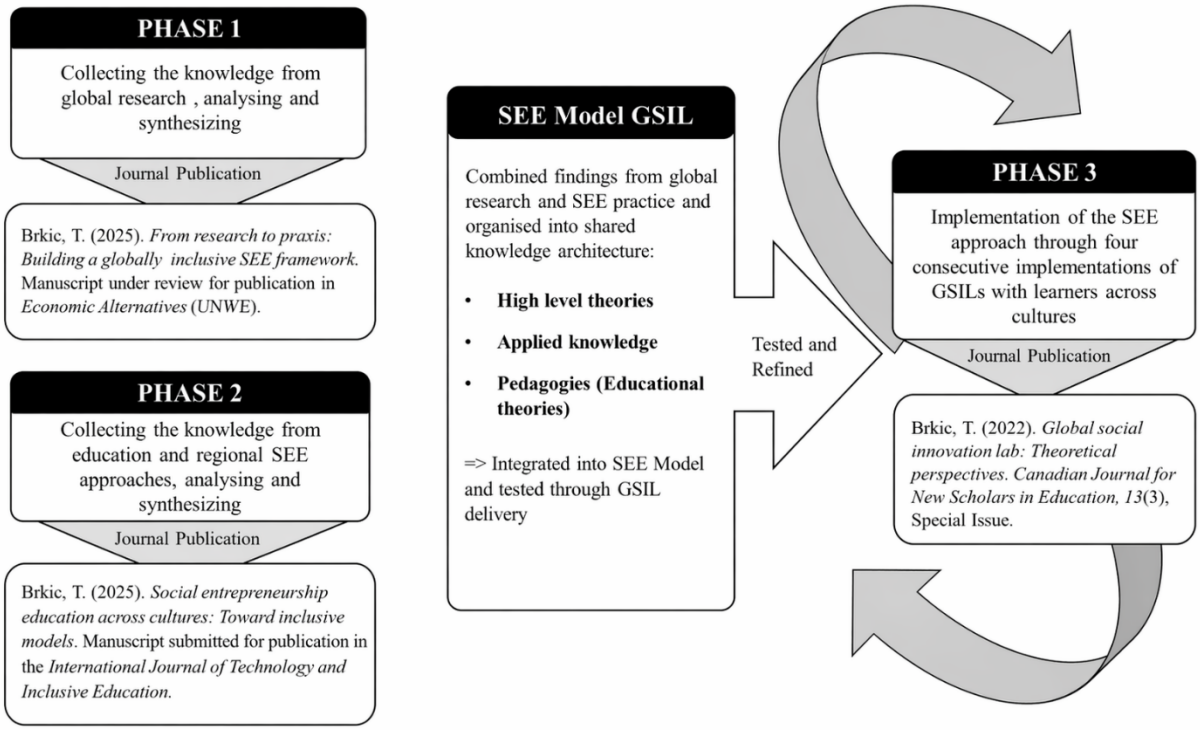
Table 2.7.2 represents chapter-based organisation of thesis that reflects progression from problem to research to model validation. The first four chapters establish the conceptual and methodological foundations necessary for integration of heterogeneous research traditions. Chapters 4 to 7 operationalise the research through sequential phases, knowledge synthesis

drawing on global research, comparative analysis of regional SEE practices, and model testing. Chapter 7 and Chapter 8 consolidate the findings to propose a globally applicable SEE framework. Together, the chapters demonstrate how theoretical and applied knowledge in SEE can be structured and systematised to strengthen both academic understanding and educational practice.

The three phases collectively produced the proposed SEE model ready for global implementation. Phase 1 findings were disseminated through Economic Alternatives, Phase 2 findings through the International Journal of Technology and Inclusive Education, and Phase 3 pedagogical findings through the Canadian Journal for New Scholars in Education. The iterative feedback loop across phases enabled continuous refinement based on learner experience, culminating in both the doctoral thesis and the SEE model.

The resulting SEE model proposes a structured SEE framework integrating high-level theories, applied knowledge domains, and regionally embedded innovation logics. The model is designed for use by researchers, educators, and practitioners alike, offering coherent curricular guidance and expanded SEE content that strengthens learning outcomes and equip aspiring social entrepreneurs, particularly those from ME demographics, with the capabilities to understand global knowledge and use it to establish and sustain social enterprises in diverse contexts (Karatas-Ozkan et al., 2023; Khan, 2022). The curriculum has already been accepted by several universities and incubators across Europe, and it is scheduled for presentation at the EMES International Conference 2025 and implementation within a Global Entrepreneurship Incubator in Asia upon completion of the doctoral programme. Figure 2.7.2 depicts research phases in relation to publications and research outcomes.

Figure 2.7.2: Integration of Research Phases, Publications, and Doctoral Outcomes



2.8 Toward a Global Literature Review

Chapter 2 established the philosophical foundations, research design, and theoretical and conceptual frameworks guiding the investigation. The post-positivist paradigm, the open-systems ontology, and the epistemological commitment to pluralism complemented by pragmatism together provide the basis from which the three-phase research proceeds. The theoretical framework integrating systems theory, complexity science, and andragogy was introduced in Section 2.5, with the full interdisciplinary derivation developed in Chapter 4. The conceptual framework adapting the two-tier professional education structure was introduced in Section 2.6, with the specification of knowledge content developed in Chapter 4 and Chapter 5.

Before the interdisciplinary analysis and integration can proceed, the research requires a comprehensive review of the disciplinary scholarship from which insights are drawn. Chapter 3 presents the global literature review across IPE, SE, and education, developing the adequacy analysis that the IRP methodology requires as the foundation for the critical evaluation, conflict identification, and interdisciplinary integration performed in Chapter 4.

Chapter 3 Global Interdisciplinary Literature Review

3.1 Introduction to Literature Review

Chapter 1 established the problem of disciplinary fragmentation preventing coherent understanding of social entrepreneurship education, and Chapter 2 presented the integrated theoretical framework. Chapter 3 demonstrates the methodological process through which relevant scholarship was identified, reviewed, and evaluated across multiple disciplines.

The chapter follows Repko and Szostak's (2025) IRP approach, implementing Steps 2 through 5. These steps progress systematically from justifying the necessity of interdisciplinary inquiry, through identifying relevant disciplines and conducting comprehensive literature searches, to developing adequacy within each contributing field. This systematic approach ensures rigorous, transparent, and replicable examination of scholarship addressing dual value creation and SEE across disciplinary boundaries.

The literature review employed a SLR as a method to identify and evaluate scholarship from IPE, SE, and education. The SLR process progressed from database searches across multiple disciplines, to preliminary analysis that revealed distinct analytical clusters within the literature. Expert consultation and iterative refinement narrowed the selection to scholarship directly addressing dual value creation and SEE. The geographic distribution analysis and theoretical mapping that emerged from this process informed the adequacy development presented in this chapter.

Adequacy in each discipline required understanding the dominant theories, key concepts, research approaches, and identified gaps within IPE, SE, and education scholarship. Dominant theories in this context are considered to be the theoretical approaches that shape discourse in the reviewed literature, while alternative theories challenge the positions established by dominant theoretical strands.

IPE adequacy examined how social and economic value are generated and how global and regional governance structures, institutional frameworks, and cross border dynamics shape the contexts in which social entrepreneurship operates. SE adequacy explored organisational forms, hybrid models, and strategic approaches to dual value creation. Education adequacy investigated pedagogical theories, learning frameworks, and instructional strategies relevant to SEE. The chapter concludes by summarising insights and limitations identified through adequacy development across the three disciplines, establishing the foundation for Chapter 4's critical analysis and integration of disciplinary perspectives.

3.2 The IRP Process in the Literature Review and Analysis

Chapter 1 defined the research problem and questions. Chapter 3 continues the IRP process by justifying the interdisciplinary approach and demonstrating how it produced the theoretical and conceptual frameworks presented in Chapter 2.

According to Repko and Szostak (2025), the IRP structures interdisciplinary inquiry through sequential analytical steps that connect disciplinary reasoning and integrate insights into coherent understanding. Within the present investigation, the SLR functioned as the primary research method, while the IRP served as the analytical framework guiding its implementation.

This dual structure enabled the research to identify relevant disciplines, obtain disciplinary adequacy, and conduct critical analysis and evaluation of disciplinary insights in a systematic and replicable manner. The IRP provided the integrative architecture linking theoretical reasoning with educational framework development. This process transformed fragmented SE and policy discourses into a coherent foundation capable of supporting structured, teachable knowledge.

As outlined by Repko and Szostak (2025), the IRP advances through 10 interconnected steps that collectively transform disciplinary fragmentation into integrative understanding. Step 1 of the IRP, which defines the research problem and formulates the guiding research question, was completed in Chapter 1. Consequently, the present chapter begins with Step 2 and proceeds through the initial phase of Step 6, which together constitute the analytical foundation of Phase 1 of this investigation.

The comprehensive literature review presented in this chapter identified international political economy (IPE), SE, and education as the most relevant disciplinary domains for SEE. The analysis and integration of interdisciplinary insights in Chapter 4 positioned systems theory (von Bertalanffy, 1968; Meadows, 2008) and complexity science (Holland, 2014; Mitchell, 2009) as overarching integrative frameworks, leading to the theoretical and conceptual frameworks of the study.

Table 3.2 summarises the IRP steps two through 10, outlining their analytical purpose and the resulting contributions to the theoretical and conceptual framework, as well as the sequence of tasks performed in each of the chapters following IRP.

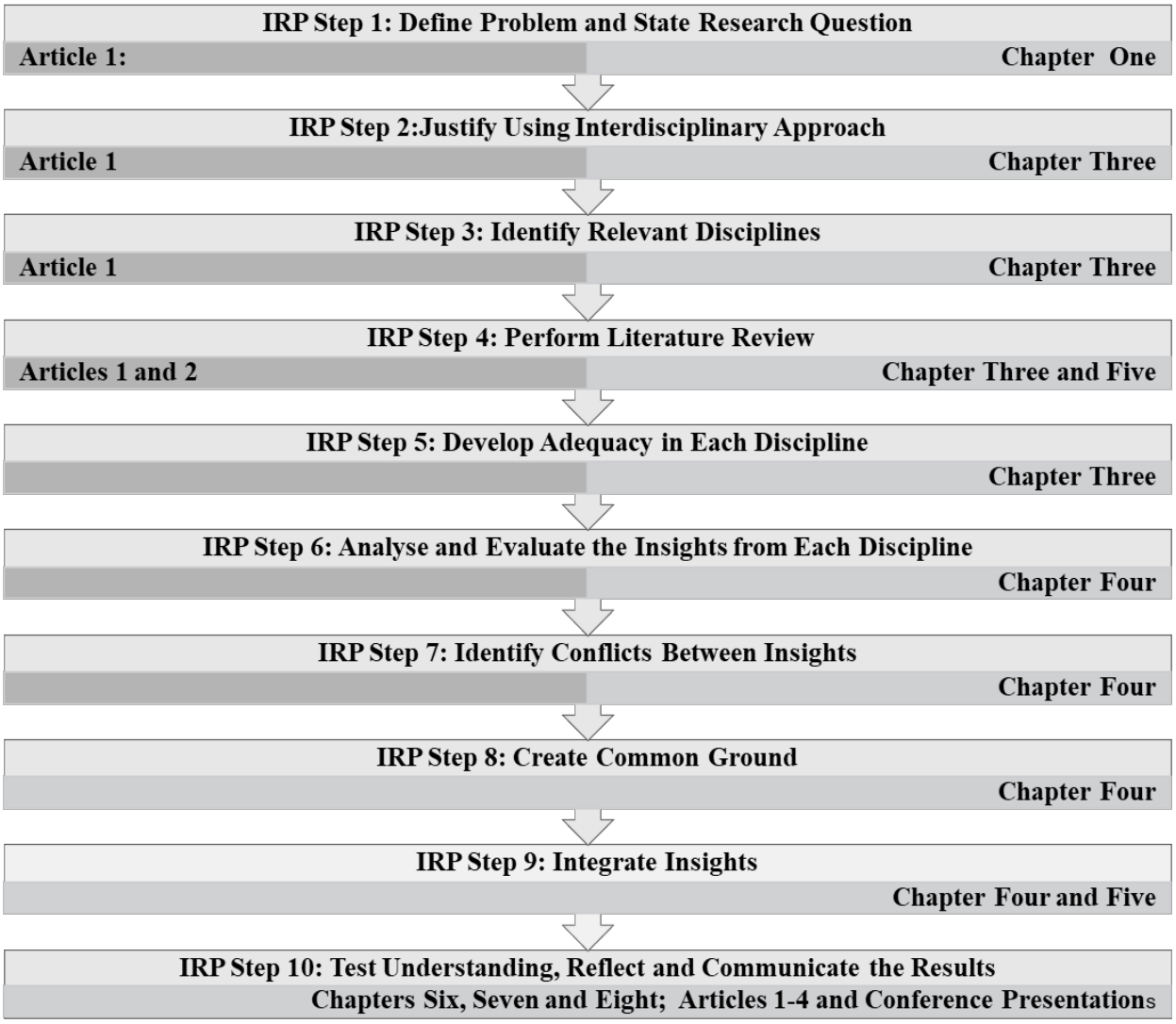
Table 3.2: Steps of the Interdisciplinary Research Process (IRP) and Their Contributions

IRP Step (Repko & Szostak, 2025)	Analytical Purpose	Resulting Contribution
Step 2 – Justify Using an Interdisciplinary Approach	Demonstrate why single-discipline inquiry is insufficient and integration is required.	Provided rationale for interdisciplinary research approach
Step 3 – Identify Relevant Disciplines	Select disciplines offering complementary perspectives on the problem.	Determined IPE, SE, and education as core fields and positioned systems and complexity theory as integrative meta-frameworks.
Step 4 – Conduct a Literature Search	Collect and organise disciplinary and interdisciplinary scholarship relevant to the research question.	Generated comprehensive evidence base for comparison and integration across disciplinary boundaries.
Step 5 – Develop Adequacy in Each Discipline	Achieve sufficient understanding of each discipline's assumptions, concepts, and methods.	Informed further refinement of theoretical distinctions between systemic conditions and socioeconomic variables.
Step 6 – Analyse and Evaluate the Insights from Each Discipline	Identify strengths, limitations, and areas of conflict among disciplinary explanations.	Provided analytical foundation for systems informed theoretical integration and conceptual framework
Step 7 – Identify Conflicts Between Insights	Locate contradictions or different interpretations across disciplines and identify their sources	Identified analytical inversion and led to derivation of analytical framework

IRP Step (Repko & Szostak, 2025)	Analytical Purpose	Resulting Contribution
Step 8 – Create Common Ground	Establish shared language for integration.	Based on critical analysis of relevant disciplines created interdisciplinary theoretical proposition
Step 9 – Integrate Insights	Combine disciplinary insights into an interdisciplinary understanding.	Created theoretical and conceptual framework
Step 10 – Reflect on and Test the Interdisciplinary Understanding	Evaluate coherence and validity of the integrated model.	Evaluated theoretical and conceptual frameworks through comparative regional SEE analysis and SEE approach testing
Step 10 – Communicate the Results	Present the integrated understanding to scholarly and practitioner audiences.	Disseminated integrated frameworks through global SEE publications and pedagogical implementation.

Table 3.2 maps the 10 steps of the IRP to their specific analytical functions within this investigation. Steps 2 to 6 drew on the SLR by identifying relevant disciplines, achieving adequacy in each domain of study, and critically evaluating how each body of scholarship addresses dual value creation. Steps 6 to 8, presented in Chapter 4, analysed divergent insights, identified conflicts, and created common ground across disciplinary boundaries. Step 9, presented in Chapter 4 and Chapter 5, integrated disciplinary insights into a structured knowledge base organised into theoretical, applied, and pedagogical domains. Step 10 was executed through Phases 2 and 3 of the research, through empirical investigation of regional SEE ecosystems presented in Chapter 6 and testing and evaluation of the SEE approach presented in Chapter 7, with results disseminated through Article 3 and Article 4 and conference presentations. Figure 3.2 below outlines the phases of the IRP process, related chapters in thesis text, and articles published to disseminate research findings.

Figure 3.2: Phases of the IRP Process and Related Chapters



As shown in Figure 3.2, IRP Steps 6 to 9 produced the theoretical and conceptual frameworks introduced in Chapter 4. Insights derived from global interdisciplinary research were synthesised and organised in the form of a knowledge base that can be used to teach SEE. The research synthesis presented in Chapter 5 is introduced through Article 2, From Theory to Praxis in Global Social Entrepreneurship Education, which is included in this dissertation.

The redefinition strategy proposed by Repko and Szostak (2025) served as a consistent analytical lens throughout this process, establishing a working definition of SE grounded in dual value creation that transcends disciplinary and regional variations while preserving contextual specificity (Klein, 2010).

The IRP functions as an iterative research architecture rather than a linear sequence of tasks, with provisional insights generated at each step systematically revisited and refined through cross-disciplinary comparison. This recursive implementation of IRP maintained alignment between theoretical assumptions, methodological choices, and interpretive integration, reinforcing

the internal validity of the interdisciplinary design and progressively transforming disparate disciplinary perspectives into an integrated knowledge base capable of supporting globally applicable SEE (Repko & Szostak, 2025; Mitchell, 2009; Meadows, 2008; Holland, 2014). The following section focuses on Step 2 of the IRP by justifying why single-discipline inquiry cannot adequately address the research question and by demonstrating how the inclusion of complexity science, systems theory, and andragogy established theoretical and conceptual alignment within the study.

3.2.1 Justifying Interdisciplinary Research

In accordance with the IRP framework (Repko & Szostak, 2025), this section situates SE and SEE within the intellectual traditions from which they emerged. Early economic theory defined entrepreneurship primarily as innovation and systemic renewal (Schumpeter, 1934). Keynes (1936) expanded this view by embedding economic activity within macroeconomic stability and institutional policy, while Friedman (1962) narrowed corporate responsibility to profit maximisation within legal constraints. These positions established competing economic and social interpretations of dual value creation.

Political economy subsequently reframed economic activity as socially embedded. Polanyi (1944) exposed tensions between market expansion and social protection, and North (1990) analysed institutional structures that enable or constrain enterprises. Sociological traditions further extended the analysis by linking economic action to legitimacy, social capital, and ethical orientation (Weber, 1922; Bourdieu, 1986; Nicholls, 2010), while anthropological inquiry examined locally embedded enterprise practices (Geertz, 1963). Habermas (1984) introduced communicative rationality as a condition for legitimising collective value claims.

SE scholarship emerged at the intersection of these disciplinary traditions (Dees, 1998). The field inherited divergent assumptions regarding value, legitimacy, institutional constraint, and moral responsibility. SEE field of study reflects this layered intellectual genealogy. Contemporary SE research continues to draw selectively on multiple disciplinary traditions when addressing content to be transferred to learners and instructional design.

Table 3.2.1 summarises the historical development of SE and SEE scholarship and the disciplinary perspectives that have contributed to the field. The table demonstrates that dual value creation has been theorised through economic, political, sociological, and related analytical frameworks operating at different levels of analysis, highlighting both the theoretical richness and fragmentation that constrain cumulative knowledge development.

Table 3.2.1: Historical Development of SEE and SE Scholarship

Researcher	Discipline	Perspective on SE/SEE
Jürgen Habermas	Sociology & Education	Theory of communicative action; positions SE as discourse-driven legitimacy building practice
Karl Polanyi	Political Economy & Sociology	Double movement theory: SE as embedded in social structures to counter market failures.
Pierre Bourdieu	Sociology	Social capital theory; SE as network-based entrepreneurial success.
Taina Saebi	Business	Hybrid SE models balancing profitability and social impact.
J. Schumpeter	Economics & Business	Entrepreneurship as creative destruction; SE as a disruptive force.
M. Yunus	Development Economics	Microfinance model; SE as a tool for financial inclusion and poverty alleviation.
Gregory Dees	Entrepreneurship & Education	SEE as integration of business principles with social impact objectives.
Ignasi Martí	SE & Political Economy	Study of power, resistance, and institutional change in SE as well as a role of MEs.
Sophie Bacq	Entrepreneurship & Institutional Theory	Institutional voids in SE ecosystems; how policy gaps shape SE.
Filipe Santos	Business & Political Economy	Positive SE Theory; value creation in SE distinct from traditional business.
Alex Nicholls	Public Policy, SE and IPE	SE policy influences on ecosystems; linking research, policy, and practice.
Johanna Mair	SE & Political Economy Institutional Theory	Institutional conditions shaping SE; policy and governance influence on SE
T. Lumpkin	Entrepreneurship &SE	SE resilience: how SE adapts to crises and economic instability.
S. Hirst	Education & Nursing	Interdisciplinary SEE; experiential learning models for SE education.
Azqueta	Entrepreneurship & Education	Experiential learning in SEE; hands-on learning approaches for social entrepreneurs.

As outlined in Table 3.2.1, extensive disciplinary scholarship provided valuable and diverse insights. While SE research has undergone substantial conceptual development, SEE as an academic field has only recently entered scholarly discourse. Conversely, SE research has shown limited engagement with the creation of SEE knowledge base, leaving the relationship between SE and SEE insufficiently defined (Bacq, 2021; Saebi et al., 2019). This disjunction highlights the analytical significance of integrating both research and education domains within the IRP framework to create conceptual coherence and inform curriculum design.

According to the IRP (Repko & Szostak, 2025), the established fragmentation confirms that SEE constitutes a complex, real-world problem requiring the integration of insights from multiple disciplines including economics, sociology, political economy, and education, as each discipline explains distinct causal mechanisms within the broader system. Over the past three decades, SE has increasingly been recognised and treated in the literature as a distinct discipline, with its own conceptual debates, journals, and research agendas (Dees, 1998; Mair & Martí, 2006; Defourny & Nyssens, 2014). At the same time, the field has retained its interdisciplinary foundations, continuing to draw on multiple disciplinary traditions.

Whether SE constitutes a consolidated discipline, particularly at a global level, remains debated. In this research, SE is treated analytically as a bounded disciplinary domain to delimit the scope of inquiry and concentrate on scholarship directly concerned with dual value creation, notwithstanding its dispersion across economics, sociology, political economy, and management studies.

3.2.2 Identifying Relevant Disciplines and Performing a Literature Search

Following the justification of interdisciplinary inquiry in Section 3.2.1, Step 3 of the IRP required systematic identification of the disciplines offering complementary perspectives on dual value creation in SE and SEE (Repko & Szostak, 2025). The identification process necessitated a literature review, defined as Step 4 in the IRP approach. In this investigation SLR method was applied to determine which disciplinary traditions most substantially contribute to understanding the phenomenon under investigation. This section outlines the SLR procedures used to select literature and identify education, SE, and IPE as the three core disciplines forming the theoretical and conceptual foundations of the study.

The literature review adopted an exploratory approach to the initial literature selection, as suggested by Creswell and Poth (2018) while following SLR to ensure a structured and replicable approach in identifying the most pertinent research contributions and discovering the most relevant disciplines (Petticrew & Roberts, 2006; Snyder, 2019). A broad database search was conducted across multiple academic repositories, including Web of Science, EBSCO Business Source Complete, EconLit, SpringerLink, ERIC, and ScienceDirect, as well as open access platforms such as Google Scholar, ResearchGate, and Directory of Open Access Journals (DOAJ) to identify peer-reviewed sources.

The search terms included “social entrepreneurship education,” “social business,” “social entrepreneurship,” “entrepreneurship,” “entrepreneurship education,” and “social innovation,” and were extended to include “social enterprise,” “social value creation,” “dual value creation”, “economic value”, “impact entrepreneurship,” “entrepreneurial education,” “transformative learning,” “inclusive entrepreneurship,” “missing entrepreneurs,” “entrepreneurship curriculum,” “social entrepreneurship curriculum,” and “interdisciplinary research”, ensuring relevance to the study’s objectives. This broad keyword strategy followed established approaches in systematic reviews, designed to provide a holistic view of the literature (Tranfield et al., 2003; Snyder, 2019). This process aligns with the recommendations of Short et al., (2009), who emphasise the

importance of broad search criteria in SE related literature reviews to capture diverse theoretical insights.

Following this initial search, 83 scholarly sources were selected for preliminary review, comprising 39 books and 44 journal articles spanning business, economics, political economy, sociology, psychology, ethics, social innovation, education, development studies, anthropology, IPE, and environmental studies.

The preliminary review established that developing a globally applicable SEE framework requires multilevel analysis of dual value creation mechanisms, capable of identifying knowledge that can be shared across diverse institutional and cultural contexts. Dual value creation operates simultaneously at the global level, where institutional and policy frameworks shape the conditions under which social and economic value are generated; at the societal level, where institutional arrangements and organisational forms mediate those conditions; and at the enterprise level, where entrepreneurs operationalise dual value objectives in practice. The review further revealed that different disciplines address these levels selectively rather than comprehensively, with no single discipline providing an integrated account across all three levels. This finding identified IPE, SE, and education as the three core disciplines for the investigation and established the analytical basis for narrowing the literature using the dual value lens developed in Chapter 1.

3.2.2.1 Expert Consultation and Literature Narrowing

The fragmentation of knowledge relevant to SEE indicated a possible disconnect between theoretical research, existing educational models, and the practical needs of social entrepreneurs (Dacin et al., 2010; Steiner & Brock, 2024). The presence of texts across multiple disciplines further highlighted the need to narrow the literature review to the most relevant fields that provide a theoretical and conceptual foundation for SEE. To refine the broader body of literature reviewed in the initial phase, the researcher integrated expert consultation. Expert recommendations from scholars specialising in education, SE and SEE in Canada helped refine the scope of relevant sources, ensuring the inclusion of key theoretical contributions (Pittaway & Cope, 2007).

The narrowing process resulted in a curated body of 58 scholarly sources, consisting of 26 books, 24 journal articles, eight policy reports, and one web-based resource. This selection incorporated theoretical, empirical, and policy driven insights, ensuring a cross-disciplinary approach that considered both theoretical foundations and practical applications of SEE.

The final sources selection prioritised studies that provided globally applicable insights while excluding those with very narrow regional scopes (Short et al., 2009; Snyder, 2019). Upon identifying the most relevant scholarly contributions, the researcher conducted a full text review of all selected publications and prepared detailed summaries to maintain consistency in research analysis and integration following the literature review.

The full text review was necessary because literature related to SEE used different terminology to describe SE and approached SEE from varied perspectives, requiring a complete review of the texts to fully understand the content. This approach aligns with systematic review protocols emphasising rigorous data extraction and thematic analysis (Tranfield et al., 2003).

3.2.2.2 Geographic Distribution and Theoretical Contributions

Among the selected sources, 35 publications originated from North America, 15 from Europe, three from South America, and approximately five from Africa and Asia. North American sources were published by leading academic institutions such as Harvard Business Press, Stanford University Press, Princeton University Press, and Public Affairs, with key contributions from scholars such as Drucker (2019), Bornstein (2004), Mezirow (1991), and Kolb (1984). European publications, primarily from Edward Elgar Publishing, Manchester University Press, Springer, and Palgrave Macmillan, included contributions from scholars such as Nicholls (2009), Cieslik (2018), and Roy and Grant (2020), who focused on SE and political economy.

South American contributions were primarily reflected in Freire's (1970) foundational work in education, alongside regional examples discussed by Banerjee et al. (2020), as well as practitioner-oriented perspectives from Ashoka, a global SE network (Ashoka, 2025). African and Asian sources included Yunus's (2008, 2010) books on social business, Bucci and Marks' (2022) study on South African incubators published in Africa Journal of Management, Hechavarría and Brieger's (2022) research on female SE in Small Business Economics, and comparative policy analyses from OECD reports (2019, 2021). The geographical approximations are based on author affiliations, publishers, and study locations, ensuring a reasonable degree of accuracy despite some sources having multiple authors from different regions or addressing global trends.

The selected literature included studies analysing SEE and social innovation from a cross-continental perspective, contributing to an understanding of shared challenges and best practices across multiple regions (Karatas-Ozkan et al., 2023; Bucci & Marks, 2022). These studies explored themes such as entrepreneurial learning in South African incubators (Bucci & Marks, 2022), challenge driven education in North South collaborations, and inclusive SE models (OECD, 2019, 2021).

In the SLR process, the narrowed list of sources was further expanded to include bibliometric studies, such as those by Saebi et al. (2019), Shahid and Alarifi (2021), needed to gain a clearer perspective on the structure, development, and global orientation of SEE research by examining international collaboration, publication trends, and cross-cultural dynamics in social enterprise literature. Sources examining global patterns and trends in SE, policy frameworks, and educational methodologies included in the selected literature provided a comprehensive understanding of the evolving role of SE worldwide (Dees, 2007; Yunus, 2008, 2010; Martin & Osberg, 2007). The narrowed body of literature also included studies on cultural practices and female SE, emphasising the influence of sociocultural factors on entrepreneurial success. Research on definitional variations in SE across geographical regions underscored the necessity of contextually aware frameworks in SEE (Bacq & Janssen, 2011). The selected literature offered comprehensive perspectives and provided an in-depth understanding of SEE applicable across diverse geographical and cultural settings.

North American and European scholarship dominated the literature exploring global theories and concepts in SE and SEE, with leading contributions from scholars such as Mair and Martí (2006), Bornstein (2004), Drucker (2019), Bacq (2021), and Mezirow (1991), and

institutions such as Harvard Business Press, Stanford University Press, Edward Elgar Publishing, and Palgrave Macmillan. While the literature points to flourishing SE practice across the Global South and East, Western scholarship remains more accessible and widely disseminated, as scholars from the Global North more frequently position SE within globally oriented analytical frameworks. In contrast, much of the literature from Africa, Asia, and South America focuses on context-specific applications frameworks (Bucci & Marks, 2022; OECD, 2019, 2021).

This divergence in focus suggested that SE and SEE may be perceived and practised differently across regions. Regional literature from Africa, Asia, and South America frequently emphasises context-specific applications and case studies, rather than theoretical or conceptual frameworks aimed at global audiences. In non-Western contexts SE is understood through the lens of traditional collective practices and community-based approaches, where the primary objective is often poverty alleviation rather than broader global challenges such as climate change or systems transformation (Banerjee et al., 2020; Bucci & Marks, 2022; OECD, 2019, 2021). The diversity of regional perspectives underscored the need to develop SEE frameworks that are both globally informed and culturally grounded, with the flexibility to address diverse social realities.

These differences in perspectives between Western and non-Western approaches have been identified in both the literature review and the researcher's lived experience. In various regions, the term SE is not widely recognised as a term to describe dual value creation in practice. Instead, social and economic value creation efforts are embedded in culturally specific traditions, historical legacies, and responses to the most pressing local challenges, such as poverty alleviation, food insecurity, or access to education.

The inclusion of researcher's lived experiences reinforces the argument that globally applicable SEE must be informed by multiple disciplines and regional practices. While educators focused on SEE are represented in the reviewed literature (Hirst et al., 2020), SE practitioners are largely absent as authors or co-authors, with the notable exception of Yunus (2008) and Alter (2007). This suggests the presence of systemic barriers to including practitioner-generated knowledge in academic discourse, even though the concept of SE itself originated from practice (Dees, 2009). Appendix 2 PRISMA Flow Diagram Literature Review depicts the literature review process presented in this section.

The adequacy sections in the literature review were revised and expanded throughout the research process. In total, 116 sources were systematically examined using the SLR protocol described in Appendix 2 SLR and documented through PRISMA. These sources constitute the formally analysed corpus. The iterative expansion of this corpus reflects the recursive logic of the IRP framework, whereby provisional analytical insights generated at successive stages required a return to the literature with refined search parameters (Repko & Szostak, 2025).

In addition to the SLR corpus, the research incorporated targeted engagement with scholarship in systems theory, complexity science, entropy in the social sciences, and ecological value creation within Earth system and sustainability sciences, including foundational work on planetary boundaries and biosphere resilience (Rockström et al., 2009). These theoretical extensions were not incorporated as part of the systematic review corpus but were engaged to

develop the analytical foundation necessary to examine SE, as redefined in Chapter 1, within nested social, economic, and ecological systems.

By the conclusion of the doctoral research, the total number of consulted references exceeded 500. In the entire reference list 116 sources emerged from the systematic review and subjected to structured analytical examination. The remaining sources were consulted to support conceptual clarification, theoretical integration, and interpretive depth rather than to expand the systematic review dataset. The observed difference between the consulted scholarship and the SLR sources can be attributed to variations in the terminology and conceptualisation of SE practice.

Throughout the literature search, the SE redefinition established in Chapter 1 served as the primary exclusion criterion. Scholarship was included when it contributed to understanding how social and economic value are simultaneously generated and sustained and excluded when it addressed only economic efficiency or only social mission. The consistent application of this criterion across all IRP analytical phases, maintained coherence across diverse scholarly traditions while preserving contextual specificity (Repko & Szostak, 2025).

3.2.3 Visualising Interdisciplinary Knowledge Architecture

The disciplinary origin of the narrowed literature selection limited to 58 manually reviewed sources, showed a clear dominance of three disciplines: education with 28 publications, SE with 24 publications, and IPE with five publications, with only one source from business studies addressing entrepreneurship education. These findings indicated that while various disciplines contributed to SEE, education, SE regarded as a single discipline, and IPE provided the most substantial theoretical and conceptual foundation.

This identification of relevant disciplines provided the foundation for Step 4 of the IRP, developing adequacy in each discipline presented in Section 3.2.4. The literature review revealed that the most relevant disciplines, SE, IPE, and education, offer complementary yet distinctly different perspectives on SEE. However, two of the relevant disciplines, SE and IPE, originate from interdisciplinary traditions that combine analytical and normative reasoning across multiple domains.

SE developed at the intersection of economics, sociology, political science, and development studies, integrating theories of innovation, legitimacy, and institutional transformation to explain how social and economic value can be generated by entrepreneurs (Dees, 1998; Mair & Martí, 2006; Santos, 2012; Defourny & Nyssens, 2017). SE theoretical foundations link individual entrepreneurial agency to systemic change, positioning SE as both a practical and analytical framework for understanding dual value creation.

IPE emerged in response to the limitations of classical economic and political paradigms, synthesising insights from both to analyse how state power, market dynamics, and social structures interact within global systems of production and exchange (Strange, 1988; Gilpin, 2001; Balaam & Dillman, 2019). Both SE and IPE therefore constitute hybrid fields whose analytical scope transcends disciplinary boundaries, establishing a foundation for SEE as an integrative domain of inquiry where cross-field synthesis is indispensable for theoretical coherence and practical applicability.

IPE informs SEE by providing macro-level analyses of how social and economic value creation operate within broader socioeconomic systems, typically addressing one dimension more prominently than the other or employing limited theoretical frameworks that connect both within institutional and policy contexts (Defourny & Nyssens, 2017; Roy & Grant, 2020; Harvey, 2005).

SE scholarship, in contrast, is primarily concerned with applied aspects of practice, examining how social enterprises balance social mission and economic viability within specific organisational and community settings (Dees, 2007; Santos, 2012). Scholarly debates within SE focus on the relationship between innovation, organisational sustainability, and social transformation. Educational research centres on pedagogical implementation and the development of learning environments that foster SE capacities such as global thinking or entrepreneurial mindset (Kickul & Lyons, 2020; Hirst et al., 2020).

Despite these recent advances, the integration remains partial and predominantly exploratory, as SEE scholarship continues to focus on pedagogy rather than substantive content alignment with SE theory. Limited convergence between IPE and education is visible where macro-level theories of value creation and redistribution enter entrepreneurship curricula through sustainability, ethics, and policy perspectives (Kickul & Lyons, 2020; Raworth, 2017; Defourny & Nyssens, 2017). Collectively, these emerging intersections reveal early but uneven progress toward constructing a cohesive SEE knowledge base grounded in interdisciplinary synthesis.

Ultimately, while SE and IPE provide foundational theories and conceptual frameworks for SEE content, education is the field responsible for designing and implementing SEE programs. However, SEE content must be informed by SE and IPE research to ensure that it effectively prepares learners for the realities of social enterprise development.

Figure 3.2.3 illustrates how knowledge from education, SE, and IPE, complemented by practitioner insights described in case studies, can be combined to identify theories and concepts relevant to SEE while highlighting areas where interdisciplinary and transdisciplinary research is needed.

Figure 3.2.3: Interdisciplinary SEE Knowledge Base

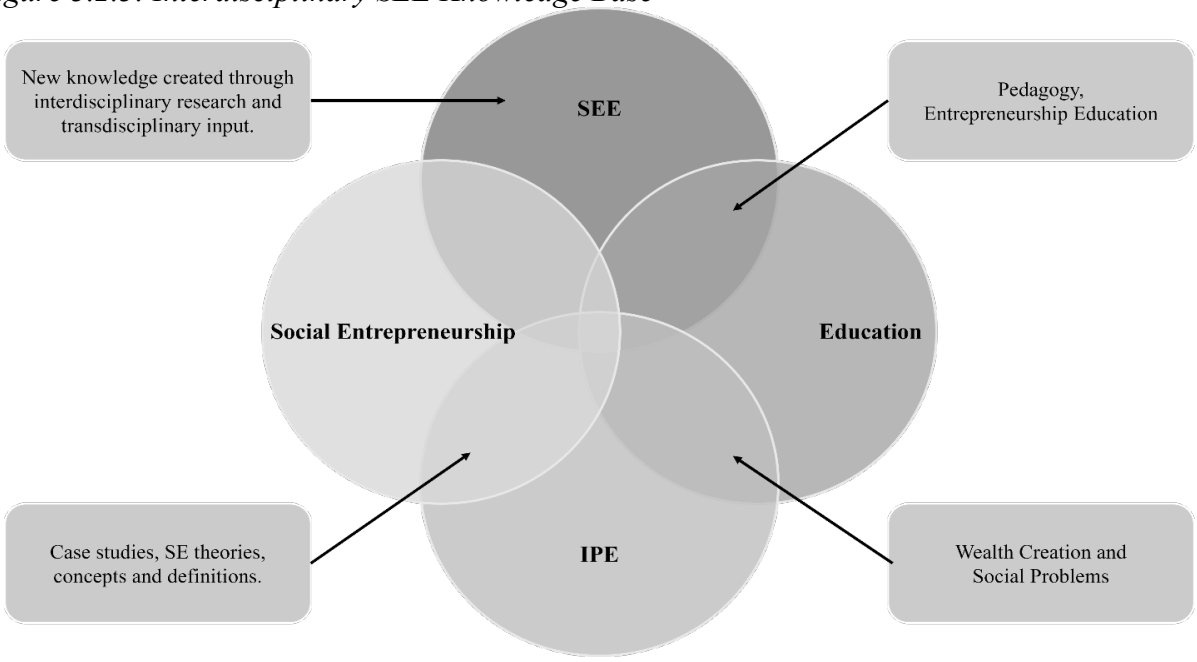


Figure 3.2.3 positions education, SE, and IPE as three distinct yet overlapping domains, each contributing essential but incomplete perspectives on dual value creation. The outer circles represent the disciplinary boundaries within which each field generates knowledge according to its particular epistemological commitments, methodological standards, and analytical priorities. The overlapping zones depicted in the diagram identify areas where disciplinary convergence has begun to emerge.

The intersections among IPE, SE, and education delineate zones of partial theoretical convergence within an otherwise fragmented intellectual landscape. The overlap between SE and IPE is exemplified by theories of dual value creation such as Santos (2012), which conceptualise the simultaneous generation of social and economic value but stop short of embedding these dynamics within coherent institutional frameworks. Polanyi's (1944) notion of the economy as socially embedded broadened the moral and societal understanding of markets yet lacked an operative model linking social protection to systemic economic regulation. Battilana's (2018) theorisation of hybrid institutional logics advanced SE discussions at the organisational level but remained disconnected from macro-structural analysis.

SE and education demonstrate the most recent attempts at disciplinary integration, where insights from SE research begin to inform pedagogical design and curricular development. Azqueta et al. (2023) connected experiential learning with the articulation of SEE content, illustrating how entrepreneurial practice can serve as a foundation for curriculum construction. Al Issa et al. (2024) and Shahid and Alarifi (2021) further examined how reflective and project-based learning translate SE competencies into educational frameworks, while Mair and Martí (2006) identified how institutional analysis within SE can inform teaching about organisational legitimacy and value creation.

The intersection between SE and IPE represents scholarship examining how dual value creation can be potentially integrated within existing socioeconomic systems addressing questions about institutional logics, policy frameworks, and systemic conditions that enable or constrain integration of social and economic objectives (Santos, 2012; Battilana & Lee, 2014; Defourny & Nyssens, 2017). The intersection between SE and education encompasses emerging research on how SE competencies, entrepreneurial mindsets, and values-based decision-making can be cultivated through pedagogical innovation (Azqueta et al., 2023; Al Issa et al., 2024). The intersection between IPE and education, though less developed, indicates where macro-level theoretical frameworks inform curriculum design through attention to economics, sustainability, ethics, and policy analysis (Kickul & Lyons, 2020).

The largest zone of SEE where new knowledge needs to be created represents the space requiring transdisciplinary synthesis, where theoretical knowledge from IPE, operational insights from SE, and pedagogical frameworks from education must be complemented by insights from practice and integrated to produce coherent SEE curricula capable of preparing learners for the complexities of dual value creation (Nowotny et al., 2013).

Critically, the diagram reveals what remains outside these overlapping zones: the substantial portions of each disciplinary circle that do not intersect with others. These non-overlapping areas represent disciplinary knowledge that, while valuable within its own domain, does not directly inform SEE. For instance, significant portions of educational research address pedagogy in contexts unrelated to adult education or dual value creation.

Similarly, a large part of SE scholarship focuses narrowly on regional organisational forms or discipline specific theoretical perspectives without engaging macro-level institutional analysis or educational application. IPE scholarship frequently addresses state power, international trade, or financial systems without examining how dual value creation can be integrated in society. The figure therefore serves a dual analytical function. First, it identifies where knowledge integration has begun and where interdisciplinary synthesis must be strengthened. Second, it establishes clear boundaries for what constitutes relevant disciplinary knowledge for SEE, preventing the unfocused incorporation of scholarship that does not substantively address dual value creation or its transmission through education.

The identified disciplinary divides pointed at the need to develop adequacy in each field contributing to SEE, as outlined in Step 5 of the IRP process. The following section presents systematic analysis of IPE, SE, and education scholarship, examining how each discipline contributes to understanding dual value creation while identifying limitations that necessitate interdisciplinary integration.

3.2.4 Developing Adequacy in Relevant Disciplines

Following the identification of IPE, SE, and education as the three core disciplines informing SEE (Section 3.2.2), Step 5 of the IRP requires developing adequacy in each field (Repko & Szostak, 2025). Adequacy entails achieving sufficient understanding of each discipline's theoretical assumptions, core concepts, and methodological orientations to extract insights relevant to dual value creation. This section presents concise analyses of how IPE, SE, and education

scholarship each contribute partial yet essential perspectives on dual value creation, while identifying gaps that require interdisciplinary integration.

3.2.4.1 Adequacy in International Political Economy

Obtaining adequacy in IPE requires understanding how economic and social value creation is defined at a macro-societal level and recognising how economic and political systems interact to shape both economic and social wealth creation at the global level (Balaam & Dillman, 2019). The literature review in this section draws primarily on Balaam & Dillman (2019), Yergin & Stanislaw (2002), and Desai & Levitt (2020), with additional insights from Stiglitz (2019), Raworth (2017), and Harvey (2005) to provide broader perspectives on critiques of wealth creation models, sustainability, and evolving economic paradigms.

The question of how economic and social wealth are created, distributed and supported by socioeconomic structures has been central to IPE (Balaam & Dillman, 2019). Within IPE which has emerged from interdisciplinary insights from economics and political science there are multiple theories that discuss economic, social and ecological value creation at a societal and international levels.

Historically, Keynesian economic theory provided a structured division between entities responsible for economic value creation and those responsible for social wellbeing (Yergin & Stanislaw, 2002). Businesses and markets were recognised as the primary generators of economic wealth, while states, through taxation and redistribution, ensured the production of social wealth in the form of education, healthcare, social services, and public infrastructure (Desai & Levitt, 2020). Figure 3.2.4 depicts the Keynesian paradigm using abbreviations for “economic wealth” (EW) and “social wealth” (SW).

Figure 3.2.4: Keynesian Paradigm

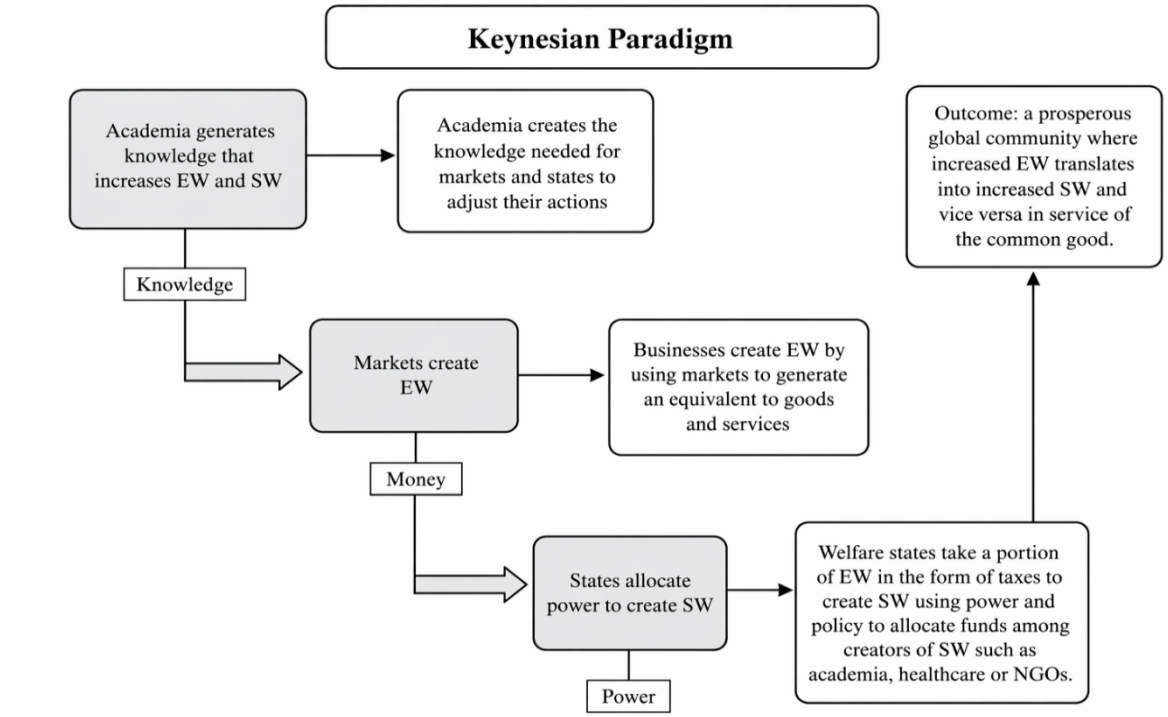


Figure 3.2.4 illustrates the flow of knowledge, money, and power supporting social and economic value creation within the Keynesian framework. This approach in political economy affirmed the division between markets as generators of economic value and the state as the actor responsible for social welfare.

Throughout much of the twentieth century, advanced economies followed this model, with the G7 nations adopting Keynesian principles that used state intervention to ensure economic growth translated into improvements in public welfare (OECD, 2019). While Keynesian economics focused primarily on managing business cycles and maintaining employment levels, the broader Keynesian compromise created the institutional architecture through which social wealth was systematically generated and distributed in advanced economies (Balaam & Dillman, 2019).

By the late twentieth century, it became evident that welfare states were struggling to meet growing social demands while maintaining economic competitiveness (Balaam & Dillman, 2019). As government spending on social programs increased, concerns over inefficiencies, rising debt, and economic stagnation led to widespread policy shifts (Stiglitz, 2019). The result was the gradual dismantling of the welfare state and the emergence of neoliberal economic policies that fundamentally altered the relationship between markets and social wellbeing (Harvey, 2005).

As Keynesianism declined, neoliberalism, heavily influenced by the Chicago School of Economics and Milton Friedman, gained prominence (Desai & Levitt, 2020). This shift redefined the role of businesses and individuals in the economy. Rather than governments ensuring social wellbeing through wealth redistribution, individuals were now expected to generate social wealth for themselves (Balaam & Dillman, 2019). Neoliberalism promoted the idea that free markets,

deregulation, and privatization would lead to greater economic efficiency, which in turn would create broader social benefits (Stiglitz, 2019). Figure 3.2.4.1 depicts the Friedmannian neoliberal model derived from Balaam & Dillman (2019).

Figure 3.2.4.1: Friedmannian Paradigm

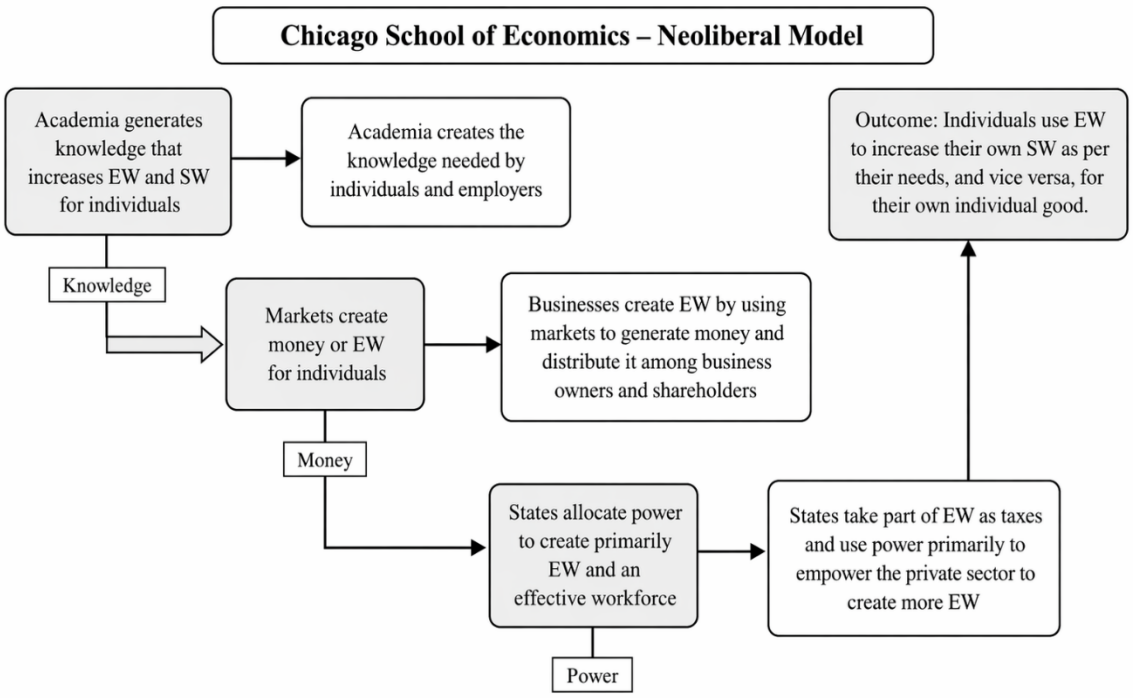


Figure 3.2.4.1 illustrates that under Friedmannian paradigm, economic wealth creation was no longer linked to a structured mechanism of social redistribution, leaving individuals responsible for securing their own social wellbeing through employment, investment, and entrepreneurial activity (Raworth, 2017). This approach resulted in economic wealth being concentrated amongst a minority of wealthy individuals and entities, failing to generate social wealth for most of the world's population (Yunus, 2008).

The shift from state-led social protection to market-driven individualism had profound implications for global wealth distribution (Harvey, 2005). Stiglitz (2019) critiques neoliberal capitalism, arguing that deregulation and the retreat of state intervention have exacerbated social inequalities, concentrating wealth among a small elite while weakening public institutions. Critically, neoliberalism dismantled the Keynesian provision for social wealth without establishing any alternative systematic mechanism, leaving a vacuum in which neither state nor market assumes responsibility for social wellbeing.

Although the Keynesian versus neoliberal debate may appear tangential to SE scholarship, this discourse is foundational for understanding the macro-level political economy context within which SE operates. The two paradigms constitute the dominant frameworks that have historically structured the relationship between economic value creation and the provision of social wealth in modern capitalist systems (Balaam & Dillman, 2019). The Keynesian compromise institutionalised the welfare state as the primary mechanism for social value creation, embedding

social protection, redistribution, and collective welfare within state structures, while neoliberalism's market driven individualism systematically dismantled these arrangements without constructing a viable alternative architecture for social reproduction (Harvey, 2005; Desai & Levitt, 2020).

Recognising the limitations of these dominant paradigms is essential for understanding why SE practice may require a distinct theoretical framework rather than adaptation of existing theories. Keynesian and neoliberal approaches, along with their corresponding institutional arrangements, consistently maintain a structural division between market-based actors responsible for economic value creation and state or nonmarket actors responsible for social reproduction. Charities and nonprofit organisations, which do not generate market revenue, are positioned within this institutional separation on economic and social value creators.

The divisions between entities responsible for social wealth and those that are designed to generate revenue, make it impossible for existing paradigms to conceptualise dual value creation as an integrated process, reinforcing the need for a new framework capable of explaining how economic and social value emerge simultaneously through enterprise level activity. In the absence of an integrated value theory, SE literature draws extensively on Karl Polanyi's concept of embeddedness, which aligns with Keynesian economics by recognising that markets must be embedded within social institutions to ensure equitable wealth distribution (Desai & Levitt, 2020). Polanyi and Keynes both argued that economic and social systems are interdependent, and that wealth creation cannot be left solely to market forces (Balaam & Dillman, 2019). However, the more recent neoliberal model rejects this premise, assuming instead that market mechanisms alone can determine the distribution of economic and social wealth (Harvey, 2005).

In response to the shortcomings of economic theories in addressing social value, alternative models have emerged that seek to reconcile economic prosperity with social sustainability. Raworth (2017) introduces the Doughnut Economics model, which attempts to balance economic growth with environmental and social wellbeing by advocating for post-Keynesian policies that redefine wealth creation in holistic and sustainable terms. Similarly, Harvey (2005) critiques neoliberalism's historical trajectory, highlighting its role in reinforcing global power asymmetries and undermining long-term social and environmental sustainability.

While alternative theoretical approaches, including Raworth's (2017) Doughnut Economics and Harvey's (2005) critique of neoliberal political economy, offer substantive critiques of Keynesian and neoliberal paradigms, their application in practice has remained limited. Raworth's framework advances a normative model for balancing social and ecological boundaries, and Harvey's work provides a structural critique of capital accumulation and inequality; however, neither approach specifies an institutional architecture capable of supporting its theoretical propositions or provides a clear pathway to dual value creation that can inform social entrepreneurship. As noted by Stiglitz (2019), despite extensive theorisation within international political economy, neither dominant paradigm, such as Keynesian state interventionism or neoliberal market liberalism, nor their critical reformulations provides a comprehensive account

of how economic and social value creation can be structurally integrated within socioeconomic systems.

Social entrepreneurs operate at the intersection of economic and social value creation, in institutional systems defined by dominant economic theories that have failed to account for a mechanism in which enterprises assume responsibility for generating both (Balaam & Dillman, 2019). The absence of theories that address dual value creation in IPE, indicates a fundamental limitation in existing political economy frameworks, as they do not provide a pathway for structuring business-driven social innovation within global wealth creation narratives (Stiglitz, 2019). The limitations of these theoretical approaches confirm that IPE, while essential for understanding systemic conditions in the real world, cannot by itself provide the operational guidance required for SE implementation or the knowledge foundations necessary for SEE.

3.2.4.1.1 Theories, Concepts, and Research Approaches in IPE

IPE scholarship addresses wealth creation at the macro-global and meso societal levels, examining value creation and the relationship between states and markets through distinct theoretical paradigms. These range from Keynesian and neoliberal economics, which influence institutional design, to Polanyi's concept of embeddedness and Raworth's Doughnut Economics, which examine the relationship between society and the economy. The reviewed scholarship indicates that regional political economies diverge in perspective, and that no existing paradigm offers an integrated theory explaining how economic and social value can be jointly generated and sustained at the enterprise level across socioeconomic systems (Polanyi, 1944; Keynes, 1936; Friedman, 1962; Harvey, 2005; Raworth, 2017).

The reviewed IPE literature predominantly employs qualitative methodological approaches, including historical analysis, comparative analysis, and critical discourse analysis (CDA). Balaam & Dillman (2019) and Yergin & Stanislaw (2002) utilise historical analysis to trace the evolution and transformation of global economic paradigms. Desai & Levitt (2020), Harvey (2005), and Raworth (2017) rely primarily on critical discourse analysis, systematically deconstructing dominant economic narratives to expose underlying power dynamics and ideological assumptions. Furthermore, Stiglitz (2019) and Raworth (2017) employ comparative theoretical analysis to highlight contradictions and limitations within existing economic frameworks, contrasting traditional theories with alternative paradigms to reveal gaps in current wealth creation narratives.

The analysis of IPE theories and concepts pertinent to SEE highlights existing limitations within dominant IPE frameworks, particularly their failure to position social enterprises as agents of simultaneous economic and social wealth creation (Harvey, 2005; Balaam & Dillman, 2019; Desai and Levitt, 2020). Table 3.2.4.1.1 synthesises the key theories, concepts, methodologies, and research gaps identified in this adequacy analysis, providing a structured overview of IPE's contributions and limitations for SEE.

Table 3.2.4.1.1: IPE Theories, Concepts, Methodologies, and Gaps

Category	Theories, Concepts, Methodologies and Gaps
Theories	Keynesian Economics Theory (Yergin & Stanislaw, 2002; Balaam & Dillman, 2019) Neoliberal Economics Theory (Desai & Levitt, 2020; Harvey, 2005) Polanyi's Embeddedness Theory (Desai & Levitt, 2020; Roy & Grant, 2020) Doughnut Economics (Raworth, 2017)
Concepts	Economic Wealth (EW) vs. Social Wealth (SW) (Balaam & Dillman, 2019) Welfare State (Balaam, 2019; OECD, 2019) Individualism and Market-driven Growth (Yergin & Stanislaw, 2002; Harvey, 2005) Market Imperfections and Oligopolies (Yergin & Stanislaw, 2002) Social Sustainability (Stiglitz, 2019; Raworth, 2017)
Methodologies	Historical Analysis: Used by Balaam and Dillman (2019), Yergin & Stanislaw (2002) Critical Discourse Analysis (CDA): Desai & Levitt (2020), Harvey (2005), Raworth (2017) Comparative Theoretical Analysis: Stiglitz (2019), Raworth (2017)
Research Gaps	Lack of frameworks defining dual value creation mechanisms within regional, national, and global contexts Limited integration of SE in existing IPE paradigms Absence of interdisciplinary wealth creation theory supporting SE dual goals

Table 3.2.4.1.1 illustrates the divergences in theoretical and conceptual approaches identified in the literature review, demonstrating how competing paradigms address wealth creation at the macro-and meso levels without providing an integrated cross-level account of dual value creation.

3.2.4.2 Adequacy in Social Entrepreneurship

The reviewed SE literature draws on multiple fully reviewed texts including Bacq & Janssen (2011), Banerjee et al. (2020), Bornstein (2004), Cieslik (2018), Dees (2007), Martin & Osberg (2007), Roy & Grant (2020), Yunus (2008), and additional sources examining SE from various disciplinary perspectives. These works explore SE and related concepts such as social innovation (SI), providing insights into emerging theories and practices relevant to SEE.

The reviewed authors demonstrate considerable agreement on several key points relevant to SEE. First, the literature emphasises dual value creation conceptually (Dees, 2007; Santos, 2012) as a key characteristic of SE; however, few studies systematically examine the specific enterprise models and dual value creation mechanisms that enable sustained profitability alongside social impact (Bacq & Janssen, 2011). In addition, the examined authors agree that governments, as holders of public funds and welfare state actors responsible for holistic wealth creation, are not sufficiently fulfilling this mandate, as societies continue to face complex global challenges, including rising inequality and accelerating climate change (Banerjee et al., 2020; Cieslik, 2018). The literature further agrees that there is an urgent need for new approaches to addressing social problems and creating social value, with SE and SI offering viable solutions (Cieslik, 2018; Banerjee et al., 2020; Roy & Grant, 2020). Finally, the authors consistently observe that reliance on government funding and philanthropic support is not a sustainable long-term strategy for organisations aiming to create social value (Banerjee et al., 2020).

Several authors highlight inequalities in knowledge access and participation, pointing to disparities across genders, regions, and individuals, emphasising the need to empower marginalised groups in processes of social change (Banerjee et al., 2020). However, considerable variation exists in opinions regarding how financial and organisational sustainability should be achieved in practice. Banerjee et al. (2020) suggest multistakeholder collaboration involving academia, businesses, nonprofits, and government as a means of ensuring sustainability, while Cieslik (2018) advocates for changes in governance and political structures to create a more enabling environment for SE. Roy and Grant (2020) propose that strengthening the research and theoretical foundations of SE will create better conditions for the long-term sustainability of socially driven organisations.

As established in Chapter 1, definitional heterogeneity across the reviewed literature prevents the emergence of common patterns and leaves global commonalities in SE unclear (Cieslik, 2018; Banerjee et al., 2020; Samapti & Satyajit, 2021). A particularly notable gap in SE scholarship concerns the mechanisms through which social enterprises achieve financial sustainability while maintaining social mission integrity. This research gap creates practical challenges for SEE, as learners require both conceptual understanding of why dual value creation is necessary and operational knowledge of how to achieve financial viability without compromising social objectives. The absence of robust theoretical frameworks addressing SE profitability reinforces the need for educational approaches that integrate insights from both economic and business scholarship with SE practice-based knowledge.

Scholars have attempted to address this gap through classification typologies that prescribe pathways linking the dual value imperative as a core characteristic of SE to operational practice. Young and Lecy (2014) identify at least eight classification logics pursued in SE literature: ideal-type frameworks (Defourny & Nyssens, 2014; 2017), spectrum and hybridity approaches (Alter, 2007; Dees & Anderson, 2006), macro-institutional models (Kerlin, 2013), governance frameworks (Bouchard et al., 2013; Spear et al., 2009), business-model typologies (Grassl, 2012), discursive approaches (Teasdale, 2023), legal-form frameworks (OECD, 2018; European Commission, 2020), and hybrid models (Zahra et al., 2009; Billis, 2010). These efforts represent significant scholarly investment in creating categorical clarity for a notoriously fragmented field.

As discussed in Chapter 1, however, the proposed typologies have achieved limited uptake beyond their originating contexts, with the most extensive effort to date, the ICSEM project, achieving its strongest resonance in Europe while failing to transfer across U.S., South American, and Asian institutional contexts (Defourny & Nyssens, 2017). Young and Lecy (2014) characterise the result as a field "saturated but fragmented," where hundreds of typologies exist but none has gained universal acceptance. The observed pattern points to a structural limitation in the field. Existing typologies frequently conflate the objective of dual value creation with specific socioeconomic factors, including governance arrangements, financing mechanisms, and legal forms that arise from particular institutional contexts.

Typological approaches illustrate how SE scholarship examines the phenomenon through disciplinary lenses that emphasise organisational positioning within existing socioeconomic

systems. Alter, a social entrepreneur working in nonprofit management and international development, proposes a typology based on the relationship between enterprise activity and social mission. Her framework distinguishes embedded social enterprises, where business activities directly accomplish the social mission; integrated social enterprises, where enterprise activities and social programs are operationally linked but remain distinct; and external social enterprises, where commercial ventures generate revenue used to support separate social programs (Alter, 2007).

Santos et al. (2015) develop a typology of four social business hybrid types based on two dimensions including the contingency of value spillovers between commercial and social activities, and the overlap between clients and beneficiaries. The Market Hybrid type in this categorisation describes enterprises in which clients and beneficiaries are the same population, such that commercial activity directly and automatically generates social impact through the same process. The Coupling Hybrid type describes enterprises in which clients and beneficiaries differ, requiring separate commercial and social activities that must be coordinated and aligned at the organisational level to deliver dual value. The Blending Hybrid and Bridging Hybrid occupy intermediate positions on this spectrum, differing in the degree to which value spillovers between commercial and social activities are contingent on additional organisational mechanisms rather than arising automatically from the core operational process (Santos et al., 2015).

From the discipline of entrepreneurship, Dees conceptualises SE along a continuum between nonprofit and commercial organisational forms. Within this framework nonprofit social enterprises are nonprofit organisations generating earned income through commercial activity, hybrid organisations combine nonprofit and for-profit characteristics through mixed governance or revenue structures, and social purpose businesses operate as for-profit firms pursuing explicit social objectives alongside financial sustainability (Dees, 1998).

Organisation theory scholarship examines SE as organisations combining multiple institutional logics. Battilana and Lee describe integrated hybrids, where social and commercial activities coexist within the same organisational structure, and differentiated hybrids, where these activities are separated into distinct organisational units to manage tensions between competing institutional logics (Battilana & Lee, 2014).

From management and organisation studies, Seelos and Mair classify SE according to the mechanisms through which organisations address social problems. Their typology distinguishes market-based social enterprises, operating within existing markets; market-creating social enterprises, establishing new markets for populations previously excluded from economic participation; and system-changing social enterprises, seeking to transform institutional arrangements that generate social problems (Seelos & Mair, 2018).

From the discipline of public policy, Kerlin examines SE through national institutional contexts and identifies several models of SE development, including the European model, associated with cooperative traditions and welfare state support; the Anglo-American model, characterised by market-oriented entrepreneurship and philanthropic financing; the Asian model,

involving government-supported SE initiatives; and the developing country model, where SE emerges in response to gaps in institutional capacity and service provision (Kerlin, 2013).

Research in social economy and nonprofit studies further identifies institutional trajectories linking nonprofit, cooperative, and entrepreneurial traditions. Defourny and Nyssens describe organisational forms including entrepreneurial nonprofits, social cooperatives, social businesses, and public sector spin-offs, reflecting different institutional pathways through which organisations combine social objectives with economic activity (Defourny & Nyssens, 2017).

Across the proposed typological classifications researchers focus on organisational forms, governance arrangements, financing mechanisms, and institutional environments through which SE is presumed to operate. Empirical evidence indicates that most social enterprises rely primarily on internal revenues or informal financing, with no access to formal external capital and without consistent alignment to specific organisational forms (European Commission, 2020; OECD, 2022; GEM, 2023). The reviewed scholarship treats social and economic value as distinct objectives managed through structural arrangements such as hybrid governance or blended financing but provides limited empirical evidence that these factors correspond to observed practice.

The literature provides limited explanation of how social and economic value are produced simultaneously within enterprise operations or why organisations combining these objectives emerge across historical periods and regions under changing socioeconomic conditions (Prouchet, 2025; Teasdale et al., 2023). The SE literature thus reveals a tension between the scholarly pursuit of prescriptive typologies and the context-dependent nature of institutional implementation. Frameworks that specify both the imperative for dual value creation and the operational mechanisms for achieving it appear valid primarily within societies sharing very similar institutional architectures (Hall & Soskice, 2001). This limitation constrains the development of globally applicable educational frameworks, as prescriptive models risk imposing institutional assumptions from one context onto learners operating within fundamentally different socioeconomic systems.

To facilitate the growth of SE, scholars stress the need for a common conceptual framework and shared terminology that can support knowledge creation and clarify the essential competencies, business models, and strategies needed to become a successful social entrepreneur (Dees, 2007; Bacq & Janssen, 2011). The research appears fragmented although several theories and concepts within SE research have gained broad recognition for shaping the field's conceptual foundations (Nicholls 2010). Among the most frequently referenced is Polanyi's critique of capitalism, which situates markets as socially embedded institutions requiring moral and regulatory oversight (Polanyi, 1944; Banerjee et al., 2020; Roy & Grant, 2020).

Santos's positive theory of SE conceptualises SE as a mechanism for correcting market inefficiencies and creating social value where markets and governments fail, and it has gained notable cross-cultural recognition in the reviewed literature (Santos, 2012; Banerjee et al., 2020). Bourdieu's theory of social capital highlights trust, networks, and shared norms as essential enablers of collective entrepreneurial action, emphasising that social capital constitutes a form of accumulated relational resources embedded in durable networks that can be mobilised to facilitate

coordination, access opportunities, and sustain collective action in contexts where formal institutions are weak or absent (Bourdieu, 1986; Samapti & Satyajit, 2021). In addition, Sarasvathy's (2001) effectuation theory reframes entrepreneurial decision-making as adaptive, resource-driven, and context-responsive rather than predictive or goal-oriented practice. Finally, Elkington's Triple Bottom Line framework advances the principle that economic, social, and environmental performance must be measured together to assess enterprise success and has been widely applied in evaluating social enterprise outcomes (Elkington, 1997).

However, these widely cited theories do not directly address the specific challenge associated with providing learners with both conceptual understanding of why dual value creation is structurally necessary and operational knowledge of how to achieve financial viability without compromising social objectives. Polanyi's embedded markets critique and Bourdieu's social capital theory illuminate contextual conditions and relational resources but do not explain the mechanisms through which dual value creation emerges as an organisational imperative or how enterprises operationalise it financially. Santos's positive theory identifies market failures as opportunity spaces but does not provide frameworks for enterprise-level profitability design. Sarasvathy's effectuation theory addresses entrepreneurial decision-making processes but remains agnostic about dual value requirements. Elkington's Triple Bottom Line establishes measurement criteria but does not explain why integrated value creation is necessary or how to achieve financial sustainability while pursuing social objectives.

Thus, neither the proposed typologies nor these widely cited theoretical frameworks provide the common conceptual foundation and shared terminology that scholars identify as necessary for the field's advancement (Dees, 2007; Bacq & Janssen, 2011). Typologies fail to achieve universal acceptance because they conflate context-independent requirements for dual value creation with context-dependent operational mechanisms, rendering them valid only within similar institutional architectures. High-level theories, while illuminating important dimensions of SE practice, do not explain why dual value creation emerges as a structural necessity or provide operational frameworks for achieving financial sustainability alongside social objectives. The result is a field characterised by conceptual fragmentation rather than the coherent knowledge base required to support globally applicable educational frameworks.

3.2.4.3 Systems Theory and Complexity Science Approaches in SE

An emerging strand of SE scholarship draws on systems theory and complexity science perspectives, offering a potential foundation for developing globally coherent SEE frameworks. While this strand remains relatively limited compared to mainstream SE scholarship, it demonstrates conceptual development across multiple intellectual traditions and geographical contexts. The conceptual meaning of system, the level of analysis, and the theoretical depth of engagement vary across contributions. The most analytically consequential works treat systems dynamics not merely as contextual background but as explanatory foundations for the emergence, adaptation, and structural characteristics of SE.

The most formal integration of SE with complexity science appears in Goldstein et al. (2010), whose model conceptualises social entrepreneurship as a system transition within a

nonlinear dynamical environment. Rather than viewing SE as incremental managerial improvement dependent on external socioeconomic factors, they describe it as the emergence of a "new attractor" a state where system's parts undergo "criticalization and recombination" to produce collective novelty. This contribution is theoretically significant because it moves beyond metaphorical descriptions of complexity to provide formal explanatory mechanisms, positioning social entrepreneurship as a fundamental reordering of system interactions to generate new patterns of value.

Advancing this complexity-based understanding, Seelos and Mair (2018) argue that mastering complexity requires shifting from a focus on individual organizational interventions to an analysis of what they term the "pathology" of problem systems. They posit that SE succeeds not through the linear scaling of a business model but by navigating the uncertain and nonlinear dynamics of the environments in which dual value is created. For the social entrepreneur, this requires process these authors term "systematic search" for impact involving an iterative process of probing the environment to identify the structural barriers that resist dual value creation. This approach aligns with complexity theory by treating SE as an adaptive process of identifying leverage points within a system characterised by feedback loops that would otherwise maintain a state of social or economic disorder.

At a macro-structural level, Nabiyeva and MacNeil (2025) situate SE within socio technical transition theory through what they term the Multi Level Perspective. They argue that existing approaches to SE often overlook the macro-systems within which social ventures operate and which they seek to transform. Their framework conceptualises SE as a multi actor, multi level system change process in which alignment across niche, regime, and landscape levels shapes transformation outcomes. Social needs are characterised as systemic and interconnected, persisting through interactions among actors and institutional contexts.

Recent scholarship further extends systems engagement through ecosystem and complex adaptive systems perspectives. Bhardwaj et al., (2023) conceptualise SE through an ecosystem lens informed by systems thinking, foregrounding interdependence, feedback, and relational dynamics. Akinboade et al. (2023) analyse SE business model design within complex local government service environments framed as complex adaptive systems, highlighting adaptive mechanisms such as stakeholder trust networks and iterative processes. These studies advance systems terminology beyond metaphorical usage, though they function primarily as analytical lenses rather than formal ontological accounts of dual value creation.

Dessureault (2020) advances an explicit open systems interpretation of SE. The author proposes Open Systems Theory as a framework for reconceptualising social enterprise, challenging framings of SE as a closed system that interacts with its environment by generating positive or negative externalities. SE is conceptualised as an active adaptive system embedded in and co evolving with its environment. Although methodologically grounded in heuristic inquiry, this work represents one of the few attempts to anchor SE explicitly within open systems reasoning. Its central contribution lies in asserting that environmental exchange, adaptation, and contextual embeddedness are defining properties of SE.

Analysing SE through systems theory builds on the foundational premise that organisations are open systems engaged in continuous exchange of resources, information, and energy with their environments (Katz & Kahn, 1966; von Bertalanffy, 1968). Within general systems theory, entropy refers to the tendency of organised systems toward disorder unless counteracted through adaptive exchange processes and feedback regulation (von Bertalanffy, 1968). Katz and Kahn (1966) explicitly apply this principle to organisations, arguing that sustained structure requires the importation and transformation of inputs to counter entropic decay. Accordingly, linking SE to entropy through systems theory rests on established organisation theory rather than metaphor, grounding organisational viability in the systemic requirement to maintain order within open, dynamic environments (Katz & Kahn, 1966; von Bertalanffy, 1968).

A smaller subset of contributions explicitly introduces entropy concepts into SE analysis. Ra (2022) proposes a conceptual framework for SE grounded in entropy theory, arguing that social ventures reorganise dispersed resources into structured configurations that reduce systemic disorder. Entropy, in this context, refers to the systemic tendency toward disorder under constraint, which systems counter through feedback and adaptive reorganisation (Meadows, 2008). Ra's work represents a direct attempt to interpret SE through systems theory supplemented by an entropy lens.

Parallel developments in network science extend entropy reasoning to social organisations more broadly. Zingg et al. (2019) quantify the entropy of social organisations to assess configurational flexibility and structural constraint. Although not specific to SE, their approach demonstrates how entropy may serve as an analytical measure of organisational potentiality within complex systems with potential applicability to SE analysis. Within management and strategy literature, entropy is often operationalised as uncertainty or environmental turbulence. Ceptureanu et al., (2017), for example, examine entropy as informational and environmental uncertainty that conditions corporate entrepreneurship through organisational capabilities. While these applications differ in conceptual depth, they illustrate that entropy concepts have entered entrepreneurial analysis through systems and uncertainty frameworks.

This systems-oriented scholarship is not geographically confined. Trivedi and Misra (2015) explicitly ground SE in general systems theory and scientific holism, arguing that effective SE requires understanding social problems as interdependent systems characterised by feedback and emergence. Ramírez (2022) directly links emprendimiento social with teoría de sistemas in proposing system theoretically guided interventions. Broader Economía Social y Solidaria debates in Latin America mobilise complex systems and pensamiento complejo to conceptualise economic organisation and territorial development as embedded within dynamic socioeconomic systems. Colombian scholarship on innovación social similarly situates related practices within systemic interdependence frameworks. Chen and Tang (2026) frame entrepreneurship research from a dynamic complex systems perspective in the Chinese context, reflecting a scholarly orientation that treats entrepreneurial activity as embedded within evolving systems.

Across examined systems-oriented contributions, SE is conceptualised as an open system combining social purpose with economically viable activity embedded within dynamic

socioeconomic environments characterised by interdependence, feedback, and adaptive exchange (Katz & Kahn, 1966; von Bertalanffy, 1968). Drawing on systems theory and complexity science, these perspectives interpret dual value creation as emerging from dynamic interactions across interconnected systems, where organisational adaptation and feedback processes allow social and economic outcomes to co-evolve within complex environments (Goldstein et al., 2010; Seelos & Mair, 2018; Nabiyeva & MacNeil, 2025).

Within systems informed SE scholarship, several authors adopt a distinct approach by identifying elements of the social enterprise system environment while remaining within the boundaries of the social system. Spigel (2017) specifies system configuration in terms of regional and institutional contexts shaping entrepreneurial activity, while Roundy et al. (2018) define configurations of interacting actors characterised by resource flows, coordination, and adaptive relationships. Bhardwaj et al. (2023) identify governance structures, institutional logics, and cross sector collaboration as key structuring elements, whereas Nabiyeva and MacNeil (2025) apply the Multi Level Perspective to theorise social entrepreneurship as a multi level, multi actor process unfolding across niche innovations, socio technical regimes, and broader landscape pressures. This body of work therefore constructs system configuration through relational linkages among social actors and institutional arrangements, without extending analysis to broader ecological or planetary systems.

This configuration does not align social systems with Raworth's (2017) foundational claim that human society is itself embedded within ecological and planetary systems, with biophysical boundaries functioning as the outermost constraints on any social or economic activity. A recent bibliometric review by Budumuru and Paruchuru (2025) of 374 publications spanning 1981 to 2024 maps six thematic clusters in SE research and identifies social innovation, incubation, and scaling as motor themes, while tracing an evolutionary shift from foundational concerns of sustainability and community development toward hybrid business models, digital platforms, and crisis management. The continued thematic expansion of ecosystem approaches in SE research largely bounded within social systems, alongside the field's persistent reliance on context-specific cases, suggests that the literature has not yet converged on causal explanations linking particular systems configurations to the consistent production of dual value through SE practice. While the noted systems informed perspectives establish SE as an adaptive system operating within broader social systems, they do not explain why organisations combining social and economic objectives emerge repeatedly across historical periods and regions under changing socioeconomic conditions, nor how dual value creation arises from internal organisational mechanisms (Teasdale et al., 2023; Prouchet, 2025).

3.2.4.4 Overview of Theories, Concepts, and Research Approaches in SE

As noted in previous section, the SE literature draws on multiple influential theories and concepts ranging from Polanyi's critique of capitalism from the first half of the twentieth century to Elkington's Triple Bottom Line (1997), summarised in the table below. These approaches together emphasise the importance of social value in society as well as adaptability, resource leveraging, and sustainability in practice.

The reviewed literature predominantly relies on qualitative methods, including critical discourse analysis (Cieslik, 2018), comparative case studies (Bacq & Janssen, 2011), conceptual reviews, and thematic analyses. Existing empirical research on SE draws its samples from classification systems based on legal form, governance structure, or policy designation rather than on the practice of dual value creation itself (Defourny & Nyssens, 2017; Kerlin, 2013; Young & Lecy, 2014).

The resulting samples are heterogeneous in a way that undermines analytical coherence as they include organisations that produce only social value without economic sustainability, organisations that produce primarily economic value with incidental social outcomes, and organisations that integrate both (Doherty et al., 2014; Battilana & Lee, 2014). Because existing classification systems do not require dual value creation as a selection criterion, the empirical literature lacks studies that examine SE practice specifically as a mechanism of simultaneous social and economic value generation (Weerawardena et al., 2021). Table 3.2.4.4 summarises the key theories, concepts, methodologies, and research gaps identified in this adequacy section.

Table 3.2.4.4: Social Entrepreneurship Theories, Concepts, Methodologies, and Gaps

Category	Theories, Concepts, Methodologies and Gaps
Theories	Positive Theory of SE (Santos, 2012) Complexity science model of social innovation in social enterprise (Goldstein et al., 2010)
Concepts	Dual Value Creation (Dees, 2007; Nicholls, 2009; Santos, 2012) Social Innovation (Banerjee et al., 2020; Cieslik, 2018) Holistic Value Creation, Dual Mission Strategies, Value Networks Positive Externalities, Effectuation, Adaptive Decision-Making Sustainability, Impact Measurement, Multi-stakeholder Collaboration. Inclusive Governance, Empowerment of Marginalised Groups, EMES criteria for ideal social enterprise
Methodologies	Critical Discourse Analysis (Cieslik, 2018; Roy & Grant, 2020) Comparative Case Studies (Bacq & Janssen, 2011; Samapti & Satyajit, 2021) Conceptual Reviews; Literature Reviews (Bacq, 2021) Narrative Critical and Thematic Analysis (Banerjee et al., 2020; Dees, 2007)
Research Gaps	Lack of interdisciplinary studies and integrated theories Limited comparative case studies focused explicitly on SE and dual value creation Inconsistent criteria in case selection prevents common patterns from emerging Conceptual and theoretical fragmentation; absence universally accepted SE definition Absence of a integrated knowledge foundation needed for structured SEE curriculum

Table 3.2.4.4 reveals that only two coherent theories have been proposed in SE scholarship, with concepts and terminology varying considerably across contributions, reflecting the field's persistent fragmentation.

3.2.4.5 Adequacy in Education

Education disciplinary perspectives on SEE prioritise learning processes, pedagogical design, and instructional strategies. Researchers examine how educational environments can foster the competencies necessary for SE practice, emphasising learner-centred approaches that promote critical reflection, active engagement, and the development of transformative capacities. The literature reviewed spans diverse geographic contexts including North America, Europe, Africa,

Asia, and South America, reflecting broad consensus regarding the pedagogical strategies needed to foster SE and the belief that education should contribute to a more sustainable, just, and peaceful world (Brennan & Teichler, 2008; Kromydas, 2017; Gajparia et al., 2022). Education scholars approach SEE as a specialised domain of professional adult education, where learning is framed not merely as knowledge transmission but as a transformative process that equips learners to navigate complex social challenges.

Reviewed literature points at several theoretical frameworks shaping education's contribution to SEE. Andragogy, articulated by Knowles (1984) and further examined within adult learning theory by Merriam (2018), refines approach to this type of education by emphasising the self directed nature of adult learning, the experiential grounding of knowledge, and its application to immediate context-specific challenges, recognising the adult learner as an autonomous agent whose prior experiences constitute a resource for acquiring new competencies. Transformative learning theory (Mezirow, 1991, 1997) supports deep shifts in learner perspectives through critical reflection, fostering fundamental changes in how individuals understand and engage with social problems. Pragmatic learning theory, grounded in Dewey's (1916) work, reinforces experiential, practice-based education that promotes active engagement, co-construction of solutions, and practical experimentation. These three frameworks are complemented by critical pedagogy (Freire, 1970), which positions learners as co-creators of knowledge who engage in dialogue to challenge and address social inequities.

Education's primary contribution to SEE lies in its sophisticated delivery frameworks and learner centred approaches that position learners as active participants in knowledge construction (Rogers, 1969) and translate theoretical knowledge into applied competencies. The literature identifies multiple advanced learning approaches as effective for achieving SEE objectives. Problem-based learning develops analytical and collaborative skills through the resolution of complex, authentic problems. Experiential learning emphasises the cyclical process of concrete experience, reflection, conceptualisation, and application (Kolb, 1984). Service learning combines community engagement with academic study to strengthen civic responsibility. Interdisciplinary and transdisciplinary learning enables learners to integrate diverse disciplinary perspectives to address complex real-world challenges (Darbellay, 2015). These pedagogical approaches are reinforced through instructional strategies such as experiential projects, service-learning initiatives, structured discussions, engagement with guest speakers, community embedded activities, and international internships, strengthening the connection between theoretical learning and practical application (Berglund & Verduijn, 2018; Gajparia et al., 2022). Education scholars have also reached broad consensus on key competence areas including critical thinking, systems thinking, creativity, innovation, problem solving, and the ability to adopt both local and global perspectives (Leal Filho et al., 2018; Kromydas, 2017).

Education's focus on pedagogical processes in reviewed literature reveals a significant limitation noted by several authors. The research in SEE concentrates on how to teach without adequately addressing what to teach, as noted in Chapter 1. The reviewed literature indicates limited integration of high-level theories and applied knowledge specific to SE beyond

conventional business and economics frameworks and broad concepts such as sustainability (Berglund & Verduijn, 2018; Leal Filho et al., 2018). Existing SEE content remains largely anchored in managerial and entrepreneurial models, with insufficient incorporation of specialised theoretical constructs or contextually grounded applied knowledge drawn from fields such as social policy, community development, cultural studies, or environmental justice.

While SEE scholarship excels at designing learner centred learning environments and fostering reflective practice, research in this discipline struggles to provide the substantive interdisciplinary content required to support SEE, namely the knowledge that explains dual value creation mechanisms and the applied operational insights specific to SE practice contexts. Moreover, the discipline tends to adopt an internalist research approach, focusing primarily on the analysis and comparison of educational programmes, curricula, and pedagogical practices within universities rather than examining how these relate to broader SE research or to the socioeconomic and political contexts shaping SE practice (Kromydas, 2017; Brennan & Teichler, 2008; Leal Filho et al., 2018; Shahid & Alarifi, 2021).

3.2.4.5.1 Approaches to Globally Applicable Education

Given the investigative focus on globally applicable SEE, this research undertook an exploratory review of a limited number of sources addressing global and interdisciplinary approaches within both SEE and EE more broadly. The purpose was not to provide an exhaustive account of education scholarship, but to identify conceptual tendencies relevant to the design of transferable SEE frameworks.

Recent scholarship in SEE indicates a growing recognition of the need to reconsider curricular design in light of global economic volatility, technological acceleration, environmental instability, and deepening socioeconomic interdependence (Berglund & Verduijn, 2018; Karatas-Ozkan et al., 2023; Reimers, 2024). These structural transformations increasingly position learners within complex, interconnected systems rather than bounded local markets, thereby requiring educational models that extend beyond narrow venture-formation training (Neck & Greene, 2011; Leal Filho et al., 2018; McMurtry, 2020, 2024).

Within the EE literature, Lackéus (2015) argues that the primary purpose of EE is to enable learners to create value for others, thereby positioning entrepreneurial activity as a socialised process of resource transformation rather than a purely individualistic pursuit. This value-based framing reorients EE away from narrow venture creation toward broader preparation for responsible participation in interconnected economic and social systems. Supporting this position, Mahmudin (2023) highlights the importance of fostering creativity and innovation, strengthening opportunity recognition in interconnected markets, developing risk-management capacities under conditions of uncertainty, and integrating ethical, social, and environmental considerations into entrepreneurial practice. EE is therefore framed not merely as preparation for venture creation, but as systemic preparation for navigating complexity and structural change.

Žalėnienė and Pereira (2021) situate higher education within a global sustainability framework that conceptualises contemporary challenges, including climate instability, inequality, and social fragmentation, as transboundary and systemic rather than geographically confined.

From this perspective, higher education must cultivate competencies that enable learners to interpret and respond to interconnected socio-ecological dynamics. Consequently, education is reframed as a global public good where the development of global citizenship becomes a functional requirement for managing systemic risks (Torres, 2015).

At the same time, sustainability-oriented global education scholarship consistently underscores cultural embeddedness and contextual specificity. Educational frameworks must remain attentive to regional institutional configurations, socioeconomic architectures, and local epistemologies that shape practice. Coherence, in this sense, does not imply homogenisation, but rather the articulation of shared principles that can be expressed through diverse institutional and cultural forms. Žalėnienė and Pereira (2021) reflect this balance by emphasising contextual adaptation within globally informed educational models. This necessitates what Sterling (2011) describes as sustainable education, where the focus shifts from teaching about the environment to learning for the system, ensuring that global principles are filtered through local cultural lenses.

The reviewed strands of scholarship suggest a dual structural requirement. Knowledge architecture supporting curricula must be globally intelligible, enabling learners to operate within interdependent economic and ecological systems. At the same time, curricula must remain responsive to local regulatory, cultural, and institutional conditions that shape entrepreneurial activity. The literature therefore supports the articulation of a globally transferable conceptual foundation for SEE, combined with context-sensitive implementation.

3.2.4.5.2 Interdisciplinary Education and Systemic Integration

Horowitz-Gassol (2025) argues that traditional EE approaches are not compatible with SEE as traditional business education remains anchored in linear, profit-centred models reflecting disciplinary compartmentalisation and market-centric reasoning. While EE supports opportunity recognition within narrow economic frames, it does not equip learners to navigate complex socioeconomic ecosystems in which entrepreneurial action intersects with community wellbeing, environmental constraints, and institutional structures that do not support dual value production. Horowitz-Gassol (2025) identifies fragmentation across disciplinary domains as a structural limitation within SEE curricula and proposes a shift toward experiential, collaborative systems thinking. This pedagogical orientation reorients learners from linear problem solving toward holistic reasoning, interdisciplinary collaboration, and engagement with real-world problems embedded in community and global contexts. Although grounded in reflective pedagogical practice rather than formal experimental validation, the study contributes to an emerging body of scholarship positioning systems thinking as an educational response to complexity in SEE.

From a complementary perspective beyond SEE, McMurtry (2020, 2024) examines interdisciplinary learning in relation to complex societal problems and locates the defining characteristic of such problems in structural complexity rather than in the number of disciplines involved. Structural complexity arises when multiple interacting processes operate across levels of organisation such that outcomes are shaped by relationships among elements rather than by isolated causal variables. Effective interdisciplinary learning therefore cannot be reduced to the juxtaposition of disciplinary content, as simply adding economic theory to social value theories

does not produce integration if learners are not equipped to interpret relationships across levels. Consequently, interdisciplinary topics require education that develops cognitive capacities enabling learners to connect domains, trace dynamic interactions, and interpret micro-level decisions in relation to meso-level structures and macro-level conditions. McMurtry further conceptualises learning as the formation of evolving coherences through relational engagement with the world rather than the accumulation of isolated representations.

Morin (2008) provides a closely aligned philosophically grounded critique of disciplinary fragmentation through his formulation of complex thought. Morin argues that modern educational systems organise knowledge through separation, specialisation, and compartmentalisation. While specialist-type organisation deepens disciplinary expertise, it simultaneously reduces learners' capacity to comprehend phenomena characterised by interdependence and recursive causation. Complex thought therefore emphasises contextualisation, connection of parts and wholes, and attention to recursive relations in which outcomes feed back into the conditions that produced them. In Morin's framing, understanding requires situating phenomena within networks of interaction rather than isolating them within bounded explanatory categories. Morin's emphasis on multidimensionality, contextualisation, and recursive interdependence strengthens the educational rationale for integrative learning in SEE, where entrepreneurial action occurs within intertwined economic, social, and ecological contexts. Educational approaches that fragment these dimensions risk producing analytical distortions in which trade-offs are overemphasised and structural interdependencies are overlooked.

Horowitz-Gassol (2025), McMurtry (2020, 2024), and Morin (2008) converge on a central pedagogical insight that complex phenomena spanning domains and operating across levels of organisation cannot be addressed effectively through additive disciplinary instruction. Instead, learners require interpretive frameworks and reasoning capacities enabling them to analyse relationships among economic processes, social institutions, governance mechanisms, and environmental conditions. The reviewed scholarship therefore indicates that interdisciplinary education addressing complex societal challenges requires integrative knowledge structures that render relationships among domains intelligible.

Two analytical implications emerge from this convergence. Complexity-oriented educational scholarship legitimises the inclusion of systems-oriented reasoning within interdisciplinary curricula when subject matter exhibits structural interdependence. McMurtry's relational account of learning and Morin's articulation of recursive relations correspond conceptually to key features of systems and complexity frameworks, including feedback, relational constraint, and part-whole interdependence. Horowitz-Gassol's proposal for collaborative systems thinking within entrepreneurship education provides explicit evidence that such reasoning is increasingly entering pedagogical practice. Although these scholars do not derive formal systemic viability conditions or thermodynamic constraints, their arguments indicate that phenomena characterised by interdependence require interpretive tools capable of tracing interactions across levels and domains. Systems-oriented approaches therefore appear pedagogically appropriate when educational objectives include preparation for action within complex ecosystems.

Interdisciplinary education addressing complex phenomena such as SE also requires a common interpretive framework capable of organising disciplinary insights. Without such a structure, disciplinary contributions remain parallel rather than integrated, and learners may struggle to interpret how specialised knowledge interacts in practice.

3.2.4.5.3 Andragogy and Social Entrepreneurship Education

Within education scholarship, SEE is primarily situated within the tradition of adult and professional education rather than conventional pedagogy. In the andragogical literature, adult learners are characterised by self-direction, reliance on prior experience as a learning resource, readiness to engage with real-world tasks, and orientation toward problem-centred and immediately applicable knowledge (Knowles, 1984; Knowles et al., 2015). These assumptions provide a conceptual foundation for understanding SEE as an educational domain requiring active engagement with complex and context-dependent problems.

Hindle (2007) strengthens this connection between SEE and professional education by arguing that entrepreneurship constitutes a vocational discipline requiring the development of a specialised skills repertoire rather than the accumulation of abstract propositional knowledge. Because entrepreneurial action is contingent, situational, and embedded in specific contexts, educational design must allow learners to integrate existing experience with analytical tools to respond effectively to novel challenges. This position is consistent with the andragogical premise that adult learners interpret and apply new knowledge through the lens of accumulated professional and life experience (Knowles, 1984).

Although SE and SEE pursue a dual social and economic objective that requires interdisciplinary consideration, both SEE and EE involve the preparation of learners for enterprise formation. This shared practical orientation directs both educational domains toward andragogical approaches that emphasise experiential learning, autonomy, and engagement with real-world problems. The relevance of andragogy to SEE receives empirical support in the EE literature. McNally et al. (2020) analysed SE course syllabi globally and documented a shift from instructor centred pedagogy toward learner centred andragogical course design, linking this transition to learner attitudes through the Theory of Planned Behaviour (Ajzen, 2011). The authors demonstrate that learner centred syllabus structures influence student attitudes toward entrepreneurship courses before instruction begins, indicating that pedagogical design shapes learner orientation toward SE practice. Improvements in course clarity and structural organisation contrast with weaker implementation of inclusive language, learner participation in course design, and digital accessibility. Evidence therefore indicates that andragogical adoption within SEE remains incomplete despite a broader pedagogical shift toward learner centred course design within EE.

EE scholarship further explains this pedagogical alignment. Neck and Greene (2011) conceptualise EE as practice centred learning based on experimentation and iterative engagement. Schön (1983) similarly argues that professional education develops competence through reflection in action within uncertain contexts. Pittaway and Cope (2007) demonstrate that engagement with real or simulated ventures reflects the nonlinear character of entrepreneurial practice more effectively than classroom instruction alone, while Lackéus (2015) advances value creation

pedagogy in which learners generate tangible value for external stakeholders. Reviewed scholarship therefore indicates that andragogical approaches in SEE emerged primarily through pedagogical developments within EE, where experiential learning, reflective practice, and real-world engagement shaped course design traditions later adopted in SEE.

The reviewed literature establishes a logical connection between andragogy, EE, and SEE. SEE can be understood as a specialised form of professional adult education that requires self-direction, experiential engagement, critical reasoning, and reflective adaptation. The linkage rests not on demographic criteria or educational level, but on shared assumptions regarding the competencies required for responsible and context-sensitive entrepreneurial practice. In this model, the SE practitioner is not merely a business owner but a reflective agent within a complex system, trained to apply specific organisational logic to achieve dual value outcomes. The evidence reported by McNally et al. (2020) therefore indicates that andragogical orientation is not merely a normative pedagogical preference, as observable syllabus-level design features associated with andragogy can be operationalised and linked to measurable outcomes, including learner attitudes and entrepreneurial intention, as modelled through the Theory of Planned Behaviour (Ajzen, 2011).

While the andragogical shift identified by McNally et al. (2020) emphasises learner-centred syllabi, the inclusion of marginalised entrepreneurs (MEs) requires attention to the ethical climate within which learning occurs. The intimidation frequently reported by MEs cannot be addressed through curricular redesign alone, as it reflects underlying power asymmetries embedded in entrepreneurial discourse.

Apostolova & Gauthier-Mamaril (2018) argue that in contexts of vulnerability, trust is not a by-product of interaction but a precondition for meaningful engagement. When the author's re-centring approach, originally developed in patient care, is translated into the SEE classroom, it suggests that educators must intentionally centre the vulnerability of the ME rather than treat it as a deficit to be corrected. Ethics of care emphasises attentiveness and responsibility within social relationships (Apostolova & Gauthier-Mamaril, 2018). Within education scholarship, ethics of care is associated with the professional obligation of educators to exercise authority responsibly when guiding learners in contexts involving uncertainty and potential personal risk. Teaching relationships involve asymmetries of authority that place educators in a position of responsibility toward learners who rely on their guidance in interpreting complex knowledge domains (Todd, 2003). Responsible teaching therefore requires protecting learners from indoctrination and preserving conditions for independent judgement (Siegel, 1988), while higher education has an obligation to cultivate critical reasoning rather than prescribe predetermined beliefs (Nussbaum, 2010). In this perspective, ethics of care within professional education extends beyond interpersonal attentiveness to include transparent communication of risks and limitations associated with professional practice. Andragogy, in this configuration, functions not merely as a delivery method but as a relational practice that redistributes authority over knowledge and mitigates the power imbalances that have historically limited ME participation in the entrepreneurial ecosystem.

Building upon this learner-centred foundation, Yousafzai et al. (2025) conceptualises resistance as a process through which marginalised actors assert authority over their experiential knowledge. In SEE, this perspective supports movement away from deficit framing, where MEs are perceived as lacking formal business language, toward activation of contextual intelligence as a primary resource for opportunity recognition and solution design. Marginalisation is thereby reframed as a source of diagnostic insight rather than a marker of inadequacy. Through this shift, proximity to social challenges becomes not a liability but a strategic advantage grounded in situated understanding.

3.2.4.5.4 Overview of Theories, Concepts, and Research Approaches in Education

The reviewed literature identified three dominant theories shaping SEE pedagogy. Critical pedagogy (Freire, 1970) emphasises empowerment. Transformative learning (Mezirow, 1991) supports deep shifts in learner perspectives. Pragmatic learning reinforces experiential, practice-based education (Dewey, 1916).

Expert consultation conducted during the literature narrowing process directed attention to a further body of scholarship examining the relationship between disciplinary content and instructional design within SEE. The examined scholarship indicated that a structural gap extends beyond the pedagogical limitations identified in Section 3.2.4.5. Worsham (2012) characterises the field as theoretically insufficient where structural and political dimensions of social problems are not systematically addressed. Zhu et al. (2016) further contend that curricula frequently emphasise entrepreneurial process while insufficiently integrating the management of competing institutional logics.

The critiques in literature converge on a specific finding that the knowledge base required to treat social and economic value as co equal organising principles within SEE remains insufficiently consolidated. Shulman's (1987) concept of Pedagogical Content Knowledge illuminates this tension directly, arguing that effective education requires coherent alignment between subject matter and instructional approach. Within SEE, that alignment remains uneven, reflecting the absence of a consolidated and widely shared knowledge base capable of serving as a cohesive point of departure across regions and disciplinary traditions. The education literature predominantly employed qualitative methodologies such as interviews and observations, with some studies incorporating Critical Discourse Analysis (CDA) and Critical Research Analysis (CRA) (Kromydas, 2017; Brennan & Teichler, 2008) as summarised in Table 3.2.4.5.

Table 3.2.4.5: Education Theories, Concepts, Methodologies, and Research Gaps

Category	Theories, Concepts, Methodologies and Gaps
Theories	Andragogy (Knowles, 1984; Knowles et al., 2015; Merriam, 2018) Transformative Learning Theory (Mezirow, 1991, 1997) Pragmatic Learning Theory (Dewey 1916) Critical Pedagogy (Freire, 1970) Complex Thought (Morin, 2008) Theory of Planned Behaviour applied to SEE (Ajzen, 2011)
Concepts	Value Creation Pedagogy (Lackéus, 2015) Systems Thinking (Horowitz-Gassol, 2025) Integrative Reasoning and Cross-Level Sense-Making (McMurtry, 2020, 2024) Reflective Practice and Reflection-in-Action (Schön, 1983) Sustainable Education (Sterling, 2011) Global Citizenship as Functional Requirement (Torres, 2015) Multidimensionality, Contextualisation, Recursive Interdependence (Morin, 2008) Ethics of Care and Testimonial Justice (Apostolova & Gauthier-Mamaril 2018) Resistance as Contextual Intelligence (Yousafzai et al., 2025)
Methodologies	Global Syllabi Review and Longitudinal Comparison (Shahid & Alarifi., 2021) Empirical Survey-Based Analysis; Theory of Planned Behaviour (McNally et al., 2020) Literature Reviews (Mahmudin, 2023; Žalėnienė & Pereira, 2021) Reflective Pedagogical Practice / Qualitative Inquiry (Horowitz-Gassol, 2025) Philosophical and Epistemological Critique (Morin, 2008; García, 2006)
Research Gaps	Focus on how to teach without adequately addressing what to teach (Berglund & Verduijn, 2018; Leal Filho et al., 2018) Content anchored in managerial and entrepreneurial models with insufficient incorporation of knowledge from social policy, community development, cultural studies, or environmental justice Internalist research perspective with limited engagement with broader socioeconomic and political contexts shaping SE practice (Kromydas, 2017; Brennan & Teichler, 2008; Leal Filho et al., 2018) Absence of an integrative framework capable of organising disciplinary insights relationally rather than additively (McMurtry, 2020, 2024; Morin, 2008)

Table 3.2.4.5 maps the full range of theories, concepts, methodologies, and research gaps identified across the education adequacy analysis, illustrating both the sophistication of pedagogical development within SEE and the persistent absence of a consolidated interdisciplinary content base. Upon achieving adequacy in each of the relevant disciplines, the final section of Chapter 3 summarises the findings that emerged from the literature review conducted across Phases 2 to 5 of the IRP implementation. The interdisciplinary literature review conducted for this investigation extends beyond the disciplines most immediately associated with SE education to include systems theory and complexity science, reflecting the IRP principle that disciplinary scope should be informed by the explanatory demands of the research problem rather than by the boundaries of any single field (Repko & Szostak, 2025).

Although systems theory and complexity science were not identified as primary disciplines in the initial literature review, the IRP permits inclusion of additional disciplinary insights when required to address the research problem (Repko & Szostak, 2025). Since education and SE

scholarship engage concepts originating in these fields, a brief review of systems theory and complexity science is therefore included.

3.2.5 Systems Theory and Complexity Science Expansion in Literature Review

Both systems theory and complexity science developed through intellectual contributions originating in different disciplines and geographical regions, often without coordinated origins or shared institutional foundations. However, the contributions emerging from the two fields of study converge in both logic and explanatory principles. This section briefly addresses origins and evolution of systems theory, complexity science and their inclusion in social sciences.

The origins of systems thinking can be traced to two independent scholarly traditions emerging in the early twentieth century. One developed within geology in the former Soviet Union, where Vernadsky's work on the biosphere conceptualised the Earth as an integrated system (Vernadsky, 1926). The other emerged within Austrian biology, where von Bertalanffy formulated General Systems Theory as a framework for analysing open systems across scientific domains (von Bertalanffy, 1968). Geopolitical separation between Soviet and Western scientific communities during this period limited early interaction between these parallel contributions.

Vernadsky (1926), proposed the concept of the biosphere and subsequently the noosphere, positioning human intellectual and organisational activity within planetary scale living systems and providing an early scientific basis for interpreting human societies as subsystems of broader ecological systems subject to thermodynamic and ecological constraints. Drawing on different disciplinary roots within the same intellectual tradition, Bogdanov (1922) developed Tektology as a general science of organisational forms, proposing that systems across biological, social, and physical domains may share common principles of structural organisation and adaptive equilibrium, anticipating ideas later explored in general systems theory.

Von Bertalanffy (1968), working independently within Austrian and later North American biology and philosophy of science, articulated general systems theory as a transdisciplinary framework, arguing that open systems maintain viability through continuous exchange of energy, matter, and information with their environments. Katz and Kahn (1966) applied related reasoning to organisations within American social psychology, introducing entropy as the systemic tendency toward disorder that organisational structures must counteract through adaptive feedback processes and resource transformation. Meadows (2008), synthesising these traditions within North American environmental systems science, produced a widely used systems thinking framework applicable across physical, biological, and social domains.

Parallel developments in complexity science emerged through Prigogine (1984), working within Belgian physical chemistry, whose research demonstrated that far from equilibrium conditions can generate self organising structures through dissipative processes, suggesting that emergence is a property of certain dynamic systems. Morin (2008), writing within the French sociological and philosophical tradition and drawing on cybernetics, information theory, and biology, extended complexity thinking into social sciences domains through pensamiento complejo, arguing that social phenomena often require analytical approaches that recognise interdependence and recursive causation rather than simple linear explanation.

Chinese systems science also contributed to the development of complexity-oriented systems thinking. Qian Xuesen (1990), drawing on engineering, cybernetics, and systems theory, developed the concept of open complex giant systems to analyse large-scale sociotechnical and social systems characterised by nonlinear interaction and multilevel coordination. This framework influenced the development of systems engineering and complexity research in China, where systems approaches have been applied to analyse economic development, governance, and technological transformation within interconnected societal systems.

The incorporation of systems theory and complexity science into social science scholarship occurred gradually, reflecting epistemological caution at disciplinary boundaries (Katz & Kahn, 1966; Meadows, 2008). Nevertheless, systems approaches have been applied across disciplines to analyse social and economic phenomena as interdependent systems. Organisational theory conceptualises organisations as open systems embedded within broader institutional environments (Scott, 2003), while public sector research interprets governance and service delivery environments as complex adaptive systems shaped by stakeholder interaction and feedback processes (Akinboade et al., 2023). The inclusion of systems theory and complexity science in social sciences has informed research in political economy and organisational studies, and as discussed in the SE adequacy section, these perspectives have also been applied in SE scholarship.

Systems theory conceptualises complex phenomena as hierarchies of interdependent open systems composed of interacting subsystems whose behaviour is conditioned by the structural properties of the systems in which they are embedded. Since subsystems exchange resources, information, and outputs across system boundaries, they cannot be analysed independently of the systemic conditions governing the encompassing system. Systems theory therefore treats systemic conditions as boundary constraints regulating exchanges among subsystems and defining the limits within which coordinated interaction can occur while maintaining system viability (von Bertalanffy, 1968; Katz & Kahn, 1966).

Disciplines adopting systems approaches specify such conditions to analyse subsystem interactions. In physiology and medicine, homeostasis identifies systemic conditions such as temperature regulation, pH balance, and metabolic equilibrium that define the limits within which physiological subsystems interact while sustaining organism viability (Cannon, 1932). Institutional theory identifies regulative, normative, and cultural cognitive structures as systemic conditions stabilising interactions among organisational and societal subsystems (Scott, 2003). In cybernetics, Beer (1985) formalises systemic conditions through the Viable System Model, specifying regulatory control, information feedback, and coordination mechanisms required for viable interaction across hierarchical system levels.

These examples demonstrate that disciplines employing systems approaches derive systemic conditions to define the boundaries within which interdependent subsystems interact across system levels. SE scholarship similarly describes social enterprises as open systems embedded in broader social environments (Goldstein, Hazy, & Silberstang, 2010; Dessureault, 2020; Ra, 2022). However, SE scholars do not specify the systemic conditions structuring interactions across the macro global, meso societal, and micro enterprise levels within which social

enterprises operate. This omission limits the analytical capacity of existing research to explain the structural conditions supporting SE activity.

3.2.6 Toward Analysis and Evaluation

The systematic literature review identified critical gaps in existing scholarship on SEE. The historical analysis showed that while entrepreneurship theory developed alongside economics in the early twentieth century and achieved alignment between macro-level institutional frameworks and micro-level practice in economic value creation (Schumpeter, 1934), SE research has not followed a comparable trajectory. As a result, no equivalent macro-level theories or institutional architectures have emerged to support dual value creation, leaving SEE without a theoretical foundation for globally coherent curriculum development.

The adequacy assessment across the three disciplines further confirmed the fragmentation identified in Chapter 1. IPE scholarship addresses economic and social value creation separately and lacks cross-regional coherence and institutional mechanisms capable of supporting meso- and macro-level architectures conducive to SE development. SE scholarship provides convergent micro-level frameworks for integrating social and economic objectives (Dees, 1998; Mair & Martí, 2006) but lacks a universally accepted definition and theoretical perspectives connecting micro-level practice with meso- and macro-level institutional structures. Educational research offers sophisticated pedagogical approaches but engages only marginally with substantive SE content or broader institutional contexts (Neck et al., 2014; Kickul & Lyon, 2020). Together, these findings suggest that existing scholarship does not provide the integrated macro-, meso-micro-, or micro-level knowledge architecture required for globally relevant SEE. Chapter 4 addresses these gaps through critical analysis and integration of disciplinary insights. Building on the adequacy assessment, the chapter evaluates how different disciplinary perspectives conceptualise dual value creation, identifies areas of convergence and conflict, and examines how insights from the relevant disciplines can be integrated to support SEE and SE practice across macro-, meso-, and micro-levels.

Chapter 4 Interdisciplinary Analysis and Integration

4.1 Toward a Theoretical and Conceptual Framework

Social Entrepreneurship Education (SEE) has achieved considerable pedagogical sophistication through andragogy, experiential learning, and transformative learning (Knowles, 1984; Kolb, 1984; Mezirow, 1991). However, the fragmentation in the research base described in Chapter 1 has produced corresponding fragmentation in SEE content. The result is a field characterised by advanced pedagogies and inconsistent knowledge architecture, in which instructional design compensates for the absence of a coherent knowledge foundation rather than transmitting one.

The adequacy analysis presented in Chapter 3 traced this fragmentation to the research base itself, identifying two analytically distinct strands within IPE and SE scholarship. Each strand offers a different causal explanation of SE as a dual value creation practice. The dominant strand explains social and economic values as separate processes that require balancing tensions and coordination at both social and economic levels. By contrast, the alternative strand examines the SE phenomenon through the lenses of systems theory and complexity science, offering a different perspective on how dual value creation occurs in SE practice and proposing cross-system interaction across open dynamic systems as the factors determining the success of SE. These competing explanations cannot be reconciled within any single discipline, which is why interdisciplinary integration is required.

The dominant strand produces three well-documented paradoxes that it cannot fully resolve within its own analytical framework, including the profitability paradox, the social value paradox, and the hybridity challenge (Santos, 2012; Ebrahim et al., 2014; Defourny & Nyssens, 2017). While the alternative strand of literature does not produce these paradoxes, it remains analytically incomplete because it does not fully specify the systems with which social enterprises interact or the cross-system relationships that produce SE (Trivedi & Misra, 2018). Existing contributions recognise the importance of cross-system interactions and emergent dynamics in explaining SE (Goldstein et al., 2010). The system configuration and the nature of interactions required to explain the emergence of SE remain underspecified, limiting the ability of the alternative strand to explain the persistence of dual value creation across institutional contexts and historical periods.

The analysis proceeds from the post-positivist paradigm, the systems-theory-informed ontological position, and the epistemological pluralism established in Chapter 2. The post positivist paradigm requires that explanation be grounded in observable structural properties of systems rather than in normative assumptions. The analysis disciplinary integration and conclusions regarding the system configuration pertinent to SE, along with the analytical, theoretical and conceptual frameworks introduced in Chapter 2 are developed in this chapter. This chapter advances the hypothesis that the alternative strand, complemented by integrated insights from disciplines examining open, dynamic systems, offers a more powerful analytical lens for SEE, capable of explaining and potentially resolving the paradoxes identified in SE scholarship. Whether the analytical framework developed in this chapter supports this hypothesis is explored

through the critical analysis of disciplinary insights that follows. The chapter proceeds through IRP Steps 6 through 10 (Repko & Szostak, 2025), applied iteratively as the methodology requires.

Section 4.2 develops the analytical framework through which the hypothesis is tested, performing IRP Steps 6 through 8. The section identifies the separability premise between social and economic values as a shared perspective across dominant scholarship in all three disciplines that does not align with alternative systems theory informed contributions. The analysis creates common ground by establishing systems configuration pertinent to SE and deriving systemic conditions from the shared open systems ontology of the alternative strands. From this analytical basis, the section develops an analytical framework for exploring societal responses to shared reality and interpreting perspectives in IPE and socioeconomic architectures. Section 4.3 performs a deepened critical analysis of IPE, SE, and education scholarship through the analytical framework, returning to IRP Step 6 in the iterative manner the methodology permits (Repko & Szostak, 2025), with each step in the critical analysis progressively integrating insights from the preceding one, producing cumulative integration rather than separate disciplinary evaluations.

Section 4.4 performs IRP Step 9, integrating insights across all three disciplines to identify three knowledge gaps visible only through cross-disciplinary analysis and to support the hypothesis advanced at the opening of this chapter. Section 4.5 formalises the theoretical framework by performing IRP Step 10 and constituting new theoretical knowledge constructed through interdisciplinary integration. Within this chapter, integration was achieved through common ground techniques recognised within the IRP framework, including organisation and transformation (Repko & Szostak, 2025).

The theoretical proposition, supporting the theoretical framework developed in this chapter, is evaluated against Whetten's (1989) criteria and the SEE theoretical framework is assessed against Kivunja's (2018) criteria. Section 4.6 specifies the conceptual framework by operationalising the theoretical framework through a two-tier knowledge architecture for SEE that organises high-level theories and applied knowledge across global macro, societal meso, and enterprise micro levels. The analytical and theoretical foundation developed in this chapter provides the basis for all subsequent phases of the research, including knowledge synthesis in Chapter 5, comparison with empirical findings in the comparative regional study in Chapter 6, and evaluation of the educational model in Chapter 7. An overview of the Chapter 4 architecture is presented in Figure 4.1.

Figure 4.1: Chapter Architecture

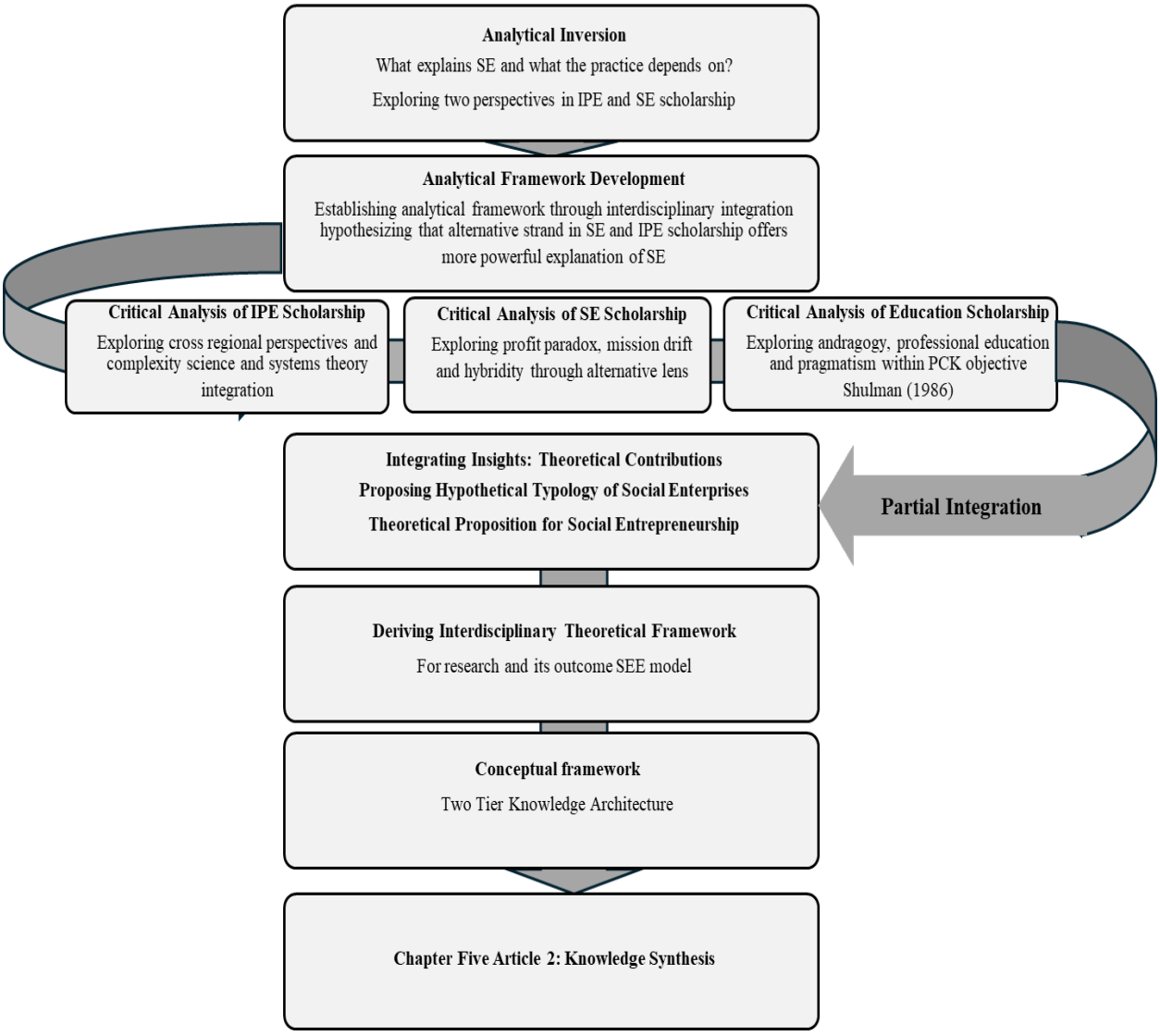


Figure 4.1 presents the architecture of Chapter 4 and the sequence that follows from analysing and evaluating disciplinary insights to establishing analytical framework, to revisiting critical analysis of disciplinary scholarship and deriving theoretical and conceptual frameworks.

4.2 Developing an Analytical Framework: Analysing and Evaluating Disciplinary Insights

This section evaluates insights from each of the three relevant disciplines based on the adequacy development presented in Chapter 3, identifies potential conflicts between disciplinary perspectives, and explores whether those conflicts can be resolved in a way that establishes common ground. The section proceeds in two stages. The first stage evaluates how the dominant and alternative strands operate across all three disciplines, examining apparent complementarity and identifying whether it conceals deeper conflicts in how each strand explains dual value creation. The second stage explores whether the two strands can be reconciled to establish common ground for deepened critical analysis.

The adequacy analysis in Chapter 3 identified a structural imbalance in SEE, with pedagogical advancement outpacing the development of curricular content. Research shows that SEE continues to prioritise learning processes while lacking the integrated knowledge required for dual value creation, leaving learners with high self efficacy but insufficient conceptual grounding for practice (Satar, 2025; Loukopoulos & Papadimitriou, 2025).

Although advanced pedagogical approaches, including andragogy, learner centred approaches, and experiential learning, are well established, they largely assume the existence of a coherent knowledge base. This assumption has been challenged, with the SE field described as theoretically thin, insufficiently integrated, and limited in addressing competing institutional logics (Worsham, 2012; Zhu et al., 2016; Newman, 2023). In the absence of integrated SE content, SEE curricula tend to reproduce disciplinary divisions, positioning economic and social value as separate domains and treating dual value creation as a balancing outcome rather than an integrated process (Kickul & Lyons, 2020; Berglund & Verduijn, 2018). Addressing this gap between pedagogical advancement and the absence of integrated content requires identifying and reconciling disciplinary conflicts to determine the content capable of supporting SEE across contexts.

Aligning pedagogy with content in accordance with Shulman's (1987) recommendation therefore requires that the conflicts within and between these disciplinary knowledge bases are first identified, that reconciliation across the competing strands is attempted, and that the resulting disciplinary knowledge is analysed with sufficient precision to determine what coherent content SEE curricula can be built upon. The evaluation that follows proceeds, accordingly, examining how the dominant separatist strand operates across the three disciplines and why it produces apparent complementarity that masks deeper analytical limitations.

4.2.1 Apparent Complementarity

The three disciplines present complementary perspectives that could appear to offer a comprehensive understanding of SEE. This disciplinary complementarity operates at two levels, functional and epistemic. Functionally, the disciplines address different scales of analysis and different aspects of the problem. Epistemically, each discipline generates knowledge claims grounded in its own analytical traditions, and the apparent alignment among these claims can obscure the extent to which they rest on shared but unexamined assumptions. The non-relativist epistemological pluralism established in Chapter 2 (Gibbons et al., 1994) requires that such assumptions be evaluated through their capacity to inform effective action rather than through internal disciplinary coherence alone.

Macro-level analysis addresses value creation theories that explain dual value creation at a societal and global level. Meso-level analysis examines regional value creation approaches including institutional structures, policy regimes, and governance frameworks that organise economic and social activity across entire societies or regions (North, 1990). Micro-level analysis examines social enterprises through organisational forms, field dynamics, and intermediary structures that mediate between institutional frameworks and enterprise-level action (Battilana & Lee, 2014; Defourny & Nyssens, 2017). Together, these three levels of analysis establish the

multilevel architecture through which SEE content must be organised if it is to address dual value creation comprehensively.

Specifically, IPE provides macro- and meso-level theories of both social and economic value creation, as well as the institutional context for understanding how economic, social, and political structures shape the conditions under which social enterprises operate (Polanyi, 1944; North, 1990; Balaam & Dillman, 2019). SE scholarship contributes meso- and micro-level insights, describing how social enterprises, individual entrepreneurs, and community organisations attempt to create dual value within socioeconomic architectures across different contexts (Mair & Martí, 2006; Santos, 2012; Bacq, 2021). Education supplies pedagogical frameworks that translate multilevel understanding of the SE phenomenon into teachable content, structured learning experiences, and capability development appropriate to higher education (Mezirow, 1991; Kickul & Lyons, 2020; Hirst et al., 2020). The functional distribution across levels and disciplines appears to provide a comprehensive foundation for SEE, yet the evaluation that follows reveals that this appearance of completeness rests on a shared analytical premise that constrains what each discipline can explain.

However, this apparent completeness in dominant scholarship across disciplines masks a deeper problem. Across IPE, SE, and education, social and economic value are generally treated as distinct analytical domains whose relationship is managed through institutional coordination, organisational governance, or curricular design (Weber, 1922; Bourdieu, 1986; Bacq, 2021). The shared premise is not merely analytical convenience but a structural feature that shapes what each discipline can see and explain about SE. In IPE and SE, the separability assumption allows scholars to isolate variables, construct models, and test relationships within bounded analytical domains that treat social and economic values as two distinct types of value that can be optimised independently (Simon, 1962).

The same premise enables IPE scholars to examine how economic policies affect social welfare without fully accounting for the structural interdependence between society and the economy (Polanyi, 1944). It also permits SE scholars to theorise about organisational strategies for "balancing" social and financial objectives without systematically questioning whether the balance metaphor accurately reflects enterprise-level practice (Smith et al., 2013). In both cases, the premise constrains the analytical scope to relationships between separated categories rather than examining the conditions under which separation itself becomes problematic.

Within education, the separation of values leads scholars to design curricula that present theories of social and economic value as distinct bodies of knowledge, with dual value creation practice positioned as a separate module. Students are then tasked with designing and integrating SE solutions through project-based or experiential learning (Shahid & Alarifi, 2021). The curricular architecture thereby reproduces the analytical separation inherited from IPE and SE scholarship, transferring the burden of integration from the knowledge base to the learner.

The values separation further generates three well-documented paradoxes in SE research. The profitability paradox asks how organisations can create social value and remain financially viable (Santos, 2012; Battilana et al., 2015). The social value paradox, commonly referred to as

mission drift, concerns whether the pursuit of revenue undermines social purpose (Ebrahim et al., 2014; Grimes et al., 2019). The hybridity challenge involves attempts to classify social enterprises and propose organisational structures adequate to dual value creation, producing an expanding array of typologies that mirror disciplinary assumptions (Defourny & Nyssens, 2017; Alter, 2007). All three paradoxes arise from the shared disciplinary premise that social and economic value constitute separate objectives that require balance (Smith et al., 2013).

Although dominant IPE and SE scholarship foregrounds these paradoxes, the divergence between theoretical predictions and the empirical reality of social enterprise practice has been documented across research contexts. Scholars conducting field research consistently observe that practitioners do not report the acute tensions between social and economic objectives that theoretical frameworks anticipate (Battilana et al., 2015; Doherty et al., 2014; Smith et al., 2013). Recent ethnographic and case study research reveals that social entrepreneurs frequently describe social and economic value creation as integrated operational processes rather than as competing demands requiring deliberate managerial reconciliation (Hlady-Rispal & Servantie, 2018; Bacq, 2021; Tracey & Phillips, 2007). At the same time, the scholarship provides limited explanation for the historical and cross-regional emergence of SE, leaving this pattern at the level of observation rather than explanation.

If the tensions identified in dominant frameworks are as structurally significant as suggested, their apparent absence in practitioner accounts, alongside the widespread and persistent emergence of SE across contexts, remains insufficiently explained. These gaps suggest that existing theories may overstate the conflict between social and economic objectives because they rely on static models rather than accounting for the fluid ways practitioners integrate these objectives in practice (Mair, 2020; Grimes et al., 2019). Moreover, available field research indicates that, at least in some cases, social entrepreneurs do not perceive social and economic objectives as inherently conflicting (Pieniazek et al., 2024; Doherty et al., 2014).

This empirical pattern and persistent presence of SE raise a fundamental question: if practitioner experience contradicts theoretical expectations, do the paradoxes identified in SE scholarship reflect inherent anomalous nature of SE, or do they reflect limitations in the analytical frameworks through which scholars interpret the phenomenon? While the separability strategy has proven effective for understanding linear, deterministic systems, the approach becomes problematic when applied to complex adaptive systems where social and economic outcomes emerge from integrated, nonlinear processes (Miller & Page, 2007; Holland, 1995).

4.2.2 Analytical Inversion and Complementarity

The preceding section demonstrated that dominant strands across IPE, SE, and education appear complementary while identifying SE as an anomalous practice needing to manage tensions, which contradicts both the cross-regional and historical presence of SE and recent empirical evidence. This raises the question of whether such complementarity points to SE as a genuine anomaly in entrepreneurial practice or it conceals a deeper analytical challenge. The evaluation that follows examines the alternative strand across IPE and SE to determine whether reconciliation between the two strands is possible and what form it might take.

Within IPE, an alternative strand situates the economy within broader systemic hierarchies. Polanyi (1944) rejected the notion of a self-regulating market detached from society, arguing that economic processes are embedded within social institutions. This position was extended through systems-oriented reasoning. Daly (1996) described the economy as a subsystem of society nested within the biosphere, reframing economic optimisation as constrained by higher-level systemic limits. Raworth (2017) operationalised this nested model through social foundations and ecological ceilings, while Georgescu-Roegen (1971) grounded it in thermodynamic principles, demonstrating the irreversible transformation of low-entropy resources into high-entropy waste. These combined contributions reposition the economy as structurally dependent on social and ecological systems rather than as an autonomous domain.

A parallel development appears in SE scholarship. Alternative approaches conceptualise social enterprises as open systems characterised by emergence, adaptation, and feedback, core concepts in complexity theory (Goldstein et al., 2010). Complexity theory defines emergence as the formation of system level properties arising from interactions among system components that cannot be reduced to those components alone, while adaptation refers to the capacity of systems to adjust to changing conditions, and feedback describes the recursive processes through which system outputs influence subsequent system behaviour (Holland, 1995).

Moreover, Goldstein et al. (2010) model social enterprise as a system transition in nonlinear environments, while Dessureault (2020) and Ra (2022) analyse enterprise viability through open systems and entropy-based reasoning. Comparable perspectives are evident in Indian (Trivedi & Misra, 2015), South American (Ramírez, 2022), and Chinese (Mao et al., 2025) scholarship, indicating that this ontological orientation is not region-specific. The cross-regional convergence on open systems reasoning within SE scholarship parallels the convergence documented in Chapter 2 across systems theory and complexity science traditions, reinforcing the analytical foundation on which the derivation in this chapter proceeds.

The analytical significance of these contributions lies in their convergence. IPE scholarship establishes the economy as nested within social and ecological systems, while SE scholarship characterises enterprises as open systems operating through continuous environmental interaction. Together, they support a shared ontological claim that societies and organisations function as open dynamic systems embedded in hierarchical relationships, with enterprises constituting subsystems of broader social, economic, and ecological systems (von Bertalanffy, 1968; Katz & Kahn, 1966).

The two strands therefore offer fundamentally different explanations of SE as redefined in this thesis. The dominant strand in both IPE and SE assumes that social and economic value are produced through distinct processes and that their simultaneous achievement depends on socioeconomic arrangements. Within this view, governance structures, financing mechanisms, legal forms, and institutional configurations determine dual outcomes by shaping how separately generated social and economic objectives are balanced, coordinated, or redistributed. Dual value creation is therefore treated as the result of institutional design and managerial alignment across differentiated value domains.

By contrast, the alternative strand rejects the premise of separability. Across these contributions, social, ecological, and economic value are understood as interdependent dimensions emerging through dynamic interaction within open systems. Rather than attributing outcomes primarily to institutional coordination of separate objectives, this perspective explains dual value creation as arising from integrated systemic processes. Organisations and societies are therefore conceptualised as interdependent systemic formations rather than as distinct spheres producing separate categories of value. Figure 4.2.2 illustrates the analytical structure that emerges from comparing these two strands of scholarship and diagnosing this analytical inversion.

Figure 4.2.2: Analytical Inversion and Resulting Paradoxes

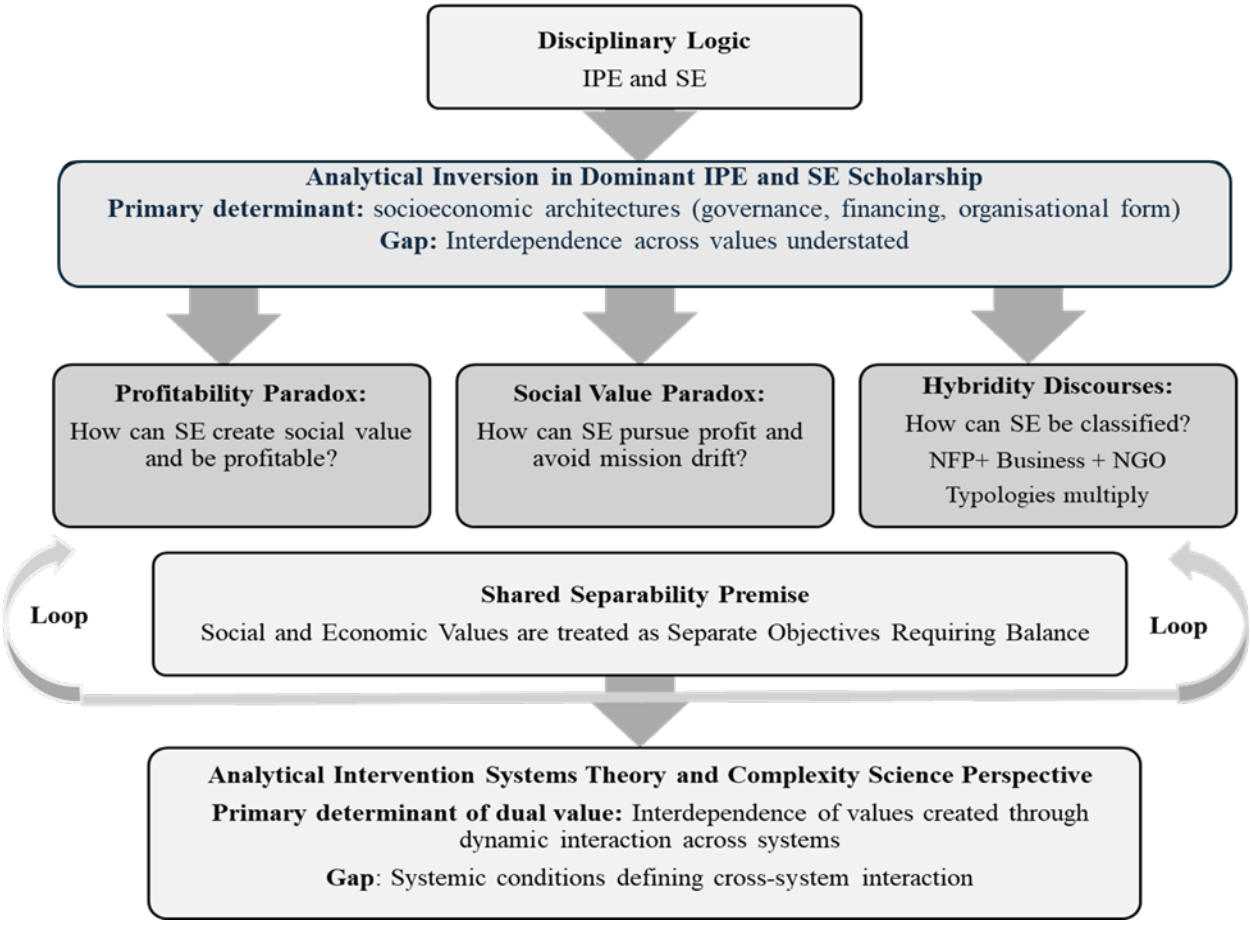


Figure 4.2.2 illustrates the difference in approaches taken by the two strands. This divergence constitutes an analytical inversion. If the dominant strand is sufficient, then the analytical and institutional separation of social and economic value can adequately explain dual value creation in social enterprise practice. If the alternative strand is considered, explanation instead requires examination of the conditions through which dual value creation emerges through interaction between surrounding systems. The two scholarly traditions approach dual value creation through fundamentally different analytical lenses, one conceptualising it as an integrative process and the other as two distinct processes requiring reconciliation.

The top section of Figure 4.2.2 identifies the disciplinary logics that shape how dominant IPE and SE interpret social and economic value creation. Within this logic, analytical separation of values shapes socioeconomic architectures such that institutional structures function as the primary determinant of dual value, directing analysis toward human-designed socioeconomic architectures and away from the dynamic processes through which value is generated. As a result, interdependence and cocreation across social and economic values is not treated as an explanatory starting point. The middle section illustrates the analytical inversion that follows from this separability orientation documented in IPE and SE scholarship,

The bottom section presents the analytical intervention indicated by the alternative strand of scholarship, within which dual value is created through dynamic interaction across open systems that shape interdependent value dimensions. Systems theory and complexity science redirect attention toward open-systems dynamics, nestedness, feedback, and emergence. From this perspective, dynamic interaction across systems becomes the primary determinant of how social and economic value is created. The figure points explicitly to systemic conditions because, within systems theory, every open system operates under governing constraints that regulate interaction and maintain viability (von Bertalanffy, 1968; Katz & Kahn, 1966). The open systems perspective represents a holistic analytical orientation that von Bertalanffy (1968) advanced explicitly as an alternative to the reductionist decomposition of phenomena into isolated parts.

The identification of the system configuration within which a phenomenon operates is analytically decisive because it determines which conditions govern cross-system interactions and therefore which constraints apply to all subsystems embedded within the same system configuration. Systemic conditions appear across disciplines that study complex open systems as a common explanatory construct for maintaining system viability. Although described sometimes using different terminology, including viability conditions in biology (Cannon, 1932; Kitano, 2004), boundary conditions in systems theory (von Bertalanffy, 1968; Meadows, 2008), and stability conditions in complexity science (Holland, 1995; Mitchell, 2009), this concept refers to the same underlying requirement that system interactions occur within shared constraints necessary for sustaining viable system states. As such, systemic conditions operate across all levels of nested open systems and provide a unifying analytical basis for explaining interactions within and across systems.

Meadows (2008) demonstrates that the defining properties of complex systems arise from relationships and interactions across system levels rather than from the properties of individual components of the system configuration. Systemic conditions are the non-negotiable constraints arising from the structural properties of the entire system that define the range of viable states for all subsystems, and they are also referred to in the systems literature as viability conditions because they specify what any subsystem must satisfy to remain functional within the larger system in which it is embedded (von Bertalanffy, 1968; Beer, 1985). The principle that subsystem viability depends on conditions arising at higher systemic levels is established across earth system science (Rockström et al., 2009), ecological economics (Georgescu-Roegen, 1971; Daly, 1996), complexity science (Prigogine & Stengers, 1984), and organisational theory (Beer, 1985),

confirming that the analytical importance of system configuration and systemic conditions extends beyond the analysis of social enterprise to any phenomenon whose explanation requires reasoning across open systems.

SE scholarship adopting systems and complexity perspectives has productively established that social enterprises are complex open systems and that SE is a process emerging through cross-system interactions (Goldstein et al., 2010; Dessureault, 2020; Swanson & Zhang, 2011; Trivedi & Misra, 2015; Schwandt et al., 2009). However, these contributions do not specify the configuration of the systems within which SE operates or the systemic conditions governing cross-system interactions that give rise to dual value creation as a persistent practice.

In particular, the literature does not define the boundaries, hierarchical organisation, or interdependence of the multiple systems within which social enterprises are embedded, nor does it clarify how interactions across these systems generate stable patterns of value creation over time. As noted in Chapter 3, where systems informed SE scholarship does indicate a systems configuration, it is articulated at the level of social actors and institutional arrangements (Spigel, 2017; Roundy et al., 2018), including stakeholder networks and governance structures analysed through complexity frameworks (Nabiyeva & MacNeil, 2025; Bhardwaj et al., 2023). Across this body of work, the system boundary remains either unspecified or implicitly confined to the social system, with variation in analytical emphasis but without extension to the broader ecological or higher order systems within which social and economic activity is embedded. Bibliometric and systematic reviews of the SE and entrepreneurial ecosystem literatures repeatedly note research fragmentation (Klarin & Suseno, 2023), lack of theoretical convergence (Budumuru & Paruchuru, 2025), and absence of identified causal relationships and generalizable findings (Velt et al., 2020).

The confinement of the relevant system to the social layer limits the explanatory reach of the systems approach to SE to interactions within a single level of a potentially broader pertinent system architecture. If the pertinent systems configuration were confined to the social layer, SE would produce different outcomes in different societies. The appearance of SE as a dual-value-creating entrepreneurial practice across different societies with different actors and institutional configurations indicates that the pertinent configuration extends beyond the socioeconomic layer (Capra & Luisi, 2014). As Figure 4.2.2 indicates, the alternative literature leaves a gap at systemic conditions level. The systemic conditions governing cross-system interaction remain unspecified, and the mechanisms through which dual value creation emerges from these interactions are not explained. In reframing organisations and societies as open systems, alternative approaches implicitly reposition socioeconomic architectures as variable institutional configurations, dependent on cross-system interactions that are characterised as dynamic and structured through feedback processes (Holland, 1995; Katz & Kahn, 1966).

Therefore, neither the dominant separatist strand nor the alternative systems-oriented strand identified in Section 4.2.1 fully explains how dual value is created at micro-, meso-, or macro-levels in a way that permits conceptual alignment across the two perspectives. Dominant scholarship treats prevailing disciplinary orientations and relatively fixed socioeconomic architectures as sufficient explanatory frames for analysing social enterprise, despite persistent

paradoxes that signal unresolved limits. The alternative strand challenges these dominant frameworks by modelling enterprises and societies as open dynamic systems, but it does not specify how dual value creation is enacted within or across the cross-level interactions it identifies. The consequence for practitioners is that they remain without analytical tools to explain what drives their practice and why certain socioeconomic contexts enable dual value creation while others inhibit it, a limitation that prevents both learners and practitioners from articulating clearly what they do as social entrepreneurs and why they do it in a manner that can be interpreted across different contexts.

SEE therefore faces an unresolved choice. Education in the SE domain may continue to organise content around frameworks that separate social and economic value creation while developing pedagogical strategies to help learners reconcile the paradoxes that separatist logic produces in practice. Alternatively, SEE may adopt systems-oriented approaches that conceptualise enterprises and societies as open dynamic systems, within which SE as a practice of dual value creation emerges from cross-system interactions. Without specifying the system configuration and the systemic conditions that govern cross-system interactions, neither approach can fully explain the cross-regional and historical emergence of SE as a persistent practice of dual value creation.

This thesis addresses the gap by extending the system configuration beyond the boundaries of society to the nested hierarchy of open systems from the individual through community, social, economic, ecological, and planetary levels, and by deriving the systemic conditions governing dual value creation from this configuration in the sections that follow. Before pursuing the disciplinary knowledge integration through which the system configuration is established and the systemic conditions are derived, Section 4.2.2.1 identifies the root source of conflict between the two strands and the disciplinary premises that sustain it.

4.2.2.1 Analytical Assumptions and Their Consequences for SE and SEE

The preceding analysis documented the difference in how two strands of IPE and SE scholarship explain SE. Meanwhile, dominant scholarship continues to regard economic and social value creation as separate objectives that need to be optimised independently, thereby disregarding core principles of systems theory. When value creation is conceptualised as separable, the optimisation of social value and economic value as independent objectives cannot produce an optimal dual value process at the system level. Systems theory establishes that maximising the objectives of individual parts does not result in optimal performance of the system as a whole (von Bertalanffy, 1968; Ackoff, 1971). The system objective of social enterprise, as established in the redefinition, is dual value creation. Systems theory demonstrates that optimisation at the system level requires coordinated action aligned with a shared objective, since the optimisation of parts in isolation does not produce optimal system performance (von Bertalanffy, 1968; Ackoff, 1971). When social enterprise is understood as an open system, the independent optimisation of subsystems toward separate social and economic objectives does not optimise this system-level objective. Accordingly, analytical approaches grounded in value separation direct research toward designing social structures that accommodate separate value optimisation or organisational forms

that enforce dual value creation ex post, rather than explaining how dual value emerges as an integrated process.

The consequence for SE and SEE may be illustrated through analogy. SE can be understood as a vessel oriented toward a known objective, the simultaneous creation of social and economic value through entrepreneurial practice. When approaches grounded in value separation are adopted, the vessel is conceptually divided into two segments, each propelled according to a distinct logic toward a partial objective, social or economic. The responsibility for reconciling these separate directions is then transferred to educators, researchers, learners and practitioners, who must attempt to coordinate the divided structure and steer both sections toward a common destination within relatively fixed institutional waters. The coordination of the two-part vessel emerges as a determinant of success and a decisive factor in achieving the stated objective, with scholarship focusing on maintaining cohesion between the two parts by examining governance, financing, and crew predisposition as determinants of success. Under this premise, research and learning become oriented toward constructing harbours and channels that enable coordination among separated functions.

By contrast, if the vessel is understood as an open system that remains structurally integrated while adapting to environmental feedback, the task changes. The vessel is not divided but continuously regulated in response to currents, constraints, and boundary conditions. The second perspective requires understanding the systemic conditions that regulate the environment and distinguishing between constraints that apply to both vessel and its surrounding and vessel navigation that remains subject to those who stir it. In the absence of specified systemic conditions that apply to both vessel and its environment, there is no analytical basis for explaining the formation of the environment, the drivers of changing currents, or the mechanisms through which environmental forces shape the vessel's trajectory over time. Under this perspective, research shifts from designing coordination structures to understanding and developing the dual value creation mechanisms, analogous to learning navigation.

If the vessel is understood as a unified whole, success in reaching the objective depends on the crew's understanding of what they can and cannot control, their navigation skills rather than predisposition, and their knowledge of the forces shaping currents, water, and air, enabling them to adjust their navigation accordingly. Achieving the desired objective therefore depends on the conditions that bound the logic of interaction. Accordingly, scholarship focuses on understanding the relationship between the vessel, the crew, and the environment rather than on the structural integrity of the vessel, to explain the logic governing their interaction. This distinction is fundamental for SEE, as it determines whether education focuses on managing socioeconomic factors or on understanding the mechanisms of dual value creation and the rules of operation within dynamic systems governed by systemic conditions.

Advancing from the first perspective toward the second requires analytical tools capable of specifying what the alternative strand leaves unfinished. The following section therefore draws on systems theory and complexity science not as external frameworks imposed upon the disciplines but as the logical extension already present within IPE and SE scholarship. The analysis

employs open-systems dynamics to examine structural interdependence and exchange requirements, nestedness to establish hierarchical constraints, entropy to interpret the thermodynamic conditions governing cross-system interactions, and nonlinear feedback to account for emergence and adaptation within interconnected processes. These concepts provide the analytical tools through which the literature on social and economic value creation is critically evaluated and through which the systemic conditions governing dual value creation can be derived.

The analysis proceeds from the hypothesis that the alternative explanation, if completed through derivation of the missing systemic conditions, may explain and resolve the paradoxes the dominant strand identifies but cannot close. This hypothesis rests on the observation that the alternative strand may provide a more powerful explanation of SE practice, including why it persists historically (Teasdale et al., 2023), appears across institutional contexts (Prouchet, 2025), and exists prior to the institutional conditions the dominant strand identifies as its cause (Santos, 2012).

4.2.3 Social Enterprises and Open Systems Dynamics

The preceding sections identified two competing explanations of dual value creation in SE and traced their conflict to the separability premise shared across all three disciplines, completing Step 7 of the IRP. The text proceeds to establish common ground through Step 8 by applying Repko and Szostak's (2025) transformation as an IRP integration strategy to integrate disciplinary scholarship and determine the system configuration pertinent to SE.

4.2.3.1 Deriving Systemic Conditions

The redefinition of SE advanced in Chapter 1 enabled this analysis to extend beyond definitional debates and focus directly on systems and complexity scholarship that supports the logic of enterprises producing simultaneous social, ecological, and economic values regardless of the terminology employed in different intellectual traditions and regional contexts. The preceding analysis documented how dominant perspectives across IPE and SE maintain analytical separation between social and economic value, while alternative approaches within these fields conceptualise enterprises as open, dynamic systems interacting with systems in their environment and societies as embedded within ecological and planetary systems. However, the examined social sciences do not specify how planetary, ecological, societal, and social enterprise systems are structurally connected or how societies need to be organised across these levels to maintain system viability within biophysical limits.

Rockström et al. (2009) identify nine planetary boundaries, quantifiable biophysical thresholds delineating the safe operating space within which humanity can continue to develop and thrive. Steffen et al. (2015) specify these boundaries to include climate regulation, biodiversity integrity, freshwater availability, and biogeochemical flows. Contributions from sustainability and environmental sciences define the structure and limits of the planetary system with precision but do not specify how social systems must operate within these limits. Research conducted since the original framework demonstrates that several boundaries have already been transgressed, with human systems overshooting planetary limits when ecological impacts of human activity, conceptualised in economics as externalities, are not internalised within social systems

(Richardson et al., 2023). While this body of work provides a robust diagnosis of ecological overshoot and the biophysical limits of the planetary system, it does not systematically specify how people and institutions should organise social systems to operate within these limits or address the ecological crisis (Steffen et al., 2015). This gap requires connecting planetary, ecological, and social systems and deriving the viability conditions that govern their interactions.

This section completes the analytical step establishing the system configuration and boundary conditions within which social enterprises operate. The five premises that follow define the system configuration and derive the systemic conditions through a logical chain grounded in systems theory, complexity science, IPE, SE, and relevant social and natural sciences. The resulting integration then anchors the critical engagement with the three disciplines throughout the remainder of the chapter.

1. Human Society as an Open System

The first premise establishes that human society functions as an open system embedded within the planetary system. Systems theory, originating in the work of von Bertalanffy (1968), defines an open system as one that maintains itself through continuous exchange of energy, matter, and information with its environment. Unlike a closed system, which analytically contains all necessary resources within its own boundaries, an open system depends on inflows from and outflows to its surroundings for survival. Von Bertalanffy (1968) argues that social systems must be understood as open systems precisely because they cannot sustain themselves without these exchanges, treating openness as a defining structural condition of all living and social organisation rather than as an incidental feature.

The open system characterisation extends across major sociological and systems traditions. Parsons (1951) conceptualises society as a system that must fulfil functional imperatives in relation to its environment, with adaptation constituting one of four core systemic requirements alongside goal attainment, integration, and latency addressing pattern maintenance. Adaptation presupposes ongoing exchange with external conditions, framing society as environmentally embedded rather than isolated.

Luhmann (1995) formalises this position through the concept of system and environment differentiation, arguing that social systems exist only in relation to an environment and cannot be conceived as self-sufficient entities detached from it. Wallerstein (1974, 2004) further conceptualises the modern world system as a structured historical social system embedded in and interacting with ecological and geopolitical processes beyond any single society. Across these traditions, ranging from functionalism to systems analysis, society is explicitly treated as an open system sustained through continuous interaction with its environment.

2. Organisations and Social Enterprises as Open Subsystems

The preceding premise defined human society as an open system. The second premise builds on this by defining organisations, including social enterprises, as open systems embedded within society. At the organisational level, the conception of enterprise as an open system is firmly established within organisation theory. Katz and Kahn (1966) explicitly define organisations as open systems engaged in continuous input, transformation, and output processes, arguing that

organisations must import energy and information from their environment to maintain structure and prevent decay, emphasising feedback as a necessary mechanism for regulation and adaptation. Organisational survival, in their formulation, depends on ongoing exchange with external conditions rather than on internal self-sufficiency. Thompson (1967) similarly treats organisations as open systems that must manage environmental uncertainty through boundary transactions and interdependence with their environments, while Scott (2003) formalises the open systems perspective as one of the core models in organisation theory, characterising organisations as dependent on flows of resources, information, and legitimacy from their environments and as structurally shaped by institutional and technical contexts.

Within SE scholarship specifically, Dessureault (2020) applies open systems theory to SE, conceptualising social enterprise explicitly as an open dynamic, complex system embedded in and co-evolving with its environment. This open systems characterisation is not confined to this single contribution. Goldstein et al. (2010) conceptualise SE as a system transition within a nonlinear dynamical environment, while Seelos and Mair (2018) argue that SE succeeds by navigating the uncertain and nonlinear dynamics of the environments within which dual value is created. Trivedi and Misra (2015), explicitly ground social enterprise in general systems theory and scientific holism, demonstrating that this reasoning extends across diverse regional traditions.

The open systems logic finds empirical corroboration in research documenting how enterprises function as open subsystems across widely differing contexts. Nefedova et al., (2025), studying organisations in Russian transition regions, documents how small enterprises operating under conditions of institutional collapse and resource constraint are structurally compelled to combine agriculture and forestry to sustain their operations, demonstrating that enterprise behaviour is driven by inputs received from the containing system rather than by internally generated resources or strategic choice. Wang et al. (2025) corroborate this from a Chinese context, explicitly defining the enterprises under study as open systems whose operational responses are shaped by the demands and constraints their environment imposes upon them. These cross-disciplinary contributions establish that human society, the organisations within it, and social enterprises specifically are open systems sustained through continuous interaction with their environments.

3. Nestedness and the Hierarchical Organisation of Open Systems

The derivation now requires showing that the open systems identified in premises one and two, namely society and organisation, are neither parallel entities operating independently nor self-contained systems. Scholarship in general systems theory establishes that organisations and human societies are structured hierarchically, with each system forming part of a larger system while containing subsystems within it (Simon, 1962; von Bertalanffy, 1968). This principle, termed nestedness, is foundational within systems theory and carries direct consequences for understanding the constraints that govern organisational activity (Beer, 1985; Meadows, 2008). Within this architecture, subsystems possess a degree of operational autonomy but remain structurally dependent on the higher-order systems that provide their boundary conditions and regulatory stability (Simon, 1962; Luhmann, 1995). Laszlo (1972) extends the principle to social

systems, establishing that hierarchical organisation constitutes a universal property of all complex adaptive systems and that the individual constitutes the smallest open system nested within the broader societal system.

Environmental and ecological scholarship operationalises the principle of nestedness through specific cases of structural dependency across systemic levels. Raworth (2017) makes nesting explicit in ecological terms by conceptualising the economy as operating within a social foundation and bounded by an ecological ceiling, both embedded within the Earth system. Nestedness in this formulation is structural, indicating that economic activity is constrained by and dependent upon the social, ecological, and planetary systems that contain it (Fanning et al., 2022). Rockström et al. (2009) advance the analysis to the outermost level by identifying the planetary boundaries and limits of the Earth system itself, establishing the constraints within which all nested subsystems must function (Steffen et al., 2015). Together, these contributions demonstrate that the principle of nestedness applies across the full hierarchy of open systems within which social and economic activity occurs.

The system configuration within which social enterprises are embedded therefore consists of a nested hierarchy of open systems extending from the individual through the organisation, the economic and social systems, the ecological system, and the planetary system, with each level operating under boundary conditions imposed by the level above it.

The recognition of nestedness across systemic levels is neither new nor confined to any single discipline or region. Parallel articulations of the principle appear across organisational theory and sociology, economics and political economy, biospheric thought, and SE scholarship spanning multiple regions and historical periods. The disciplines reviewed below each identify nestedness at a particular level of the hierarchy and contribute a distinct concept through which the structural dependency at that level is theorised. However, these partial analytical approaches remain confined within disciplinary boundaries, where social systems are primarily examined in social sciences, and ecological systems in natural sciences. This disciplinary separation limits the ability to analyse how interactions across social and ecological levels shape actions within the entire hierarchy and how they translate into institutional design and enterprise action. What no single discipline provides, therefore, is a perspective on processes across systems that considers the complete hierarchy from the individual to the planetary system. The contribution of the interdisciplinary analysis lies precisely in this integration.

Organisational theory and sociology have long recognised the nested character of organisations within social systems. Simon (1962), in his analysis of the architecture of complexity, conceptualises complex systems as nearly decomposable hierarchies, meaning that subsystems retain relative autonomy while remaining functionally coordinated within a larger system. Katz and Kahn (1966) describe organisations as subsystems of broader social systems, dependent on their environments for inputs, legitimacy, and survival. Scott (2003) formalises this position by conceptualising organisations as embedded within institutional environments structured by regulative, normative, and cultural-cognitive elements. Luhmann (1995) establishes that social systems maintain boundaries through self-referential operations while remaining

structurally coupled with their environments. These contributions establish nestedness at the organisation–society interface and ask how systems configurations are constituted within society. They do not, however, extend the analysis to the ecological or planetary systems within which social systems are themselves embedded, leaving the upper levels of the hierarchy outside the scope of the disciplinary recognition.

Economics and political economy recognise nestedness through hierarchical embedding across socioecological levels. Polanyi (1944) establishes nestedness through the concept of embeddedness, arguing that the economy is not an autonomous domain but is embedded within social relations, political institutions, and cultural norms. Georgescu-Roegen (1971) reinforces this perspective by positioning economic processes within the thermodynamic constraints of the biophysical environment. Daly (1996) explicitly states that the economy is a subsystem of society and that society is a subsystem of the biosphere, thereby formalising nestedness across economic, social, and ecological systems. Wallerstein (2004) conceptualises national societies as embedded within a larger historical world system, establishing geopolitical nestedness at the global scale. These contributions extend the recognition outward to ecological and planetary levels, but the analysis remains structural and macroeconomic. The translation of nestedness into the design logic of organisations and enterprises is not addressed within the discipline, leaving the link between systemic embedding and enterprise behaviour unspecified.

The nested understanding finds its deepest historical and cross-regional articulation in biospheric thought. Vernadsky (1926), writing from a Russian and East European scientific tradition, conceptualised the biosphere as an integrated geological system within which humanity operates not as external manager but as internal participant. His theory of the noosphere, the sphere of human reason as a transformative geological force, recognised that humanity's growing capacity to modify the Earth system carries with it the structural requirement to maintain systemic integrity. This biosphere-level thinking directly anticipates the planetary boundaries framework and provides the outermost level of the nested hierarchy, establishing that economic activity must align with biospheric regenerative capacity. From a different philosophical tradition, Dompere (2017) extends nestedness reasoning by establishing an epistemic unity between information, matter, and energy, demonstrating that social and economic processes cannot be understood apart from their material-energetic foundations. Together, these contributions illustrate that the recognition of nestedness at the biospheric level has emerged independently across regions and traditions, but neither articulation specifies how the recognition translates into the institutional or enterprise design needed to operationalise it.

As documented in the adequacy development of IPE scholarship in Chapter 3, Polanyi aligns with Keynesian compromise in recognising that markets must be embedded within social institutions to ensure equitable wealth distribution, while the Friedmannian neoliberal model rejected this premise by assuming that market mechanisms alone can determine the distribution of economic and social wealth (Harvey, 2005). However, where Keynes proposes socioeconomic architecture that separates markets as economic value generators from the state as the mechanism that ensures social value is integrated in institutional design, Polanyi and Vernadsky leave

institutional implementation unspecified. The dominant policy paradigm therefore did not merely overlook the embeddedness premise but actively rejected it, producing the institutional architecture within which the structural recognitions established across the disciplines above could not be translated into enterprise design. This rejection is the institutional reason the full nested hierarchy has not been integrated into either policy frameworks or organisational theory, despite the recognition of its constituent levels across multiple disciplines.

SE scholarship has begun to apply nestedness reasoning at the enterprise level itself. Sheng and Xiao (2023), drawing directly on Meadows (2008), argue that only by recognising the interconnected nature of social, ecological, and economic systems and addressing problems holistically can enterprise functioning be optimised. Positioning social enterprises as bottom-up strategies addressing complex systemic challenges that fragmented top-down interventions cannot solve, this analysis identifies ecological imperatives as inextricably linked to economic and social considerations, directly corroborating the nested hierarchy, and positions social enterprises as organisational forms whose design logic must reflect the structure of the systems within which they are embedded.

From political economy, Sylla (2022) extends this reasoning to institutional design at the global level, drawing on Sankara's liberation agenda to argue that development must prioritise dignified livelihoods within planetary limits rather than convergence with unsustainable consumption models, explicitly invoking both nestedness and the impossibility of decoupling social wellbeing from planetary constraints. From entrepreneurship scholarship, Nabiyeva and MacNeil (2025), drawing on the Multi-Level Perspective, conceptualise social enterprises as operating within niches embedded within regimes, which are themselves situated within broader landscape structures. From psychology and social work, De Ruysscher et al. (2016) position SE across micro-, meso-, and macro-levels, explicitly recognising multilevel embedding. These contributions confirm that the nestedness principle has begun to be applied at the enterprise level and that the recognition extends across regions, including African, Canadian, European, and Chinese scholarly traditions. The contributions remain partial, however, as each engages selected levels of the hierarchy without integrating the full configuration from individual to planetary system within a single analytical frame.

The perspectives assembled across these disciplinary traditions portray a hierarchy of nested systems in which the economy exists within society, society exists within ecological systems, and ecological systems exist within the planetary system. Each level depends on the integrity of the larger system for its own viability. This hierarchy reflects physical dependencies through which human activity relies on social organisation, social organisation relies on ecological resources, and ecological systems rely on planetary stability (Meadows et al., 2004; Daly & Farley, 2011). Within this hierarchical configuration, nestedness imposes a directional constraint. Each subsystem operates within the limits imposed by the system that contains it, and any attempt to violate these constraints threatens the viability of the nested subsystems (von Bertalanffy, 1968; Laszlo, 1972). A contained system cannot override the boundary conditions of its containing system without undermining its own operational foundation. The integration of the disciplinary

recognitions reviewed above into a single hierarchy from individual to planetary system makes visible the directional constraint that no single disciplinary recognition could specify, because the constraint operates across the levels that the disciplines individually addressed.

Thus, scholarship from multiple disciplines identifies nestedness as a concept that positions social enterprises within societies and planetary boundaries as a hierarchy of open subsystems embedded in higher-level systems, with all elements exhibiting open and dynamic systems characteristics. With the system configuration now established, the premises that follow examine the cross-system interactions through which dual value creation emerges and identify the systemic conditions that govern those interactions across the hierarchy.

4. Entropy in Open Nested Systems

Having established that human society, its organisations including social enterprises, and the economy are open systems arranged in a nested hierarchy, the argument introduces the principle that governs how open systems maintain their organisation over time: entropy.

In thermodynamics, entropy represents the degree of disorder or energy unavailability within a system. Low entropy denotes a condition of order, efficiency, and functional coherence, while high entropy indicates systemic degradation and loss of regenerative capacity (Schneider & Kay, 1994; Daly, 1991). Entropy is analytically essential because open systems maintain their internal order only by continuously exchanging energy and matter with their environments. When these exchanges become unbalanced or constrained, the coherence of the system declines, as interdependent subsystems lose the capacity to regenerate the resources and coordination on which viability depends (Prigogine & Stengers, 1984).

Within systems theory and thermodynamics, von Bertalanffy (1968) states that open systems maintain structure by importing negative entropy from their environment, implying that lower-level subsystems must draw order from higher-level systems to sustain themselves. Entropy is therefore a structural feature of interaction between system and environment, not merely internal randomness. Prigogine and Stengers (1984) formalise this through the concept of dissipative structures, demonstrating that the internal coherence of any open system depends on continuous exchanges with its containing system. When these exchanges become unbalanced, meaning that a system extracts more order from its environment than it regenerates, entropy accumulates in the containing system and progressively degrades the conditions on which the subsystem itself depends. Schneider and Kay (1994) confirm that socioeconomic systems generate entropy, requiring continuous regulatory work to prevent the degradation of system integrity, establishing that entropy management constitutes an ongoing structural requirement rather than an occasional corrective intervention.

Within ecological economics, Georgescu-Roegen (1971), argues explicitly that economic activity transforms low-entropy matter and energy into high-entropy waste. The economy is therefore not a closed circular flow but an open subsystem of the biosphere that imports low-entropy resources and exports entropy back into the larger ecological system. Entropy is not internal disorder alone but a cross-boundary process between nested systems. Daly (1996) builds directly on this position. In the nested hierarchy established above, entropy flows upward across

levels: economic production increases entropy within the biosphere unless counteracted by regenerative processes. Entropy therefore provides a physical indicator of systemic interaction across nested levels. Daly and Farley (2011) extend this reasoning by demonstrating that economic production that degrades natural resource regeneration or erodes social cohesion does not merely create external costs but increases entropy within the containing systems upon which economic viability itself depends.

This entropic logic differs analytically from the conventional economic concept of externalities, which frames cross-system costs as discrete, measurable, and reversible through compensatory exchange (Pigou, 1920; Coase, 1960). Entropy accumulation across nested system boundaries is cumulative, nonlinear, and in many cases irreversible, propagating across system levels through feedback mechanisms that the externality framework does not capture (Georgescu-Roegen, 1971; Dompere, 2017). The implications for the relationship between enterprise-level and societal-level implications are discussed in Section 4.2.3.5.

Within systems dynamics, Meadows (2008) establishes the implication for the nested hierarchy directly. When economic subsystems export disorder to social systems, or when the human system exports disorder to ecological and planetary systems, the containing systems lose the capacity to sustain the boundary conditions required for the subsystems they contain. Within philosophy, Dompere (2017) formalises this cross-boundary entropy logic through the info-statics framework by demonstrating that disorder in any single dimension, whether social fragmentation, economic inefficiency, or ecological degradation, propagates across all domains, precisely specifying the mechanism of entropic propagation that is central to this derivation.

The entropy logic established above raises an analytical question that the derivation must address before turning to subsystem-level forms. If subsystems within a nested hierarchy are subject to the same systemic constraints, does the requirement to operate within the regenerative capacity of containing systems apply uniformly to every subsystem, or does it apply at the aggregate level of the system as a whole? Entropy exchange across system boundaries is continuous and bidirectional. No subsystem operates in a state of maximum or minimum entropy at any moment, because the exchange itself is ongoing, with subsystems continuously importing low-entropy resources from containing systems and exporting entropy back. Subsystems vary in the rate and direction of this exchange, with some subsystems contributing to regeneration in containing systems through their exchanges and others contributing to entropy accumulation.

The viability of the containing system depends on the aggregate of these exchanges remaining within regenerative capacity, meaning that the combined effects of enterprise activity within society must remain within the limits of the ecological systems that sustain them. The reasoning permits variation across subsystems, such as the existence of businesses focused on economic value or charities producing only social value, within aggregate constraints. However, entropy accumulation is transferred to higher levels of the hierarchy, including society and ecological systems, when these activities exceed regenerative capacity. The entropy logic therefore establishes a system level requirement, not a uniform subsystem level requirement. Entropy as a concept differs from externalities as defined in economics, since the economic concept allows the

recording of costs but does not trace their cross-system implications when those costs are not absorbed within social systems (North, 1990; Meadows, 2008). The question of how subsystems, including enterprises operating within societal structures, may differentiate while maintaining alignment with the system as a whole is treated systematically in Section 4.2.3.5.

Within SE and IPE scholarship, entropy-based reasoning has been applied directly to enterprise-level analysis across independent research traditions. Nefedova's (2021) longitudinal research across Russian regions substantiates this entropy-based reasoning empirically. Nefedova's study of Central Russia documents the polarisation of the social-economic space, showing how systemic disorder accumulates when enterprises fail to adapt to changing conditions in their containing systems.

Wang et al. (2025) further confirm this through the finding that ecological fragility forces enterprises into multi value co creation, providing direct empirical corroboration that entropy in the containing ecological system compels subsystem adaptation. Their study further demonstrates that dual value creation emerges from environmental constraint rather than choice, directly corroborating the entropy premise in SE scholarship. Ra (2022) advances a conceptual framework informed by entropy-based reasoning, arguing that SE functions as a resonance mechanism through which dispersed social resources become more coherently organised. In this framework, entropy denotes systemic misalignment or disorder within social systems, and social entrepreneurial activity contributes to reducing such misalignment by structurally linking social needs with entrepreneurial action.

Finally, Zingg et al. (2019) complement this by developing a rigorous mathematical framework for measuring entropy in social organisations, establishing entropy as a quantifiable structural property of organised social networks rather than a purely metaphorical construct. Together, these contributions represent an emerging engagement within SE scholarship with entropy as a theoretical construct capable of explaining how organised social and economic activity stabilises complex social systems.

While Ra (2022), Zingg et al. (2019), Wang et al. (2025), Dompere (2017) and Nefedova (2021) share the terminology of open systems dynamics and entropy, they employ different terms to describe the organisational forms and practices that create social, economic and ecological value simultaneously. In describing dual value generation, the scholars use different terms: "resonance mechanism" (Ra, 2022), "network entropy" (Zingg et al., 2019), "multi-value co-creation" (Wang et al., 2025), "info-statics" (Dompere, 2017) and "forced symbiosis" (Nefedova, 2021) respectively.

To describe the enterprises that create dual value, the authors again use different terms including unofficial social enterprise (Nefedova, 2021), social enterprise (Ra, 2022), social business (Zingg et al., 2019) and "corporate sustainable social value innovation" (Wang et al., 2025). Dompere (2017) provides the theoretical framework applicable to organisational forms producing dual value. Despite this terminological variation, the scholars converge on the same intellectual insight: that organisations operating within nested open systems must generate value across social, economic and ecological dimensions simultaneously to counter the entropic

degradation that otherwise accumulates across system boundaries. The terminology from open systems theory and thermodynamics is shared, while the terminology describing the core mechanism of dual value creation and the enterprises that produce it varies across scholarly traditions.

This convergence across scholarly traditions indicates that researchers working largely independently, across different disciplinary and geographical contexts, have arrived at the same fundamental insight: that organisations operating within nested open systems must generate value across social, economic, and ecological dimensions simultaneously to counter entropic degradation. The shared terminology of open systems dynamics and thermodynamics provides the common theoretical foundation, while the varied terminology used to describe both the mechanism of dual value creation and the organisational forms that produce it prevents this convergence from being recognised within mainstream SE scholarship. A systematic literature review focused on terminology rather than on common theoretical foundations in systems theory would fail to uncover these analogous intellectual insights, explaining in part, why SE scholarship has not yet integrated this convergent understanding of dual value creation as a structural requirement of nested open systems rather than a normatively driven organisational strategy.

The concept of entropy thus encapsulates the underlying logic of open systems and their interactions. The argument establishes that sustained viability of entire system and its containing subsystems depends on the continual restoration of balance among ecological, social, and economic exchanges. When economic activity proceeds without simultaneously regenerating the social and ecological systems upon which it depends, at any subsystem level, entropy accumulates across the nested hierarchy, ultimately destabilising all subsystem's function.

5. Nonlinear Feedback in Open Nested Systems

The preceding premise established that interactions across nested system boundaries are governed by entropy dynamics The relationship between nested subsystems is not merely one of hierarchical containment. The subsystems interact through feedback mechanisms that operate nonlinearly, meaning that small changes in one subsystem can produce disproportionate and often unpredictable effects in others. This fifth premise completes the structural characterisation of the systems within which human activity, including social enterprise, is embedded.

Across complexity science and biology, the principle of nonlinear dynamics and sensitive dependence establishes that small variations in initial conditions or interactions can produce disproportionate and often unpredictable effects on outcomes (Kauffman, 1995; Stacey, 1996). Such behaviour makes it difficult in the short run and nearly impossible in the long term to optimise social and economic components independently and then combine them into a stable configuration. Complex adaptive systems do not respond to interventions in a linear or additive manner (Stacey, 1996). Instead, reinforcing feedback loops can amplify minor divergences into systemic instabilities, reinforcing the conclusion that dual value creation must be treated as a systemic alignment condition rather than a simple aggregation of independent variables (Kauffman, 1995).

In systems dynamics, Meadows (2008) explains that systems are governed by two types of feedback loops: reinforcing loops that amplify change, whether growth or decline, and balancing

loops that counteract deviation and stabilise system behaviour. In open nested systems, reinforcing dynamics at one level can overwhelm balancing mechanisms at another, producing cascading effects across the hierarchy. Senge (1990) similarly emphasises that social and economic outcomes are connected through reinforcing and balancing mechanisms that operate simultaneously rather than sequentially. Together, Meadows and Senge establish that the analytical premise of separating values, implicit in dominant theories in each relevant discipline examined in this dissertation, assumes the existence of stable, predictable relationships that complexity science demonstrates do not exist in reality (Meadows, 2008).

Within economics and political sciences, complexity-oriented political economy departs from equilibrium-centred models by conceptualising economic and institutional change as nonlinear, path-dependent, and emergent. Evolutionary and institutional economists argue that economic systems evolve through variation, selection, and retention processes that generate cumulative and historically irreversible trajectories (Hodgson, 1993, 2004). Regulation theory similarly interprets capitalism as a systemic configuration in which regimes of accumulation depend on stabilising modes of regulation that reproduce system coherence under structural instability (Boyer, 1990). Across these traditions, economic order is understood as dynamically evolving through feedback processes rather than adjusting linearly toward equilibrium.

Approaching from philosophy, Dompere (2017) extends this reasoning by critiquing standard economic assumptions of rationality and equilibrium, arguing instead for fuzzy logic approaches that capture the nonlinear, multi-dimensional causation characteristic of complex socio-ecological systems. In the environmental science, Edwards et al. (2023), working from a Nigerian systems analysis context, operationalise this nonlinearity through fuzzy cognitive mapping, identifying system archetypes such as limits to success and fixes that fail, which demonstrate how feedback loops produce emergent and often counterintuitive outcomes across agri-food systems. The finding that the system is highly complex, driven by interacting social, economic, and environmental factors and requiring an integrated approach, provides empirical support for the structural argument established here.

Across SE scholarship, complexity theory has been explicitly mobilised to interpret SE as operating in nonlinear, adaptive environments. Goldstein et al., (2008, 2010) conceptualise social innovation as the emergence of new attractors within complex adaptive systems, drawing on bifurcation theory and nonlinear dynamics to explain how novel organisational forms arise. Swanson and Zhang (2011) apply complexity theory to the SE zone, arguing that SE emerges within dynamic fields characterised by interdependence and feedback. Schwandt et al. (2009) describe SE systems as collective change processes unfolding within complex social networks, while Wallis (2009) identifies systemic interdependence and feedback structures as core theoretical elements in SE. More recent bibliometric analysis confirms an expanding intersection between SE research and complex thinking traditions, particularly those drawing on systems reasoning to conceptualise social innovation as embedded in dynamic socio-institutional environments (Vázquez Parra et al., 2022).

The inherent unpredictability arises because complex adaptive systems do not respond to interventions in a linear or additive manner. The convergence across complexity science, systems dynamics, economics, and examined SE scholarship confirms that dual value creation must be treated as a systemic alignment condition rather than a simple aggregation of independent variables. In contrast, the analytical premise of separating values, implicit in dominant theories in each relevant discipline examined in this dissertation, assumes the existence of stable, predictable relationships that complexity science demonstrates do not exist in reality (Meadows, 2008).

Thus, the fifth premise closes the logical chain. The five premises combined lead to the following conclusion. Social enterprise is nested within society and economy regardless of how the two domains are analytically separated. Society is nested within the ecological system, and all are bounded by the planetary system. Interactions across this nested hierarchy of open complex systems are subject to thermodynamic laws whereby entropy passes across system boundaries, sending signals about imbalances through nonlinear feedback loops. Each subsystem reacts to the accumulation of entropy and signals the others to correct imbalances. If imbalances persist, the accumulated entropy degrades the containing systems upon which the subsystem depends, ultimately undermining the viability of the subsystem that caused the imbalance.

The conclusion derived from the five premises finds independent empirical and theoretical support across SE scholars working in different regions and traditions. Nefedova (2021, 2025), Wang et al. (2025), and Ra (2022), whose entropy-based reasoning was treated in Premise 4, provide empirical and conceptual support across Russian, Chinese, and Indian contexts, drawing respectively on open-systems organisational behaviour under conditions of institutional and ecological degradation, on entropy imposed by ecological fragility, and on entropy as systemic disorder reduced through SE activity. Bermúdez-Restrepo and Vaca-López (2026) extend the empirical base to South American practice through Buen Vivir, explaining the process through subsystems embedded within cultural and ecological systems that predate market–state separation, and demonstrating that enterprises creating social, economic, and ecological value simultaneously predate the institutional architectures and market–state separation that dominant scholarship identifies as their cause. This historical precedence confirms the existence of SE practices that arise independently of those institutional conditions, and it reinforces the structural rather than institutional grounding of dual value creation established through the five premises.

Nefedova (2021, 2025), Wang et al. (2025), Ra (2022), and Bermúdez-Restrepo and Vaca-López (2026), researching dual value creation empirically across Russian, Chinese, Indian, and South American contexts, draw on their disciplinary knowledge in economic geography, management, policy analysis, engineering, and systems theory to interpret their empirical findings. Each of the noted scholars, observing social, economic, and ecological value creation at the organisational level, interprets the findings through a different systems-theory concept. Nefedova (2021, 2025) draws on open-systems organisational behaviour under conditions of institutional and ecological degradation. Wang et al. (2025) emphasise entropy imposed by ecological fragility. Ra (2022) focuses on entropy as systemic disorder that is reduced through SE activity, while

Bermúdez-Restrepo and Vaca-López (2026) explain the process through subsystems embedded within cultural and ecological systems that predate market–state separation.

4.2.3.2 Explanatory Power of the Interdisciplinary Integrated Systemic Logic

The interdisciplinary integration advanced in this thesis combines systems theory and complexity science informed multidisciplinary scholarship across planetary, societal, and regional levels with disciplinary insights and empirical observations, deriving the causal chain through which open systems, nestedness, entropy, and nonlinear feedback operate as interdependent systemic conditions across hierarchical levels. This integration provides the theoretical structure within which the individual contributions of the noted scholars achieve collective coherence. The five premises establish that enterprises should pursue both social and economic goals, not as an ethical preference but as a structural requirement derived from the conditions governing viability within nested open systems. The section that follows integrates these premises to specify the systemic conditions and their implications for social SE practice. The disciplinary alignment documented across the five premises stands in sharp contrast with the divergences characterising SE scholarship documented in Chapter 1. Insights from different disciplines, when linked through systems theory and complexity science, become complementary, with each premise building on what the preceding one establishes, leading to the same logical conclusion: dual value creation represents a systemic condition governing all nested subsystems, from the planetary system through ecological and social systems to the enterprise. SE emerges from this logical chain as a necessary and theoretically possible organisational response to the systemic conditions governing the nested hierarchy in which social enterprise is embedded.

Insights from SE scholarship, by contrast, are additive rather than cumulative. Each disciplinary perspective contributes a contrasting interpretation of SE in which the practice appears as an exception requiring multiple conditions to align, from the economist's concern with competitiveness (Santos, 2012), through the psychologist's emphasis on prosocial disposition (Miller et al., 2012), to the sociologist's safeguards against mission drift (Ebrahim et al., 2014; Battilana and Lee, 2014), the anthropologist's requirement for cultural embeddedness (Doherty et al., 2014), and the institutional theorist's governance mechanisms for managing competing logics (Pache & Santos, 2013).

Because these perspectives do not build on each other but stand alongside each other, their accumulation produces fragmentation instead of alignment. The reasoning leads, in its most developed form, to the EMES ideal enterprise framing (Defourny & Nyssens, 2010, 2014, 2017), where a social enterprise must satisfy multiple criteria simultaneously, including participatory governance, profit distribution constraints, civic ownership, stakeholder participation, and economic risk, not because any single criterion is logically derived from the preceding one, but because each reflects a separate disciplinary concern appended to the others.

The contrast is therefore not merely between different conclusions but between different modes of reasoning. The interdisciplinary integration through systems theory and complexity science produces a deductive chain in which each step necessitates the next. The disciplinary accumulation within SE scholarship produces an additive list in which each condition is

independently asserted. The interdisciplinary integration through shared knowledge in systems theory and complexity science explains why dual value creation must occur. The fragmented SE perspectives result in prescribing what SE should look like without explaining why.

4.2.3.3 The Causal Chain from Open Systems to Systemic Conditions

The five premises derived in the preceding section establish a determinate causal logic linking the structural properties of nested open systems to the conditions that govern subsystem viability. Society and the open subsystems embedded within it, including the economy and individual enterprises, are nested within ecological and planetary systems and connected through entropy exchange and nonlinear feedback. From this chain of structural properties, conditions follow that govern viability across the entire nested hierarchy.

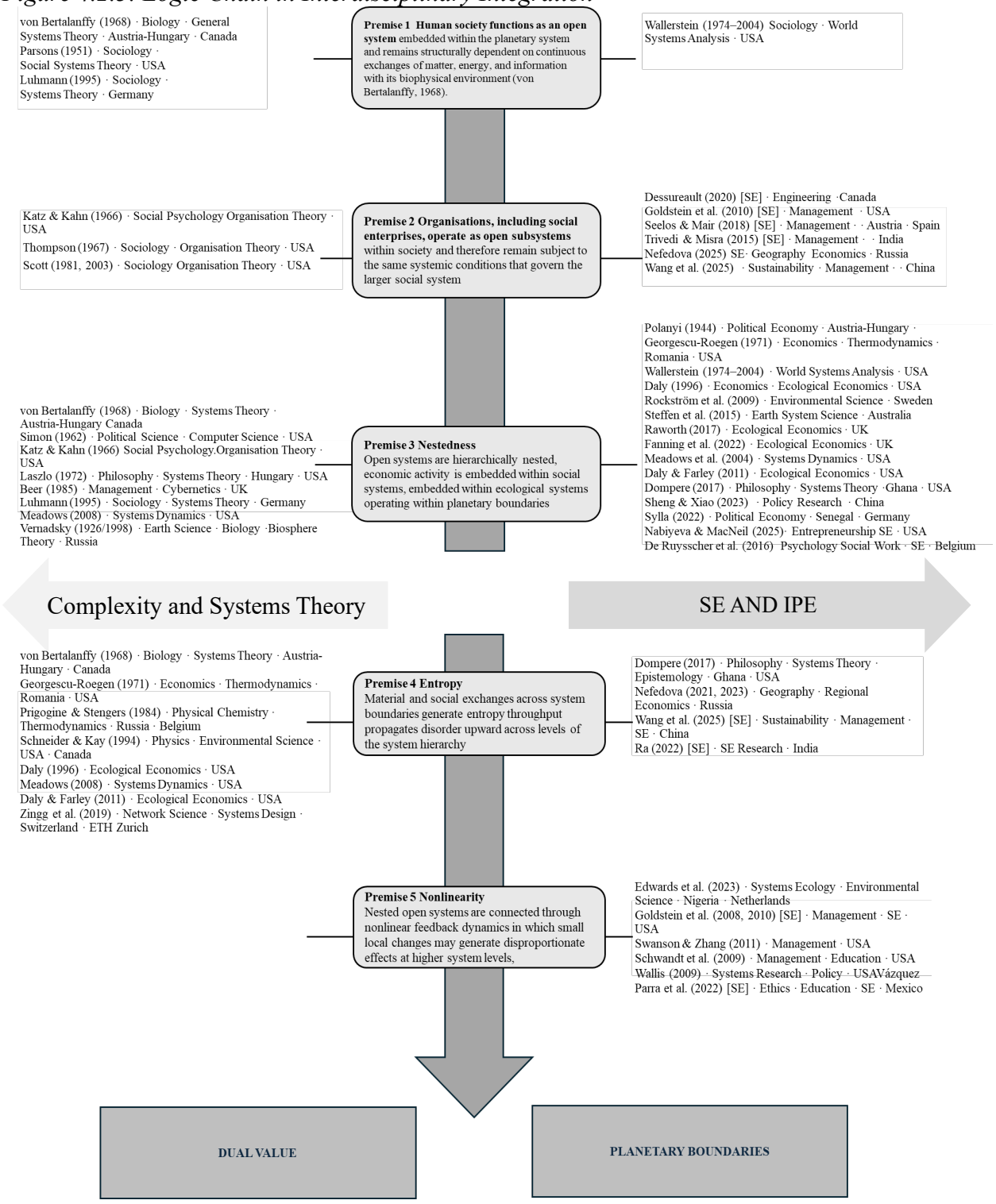
The systemic conditions arise from the logical chain across five premises because the structural properties of nested open systems impose requirements that no subsystem can avoid by virtue of its embedded position within the hierarchy. Nestedness establishes that subsystems are structurally dependent on containing systems for boundary conditions and regulatory stability. Entropy establishes that subsystem activity propagates disorder upward to containing systems through cross-boundary exchange. Nonlinear feedback establishes that disorder accumulating in containing systems returns to subsystems as constraints on their viability. Collectively, these properties of the nested hierarchy require that subsystem activity occur within the regenerative capacity of the containing systems on which subsystems depend. A subsystem that operates outside this requirement transfers disorder to containing systems faster than the containing systems can absorb, and when this transfer accumulates, the boundary conditions on which the subsystem itself depends progressively degrade.

This causal structure implies two simultaneous requirements for any subsystem, including enterprises. First, the subsystem must generate sufficient economic value to sustain its own operation and continue functioning over time. Second, the subsystem must limit and offset the disorder it generates so that the social and ecological systems on which it depends remain within their regenerative capacity. If the subsystem satisfies only the first requirement, it remains operational in the short term but contributes to the degradation of the systems that sustain it, which through nonlinear feedback reduces its own future viability. If it satisfies only the second, it cannot sustain its own operation. Dual value creation therefore emerges as a structural necessity because both requirements must be met simultaneously for the subsystem to remain viable within the nested hierarchy.

The causal chain across premises one to five, therefore yields two viability conditions that govern the nested hierarchy at two distinct levels. This viability condition is specified through the concept of planetary boundaries. The interaction level concerns the cross-boundary exchanges among enterprise, economic, social, and ecological subsystems within the planetary system, requiring that subsystem activity regenerate the conditions on which other subsystems depend rather than transferring entropy unilaterally. This viability condition is specified through the concept of the dual value imperative. Figure 4.2.3 depicts the entire logic chain used to integrate insights from systems theory, complexity science and thermodynamics with SE and IPE

scholarship to derive systemic conditions and lay a foundation for analytical framework used in this thesis.

Figure 4.2.3: Logic Chain in Interdisciplinary Integration



The convergent reasoning depicted in Figure 4.2.3 is not derived from a single theoretical tradition or region. The contributions can be traced across global regions, with each region contributing distinct conceptual or empirical work to the causal chain. The formal statement of planetary boundaries and the dual value imperative, together with their grounding in the regional and disciplinary convergence supporting the causal chain, is presented in Section 4.2.3.4.

North American scholarship provides the foundational architecture of the derivation: general systems theory and biology through von Bertalanffy (1968) working in Canada, the complexity science of adaptive systems through Holland (1995) in computer science and Kauffman (1995) in biology at the Santa Fe Institute, ecological economics through Daly (1996), systems dynamics through Meadows (2008), and SE-specific open systems applications through Dessureault (2020) in engineering and SE and Goldstein et al. (2010) in management and SE. North American contributions establish the theoretical infrastructure of the causal chain, providing the core concepts of open systems, nestedness, complexity, and entropy on which the derivation depends.

European scholarship contributes the thermodynamic foundations of open systems through Prigogine and Stengers (1984) in physical chemistry working in Belgium, the planetary boundaries framework through Rockström et al. (2009) in environmental science in Sweden, cybernetic nestedness through Beer (1985) in management cybernetics in the United Kingdom, evolutionary economics through Hodgson (1993, 2004) in the United Kingdom, regulation theory through Boyer (1990) in economics in France, the doughnut economics operationalisation of nestedness through Raworth (2017) in economics, and the mathematical treatment of entropy in social organisations through Zingg et al. (2019) in network science and systems design at ETH Zurich. European contributions formalise the biophysical constraints and thermodynamic mechanisms that translate open-systems principles into measurable boundary conditions governing human activity.

In Eurasia, Russian science contributes the foundational biosphere concept through Vernadsky (1926/1998) in earth science and biology, and empirical documentation of forced adaptation under systemic constraint through Nefedova (2021, 2023) in geography and regional economics. Chinese scholarship contributes explicit systems theory application to SE through Sheng and Xiao (2023) in policy research and SE, and empirical evidence of multi-value cocreation under ecological constraint through Wang et al. (2025) in sustainability, management and SE. Russian and Chinese contributions provide both the deepest historical grounding for the outermost level of nestedness and the most direct empirical confirmation that enterprises reorganise toward dual value creation under systemic constraint, demonstrating that the causal chain operates in observable practice and not only in theoretical derivation.

African scholarship contributes the theoretical grounding for cross-boundary entropy propagation through Dompere (2017) in philosophy and systems theory, the institutional design argument for development within planetary limits through Sylla (2022) in political economy, and empirical complexity analysis through Edwards et al. (2023) in systems ecology and environmental science. African contributions establish that entropy propagation across nested boundaries is formalised within philosophical and systems traditions independent of Western

complexity science, confirming that the structural logic of the derivation is not confined to a single intellectual lineage.

Indian scholarship contributes the SE-specific systems grounding through Trivedi and Misra (2015) in management and SE, and the entropy-based SE resonance framework through Ra (2022) in SE research. Indian contributions demonstrate that entropy-based reasoning applied to enterprise-level dual value creation has been developed independently within South Asian scholarship, providing additional convergent evidence for the fourth premise. South American scholarship contributes the bibliometric confirmation of SE-complexity intersections through Vázquez Parra et al. (2022) in ethics, education and SE. South American contributions confirm through systematic bibliometric analysis that the intersection between SE scholarship and complexity science traditions is expanding, indicating growing disciplinary recognition of the structural relationship this derivation formalises.

This cross-continental convergence demonstrates that the two systemic conditions are not an artefact of one cultural or intellectual tradition but reflect structural properties recognised independently across diverse scholarly lineages. Table 4.2.3 presents the combined disciplinary contributions to each of the five premises from which the systemic conditions are derived. The table is organised around the premise in the centre column, with the collective insight and contributing scholars from IPE and SE scholarship on the left and from systems theory and complexity science on the right. The purpose is not to attribute individual contributions, which the preceding derivation already accomplishes, but to demonstrate how each scholarly stream arrives at a convergent structural claim through distinct disciplinary reasoning.

Table 4.2.3: Combined Disciplinary Contributions to the Five Premises

IPE and SE Scholarship	Premise	Systems Theory and Complexity Science with Other Disciplines
Collective insight: Societies are structured historical systems embedded in ecological and geopolitical processes that cannot function as autonomous self-regulating domains.	1. Human Society is an Open System	**Collective insight:** Social systems are open systems since they maintain viability through continuous exchange of energy, matter, and information with their environment and cannot be conceived as self-sufficient entities.
Wallerstein (1974–2004), World Systems Analysis		von Bertalanffy (1968), General Systems Theory; Parsons (1951), Social Systems Theory; Luhmann (1995), Systems Theory
Collective insight: Social enterprises function as adaptive systems whose operational responses are shaped by the constraints their containing systems impose rather than by strategic choice alone.	2. Organisations and Social Enterprises are Open Subsystems	**Collective insight:** Organisations are open subsystems engaged in continuous input, transformation, and output processes, dependent on environmental flows for survival.

IPE and SE Scholarship	Premise	Systems Theory and Complexity Science with Other Disciplines
Dessureault (2020), Engineering and SE; Goldstein et al. (2010), Management and SE; Seelos and Mair (2018), Management and SE; Trivedi and Misra (2015), Management and SE; Nefedova (2021, 2025), Geography; Wang et al. (2025), Sustainability		Katz and Kahn (1966), Social Psychology. Thompson (1967), Organisation Theory; Scott (1981, 2003), Organisation Theory
Collective insight: The economy is embedded within society, society within ecological systems, and ecological systems within planetary boundaries, establishing structural limits within which development and enterprise activity must operate.	3. Nestedness and Hierarchical Organisation	**Collective insight:** Complex social systems are organised in nested hierarchies as nearly decomposable hierarchies where subsystems retain operational autonomy while remaining structurally dependent on the systemic boundary conditions and regulatory stability of containing systems.
Polanyi (1944), Political Economy; Daly (1996), Ecological Economics; Georgescu-Roegen (1971), Economics; Raworth (2017), Ecological Economics; Rockström et al. (2009), Environmental Science; Wallerstein (1974–2004), World Systems Analysis; Vernadsky (1926/1998), Earth Science; Dompere (2017), Philosophy and Systems Theory; Steffen et al. (2015), Earth System Science; Sheng and Xiao (2023), Policy Research; Sylla (2022), Political Economy; Nabiyeva and MacNeil (2025), Entrepreneurship; De Ruysscher et al. (2016), Social Work		von Bertalanffy (1968), General Systems Theory; Simon (1962), Political Science; Katz and Kahn (1966), Social Psychology; Laszlo (1972), Philosophy; Beer (1985), Management Cybernetics; Luhmann (1995), Systems Theory; Meadows (2008), Systems Dynamics; Scott (2003), Organisation Theory
Collective insight: Enterprises operating under systemic constraint are compelled toward multi-value creation because entropy reduction within nested systems requires simultaneous attention to social, economic, and ecological value dimensions.	4. Entropy in Open Nested Systems	**Collective insight:** Open systems maintain internal order by importing negative entropy from their environment, and disorder generated in any single dimension propagates across system boundaries through cross-boundary entropic processes.

IPE and SE Scholarship	Premise	Systems Theory and Complexity Science with Other Disciplines
Dompere (2017), Philosophy and Systems Theory; Nefedova (2021, 2025), Geography; Wang et al. (2025), Sustainability; Ra (2022), SE Management		von Bertalanffy (1968), General Systems Theory; Prigogine and Stengers (1984), Physical Chemistry; Schneider and Kay (1994), Physics; Meadows (2008), Systems Dynamics; Daly and Farley (2011), Ecological Economics. Zingg et al. (2019), Network Science Georgescu-Roegen (1971), Economics.
Collective insight: Social enterprises emerge and adapt within nonlinear environments characterised by interdependence and feedback, where dual value creation responds to dynamic environmental interaction rather than to linear planning or additive combination of separate objectives.	5. Nonlinear Feedback in Open Nested Systems	**Collective insight:** Complex adaptive systems are governed by reinforcing and balancing feedback loops operating across hierarchical levels, where small changes at one level can produce disproportionate and often irreversible effects at other levels.
Goldstein et al. (2008, 2010), Management and SE; Swanson & Zhang (2011), Management; Schwandt et al. (2009), Management; Wallis (2009), Systems Research; Vázquez Parra et al. (2022), Ethics and SE; Edwards et al. (2023), Systems Ecology		Holland (1995), Complex Systems; Kauffman (1995), Biology; Meadows (2008), Systems Dynamics; Hodgson (1993, 2004), Economics; Boyer (1990), Economics; Senge (1990), Systems Dynamics; Dompere (2010), Philosophy

The convergence between systems theory and complexity science on one side and alternative IPE and SE scholarship on the other documented in Table 4.2.3 demonstrates that the two systemic conditions are not imposed from outside the relevant disciplines but are derived from reasoning already integrated, though incompletely developed, within both IPE and SE scholarship. The causal chain formalises what the alternative strand in both fields has recognised without pursuing systemic conditions to its logical conclusion namely that dual value creation constitutes a structural requirement of nested open systems rather than a normative aspiration or organisational strategy.

4.2.3.4 Systems Configuration, Systemic Conditions and the Analytical Framework

The causal chain established in Section 4.2.3.3 yields three analytical outputs that together specify the structural environment within which social enterprises operate. The first output is the system configuration, defined as the nested hierarchy of open systems within which social enterprise activity occurs. The second and third outputs are two interdependent systemic conditions

that govern cross-system interactions and ensure subsystem viability across the entire configuration.

4.2.3.4.1 System Configuration: The Nested Hierarchy of Open Systems

The causal chain establishes that social enterprises operate within a nested hierarchy of open systems extending from the individual through the enterprise, the economic and social systems, the ecological system, and the planetary system. Each level constitutes an open system that maintains integrity through continuous exchange with its containing system, and each level operates under boundary conditions imposed by the level above it (von Bertalanffy, 1968; Daly, 1996; Raworth, 2017; Rockström et al., 2009). The nested hierarchy of open systems is structural and independent of human design. Subsystems are not separable from containing systems but are constituted through ongoing entropy exchange with other systems in their environment. The system configuration enables the specification of the two systemic conditions below, because the configuration determines which cross-system interactions are pertinent and the conditions specify the constraints that govern those interactions.

Systemic Condition One: Planetary Boundaries

The planetary boundaries introduced at the opening of this section are now established through the causal chain as the nonnegotiable outer constraint within which the human activity sustained by the Earth system must occur to remain viable (Rockström et al., 2009; von Bertalanffy, 1968; Laszlo, 1972). As Steffen et al. (2015) specify, planetary boundaries encompass climate regulation, biodiversity integrity, freshwater availability, and biogeochemical flows. Planetary boundaries are properties of planetary dynamics that exist independently of human recognition or institutional design. The nestedness analysis in Premise 3 established why these boundaries constrain not only aggregate human activity but every organisational subsystem within the nested hierarchy.

Systemic Condition Two: The Dual Value Imperative

The advancements from open systems dynamics and nonlinearity establish dual value creation across enterprise, social, and ecological dimensions as a thermodynamic and emergent requirement for maintaining human system viability within planetary boundaries (Prigogine, 1984; Holland, 1995; Miller and Page, 2007). Maintaining low entropy requires continuous simultaneous exchanges across all value dimensions, while nonlinear interactions among subsystems demonstrate that optimising separate components generates instability and compounding disorder (Meadows, 2008; Kauffman, 1995). Creating value in one dimension while degrading others triggers entropy accumulation that propagates across nested boundaries, ultimately destabilising the entire systems hierarchy. Dual value creation therefore emerges not as an aspirational organisational goal but as a thermodynamic requirement for sustained viability within nested open systems (Meadows, 2008; Schneider & Kay, 1994).

Figure 4.2.3.4 visualises the system configuration and the two systemic conditions as an integrated analytical framework, illustrating the interrelations among nestedness, open systems dynamics, entropy, and nonlinearity that the five premises established.

Figure 4.2.3.4: Analytical Outcome

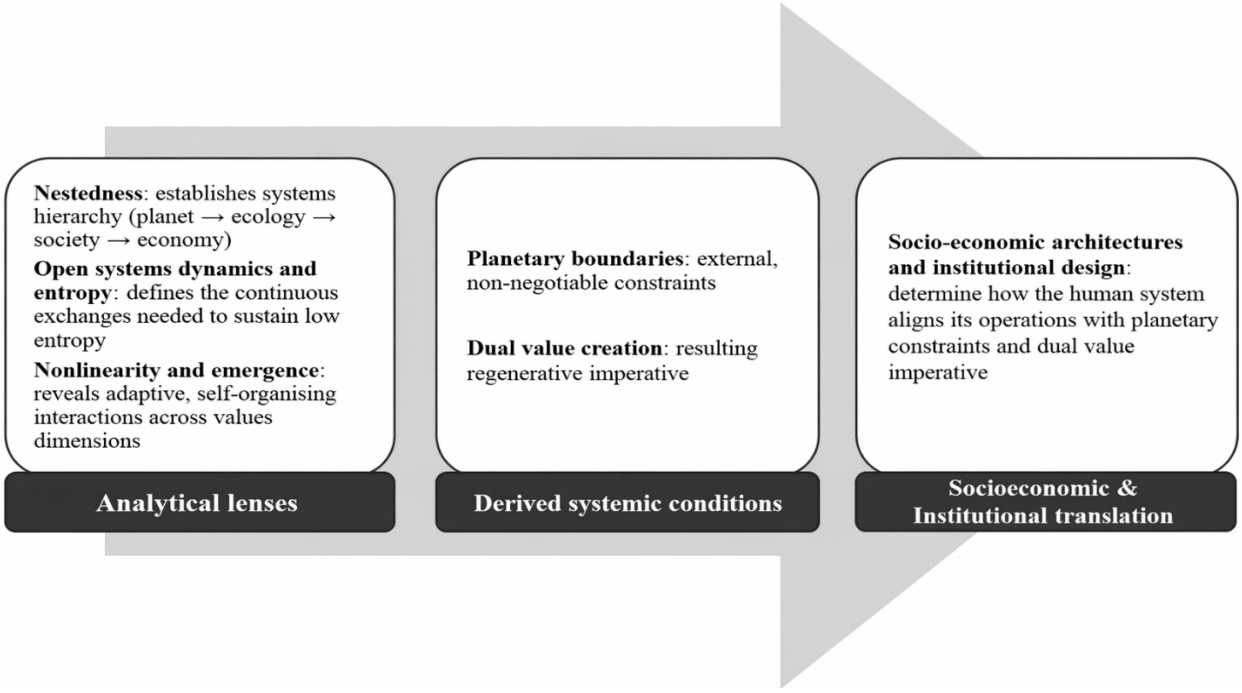


Figure 4.2.3.4 illustrates how concepts from systems theory and complexity science, including nestedness, open systems dynamics and entropy, and nonlinearity and emergence, collectively harmonise insights from the alternative strands of IPE and SE scholarship, leading to the derivation of planetary boundaries and dual value creation as systemic conditions defining the limits and operational requirements of the human system. The two systemic conditions are inseparable because they operate at different hierarchical levels of the same nested structure. Planetary boundaries establish the outermost limits within which the entire hierarchy must function. The dual value imperative defines the requirement for continuous regeneration of social and ecological values across the cross-boundary exchanges that occur within those limits. Together, the two conditions establish that human systems maintain viability only when value creation processes simultaneously regenerate social cohesion, economic functionality, and ecological resilience within the limits defined by planetary boundaries (Rockström et al., 2009; Daly & Farley, 2011; Meadows, 2008).

The derivation of the environment of social enterprise and the two systemic conditions constitutes the first application of the IRP transformation strategy in this thesis (Repko & Szostak, 2025). Transformation integrates complementary insights drawn from 11 disciplines including systems theory, complexity science, ecological economics, political economy, and SE scholarship and seven global regions to resolve opposing assumptions in SE research between the dominant strand, which treats dual value creation as a product of institutional arrangements, and the alternative strand, which identifies SE as a phenomenon emerging through interactions among open dynamic systems. Rather than forcing acceptance or rejection of either position, transformation establishes a multilevel systems continuum and associated cross-system interactions through which previously discrete perspectives become interpretable as differentiated

observations of the same underlying systems configuration. Social enterprises are consequently positioned within a nested hierarchy of open systems stretching from the individual enterprise through economy, society, and ecological systems to the planetary system, governed by two structural conditions: planetary boundaries defining the nonnegotiable outer limits of human activity, and the dual value imperative requiring simultaneous generation of social and economic value at every level of the nested hierarchy as a thermodynamic condition for long-term viability.

4.2.3.4.2 Analytical Framework

Socioeconomic architectures, understood as the social organisation including institutional frameworks, governance structures, legal forms, financing mechanisms, and coordination arrangements that societies design and redesign through collective action, are subject to these systemic conditions. The adaptive capacity of these architectures determines how they affect the organisations operating within the social system, including social enterprises. Architectures may either support alignment with systemic conditions or hamper it, and depending on that alignment, they generate more or less entropy for the higher order systems, ecological and planetary, upon which the viability of the entire nested hierarchy depends.

The analytical distinction between systemic conditions and socioeconomic variables constitutes the second application of the IRP transformation strategy in this thesis (Repko & Szostak, 2025). Starting from the nested open systems configuration established in the previous section, transformation integrates complementary insights from natural and social sciences to resolve the opposing assumption across SE and IPE scholarship that treats institutional arrangements as factors explaining the existence of SE practice rather than as responses to systemic conditions that apply to the entire society. Transformation therefore established a continuum through which different socioeconomic arrangements and political economy traditions became interpretable as differentiated societal responses to the same systemic conditions rather than as discrete or mutually exclusive systems.

The new knowledge resulting from this transformation is the analytical framework that separates what is structurally given, namely planetary boundaries and the dual value imperative arising from the properties of nested open systems, from what is subject to human design and institutionally contingent, namely the governance structures, legal forms, financing mechanisms, and coordination arrangements through which societies respond to those conditions. This distinction could not be generated within any single contributing discipline and provides the evaluative lens applied throughout the critical analysis that follows. By placing social enterprise within the nested hierarchy of open systems where human society is a subsystem dependent on and embedded in ecological and planetary systems, SE as a phenomenon can be analysed across cultures and historical periods, since regions and their institutions represent subsystems of a global society.

The adequacy development in Chapter 3 documented how SE scholarship consistently recognises dual value creation as a defining characteristic of social enterprise while lacking a deeper explanatory framework capable of clarifying why dual value creation emerged as a persistent organisational response across diverse social systems (Santos, 2012; Bacq & Janssen,

2011). The systemic conditions established above provide that explanatory foundation. The conditions situate social enterprises not as contemporary anomalies within socioeconomic architectures designed around value separation, but as organisational forms whose integrated operational logic aligns with the systemic conditions representing structural requirements governing nested open systems.

Establishing planetary boundaries and the dual value imperative as systemic conditions raises a question that the following section addresses: does the dual value imperative require that every individual enterprise simultaneously create both social and economic value, or can the requirement be fulfilled through coordination across differently specialised organisations within the nested hierarchy? The following section examines the structural logic of partial optimisation and its implications for SEE.

4.2.3.5 Societal Responses to Systemic Conditions in the Nested Hierarchy

Section 4.2.3.4 established the system configuration and the two systemic conditions that govern subsystem viability across the nested hierarchy. A further analytical question remains. Does the dual value imperative require that each organisation optimise simultaneously for economic, social, and ecological value, or can the imperative be satisfied through differentiated optimisation across organisations, provided that higher level coordination maintains alignment with systemic conditions?

The question is not peripheral because empirical observation consistently demonstrates that organisations which optimise toward partial objectives are pervasive across contemporary societies. Businesses as economic objective optimisers typically prioritise financial viability and efficiency, while social service organisations, public institutions, and civil society actors frequently prioritise welfare provision, redistribution, or ecological protection (Hall & Soskice, 2001; Luhmann, 1995; North, 1990). Treating dual value creation as a requirement for every organisation would therefore contradict both observed organisational differentiation and established institutional arrangements. The following analysis examines whether scholarship supports the logical possibility of such differentiated optimisation, and if so, whether it also supports its long-term sustainability.

The open systems ontology established in Chapter 1 provides the foundation for answering the partial optimisation question. Because open systems exchange matter, energy, and information across permeable boundaries, subsystems need not achieve internal self-sufficiency across all functional dimensions (von Bertalanffy, 1968). A subsystem may specialise in a narrow objective, whether social or economic, provided that the surrounding system contains mechanisms to absorb the resulting entropy export or to balance entropic output. These mechanisms ensure that human society as a whole does not accumulate entropy or transfer it to higher level systems, a condition consistently identified in open systems theory and thermodynamics as necessary for system viability (von Bertalanffy, 1968; Prigogine & Stengers, 1984; Georgescu-Roegen, 1971; Meadows, 2008).

Simon (1962) demonstrated that complex systems evolve through nearly decomposable hierarchical structures. Near decomposability permits partial autonomy in local operations while

maintaining dependence on slower, higher level coordination processes. Subsystems may therefore pursue internally coherent objectives provided interlevel constraints are not persistently violated. Hierarchical nesting ensures that subsystem level optimisation remains logically possible without necessitating immediate systemic collapse. Simon's earlier work on bounded rationality further supports this conclusion. Agents operating under informational and cognitive constraints necessarily optimise toward local objectives rather than global system states. Holland (1995) extends bounded rationality into complex adaptive systems, demonstrating that local optimisation by agents constitutes a structural expectation of adaptive systems rather than a deviation from systemic purpose. Local agents respond to proximate signals and pursue locally coherent strategies, generating aggregate patterns that may or may not align with higher level systemic requirements (Holland, 1995; Meadows, 2008).

Luhmann (1995) further demonstrated that modern society differentiates functionally into subsystems including economy, law, and politics, each operating according to operationally closed codes. Subsystems remain structurally coupled to one another and limited by systemic conditions. From this perspective, environmental events affect subsystem operations and trigger internal adjustments. Functional differentiation constitutes a structural feature of complex social systems rather than an anomaly. Businesses optimising for economic efficiency, social organisations optimising for welfare provision, and environmental organisations optimising for ecological protection are all consistent with functional differentiation within a structurally coupled whole subject to shared ecological constraints.

In liberal market economies, the coordinating function is typically performed by governments that redistribute resources, regulate externalities, and provide social and environmental goods, while enterprises specialise narrowly in economic value production (Polanyi, 1944; Esping Andersen, 1990). Empirical comparative research confirms the prevalence of coordination architectures across institutional contexts (Ballam and Dillman, 2019). Hall & Soskice (2001) document how liberal market economies and coordinated market economies employ distinct but functionally equivalent coordination mechanisms to manage the consequences of subsystem specialisation, while North (1990) demonstrates that institutional frameworks evolve specifically to reduce transaction costs arising from organisational differentiation. In practical terms, this means that the societal system must generate sufficient tax revenue from enterprises that focus on economic value to sustain organisations that focus on social value such as hospitals and schools, since the economic system requires educated and healthy workers. Without coordinating mechanisms that redistribute resources, align incentives, and manage the entropic byproducts of specialised activity, the dependencies that make specialisation possible would progressively unravel. The hospital would lack funding while the enterprise would lack healthy workers and stable social conditions.

4.2.3.5.1 Pathways to Dual Value Creation and Their Implications

The scholarship reviewed above establishes that partial optimisation is logically possible within open nested systems. Subsystems may specialise, and coordination mechanisms may align aggregate outcomes with systemic conditions. This conclusion, however, addresses structural

possibility. It does not address dynamic sustainability in cases when coordination fails to balance entropic output. A third analytical question therefore arises. If coordination is logically possible and empirically prevalent, is it dynamically sustainable or optimal configuration over time?

The distinction between logical possibility and dynamic sustainability is critical because sustainability requires that coordination mechanisms operate with sufficient speed, accuracy, and regulatory capacity to correct divergence before it accumulates. The following scholarship demonstrates why this requirement becomes progressively more difficult to satisfy.

When an enterprise optimises exclusively toward economic objectives, it generates costs that are displaced onto broader social systems and do not register in its private accounting, commonly described in economics as externalities (North, 1990). Ecological economics extends the same logic while expanding its scope. While economic externalities are conceived as allocative inefficiencies within a market framework, thermodynamic analysis reveals that all externalised costs ultimately constitute entropy exported to the broader system, accumulating as irreversible degradation of planetary boundaries (Prigogine, 1984; Rockström et al., 2009). Schneider and Kay (1994) confirm that socioeconomic systems generate entropy, requiring continuous regulatory work to prevent the degradation of system integrity.

Meadows (2008) explains that systems are governed by reinforcing feedback loops that amplify growth and local optimisation trajectories, and balancing feedback loops that counteract deviation and stabilise system behaviour. Local optimisation represents a structural expectation of reinforcing loops, while systemic stability depends on balancing feedback that corrects accumulated divergence. When balancing feedback is delayed or insufficient, reinforcing loops drive systems into overshoot, a condition in which accumulated throughput exceeds the regenerative capacity of containing systems before corrective mechanisms can respond (Meadows, 2008). Kauffman (1995) identifies a further complication. Sensitive dependence on initial conditions means that small divergences in subsystem trajectories, if uncorrected, amplify nonlinearly through the system, making late correction disproportionately more costly and less effective than early intervention.

Cybernetic theory establishes why coordination constitutes a formal requirement under conditions of complexity. Ashby's (1956) Law of Requisite Variety states that only variety can absorb variety. The regulatory capacity of a system must match the complexity of disturbances the system encounters. Individual enterprises pursuing narrow objectives lack the informational scope required to manage cross domain disturbances involving ecological degradation, social instability, and macroeconomic volatility.

Furthermore, no single enterprise, regardless of the sophistication of its solution and internal management, can regulate the full range of interactions that shape its operating environment or the higher-level systems in which it is embedded (Ashby, 1956; Beer, 1972, 1985). Beer (1972, 1985) explains this limitation by conceptualising organisations as operational units nested within higher order coordination structures. Within this model, System 2 coordinates interactions among operational units to prevent destabilising oscillations, while System 3 manages internal resource allocation to preserve organisational coherence (Beer, 1985). System 4, the

intelligence function, monitors the external environment and assesses long term threats and opportunities including ecological changes and social shifts. System 5, the policy function, establishes identity and direction, making decisions about how the system must adapt to maintain alignment with its environment. These higher-level systems monitor environmental conditions and provide direction by assessing the alignment between system behaviour and external constraints including planetary boundaries (Beer, 1985).

Reinforcing feedback loops associated with economic throughput generate cumulative externalities when balancing mechanisms are weak (Meadows, 2008). As these externalities accumulate, institutional correction becomes necessary, requiring the expansion of regulatory intervention and increasing coordination costs (North, 1990; Holland, 1995). When the variety of disturbances exceeds available regulatory capacity, instability and legitimacy erosion follow (Ashby, 1956).

Every coordination architecture, whether centralised state regulation, polycentric governance, market-based incentive structures, or hybrid organisational forms, requires resources for monitoring, information processing, enforcement, and adaptive adjustment (North, 1990; Ostrom, 2010; Beer, 1985). Coordination costs increase with the complexity of the disturbances requiring management and with the degree of divergence between subsystem optimisation trajectories and systemic constraints (Ashby, 1956; Williamson, 1985). Societies that externalise social and ecological costs through weakly regulated partial optimisation may appear efficient in the short term but accumulate coordination deficits that eventually demand more costly corrective intervention, including remediation of degraded ecosystems, reconstruction of eroded social infrastructure, and expansion of regulatory capacity to manage cascading failures (Meadows, 2008; Daly & Farley, 2011).

At the ecological level, persistent unilateral throughput increases entropy production relative to regenerative capacity (Prigogine, 1984; Schneider & Kay, 1994), risking overshoot of planetary boundaries (Rockström et al., 2009). Moreover, contemporary systemic crises provide empirical validation of the dynamics described above. The rapid escalation and global pervasiveness of climate destabilisation, biodiversity collapse, and social fragmentation illustrate how nonlinear feedback amplify initially marginal imbalances into cascading disruptions that threaten human system viability (Steffen et al., 2015; Rockström et al., 2009; Meadows, 2008). Cascading failures of the kind now observable reflect the inadequacy of coordination architectures designed for linear, separable, equilibrium conditions when applied to emergent, nonlinear, adaptive systems.

The accumulating weight of evidence suggests that the coordination pathway, while logically possible, may be practically unsustainable under conditions of increasing complexity, as the speed and scale of disturbances increasingly exceed the regulatory capacity of existing coordinating institutions, generating chronic coordination gaps in which entropy accumulates faster than coordination can dissipate it (Ashby, 1956; Beer, 1985; Prigogine, 1984; Schneider & Kay, 1994). This conclusion reflects the empirical observation that the specific coordinating

mechanisms available at societal level are failing to meet the demands placed upon them, rather than an argument against the logical possibility of the coordination architecture.

Complexity theory predicts that as systems increase in differentiation, interdependence, and nonlinear feedback, overall systemic complexity rises, expanding the range of potential interactions and amplifying the speed and scale at which disturbances propagate (Goldstein et al., 2008). This escalation places increasing pressure on coordination mechanisms, which may struggle to respond to and rectify emerging imbalances with sufficient speed or scope, thereby perpetuating disruptions that ultimately require more formalised regulatory intervention. In liberal economies, rising systemic complexity translates into government operations becoming increasingly demanding and costly, as coordination mechanisms must manage expanding information flows, accelerated feedback, and more severe social problems under conditions of limited anticipatory capacity. In command economies, a parallel challenge persists, as even when enterprises are formally required to produce dual value, coordination imbalances remain, prompting the use of big data and artificial intelligence enabled governance systems, as exemplified by China, to reduce time lags between imbalance detection and regulatory intervention (OECD, 2025).

Kauffman (1995) demonstrates that differentiation into specialised units enhances entropic imbalance while integration of values preserves coherence. At the organisational level, Pache and Santos (2013) demonstrate that social enterprises, which combine social and economic logics within a single entity, represent one empirically observed response to institutional complexity. Their analysis confirms that differentiated optimisation across organisations is not the only possible configuration. SE forms that internalise competing logics constitute an alternative structural arrangement already present within existing institutional environments. The cumulative evidence of growing interest in and requests for scaling SE presented in Chapter 1 indicates that this practice is gaining in prominence. This trend may be explained by rising systemic complexity, which places increasing pressure on coordination mechanisms across both liberal and command economies and contributes to renewed attention to SE as a means of reducing cumulative systemic imbalance (OECD, 2025).

The analysis therefore yields two fundamentally distinct architectural pathways by which any system or subsystem can align with systemic conditions. The first pathway involves internal integration. The system or subsystem produces dual value within its own operations, simultaneously generating economic, social, and ecological outcomes such that externalities and entropy are minimised at the source. The second pathway involves external coordination. The system permits its subsystems to optimise toward partial objectives, whether economic or social, and relies on higher level coordination mechanisms to align aggregate activity with systemic conditions. For instance, a societal configuration in which specialised units independently generate economic, social, and ecological value, with aggregate outcomes aligned through coordination is structurally possible. In this case dual value creation can be achieved at the system level rather than within individual units. In contrast, the integration pathway locates dual value creation within a single organisational unit, simultaneously generating economic, social, and ecological outcomes and reducing reliance on higher level coordination mechanisms. Both coordination at higher level

and integration pathways are logically possible, but they carry different implications and pose different challenges for human society.

Figure 4.2.3.5 visualises the analytical logic of the section, tracing the argument from systemic conditions through the structural tension between logical possibility and long-term viability to the two architectural pathways and their implications for system viability.

Figure 4.2.3.5: Pathways to Dual Value Creation

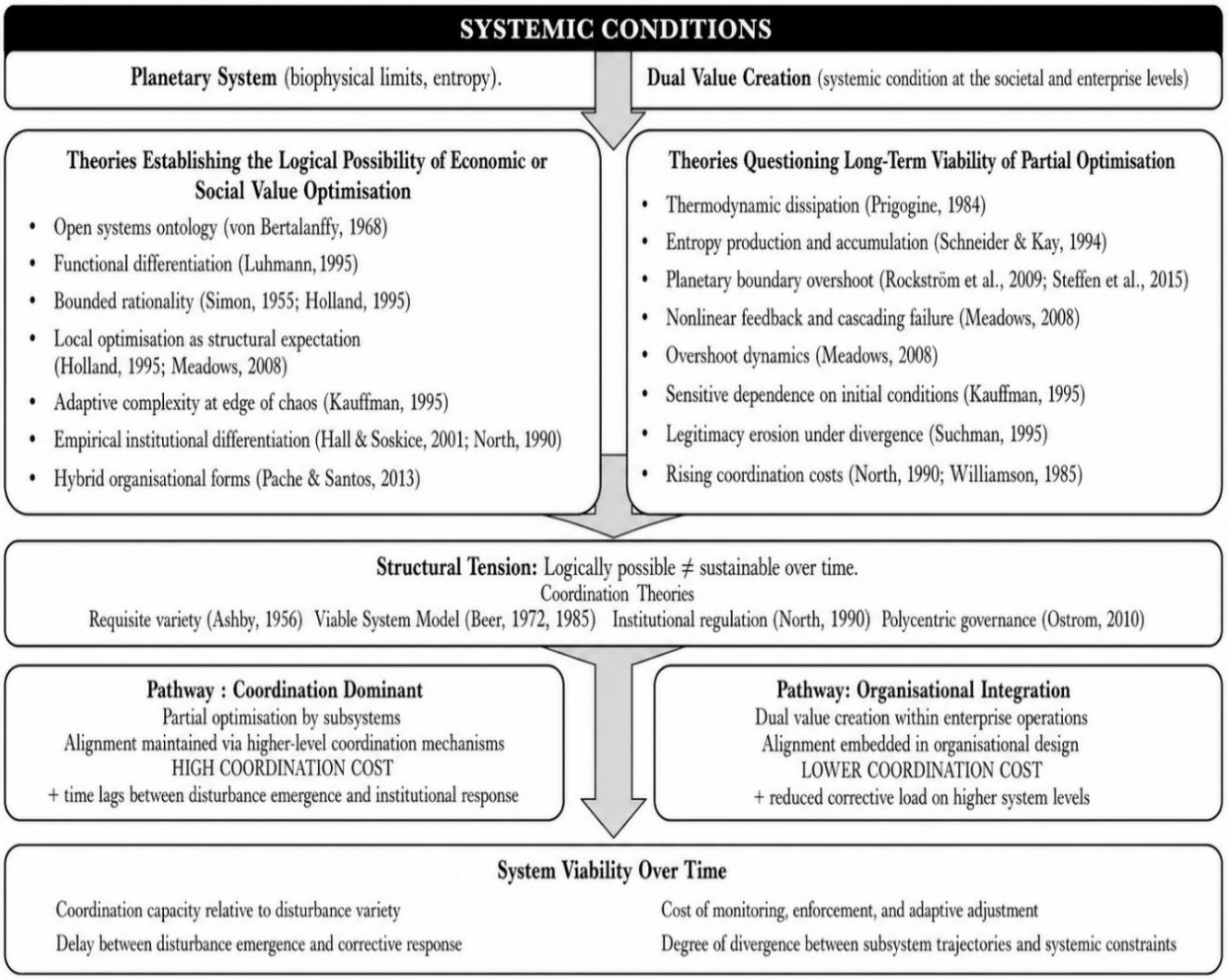


Figure 4.2.3.5 illustrates how the same body of scholarship that establishes the logical possibility of partial optimisation simultaneously identifies the dynamics that undermine its long-term viability, producing a structural tension that coordination theories must address. The two social architectural responses represent distinct strategies for resolving the tension, each carrying different implications for coordination cost, response delay, and systemic resilience. System viability over time depends on whether coordination capacity can keep pace with the complexity and variety of disturbances that accumulate when subsystems diverge from systemic constraints.

In the integration pathway, entropy is managed at the level at which it is generated, reducing the coordination burden borne by higher system hierarchies (Beer, 1985; Meadows, 2008). In the coordination pathway, subsystems partially optimise toward separate objectives, and

the resulting entropy must be managed through higher level mechanisms whose capacity, as the scholarship above demonstrates, is subject to escalating costs, time lags, and complexity limitations (Ashby, 1956; North, 1990). The long-term viability of each approach therefore depends on the capacity of the surrounding social architecture to sustain alignment with systemic conditions over time (Luhmann, 1995; Simon, 1962). Architectures that rely primarily on partial optimisation place greater demands on higher level coordination mechanisms (Ashby, 1956; North, 1990), whereas architectures that support organisational level dual value creation reduce the coordination burden borne by higher system hierarchies (Beer, 1985; Meadows, 2008). The distinction between these architectures is not a normative choice but a structural decision that affects the resilience, efficiency, and effectiveness of human systems embedded within planetary boundaries.

The scholarship demonstrates that existing social architectures are predominantly structured around the coordination pathway, with organisations and institutions designed to optimise toward partial objectives and coordination assumed to occur at the societal level through state regulation or market incentives (Hall & Soskice, 2001; Ostrom, 2010; North, 1990). Mixed configurations, in which some enterprises pursue integrated dual value creation while others specialise toward economic or social objectives that coordination mechanisms align at the societal level, are the structurally expected outcome rather than an exception to either pathway. Social entrepreneurs entering these contexts must understand the coordination architectures within which their ventures will operate, recognise where those architectures succeed and where rising coordination costs, time lags, and cascading failures signal inadequacy when assessing where their practice may gain more support.

The preceding analysis explains why an interdisciplinary perspective integrating systems theory and complexity science is required to explain dual value creation. Each of the disciplines relevant to SE examines a bounded segment of the nested hierarchy, and the analytical apparatus of each is constrained by the segment it addresses. When the explanatory limits of one discipline are reached, the unresolved problem migrates to the next, without any single discipline tracing the full causal chain across system levels. The following analysis demonstrates this migration.

Economics studies the enterprise as a unit of economic value generation. Enterprise performance is evaluated against single-objective maximisation of profits within competitive market equilibrium (Friedman, 1970; Jensen & Meckling, 1976). Within this analytical framework, an enterprise that deliberately constrains profit to generate social or ecological value violates the efficiency conditions that profit maximisation requires, rendering dual-objective pursuit irrational by the discipline's own evaluative criteria. Economics acknowledges that single objective maximisation generates externalities, defined as costs or benefits that affect society (Pigou, 1920). However, the discipline classifies externalities as market failures requiring correction through coordinating mechanisms rather than through the redesign of the enterprise itself (Stiglitz, 2000). When coordination proves insufficient and costs remain unabsorbed within the economic system, the analytical problem is displaced into political science and sociology,

where it is addressed through the study of governance capacity, institutional regulation, and social stabilisation mechanisms (Offe, 1984; Jessop, 2016).

Political science and IPE receive the externality problem as a question of institutional design. The discipline examines how states construct regulatory frameworks, redistributive mechanisms, and governance architectures to manage the consequences of market specialisation (Polanyi, 1944; Hall & Soskice, 2001; North, 1990). Sociology examines SE through the lens of institutional logics, identifying social enterprise as an organisational form that combines market logic with social welfare logic within a single entity (Battilana & Lee, 2014).

Because these disciplines begin from the premise that market and social logics constitute distinct institutional orders, their combination within a single organisation is theorised as hybridity, a condition requiring continuous management of internal tension (Pache & Santos, 2013). The analytical starting point ensures that dual value creation is understood as the merging of two separate things rather than as an integrated response to a single systemic condition. Within this framework, the coordination pathway is the expected solution.

Hence dual value creation falls between disciplines. Enterprises specialise, and institutions correct. SE, which internalises coordination functions within organisational operations and aligns with systemic conditions, appears from this perspective as an informal or supplementary actor operating outside the established division of labour between market and state (Defourny & Nyssens, 2010; Kerlin, 2013). Political science can diagnose institutional failure when coordination mechanisms prove inadequate, but its analytical apparatus does not extend to prescribing enterprise level organisational redesign as a structural response. When institutional coordination fails to contain the accumulation of social and ecological costs, the problem migrates beyond the boundaries of political economy.

Ecology and environmental science receive the accumulated consequences of coordination failure as planetary boundary transgression, biodiversity loss, and ecosystem degradation (Rockström et al., 2009; Steffen et al., 2015; Richardson et al., 2023). These disciplines diagnose the biophysical dynamics of overshoot and identify thresholds beyond which system recovery becomes improbable (Meadows, 2008). However, their analytical apparatus does not extend downward through the nested hierarchy to connect planetary degradation to the societal or enterprise level organisational choices that generate the entropy driving that degradation. The disciplines can specify what must not be transgressed but not how societal and enterprise design might prevent transgression at its source.

The migration of the problem across disciplinary boundaries demonstrates why interdisciplinary analysis including systems theory and complexity science is required. Only when the entire nested hierarchy is examined as an integrated analytical object does the coordination pathway become visible as a source of accumulated entropy rather than as a solution to it (Meadows, 2008; Ashby, 1956; North, 1990). The implications of both architectural pathways for SEE are developed in the critical analysis of education scholarship in Section 4.3.3.

4.2.3.6 Systemic Conditions and Socioeconomic Variables

The observation that the systemic coordination problem is universal while the architectures deployed to address the problem are contextually variable raises a further analytical question. If planetary boundaries and the dual value imperative constitute invariant structural constraints while coordination architectures represent historically contingent institutional responses, then analytical clarity requires distinguishing between these two categories.

Socioeconomic variables encompass all arrangements that human societies design, construct, and can redesign through collective action: institutional frameworks, governance structures, legal forms, regulatory regimes, financing mechanisms, theories of value creation embedded in political economy traditions, cultural norms governing economic behaviour, and welfare architectures allocating responsibility among state, market, and civil society. Unlike systemic conditions, which are derived from thermodynamic imperatives and the structural properties of nested open systems and therefore apply universally regardless of human preference, socioeconomic variables are historically contingent responses to those conditions that differ across regions and evolve over time through political contestation, cultural development, and institutional adaptation.

The analytical separation between systemic conditions and socioeconomic variables is therefore not a conceptual convenience but a structural necessity. Conflating the systemic conditions that are not under human control with socioeconomic architecture designed by societies obscures the distinction between what can be governed and what governs, generating both the analytical inversions identified in SE scholarship and the educational gaps this chapter addresses. This distinction represents a transformative outcome of the integrative process within IRP because it does not merely arrange existing knowledge but constructs a cognitive advancement and a more comprehensive understanding of the phenomenon under study. The established differentiation between systemic conditions and socioeconomic variables replaces the single-discipline approaches with the logic through which context-specific institutional arrangements can be distinguished from conditions that arise from the structural properties of nested open systems (Repko & Szostak, 2025).

The preceding Section 4.2 established the analytical framework through which disciplinary knowledge can now be critically examined. The distinction between systemic conditions and socioeconomic variables provides the organising principle for this examination, separating what is structurally given from what is institutionally contingent across each discipline.

The unit of analysis in this text is the social enterprise. However, because the enterprise operates as an open subsystem nested within meso level societal institutions and macro-level global systems, the analysis cannot be confined to the enterprise level alone. Explaining how dual value creation occurs at the enterprise level requires tracing the interactions across all three levels of the hierarchy, examining how macro-level systemic conditions and meso level socioeconomic architectures shape the conditions under which enterprise level dual value creation is enabled, constrained, or prevented.

The analytical framework established in this section now permits the thesis to return to IRP Step 6 and perform the deepened critical analysis that the initial evaluation in Sections 4.2.1 and 4.2.2 could not accomplish without the analytical framework derived in Sections 4.2.3 through 4.2.3.5. This iterative return is explicitly permitted by the IRP methodology, which recognises that earlier steps may be revisited as understanding develops (Repko & Szostak, 2025). The framework derived from the alternative strand is applied to the paradoxes and analytical limitations produced by the dominant strand, with the test material independent of the framework construction. Section 4.3 is structured accordingly, examining IPE scholarship at the macro- and meso-levels, SE scholarship at the meso- and micro-levels, and education scholarship as the discipline that must integrate knowledge across all three levels into coherent SEE content.

4.3 Critical Analysis of Disciplinary Scholarship

The preceding sections established planetary boundaries and the dual value imperative as systemic conditions derived from the structural properties of nested open systems. These systemic conditions apply across the entire nested hierarchy, from the planetary level through regional societies to individual enterprises. However, systemic conditions establish what must be done. They do not determine how societies organise their response. The design of socioeconomic architectures, including governance structures, coordination mechanisms, and institutional arrangements through which societies respond to systemic conditions, remains within human control and varies substantially across regions and historical periods.

This variability raises a question central to SEE. If systemic conditions are universal but institutional responses are contextually variable, can meso-level theories of value creation and their associated institutional designs be integrated into a single framework for SEE, or must they remain structured as context-sensitive content? The critical analysis that follows returns to IRP Step 6 to evaluate IPE, SE, and education scholarship through the analytical framework established in Section 4.2, examining whether convergence exists at the meso level across regional political economy traditions.

4.3.1 Critical Analysis of International Political Economy Scholarship

Dominant IPE scholarship, understood in this thesis as the theoretical traditions that have shaped institutional structures and informed the design of contemporary socioeconomic systems, is built on separatist logics in which social and economic values are generated independently and subsequently coordinated. This separation is traceable to classical economics, where Smith distributed moral and material dimensions of human behaviour across two distinct works, establishing an analytical divide that subsequent paradigms inherited and progressively institutionalised (Sen, 1987). Keynesian economics positioned the state as a corrective mechanism, creating temporal and institutional separation between processes that the systemic conditions established in Section 4.2 demonstrate must occur simultaneously to maintain systemic coherence (Keynes, 1936; Prigogine, 1984; Meadows, 2008). Friedman's market paradigm deepened the departure by treating the economy as a closed, self-regulating system, eliminating feedback mechanisms through which ecological and social degradation should constrain economic throughput (Friedman, 1962; Daly, 1996).

Alternative IPE scholarship recognises systemic interdependence, with Polanyi (1944) and Raworth (2017) challenging the autonomous market premise while Rockström et al. (2009) quantify biophysical thresholds defining the planetary system's safe operating space However, as Section 4.2 established, none of these frameworks specify the mechanisms through which integrated exchanges prevent entropy accumulation across nested system levels. The gap between recognising systemic interdependence and explaining how socioeconomic architectures must align with systemic conditions across macro-, meso-, and micro-levels remains unaddressed.

Determining whether these frameworks provide an adequate basis for globally applicable SEE requires assessing the extent to which meso-level theories of value creation converge or diverge across political economy traditions. An expanded regional analysis, informed by expert consultation across regions, examines IPE scholarship, including theories of value creation, cultural perspectives, and the degree to which systems theory and complexity science have been integrated into institutional design. The regional survey was designed to lead to a specific analytical conclusion about the structure of SEE content, and its findings are summarised below.

The analysis in preceding sections, reveals fundamental divergence rather than convergence. In North America and Western Europe, the post-war settlement institutionalised separation between market-based economic value creation and state-mediated social redistribution, positioning dual value creation as a societal-level coordination problem (Keynes, 1936; Hall & Soskice, 2001). Within this socioeconomic architecture, the enterprise bears no structural expectation to create social value, and the state assumes full responsibility for correcting the distributional consequences of market activity.

Chinese theoretical thought inverts this logic. Dual value creation is not an optional organisational aspiration, but an institutional mandate embedded in enterprise governance mechanisms that align enterprise behaviour with state-identified social priorities (Guo, 2003; Cheng & Ng, 2023; Zhang, 2024). Empirical analysis of 2,536 Chinese public firms demonstrates that corporations pursue dual objectives, maximising both economic value and community benefits, unlike the singular objective of value maximisation assumed in Western business theory (Cheng & Ng, 2023). Zhang (2024) further documents how state-socialist and market-capitalist logics coexist within partially privatised state-owned enterprises, supported by an intricate architecture of tax incentives, subsidies, and regulatory restrictions that integrate social objectives into business operations. The Chinese socioeconomic architecture locates dual value creation within the enterprise itself rather than distributing it across separate institutional spheres. This arrangement produces a different relationship between enterprise governance and societal coordination than the one found in liberal political economy.

Indian political economy occupies a distinct position between the Western and Chinese approaches. Developed through Fabian socialism and Nehruvian statism, Indian theoretical thought conceptualised value creation as requiring active state coordination alongside protected private enterprise (Panagariya, 2024). Institutional design reflects this hybrid logic through the establishment of the Planning Commission for national target setting, the industrial licensing system that defined boundaries between public and private sectors and import substitution policies

intended to build domestic industrial capacity (Panagariya, 2024). As Dasgupta (1993) demonstrates, the Nehruvian developmental vision assigned social value creation to public sector enterprises occupying the commanding heights of the economy while permitting private firms to pursue economic optimisation within regulatory constraints. The Indian socioeconomic architecture thus distributes dual value creation across a state-directed public sector and a regulated private sector, without the enterprise-level integration mandates characteristic of China or the full market-state separation characteristic of liberal economies.

In Africa, liberation theory and post-colonial state formation produced institutional expectations that economic organisation must contribute directly to social reproduction and ecological stewardship (Amin, 1974). Dompere (2017) advances a systems-oriented political economy that treats value creation as a dynamic process governed by feedback between social, economic, and ecological systems, generating institutional proposals centred on developmental planning and socially embedded economic organisation. Sylla (2022) extends this tradition by arguing that institutional design in African contexts must prioritise dignified livelihoods within planetary limits rather than convergence with high-consumption growth models, drawing on liberation-era development agendas to connect socioecological imperatives with economic sovereignty. African theoretical thought grounds value creation in socioecological interdependence rather than in market separation or state directed enterprise governance. This orientation aligns more closely with the open systems logic governing nested hierarchies defined in previous sections than with either Western or Chinese approaches, despite limited institutional translation to date.

In South America, structuralism and dependency theory positioned the state as an architect of markets rather than a residual corrector of market failure, treating economic value creation as inseparable from national development strategies (Prebisch, 1949/1984; Dos Santos, 1970). Bermúdez-Restrepo and Vaca-López (2026) demonstrate through Buen Vivir that enterprises creating social, economic, and ecological value simultaneously operate within cultural and ecological systems that predate market-state separation, indicating that dual value creation in the South American context is understood not as an organisational innovation but as a continuation of socioecological practices embedded within Indigenous and communal traditions.

Practices identified in South American literature originated outside formal institutional design and operated through cultural and ecological systems that preceded market state architectures. These practices were subsequently formalised through constitutional recognition of the rights of nature in Ecuador (2008) and through Colombia's Constitutional Court rulings granting legal personhood to ecosystems (Atria River, 2016), demonstrating a trajectory from embedded cultural practice to institutional codification rather than from institutional design to organisational implementation.

Cultural philosophies further shape these divergences, and their significance extends beyond intellectual tradition to the ontological status and purpose assigned to the enterprise itself. Ubuntu in Africa, Buen Vivir in South America, and Daoist thought in China each articulate relational ontologies in which the enterprise is not conceived as an autonomous economic agent

but as an embedded participant within social and ecological systems (van Norren, 2020; Fashina, 2025; Cubillo-Guevara, 2017; Yang, 2026). Ubuntu grounds enterprise purpose in communal obligation and radical interdependence (Garnier, 2025). Buen Vivir constitutionally subordinates enterprise activity to legally enforceable rights of nature (Cubillo Guevara, 2017). Daoist governance positions enterprise within a systemic architecture designed for minimal intervention and maximum feedback responsiveness (Yang, 2026).

While these traditions converge in rejecting the analytical separation of economy from society and ecology that underpins liberal political economy, they assign a different ontological status to the enterprise and derive different purposes for its operations (Metz, 2023; van Norren, 2020). Therefore, cultural approaches conceptualise the role of the enterprise differently from the dominant paradigms in IPE.

4.3.1.1 Recent Advances in Systems Theory Applications in Political Economy

The engagement of systems theory and complexity science with political economy is effectively universal across regions, whether formalised through complexity frameworks or implicitly embedded within structuralist, dependency, liberationist, or culturally grounded traditions. However, this common engagement is largely absorbed within the pathways that regional approaches already follow rather than producing convergence toward a shared institutional model.

China translates systems reasoning into state-level macro-coordination of enterprise behaviour, drawing on big data analytics to reduce time lags between imbalance detection and regulatory intervention (Yao & Xi, 2025; OECD, 2025). Russia operationalises entropy theorisations and ecosystem concepts at the territorial level of regional development (Shmeleva, 2023). European regulation theory embeds complexity within comparative analytical frameworks that inform institutional design through policy rather than enterprise-level mandates (Boyer, 2018). North American scholarship advances systems reasoning through methodological innovation without altering the liberal institutional architecture within which enterprises operate (Page, 2018; Davis & Boianovsky, 2025). India, South America, and Africa develop sophisticated theoretical and conceptual engagement with systems thinking without equivalent institutional translation into enterprise governance or coordination architectures (Gupta & Sushil, 2024; Kay, 2018; Mini et al., 2024).

The diversity in how systems reasoning is institutionalised indicates that theoretical convergence on open-systems principles does not produce institutional convergence on how dual value creation is organised at either meso- or micro-levels. The comparative analysis establishes the existence of distinct theoretical traditions and socioeconomic architectures across regions. Each examined region locates responsibility for social and economic value creation at a different institutional level and assigns a different role to the enterprise within values creation process.

4.3.1.2 Implications for SEE

The critical finding is that theories of value creation and institutional design diverge substantially across regions, and societies advance along trajectories shaped by their intellectual traditions and institutional path dependencies rather than converging toward a common model

(Hall & Soskice, 2001; North, 1990; Kerlin, 2013). Both coordination and integration mechanisms are present across regions to varying degrees, but no universal approach establishes a global pattern. At the micro enterprise level, the range extends from China, where dual value creation is embedded within firm structures through party-state governance mechanisms (Guo, 2003; Zhang, 2024), through voluntary registration as a B Corp in North America, to over 30 legal forms of social enterprise across different European countries (Peter et al., 2023), to socioecological integration proposed in African and South American scholarship without equivalent institutional implementation (Dompere, 2017; Sylla, 2022).

Both pathways are structurally viable and consistent with systemic conditions. The pathway through which societies organise their response, whether through enterprise level integration, societal level coordination, state directed mandates, or hybrid arrangements, varies according to the regional socioeconomic architecture in place (Hall & Soskice, 2001; Kerlin, 2013; Defourny & Nyssens, 2017). Therefore, the dual value imperative is universal across levels, while the regional pathways through which alignment is pursued can vary.

SEE content at the macro-level, where systemic conditions operate, constitutes integrable knowledge applicable across all contexts (Repko & Szostak, 2025). At the meso- and micro-levels, content must remain context-sensitive, adapted to the political economy paradigms and institutional architectures that shape the operating environment in each region. Teaching IPE exclusively through the lens of institutional separation between market-based economic value creation and state-mediated social redistribution would leave students fundamentally unprepared to operate within the institutional logics of China (Guo, 2003; Cheng & Ng, 2023), India (Panagariya, 2024), Africa (Dompere, 2017; Sylla, 2022), South America (Prebisch, 1949/1984; Dos Santos, 1970), Russia (Shmeleva, 2023), or the differentiated landscape of the EU (Peter et al., 2023; Boyer, 2018).

Within societies that support dual value creation through dedicated organisational forms or requirements for social value creation, that value is defined by regional states and changes over time depending on regional priorities. Teaching students that all societies broadly align with the same theoretical or institutional approach would misrepresent the world, understate the intellectual traditions of entire regions, and leave learners with analytical tools that fail when confronted with institutional contexts shaped by different philosophical assumptions (van Norren, 2020; Metz, 2023). Therefore, the world is not governed by a single socioeconomic model, and education should not present it as one. Knowledge about value creation at meso societal level can therefore only be structured to facilitate navigation rather than organised around one theory assumed to be applicable across contexts.

In SEE it is important to clarify to learners that the systemic conditions derived in Section 4.2 constitute a structural requirement of nested open systems across macro-, meso-, and micro-levels (von Bertalanffy, 1968; Meadows, 2008). This requirement does not contradict the regional diversity documented above. Section 4.2.3.5 established two pathways through which systems and subsystems can align with systemic conditions. The integration pathway produces dual value within each level, including the enterprise itself. The coordination pathway distributes

responsibility across specialised organisations and relies on higher level mechanisms to align aggregate outcomes (Ashby, 1956; Beer, 1985). The integration pathway allows a single unit enterprise or organisation to absorb entropy at the point of generation and reduce coordination costs at higher levels of the social hierarchy (Meadows, 2008).

As shown in Section 4.2.3.5, with scale progression and transition from the micro enterprise level to the meso societal level and macro global level, complexity increases, making it increasingly difficult to sustain the integrative pathway (Kauffman, 1995). Thus, a societal structure that minimises systemic entropy can be theoretically proposed and further elaborated in Section 4.2.3.5 through a combination of integrative enterprise design at scales where integration remains feasible and rapid, responsive coordination mechanisms that align specialised units with systemic conditions at scales where specialisation becomes structurally inevitable (Ashby, 1956; North, 1990). Natural systems define the conditions under which human society can exist independently of how humans design socioeconomic systems (Rockström et al., 2009; Steffen et al., 2015). However, as the preceding analysis demonstrates, societies are shaped both by the nested architecture of natural systems and by the institutional and socioeconomic choices societies make in responding to the systemic conditions imposed by that systems configuration.

4.3.2 Critical Analysis of Social Entrepreneurship Scholarship

The critical analysis of SE scholarship proceeds in two stages. The first subsection evaluates whether either of the two theories explicitly proposed for SE provides a sufficient foundation for globally applicable SEE, or whether an alternative must be constructed through interdisciplinary integration. The subsequent subsections examine the three paradoxes identified in SE scholarship, namely the profitability paradox, the social value paradox, and the hybridity challenge, using the analytical framework established in Section 4.2 to determine their causes and potential resolution.

The adequacy analysis developed in Chapter 3 identified Santos (2012) and Goldstein et al. (2008, 2010) as the only two contributions within SE scholarship that explicitly claim theoretical status. These two theories offer distinct explanations of SE practice, one drawing on economics and the other on complexity science.

Santos (2012) advances a positive theory of social enterprise grounded in economics and institutional economics, seeking to explain why SE emerges as a distinct form of entrepreneurial activity. In this account, the entrepreneur constitutes the unit of analysis, and causality is specified through incentive structures associated with value creation and value capture. The theory represents the most fully elaborated explanatory account of SE within the field and has made a significant contribution by formalising the distinction between value creation and value capture as an analytical framework for understanding SE motivation.

The theory is built on several premises. Value creation refers to the generation of social benefits for others, while value capture refers to the portion of economic value retained by the enterprise as revenue or profit. These two processes are treated as a fundamental trade off, with social enterprise distinguished from commercial enterprise by a predominant focus on value creation. Social entrepreneurs are characterised by a distinct logic of action centred on

empowerment and regard for others, in contrast to the logic of control and self interest associated with commercial entrepreneurship. Santos therefore describes SE as the second invisible hand of Adam Smith, driven by others interest rather than self interest. Within this logic, social entrepreneurs maximise value creation while satisficing on value capture, accepting financial returns sufficient only to sustain operations and reinvest in growth. SE is consequently expected to emerge under conditions of simultaneous market and government failure, where problems characterised by positive externalities remain unaddressed by other institutional actors.

When examined against the analytical framework established in Section 4.2, the theory encounters limitations that constrain its applicability to globally inclusive SEE. The theory presupposes the existence and analytical sufficiency of a market state architecture in which markets allocate resources through value capture and governments intervene to correct failures in that allocation. This assumption restricts the theory's explanatory reach to institutional contexts in which market state separation structures economic organisation.

Consequently, the theory cannot account for social enterprise activity that predates the modern separation of markets and states (Teasdale et al., 2023), including Indigenous collective enterprises in South America and community-based organisations across Africa and Asia that existed prior to colonial institutional transplantation (Prouchet, 2025). The theory also struggles to explain contexts in which enterprise activity is embedded within cultural philosophies such as Ubuntu (Kroeze, 2025) or Buen Vivir (Bermúdez Restrepo & Vaca López, 2026), nor can it adequately account for state directed economic systems such as China, where enterprises routinely pursue social objectives as part of formally constituted development strategies rather than as residual responses to market or government failure (Zhang, 2024; Cheng & Ng, 2023). These limitations suggest that the conditions giving rise to dual value creation predate and remain independent of the institutional architecture the theory treats as universal.

Additionally, by treating value creation and value capture as dimensions that do not complement each other well, the theory presupposes that social and economic value exist in tension, thereby reproducing the separability premise identified in Section 4.2 as the root source of paradoxes across SE and IPE scholarship. The theory also does not engage ecological constraints or environmental limits as analytically relevant conditions shaping the emergence or persistence of SE. Finally, by locating the explanatory mechanism in the motivational disposition of particular individuals, the theory ultimately explains SE through individual responses to institutional gaps rather than as a structural phenomenon.

Goldstein et al. (2008, 2010) advance a complexity-based theory of social enterprise rooted in management studies and complexity science. Rather than explaining why SE exists, the theory seeks to explain how organisational forms oriented toward social innovation emerge and stabilise. Social innovation is broadly understood as the development and implementation of novel and more effective solutions to social problems in which value accrues primarily to society as a whole rather than to private individuals, regardless of whether economic value is generated (Phills et al., 2008).

Within this framework, the organisation is conceptualised as a complex adaptive system, with causality attributed to patterns of interaction and feedback rather than to optimisation or

intentional design. The theory makes a valuable contribution by demonstrating that social enterprise operates as an open complex dynamic system embedded within broader complex dynamic systems, and that cross-system interactions within such environments occur through nonlinear patterns. This process-oriented perspective offers an important corrective to linear planning and optimisation models that are unable to account for the adaptive dynamics social enterprises must navigate.

When assessed against the analytical framework established in Section 4.2, however, the theory encounters several limitations that constrain its applicability to globally inclusive SEE. Most importantly, the theory does not derive why the emergent response takes the specific form of dual value creation. Nonlinear feedback processes can generate a wide range of organisational outcomes, and without specifying the systemic conditions that constrain which forms of organisation are viable, the theory explains the mechanism of emergence but not the content of what emerges. Dual value creation is therefore treated as an observed characteristic of social enterprise rather than as a theoretically necessary outcome. Consequently, the theory cannot explain the historical persistence or cross contextual prevalence of dual value creation, nor can it account for its recurrence across institutional environments characterised by markedly different political and economic structures (Teasdale et al., 2023; Prouchet, 2025). The theory also does not explain how the processes through which social enterprises produce dual value creation can be examined at the operational level.

Despite their distinct disciplinary origins and explanatory mechanisms, the two theories share several limitations when assessed against the requirements for globally applicable SEE. Both proposed theories are rooted in single disciplinary traditions and derive their explanatory logic primarily through deductive theoretical reasoning without empirical validation across contexts. Their analysis remains confined to the level of the entrepreneur or enterprise and its immediate interaction with society, without providing a multi-level explanation connecting micro-level entrepreneurial action, meso-level societal design, and macro-level alignment with systemic conditions. Neither theory explains how dual value creation is operationally produced within the enterprise or specifies the organisational, governance, and coordination mechanisms through which social entrepreneurs sustain their practice over time (Teasdale et al., 2023; Prouchet, 2025). Moreover, neither theory has been systematically tested against social enterprise practice across diverse institutional and cultural contexts.

Chapter 1 identified the limitations of disciplinary frameworks as a significant gap in the SEE knowledge base. The analytical framework developed in this chapter now provides a clearer explanation of why this gap persists, namely the absence of an interdisciplinary integrated theory capable of explaining SE practice. In this context, it is also necessary to clarify why broader theoretical frameworks addressing systemic interdependence between social and economic values cannot substitute for a theory of SE.

One framework frequently invoked by SE scholars draws on Polanyi's (1944) concept of embeddedness. The thesis proposes that SE activity cannot be analytically separated from the institutional fabric within which it operates or from the planetary boundaries that constrain the

broader system in which social enterprises are embedded. However, Polanyi's framework addresses the relationship between economy and society at the meso level of institutional transformation rather than at the level of enterprise design or organisational value creation. Similarly, sustainability theories derived from Brundtland (1987), Elkington (1997), and Raworth (2017) articulate scientific findings or normative imperatives concerning the need to balance economic, social, and ecological outcomes, but they do not explain how or why particular organisational forms emerge to pursue those outcomes. Neither Polanyi nor sustainability scholarship treats social enterprise as a unit of analysis, nor do they derive the conditions under which dual value creation becomes a structural necessity rather than a normative aspiration grounded in ethical stance or recognition of planetary limits. These frameworks therefore inform the analytical context within which social enterprise operates but cannot explain the phenomenon itself.

The implications for SEE are therefore significant. SEE operates on the premise that the knowledge required to design and operate social enterprises can be identified, structured, and taught. This premise requires theoretical foundations capable of generating transferable knowledge applicable across contexts. Neither theory satisfies this requirement.

Santos's theory locates the explanatory mechanism in the motivational disposition of the entrepreneur, specifically in a value orientation that prioritises value creation over value capture. By grounding social enterprise in individual disposition rather than in learnable knowledge concerning systemic conditions, organisational design, or operational processes, the theory offers little transferable content for education beyond shaping value orientation. Goldstein et al.'s theory, by contrast, locates the explanatory mechanism in nonlinear feedback dynamics guiding entrepreneurial adaptation. Because these processes are inherently emergent and unpredictable, the theory does not provide operational knowledge that can be structured into educational content applicable across contexts.

Neither theory therefore provides a foundation from which SEE can derive the knowledge required to prepare learners to design, launch, and sustain social enterprises across diverse institutional environments. Santos's theory presupposes a specific socioeconomic architecture, namely the separation of markets and states, which the IPE analysis in Section 4.3.1 demonstrated is neither universal nor dominant outside liberal democracies. Goldstein et al.'s (2010) framework, meanwhile, cannot distinguish dual value creation from other forms of adaptive organisational change, leaving the persistence of SE practice theoretically unexplained.

The interdisciplinary derivation developed in Section 4.2 addresses these limitations by deriving the conditions for dual value creation from the structural properties of nested open systems rather than from the institutional arrangements of any particular society. Consequently, the theoretical framework for this research must be constructed through interdisciplinary integration that takes social enterprise as the unit of analysis and generates knowledge capable of informing SEE across diverse institutional contexts.

4.3.2.1 Profitability Paradox and Mission Drift

This section examines the paradoxes identified in dominant SE scholarship to clarify whether they reflect inherent contradictions in dual value creation or arise from analytical assumptions embedded in existing theoretical frameworks.

The profitability paradox in SE literature concerns how social enterprises sustain financial viability while pursuing social objectives (Bacq & Janssen, 2011; Doherty et al., 2014; Smith et al., 2013; Singathurai et al., 2024; WEF, 2024). The systemic conditions framework and the two architectural pathways established in Section 4.2 clarify that dual value creation can be operationalised through two mechanisms, integration and coordination, both of which satisfy the definitional requirements established in Chapter 1.

Under the integration pathway, social and economic outcomes arise from the same production and exchange logic: the revenue generating activity simultaneously delivers the social intervention. For example, an electric vehicle manufacturer generates revenue through vehicle sales while simultaneously reducing fossil fuel consumption and airborne pollutants (Teske, 2021), and a software testing company employing neurodiverse individuals delivers both high quality services and inclusive employment through the same operational model (Austin & Reficco, 2009). In such cases, profitability does not compete with mission because the transaction itself produces both outcomes. The profitability paradox is therefore eliminated when dual value creation is embedded in the core design of the enterprise, as the need to coordinate separately optimised objectives disappears.

By contrast, under the coordination pathway, social and economic outcomes are generated through analytically and operationally distinct processes and subsequently aligned through organisational commitments, governance arrangements, and mission protective mechanisms (Marquis & Park, 2014). A well-known illustration is TOMS Shoes, where footwear sales generate revenue through conventional commercial activity while social value is delivered through a separate programme that donates a pair of shoes for each pair purchased (Marquis & Park, 2014). This architecture introduces ongoing coordination costs and exposes enterprises to persistent tensions between objectives treated as separate. The profitability paradox thus emerges primarily within the coordination pathway, where maintaining alignment between distinct value streams requires continuous organisational effort. The paradox therefore does not arise from dual value creation itself but from the separation of value generation processes within the enterprise.

The social value paradox operates at a different analytical level and cannot be eliminated through enterprise level design. Even enterprises that successfully integrate social and economic value continue to operate within socioeconomic architectures whose resource allocation mechanisms reward activities that externalise social and ecological costs. The paradox can therefore be formulated as a systemic question: by what logic does the human system allocate substantial shares of natural, human, and financial resources to organisational activities whose profitability depends on exporting disorder to the social and ecological systems that sustain it?

An economist could reasonably argue that enterprises focused on economic value generation contribute indirectly to social goals through taxation and the funding of public services,

and that such coordination at the level of society is structurally coherent within the framework established in Section 4.2.3.5. However, the social value paradox operates at a level that the tax coordination argument does not reach. When entropy exported to social and ecological systems accumulates faster than tax funded redistribution can address, the coordination pathway fails. This failure is further reinforced by the time lag between system degradation and institutional response, during which damage continues to accumulate and may become irreversible. The economic argument therefore holds only under the condition that the tax system enables near instant response and full rectification of social and ecological costs, a condition that is logically possible but, as current reality shows, not realistically achievable within complex, dynamic systems (Prigogine & Stengers, 1984; Georgescu Roegen, 1971).

Open systems theory indicates that systemic viability depends on feedback mechanisms that maintain proportional relationships across subsystems and constrain behaviours that threaten system stability (von Bertalanffy, 1968; Meadows et al., 2004). Contemporary socioeconomic architectures frequently weaken these constraints by privileging extraction, throughput, and short-term profit maximisation, allowing the economic subsystem to maintain internal order by exporting disorder to broader social, ecological, and planetary systems (Prigogine, 1984; Georgescu Roegen, 1971; Daly & Farley, 2011; Rockström et al., 2009; Raworth, 2017). As a result, enterprises whose operations generate environmental degradation or social harm while producing economic returns are structurally rewarded within prevailing institutional arrangements. The social value paradox therefore arises from systemic incentive structures embedded in the broader socioeconomic architecture, rather than the internal SE solution design.

The paradox also exposes a significant limitation in the response of SE scholarship. Rather than examining how socioeconomic architectures that reward entropy export might be transformed, much of the literature concentrates on identifying which actors should assume responsibility for change. Cieslik (2017) proposes that social entrepreneurs can function as institutional change agents by modelling alternative practices capable of gradually influencing mainstream market and policy structures. Kromydas (2017) locates a central role within academia, arguing that universities should contribute to societal transformation through research, education, and knowledge production. Mintzberg (2015), by contrast, advocates a plural society in which responsibility for rebalancing social and economic priorities rests primarily with civil society and public institutions. SE research provides limited insight into how transitions toward architectures capable of generating dual value might occur, which mechanisms could sustain institutional adaptation, or why particular reform strategies may succeed while others fail (North, 1990; Ostrom, 1990).

The distinction between the two paradoxes is therefore level specific. The profitability paradox is a micro-level phenomenon contingent on enterprise architecture and can be resolved through integration of value creation within core operations, whereas the social value paradox is a meso- and macro-level allocation problem produced by systemic incentive structures that no single enterprise can eliminate. Integrated enterprise design can reduce an organisation’s contribution to

entropy export, but it cannot alter the structural allocation mechanisms through which contemporary socioeconomic systems distribute resources and rewards.

Unfortunately, regardless of how human societies organise their internal political, economic, or institutional arrangements, their fundamental nature as open systems remains unchanged. The systemic conditions governing interactions within nested social, ecological, and planetary hierarchies are not subject to social preference or institutional design. While human societies possess significant capacity to reshape internal architectures, they cannot alter the thermodynamic and systemic constraints under which those architectures operate (Georgescu Roegen, 1971; Meadows et al., 2004). Recognising this distinction between what can be governed and what must be respected is essential for addressing the social value paradox and for situating social enterprise within viable systemic boundaries.

4.3.2.2 Typological Frameworks: Reproducing Values Separation and Hybridity

The typological frameworks examined in Chapter 1, including EMES ideal-type indicators, hybrid spectrum models, macro-institutional frameworks, and value creation typologies, may retain analytical value within specific regional or disciplinary contexts, and their applicability within single contexts warrants further exploration. However, the ICESEM comparative programme, which applied EMES indicators across over 50 countries, revealed not only limited transferability across regions but also significant variation within regions, suggesting that context-specific typologies may restrict the scaling of SE practice and limit recognition of enterprises that do not conform to regionally dominant classificatory criteria (Defourny & Nyssens, 2017; Peter et al., 2023). Santos's (2012) value creation typology encounters the same limitation at the disciplinary level, operating within the boundaries of a single theoretical tradition. Although the typological classification may retain limited value in classifying social enterprises within specific regions or disciplines, these frameworks cannot serve as the foundation for globally applicable SEE.

The analytical framework developed in this chapter reveals the structural reason for this limitation. Existing typologies systematically conflate systemic conditions, which apply universally across the nested hierarchy, with socioeconomic variables, which represent human-designed institutional arrangements subject to modification and cultural variation (North, 1990; Ostrom, 1990).

The EMES framework exemplifies this conflation by combining system-level imperatives associated with dual value creation with organisation-level features such as profit distribution constraints and ownership structure, positioning socioeconomic architecture as primary and systemic conditions as derivative (Defourny & Nyssens, 2014, 2017). This analytical ordering contradicts the hierarchy established in Section 4.2 wherein human-designed institutions operate within rather than determine biophysical and thermodynamic constraints. Hybrid spectrum typologies and macro-institutional frameworks reproduce the same pattern by locating the driver of dual value creation in external contextual variables rather than in the internal mechanisms through which enterprises achieve integration (Dees & Anderson, 2006; Young & Lecy, 2014; Kerlin, 2013; European Commission, 2020). Across all typological traditions, enterprises are

classified according to socioeconomic variables while dual value creation is treated as an institutional feature subject to organisational choice rather than as a systemic condition governing the nested hierarchy within which enterprises operate.

The analysis indicates an alternative basis for classification grounded in systemic conditions rather than socioeconomic variables, following from the two architectural pathways identified in Section 4.2. At one pole of the spectrum are enterprises that integrate values within their solutions and processes such that social and economic outcomes are mutually reinforcing. Enterprises at the opposite pole contain units optimising partially toward separate objectives and requiring coordination mechanisms to deliver dual value. Between these boundary limits lies the range of intermediate configurations illustrated by Natura & Co in the preceding section, where integration and coordination coexist across different operational dimensions within the same organisation. Developing a comprehensive typology along these lines exceeds the scope of this thesis, as the data collected in this research were not designed to support the comparative analysis that robust typological validation would require. A hypothetical typology is therefore advanced in the following section, warranting future empirical investigation.

4.3.2.3 Deductive Derivation of an Alternative Typological Basis

The following subsection advances the hypothesis that an alternative typological basis can be derived deductively from the systemic conditions and analytical distinctions established in Section 4.2. The argument proceeds through five claims, each building on what the previous one establishes. The claims constitute a theoretical derivation grounded in deductive reasoning from established scholarship.

The argument proceeds as follows. Existing typologies fail not because they select the wrong variables but because they reverse the causal relationship between systemic requirements and the institutional arrangements that respond to those requirements. Correcting this causal inversion by drawing on the thermodynamic basis of dual value creation as a systemic condition, reveals that only two response mechanisms to systemic conditions are logically possible. These two mechanisms, referred to here as integration and coordination, emerge as logical necessities deduced from the structure of the dual value creation mechanism, internal to social enterprise.

Anchoring typology to internal dual value creation mechanisms rather than to socioeconomic variables dissolves the perception of social enterprise as an institutional anomaly. SE emerges as a necessary response to systemic requirements in the nested hierarchy of open systems in which enterprises operate. A further consequence of the analysis is that the integration mechanism is structurally more efficient than the coordination mechanism for reasons that follow from the same thermodynamic and systemic logic, though both mechanisms constitute legitimate responses to the systemic condition. The derivation proceeds through the following claims and the arguments that support them.

Claim 1: Existing typologies cannot achieve universal applicability because they are anchored to socioeconomic variables and because they reverse the actual causal relationship between systemic requirements and institutional responses. Two arguments support this claim, one spatial and temporal, the other causal. The IPE analysis in Section 4.2 established that

socioeconomic variables are human-designed institutional arrangements that differ across political economy traditions and evolve within any given context through policy reform, cultural shift, and feedback-driven adjustment (North, 1990; Hall & Soskice, 2001; Kerlin, 2013). Socioeconomic architectures evolve through feedback from the systemic requirements they attempt to satisfy, shaped by cultural and academic traditions. A typology anchored to variables that differ across contexts cannot transfer across regions. Moreover, a typology anchored to variables that change over time cannot maintain validity across periods.

This observation alone would indicate the limited applicability of typologies based on socioeconomic design. The deeper problem, however, concerns causality. Existing typologies conceptualise dual value creation as the outcome of particular configurations of socioeconomic variables, implicitly assuming that governance arrangements, legal structures, and financing mechanisms themselves produce dual value creation rather than merely facilitate it (Defourny & Nyssens, 2017; Dees & Anderson, 2006; Kerlin, 2013).

The Conant - Ashby (1970) theorem clarifies why this assumption is analytically inverted. Meaningful explanation requires anchoring analysis in structural properties of the system rather than in variables that vary across contexts. Variables describe variation, but explanation requires identifying the systemic conditions that generate that variation (Ashby, 1956; Whetten, 1989). Institutional configurations vary across contexts and evolve over time and therefore constitute variables. The dual value imperative, by contrast, derives from the structural properties of nested open systems and represents a systemic constant. Anchoring explanation in institutional variables rather than in the systemic conditions to which those institutions respond reverses the causal relationship between systemic requirements and institutional responses (Conant & Ashby, 1970). This causal inversion helps explain why dual value creation appears across diverse institutional contexts (Peredo & McLean, 2006; Mair & Martí, 2006; Huybrechts & Haugh, 2018). Enterprises operating under different institutional forms can produce similar dual value outcomes because institutional arrangements shape how dual value is expressed rather than causing it.

Claim 2: Typologies must be anchored to systemic conditions because dual value creation is a structural viability requirement derived from the properties of nested open systems, not an outcome of institutional design. If socioeconomic variables are causally derivative, as Claim 1 established, then the typological anchor must be located at the level from which the causal requirement originates. Section 4.2 established through five premises that dual value creation constitutes a structural viability requirement derived from the properties of nested open systems, independent of any institutional arrangement (von Bertalanffy, 1968; Meadows, 2008; Prigogine & Stengers, 1984; Georgescu-Roegen, 1971). Because systemic conditions apply regardless of institutional context while socioeconomic variables do not, systemic conditions constitute the only stable anchor for a typology with claims to universal applicability. Universal typological classification therefore requires anchoring to systemic conditions rather than to the institutional arrangements through which societies respond to those conditions.

Claim 3: Given the dual value imperative, only two response mechanisms are logically possible, integration and coordination. These mechanisms emerge as logical necessities deduced

from the structure of the imperative itself. Section 4.2 established that enterprises respond to the dual value imperative through two architectural pathways. What remains to be established is that these two pathways are logically exhaustive rather than two observed patterns among possible others. The logic proceeds as follows. The dual value imperative requires that an enterprise simultaneously generate economic value and minimise entropy export (Georgescu-Roegen, 1971; Daly, 1996; Meadows, 2008). The critical social enterprise design variable is whether the activities generating dual value are identical to or distinct from the activities ensuring entropy reduction. If identical, the enterprise achieves integration. The duality is collapsed into the unit act of production, and no internal boundary separates value types. If distinct, the enterprise operates through coordination of units that focus on either social or economic value production. Such an enterprise must construct governance arrangements and alignment mechanisms to prevent separately optimised objectives from drifting apart (Battilana & Lee, 2014; Pache & Santos, 2013).

The relationship between the two sets of activities is either one of identity or one of difference, and these possibilities are logically exhaustive, as no third option exists in which the relationship is neither the same nor different. Enterprises may combine both mechanisms across different operational dimensions, placing them on a spectrum between the two poles. However, intermediate configurations are combinations of two mechanisms rather than a third mechanism. Meadows (2008) establishes that system structure constrains the range of viable responses, and integration and coordination are therefore logical necessities deduced from the structure of the problem rather than patterns that could have been otherwise. The dual value imperative therefore admits exactly two response mechanisms, with all observable enterprise configurations representing combinations of these two mechanisms along a spectrum.

Claim 4: Anchoring typology to systemic conditions repositions social enterprise from a locally defined anomaly to a universally observable response to permanent structural requirements, dissolving the hybridity problem that socioeconomic-variable-based frameworks generate. The consequences of the causal correction established in Claims 1 through 3 can now be traced to the hybridity debate. Within dominant SE scholarship, enterprises that create both social and economic value appear anomalous, as hybrid deviations from the separatist institutional architecture of modern capitalist economies, which assigns economic value to markets and social value to states (Battilana & Lee, 2014; Pache & Santos, 2013; Defourny & Nyssens, 2017). The IPE analysis in Section 4.3.1 identified this separatist architecture as a historically contingent institutional arrangement rather than a structural necessity, and the nestedness analysis established it as an inversion of the actual hierarchy in which the economy is nested within society and ecology rather than operating independently of them (Polanyi, 1944; Daly, 1996; Raworth, 2017).

If integration and coordination are responses to systemic conditions that apply universally, both mechanisms should appear wherever enterprises operate within nested systems, independently of institutional context. This prediction is consistent with Peredo and Anderson (2006), who document that social entrepreneurship appears across diverse institutional and cultural contexts, and with Bacq (2021), who observes that the phenomenon recurs consistently even as its definitional boundaries remain socially constructed. Viewed through systemic conditions, dual

value creation is the normal requirement of viable human activity within nested open systems, and the separatist architecture is the historical exception. The proposed typology therefore does not accommodate social enterprise within existing frameworks; it repositions the phenomenon by correcting the frame through which it is observed. The deductive derivation proposed here suggests that social enterprises can be situated along a spectrum defined by two poles according to their response to the dual value imperative. Integration and coordination represent the logical boundary limits of this spectrum rather than discrete categories into which enterprises are classified.

The integration pole describes enterprises in which the revenue-generating activity and the impact-delivering activity are one and the same, such that social and economic value emerge from a single production logic without requiring an internal boundary between value types or governance mechanisms to maintain alignment between separately optimised objectives. The coordination pole describes enterprises in which economic value and social value are generated through distinct activities, requiring the enterprise to construct and maintain governance arrangements, performance monitoring systems, and alignment mechanisms to ensure that the two objectives remain coherent over time. Between these poles lies the spectrum of enterprises that combine both mechanisms across different operational dimensions, as the Natura & Co example illustrated.

The distinction between the two poles is a structural characterisation derived from the logical analysis in Claims 1 through 4. The boundary limits are logically derived, while the position of any given enterprise along the spectrum is an empirical question rather than a classificatory assignment. Anchoring typology to systemic conditions therefore dissolves the hybridity problem by repositioning dual value creation as the structurally expected response to the systemic conditions governing nested open systems, with enterprises distributed along a spectrum between the integration and coordination poles. The structural consequences of the distinction are addressed in Claim 5.

Claim 5: Integration is structurally more efficient than coordination, not as a normative preference but as a consequence that follows from the preceding analysis. Values integration eliminates the source of systemic inefficiency at the design level rather than managing its consequences through coordination mechanisms that consume resources and generate tensions. Because integration and coordination are poles of a spectrum rather than discrete categories, this claim addresses their structural properties at the boundary limits rather than proposing a binary ranking of enterprises. Section 4.2 established that coordination-dominant architectures generate increasing costs as the complexity of required management grows and as divergence between subsystem optimisation and systemic constraints accumulates (Ashby, 1956; North, 1990). The structural source of this cost pattern can now be specified more precisely. Figure 4.3.2.3 presents the logical structure of this derivation.

Figure 4.3.2.3: Logical Structure of the Deductive Derivation of Hypothetical Typologies

Figure 4.3.2.3 represents a logical sequence followed in outlining claims one to five in the preceding text, augmented by scholarship from systems dynamics, economics including bioeconomics, ecological economics, and transaction cost economics studies, cybernetics, and SE. Coordination introduces additional organisational transformations between the activities generating economic value and the activities ensuring entropy reduction. Georgescu-Roegen (1971) established that each additional transformation consumes energy without producing value. This principle extends to organisational architecture: integration designs out these transformations at source because no boundary separates the two sets of activities, thereby eliminating the entropy generated by the coordination layer itself. The costs of coordinating separately optimised objectives are non-zero and persistent (Coase, 1937; Williamson, 1975), costs that integration eliminates by internalising both dimensions within a single production logic.

From a strategic perspective, coordination leaves the enterprise structurally vulnerable to mission drift whenever alignment mechanisms weaken under financial pressure, precisely the pattern documented extensively in SE scholarship (Ebrahim et al., 2014; Smith et al., 2013). The structural efficiency of integration at the boundary limit is therefore not a values-based assertion appended to the analysis but a consequence that follows from systemic conditions and the causal correction in Claim 1. At the boundary limits of the spectrum, integration is structurally more efficient than coordination because it reduces costs of values coordination and tensions between social and economic outcomes.

Among SE scholars, Santos (2012) and Atler (2007) provide grounding for the distinction between the two poles, identifying that some enterprises achieve value synergy while others manage value trade-offs through ongoing coordination. However, the proposed typologies do not explain why the different designs occur in practice. The structural analysis developed in this text proposes the reasons why theory may predict that the synergising configuration is both universally observable and architecturally more efficient in principle, rather than merely contingently present in practice.

4.3.2.4 Cross-Contextual Applicability of the Proposed Enterprise Typology

Case studies found in literature indicate that the same integrated models emerge independently across diverse contexts. The social enterprise Too Good To Go addresses food waste by creating a marketplace where surplus food generates revenue for vendors while reducing the entropy export associated with food disposal, applying the same mechanism across 19 countries with different regulatory and cultural environments (Yang & Yu, 2025). The integration mechanism is the conversion of what would otherwise be disposed matter into revenue-generating exchange, a principle grounded in thermodynamic logic that holds regardless of whether the operating context is France, Germany, or the USA.

Biomimicry applications derive both technical advantage and ecological alignment from the same design principles, producing solutions that transfer across industrial contexts because the underlying biological models are universal (Benyus, 1997). A passive cooling system inspired by termite mounds functions in Zimbabwe and in Melbourne because the physics of heat transfer are identical in both locations, even though the regulatory frameworks, construction materials, and labour conditions differ (Benyus, 1997). The note examples indicate that integration mechanism transfers across contexts because it is anchored in biophysical constants. The coordination mechanisms, including building codes, supply chains, and training programmes, do not.

Similar logic applies across additional domains. Sustainable tourism enterprises in Costa Rica, Kenya, and Nepal generate economic returns for local communities through the very activities that preserve biodiversity and cultural heritage (Jackson, 2025). Slow fashion ventures in Europe, South America, and South Asia design production processes where environmental stewardship and fair labour practices constitute the source of competitive differentiation rather than costs to be managed, increasingly incorporating bio-based and biofabricated materials whose renewability reduces material entropy (Mukherjee & Sarkar, 2025). Green technology enterprises generate revenue through products that simultaneously reduce environmental degradation, and

enterprises creating marketable products from recycled materials generate economic value through the very process that reduces waste and resource extraction (Green, 2023; Singh & Awasthy 2025; Teske, 2021). In each case, the integration mechanism transfers across institutional contexts because the biophysical and systemic conditions it addresses are not culturally or institutionally bounded.

Enterprises operating through the coordination pathway face structurally similar challenges regardless of location, including the tension between separately optimised social and economic objectives, the governance burden of maintaining mission integrity under financial pressure, and the ongoing cost of coordination that integration would eliminate at the design level. However, the specific coordination mechanisms available to these enterprises, including the legal forms, financing instruments, governance requirements, and accountability provisions documented by Peter et al. (2023) across 36 OECD economies, are context-dependent, varying with the political economy paradigms and institutional architectures identified in the IPE analysis. Natura & Co, discussed in the preceding section, illustrates the intermediate position on the spectrum, combining integrated supply chain design with coordinative corporate social responsibility programmes across global operations, demonstrating that enterprises may deploy both mechanisms simultaneously across different operational dimensions.

The available evidence provides preliminary support for both proposed enterprise poles as globally applicable, though the evidence remains illustrative rather than systematic. Advancing the integration-coordination typology from a theoretical hypothesis to an empirically evaluated framework would require comparative case studies designed to test the classificatory basis across diverse institutional contexts. Such research lies beyond the scope of a thesis investigating SEE, and the typology is advanced here as a theoretical proposition warranting future empirical investigation.

The deductive derivation of the integration coordination typology constitutes the third application of the IRP transformation strategy in this thesis. In existing SE typological traditions overviewed in Chapter 3, integration as an enterprise type, where social and economic value emerge through the same process, and coordination as an enterprise type, where they are produced separately and aligned, appear as discrete and mutually exclusive categories (Alter, 2007; Santos, 2012). Transformation as an IRP strategy integrates complementary insights from systems dynamics, ecological economics, transaction cost economics, cybernetics, and SE scholarship to resolve this opposition (Repko & Szostak, 2025).

Transformation established a typological continuum by repositioning previously discrete SE categories as differentiated positions between integration and coordination forms of dual value creation. The dual value imperative as a systemic condition within the nested hierarchy provides the continuous variable transforming the dichotomy into a spectrum. Social enterprises are therefore no longer classified as either integrated or coordinated types but positioned along a continuum in which the degree of integration within a single operational process varies progressively from the integration pole to the coordination pole. The new whole produced is a typological framework anchored in systemic conditions rather than socioeconomic variables,

transforming existing typological traditions from competing classification systems into convergent observations of the same structural reality.

The deductive derivation presented in Figure 4.3.2.3 generates a testable prediction. If integration and coordination are responses to universal systemic conditions rather than products of specific institutional configurations, then both mechanisms should be observable and transferable across diverse institutional contexts independently of the socioeconomic variables that characterise each region. The case evidence available in the existing literature offers preliminary support for this prediction, though the evidence is illustrative rather than conclusive.

4.3.2.5 Scale and Integration Coordination Typology

The deductive derivation in Section 4.3.2.3 established integration and coordination as the two response mechanisms to the dual value imperative at the enterprise level. The structural anchoring of this typology does not displace the analytical value of context-specific SE typologies, which classify enterprises by financing structures (Emerson, 2003), governance arrangements (Ebrahim et al., 2014), and institutional and legal configurations (Kerlin, 2013; Defourny & Nyssens, 2014). These typologies remain relevant for practitioners navigating the regulatory environments and financing systems of particular jurisdictions. However, recent evidence indicates that access to institutional supports remains uneven across contexts and that social enterprises operate primarily through earned income and local resource mobilisation rather than through formal financing mechanisms or legal structures (OECD, 2024; Euclid, 2025).

As noted in preceding sections, the integration-coordination spectrum applies across levels of analysis. At the enterprise level, dual value creation occurs either within a single integrated production logic or through coordination of separate economic and social value generating activities. At the societal level, the same two mechanisms are visible at scaled expression. Both integration and coordination mechanisms of dual value creation, therefore, remain theoretically possible and observable across micro-, meso-, and macro-levels. However, integration as the dominant mechanism remains feasible primarily at the micro enterprise level, while coordination through specialised units becomes increasingly necessary at meso- and macro-levels as system complexity expands.

The dominance of each value creation mechanism along the spectrum shifts predictably with scale. As scale increases from the enterprise to the societal level, the integration mechanism becomes progressively less sustainable as the primary response to systemic conditions. Complexity science establishes that systems increase in complexity over time as the number, diversity, and interdependence of interactions expand (Prigogine & Stengers, 1984; Kauffman, 1993; Holland, 1995). Ashby's (1956) Law of Requisite Variety demonstrates that beyond a threshold of environmental variety no single unit can maintain sufficient internal variety to regulate all interactions simultaneously, making the integration mechanism structurally unsustainable at larger scales. Simon (1962) establishes that systems respond by developing hierarchical nearly decomposable structures that distribute functions across specialised subsystems maintained through coordination rather than integration.

This scale-dependent shift from integration to coordination is visible in societal architectures. The dual value integration mechanism becomes increasingly rare as the primary design logic in large organisations, where coordination structures necessarily distribute social and economic functions across specialised units. Coordination therefore becomes the structurally dominant mechanism of dual value creation as social subsystems grow in size from small and medium enterprises (SMEs) to industries dominated by large corporations and institutions focused on social value delivery such as healthcare departments or schools. Social enterprises are structurally significant precisely because they operate at the scale where integration remains feasible and they can therefore minimise entropy export to higher levels of the social hierarchy.

At the same time entropy containment at a micro enterprise level is not insignificant. SMEs account for approximately 90 percent of all firms worldwide and provide more than 70 percent of global employment (United Nations, 2024), meaning that most economic activity occurs at the scale where integration of social and economic value within a single process is structurally possible. By containing disorder within organisational boundaries rather than externalising it to higher system levels, social enterprises collectively reduce the coordination burden that governments and public institutions would otherwise need to absorb, providing a systemic rather than merely normative rationale for scaling SE practice.

The structural analysis developed across the preceding sections enables a representation of the cross-scale architecture aligned with systemic conditions and a position of the major regional traditions within it. Figure 4.3.2.5 places the three system levels on the vertical axis and the responsiveness of coordination mechanisms on the horizontal axis. At the enterprise level, integration is structurally feasible, generating social and economic value within a single production logic and minimising entropy export to the meso level.

At the societal level, coordination through specialised units becomes structurally necessary as scale, interaction density, and functional differentiation expand beyond the capacity of single enterprises to internally regulate all relevant interactions simultaneously. The necessity for alignment with systemic conditions therefore arises from structural properties of the nested hierarchy itself rather than from particular ideological, political, or institutional choices. The critical analysis of regional traditions in Section 4.3.1 indicated that each society is attempting to coordinate value production through somewhat different institutional choices. What remains open to human design is not whether alignment with systemic conditions is required, but how societies choose to achieve such alignment through different institutional architectures, coordination mechanisms, and distributions of responsibility across markets, governments, communities, and social enterprises.

The relative speed and effectiveness of coordination architectures cannot be assessed with precision because entropy itself is not directly measurable within current scholarship. However, the effectiveness of value creation mechanisms can be inferred indirectly through feedback loops, where increasing levels of social unrest, institutional instability, and ecological depletion signal that entropy has accumulated beyond the capacity of a particular societal configuration to regulate and absorb across system levels (Meadows, 2008; Steffen et al., 2015). Figure 4.3.2.5 illustrates

the cross-scale relationship between integration and coordination mechanisms of value creation across enterprise, societal, and global system levels, distinguishing structurally feasible configurations from contemporary institutional arrangements.

Figure 4.3.2.5: Scale-Dependent Architecture for Entropy-Minimising Dual Value Creation

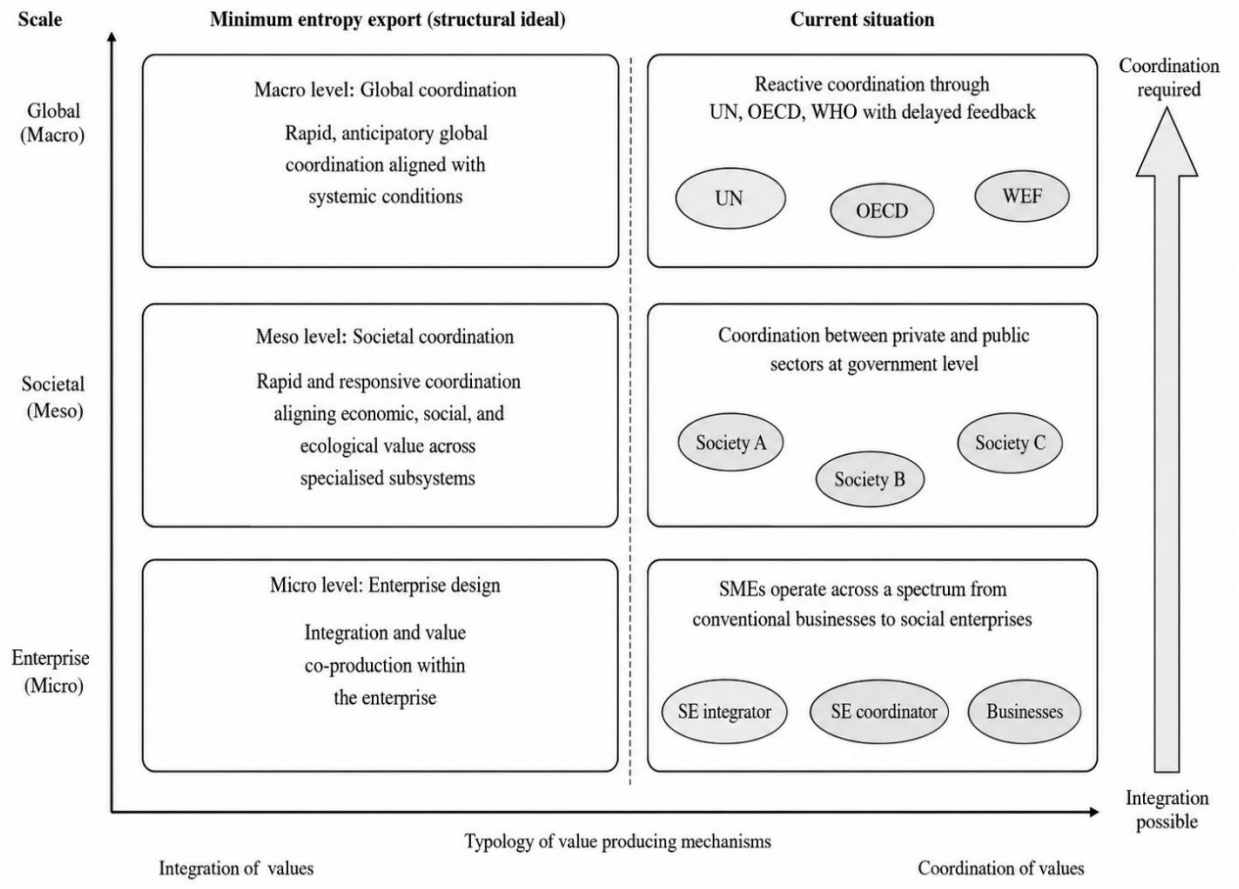


Figure 4.3.2.5 represents a structurally entropy minimising design rather than an empirical description of how particular societies are or should be organised. As the IPE critical analysis in Section 4.3.1 established, the specific coordination architectures through which societies align with systemic conditions remain open to human design and vary across regions according to institutional arrangements, political economy traditions, cultural preferences, and technological capacities. The distinction developed in this thesis between system configuration and systemic conditions, on the one hand, and variable socioeconomic architectures on the other, is therefore necessary for supporting the structural argument advanced in the dissertation.

Empirical evidence and existing literature suggest that liberal economies in Europe and North America have historically relied on coordination through policy adjustment in response to research and emergent pressures (Hall & Soskice, 2001). China combines centralised planning with data enabled governance intended to reduce time lags in coordination response (OECD, 2025). Constitutional regimes in Ecuador and Bolivia have formally recognised nature's rights and rely on community grounded coordination structures (Gudynas, 2011; Acosta, 2013). At the global

level, coordination through UN and OECD frameworks proceeds more slowly, with feedback registered through ecological degradation and social unrest rather than through anticipatory institutional response (Steffen et al., 2015; Rockström et al., 2009). The matter is further complicated by the fact that societies can export entropy across regions and to the global level, meaning that the entropy contribution of any particular coordination architecture can only be inferred rather than measured with precision. However, the typology, system configuration, and systemic conditions established in this thesis provide an analytical framework through which societal coordination architectures can be comparatively examined and understood in SEE.

The variation in societal coordination architectures does not contradict the structural analysis. Societies are shaped both by the nested architecture of natural systems and by their own institutional and cultural responses to the systemic conditions it imposes. The structural argument identifies the systemic conditions that any viable architecture must satisfy. The variation observable across societies represents different responses to the same conditions. Recognising the structural requirements as common across societies enables learning across institutional contexts, with each society able to adjust its coordination architecture toward greater speed and responsiveness by drawing on what other societies have accomplished. Global coordination, currently the slowest layer, is the layer where such cross-societal learning is most needed and where the systemic costs of delayed coordination accumulate most visibly.

The preceding analysis represents partial integration of IPE and SE scholarship through the analytical framework established in Section 4.2. Common elements that apply across regions and disciplines, namely the system configuration, the two systemic conditions, and the integration-coordination spectrum, are now separated from context-specific elements that vary across socioeconomic architectures, namely political economy approaches, the institutional, financial, governance, and legal arrangements through which dual value creation is operationalised in each region. The integration-coordination spectrum derived in Section 4.3.2.3 provides the analytical anchor for the micro enterprise level, while the regional coordination architectures examined in Section 4.3.1 and positioned in Figure 4.3.2.5 provide the comparative material for the meso societal level. This partial integration enables both scholarly analysis across previously incommensurable traditions and educational guidance for learners navigating between universal structural conditions and the specific institutional environments in which they operate.

4.3.2.6 Analytical Implications for SEE

The analytical conclusions reached through the critical examination of SE scholarship carry direct implications for what SEE curricula can and cannot teach as transferable knowledge. The nested hierarchy of open systems and the two systemic conditions established in previous sections, including the dual value imperative, apply at every level of the hierarchy and constitute universal knowledge applicable across all SEE contexts. The recognition that human societies function as open and adaptive systems within the nested hierarchy, subject to planetary boundaries and systemic conditions, does not vary with institutional configuration and is recognisable across knowledge domains and regions. The macro-, meso-, and micro-levels represent the scales at which societies respond to the systemic conditions and the system configuration, with the

feasibility of dual value integration within enterprises and the necessity of coordination across specialised producers shifting predictably with scale as established in Section 4.3.2.5.

At the micro level, dual value integration within a single enterprise is structurally feasible. Social enterprises that operate through the integration mechanism design solutions where social and economic value emerge within the same product or service, representing the most entropy-efficient response to systemic conditions because no internal boundary separates value types and no coordination layer is required to align them (Georgescu-Roegen, 1971; Daly & Farley, 2011). Social enterprises operating through the coordination of separately optimised social and economic activities also align with systemic conditions but generate additional entropy through the governance and alignment work required to keep those activities coherent over time. Specialised units focused exclusively on economic value or exclusively on social value continue to operate alongside social enterprises within contemporary mixed economies, with the entropy export and coordination burden their separation generates absorbed at higher levels of the social hierarchy.

Teaching dual value integration within enterprises equips learners with design principles that apply globally because the mechanism is grounded in biophysical reality rather than social construction. Teaching coordination across separately optimised activities is more demanding because its specific tools depend on institutional and cultural context, with governance and organisational forms varying across regions. Understanding enterprise-level coordination equips learners with a structural understanding of why tensions arise in separately optimised enterprises, while the specific governance, financing, and organisational tools required to manage those tensions must be taught as context-dependent content adapted to regional institutional architectures.

At the meso- and macro-levels, the consequences of scale make dual value integration within a single organisation structurally unsustainable as the primary response, and coordination across specialised producers of economic, social, and ecological value becomes the dominant mechanism through which societies align with systemic conditions. The political economy theories, socioeconomic architectures, and applied institutional structures that organise this societal-level coordination are different because they reflect different approaches societies adopt in responding to the same systemic conditions. Meso-level and macro-level knowledge about value creation must therefore remain context-dependent, adapted to the political economy paradigms and institutional architectures that shape the operating environment in each region. However, knowing that societies respond to the same systemic conditions allows learners to analyse socioeconomic architectures as case studies of how different societies navigate toward alignment with systemic conditions, and to critically analyse political economy theories and their proposed solutions.

Political economy theories and socioeconomic architectures examined in Section 4.3.1 are therefore engaged analytically rather than as competing frameworks among which learners must select. The systemic conditions framework established in Section 4.2 enables learners to read regional theories and architectures, including liberal market frameworks, state-directed coordination, structuralist development models, liberationist traditions, and culturally embedded socioecological practices, as societal responses to the shared structural properties of nested open

systems. The framework also positions mixed economies, which combine market mechanisms with institutional coordination across different sectors and policy domains, as visible expressions of societies operating along the enterprise integration and societal coordination spectrum rather than as theoretical anomalies between competing paradigms. Societies further differ in the societal-level coordination mechanisms they employ, with some coordinating primarily through markets and competition, others through state planning and policy intervention, others through community institutions and cultural philosophies, and others through legal recognition of ecological and social rights. These differences reflect distinct institutional pathways through which societies address the same systemic conditions rather than evidence of relative success or failure across paradigms. Learners therefore acquire analytical tools to interpret political economy scholarship as documentation of differentiated adaptation rather than as a contest of universal theories, and to identify the socioeconomic factors that enable or constrain dual value creation in their specific operating context.

The three levels thus produce a clear SEE content architecture. The nested hierarchy and the systemic conditions apply across all levels and constitute the universal foundation. At the micro level, the dual value integration mechanism within enterprises is transferable across contexts because it is grounded in biophysical reality, while enterprise-level coordination tools are context-dependent. At the meso- and macro-levels, societal-level coordination architectures differ across societies and must be taught diagnostically, adapted to the institutional context in which learners operate. Globally applicable SEE therefore focuses on the systemic conditions and the dual value integration mechanism as transferable knowledge, while enterprise-level coordination tools and societal-level coordination architectures must be taught as context-dependent content.

This distinction, absent from current SE and SEE literature, provides the analytical foundation for the examination of education scholarship that follows. The critical analysis of education scholarship therefore proceeds to identify the instructional approach needed to complement this content architecture and equip learners to navigate between the universal and the context-dependent dimensions of SEE.

4.3.3 Critical Analysis of Education Scholarship

The analytical framework established in Section 4.2 now permits a more precise diagnosis of the education problem than the literature review in Chapter 3 could provide. The separability premise between social and economic values, that generates paradoxes at the enterprise level, produces the same analytical distortion when translated into educational frameworks. The literature review reveals a field developing along two distinct trajectories, with pedagogical innovation advancing rapidly while content development continues to reflect the fragmentation inherited from IPE and SE scholarship. According to Shulman (1987), effective education requires an equal partnership between subject matter and instructional approach, as pedagogical design cannot compensate for the absence of coherent content. Recent bibliometric mapping confirms a persistent and widening gap in standardised core curricular content (Chen & Shabbir, 2025), with systemic barriers including the absence of standardised frameworks ensuring that SEE remains a collection of isolated, localised practices unable to move beyond its pre-paradigmatic state (Mejri

et al., 2025; Nicholls, 2010). As noted in Chapter 1, SEE is currently organised across a diverse range of disciplines including business, sociology, engineering, and social innovation, producing graduates who encounter fundamentally different theoretical framings of the same underlying phenomenon (Tracey & Phillips, 2007). Recent curriculum comparison studies continue to document substantial variation in SEE programme structures and an absence of consensus regarding core knowledge domains that pedagogical advancements cannot eliminate (Han et al., 2023; Karatas-Ozkan et al., 2023; Worsham, 2012; Zhu et al., 2016).

4.3.3.1 Analytical Lenses for SEE

Addressing the gap between pedagogical sophistication and a coherent theoretical foundation requires analytical frameworks capable of responding to both fragmented knowledge and the pragmatic imperative to equip learners with the knowledge and skills needed to design and operate social enterprises across diverse real-world settings. Three complementary lenses are employed.

The professional education lens provides an architecture for organising knowledge hierarchically, distinguishing between foundational theoretical understanding and applied operational competencies necessary for practice (Shulman, 2005; Lattuca & Stark, 2009), and provides through pedagogical content knowledge the framework for activating tacit knowledge that learners bring from practice and integrating it with formal disciplinary content (Shulman, 1986, 1987). Andragogy provides criteria for conceptualising how adult learners navigate fragmented or uncertain knowledge environments, emphasising self-direction, experiential grounding, and contextual relevance (Knowles, 1984; Mezirow, 1991). Dewey's pragmatism offers perspectives for evaluating the validity of knowledge claims through their practical consequences, coherence with lived experience, and capacity to support effective action (Dewey, 1916). Applied simultaneously, these three lenses establish the specifications that SEE frameworks must satisfy, namely a coherent theoretical foundation explaining dual value creation, structured pathways for translating theory into operational capabilities including the activation of tacit practitioner knowledge as analytical resource, and support for learner autonomy and contextual adaptation.

4.3.3.1.1 The Professional Education Lens

Examined through the professional education lens, professional education functions as a tiered knowledge system linking theory, pedagogy, and practice across hierarchical levels of abstraction (Boyer, 1990; Kolb, 1984; Schön, 1983). At the macro-level, high-level theories establish disciplinary conceptualisations of dual value creation at the level of human society understood as an open system. At meso and micro levels, the macro-level abstractions are translated into knowledge structures applicable to SE and into applied competencies preparing learners for practice.

In established fields such as medicine, engineering, and EE, core disciplinary knowledge is universally valid. A physician learns human biology and anatomy that apply regardless of where practice occurs, an engineer learns physics and thermodynamics that hold in every jurisdiction, and an entrepreneur learns economics recognisable across contexts. Regional variation exists in

regulation and professional standards, but theoretical foundations remain stable, enabling instructional design to proceed from a consolidated knowledge base toward contextual application.

SEE cannot operate on the same assumption. The critical analysis demonstrated that the existing knowledge base required for dual value creation is only partially universal. System configuration, systemic conditions and dual value creation mechanisms on a spectrum between coordination and integration constitute transferable knowledge analogous to universal theoretical foundations in medicine or engineering, while meso-level theories of value creation within IPE, socioeconomic architectures, and integration strategies needed to establish SE practice in specific societies are context-dependent, varying with regional political economy traditions, institutional designs, and cultural logics. The social dimension of dual value creation also resists universal codification, while social priorities change over time and the institutional recognition and cultural meaning attached to social outcomes vary substantially across regional contexts. This structural reality positions SEE as a field in which the content itself is constitutively dual, requiring curricula that are simultaneously globally intelligible and locally responsive (Žalėnienė & Pereira, 2021; Sterling, 2011). The three foundational competencies that education scholarship consistently identifies for SEE, namely global thinking, complex thinking, and creativity (Leal Filho et al., 2018; Kromydas, 2017), map directly onto the analytical requirements established in the preceding sections. Global thinking corresponds to macro-level systemic conditions, complex thinking to the multilevel relationships between systemic conditions and socioeconomic variables, and creativity to the micro-level design of integrated solutions. Global applicability in SEE therefore translates into a fundamental disposition to engage with diverse perspectives as assets in the cocreation of dual value (Sharifi & Khoshnevisan, 2025), requiring educational approaches that foster complex global thinking (Horowitz-Gassol, 2025), integrative thinking for sustainable social interventions (Vázquez-Parra et al., 2024), and entrepreneurial creativity under conditions of institutional uncertainty (Ip, 2025). These skills are constitutive requirements of a field whose subject matter is inherently multilevel, context-sensitive, and structurally complex, as the preceding analysis established.

The SEE learner therefore occupies a fundamentally different position from the medical or engineering student, needing to acquire universal knowledge needed to understand SE as a complex global phenomenon while simultaneously developing the diagnostic capacity to assess which meso-level theories, coordination mechanisms, and institutional arrangements govern their specific operating context. SEE cannot therefore be fully prescriptive. Rather, it must equip learners to navigate knowledge that is partially globally applicable and partially context-dependent and variable, demanding both analytical competence and contextual judgement. The additive approach, appending social content to EE frameworks, reproduces at the educational level the same separation logic that generates paradoxes at the SE level, replicating the institutional division between economic and social value creation that the critical analysis identified as the source of analytical distortion across all three disciplines.

As established in Section 3.2.5.3.2, McMurtry (2020, 2024), Morin (2008), and Horowitz-Gassol (2025) converge on the insight that complex phenomena operating across levels of

organisation cannot be addressed through additive disciplinary instruction, requiring instead integrative reasoning that situates operational choices within regional institutional structures at the meso-level and global macro-level systemic conditions simultaneously. Applied to SEE, this perspective suggests that constructive alignment must connect programme outcomes to capabilities required for SE venture design, incubation, and feedback-informed decision-making across all three levels of the nested hierarchy, before curriculum objectives and assessment mechanisms can be coherently structured (Biggs and Tang, 2011). Without this multilevel synthesis, SEE risks reproducing the values separation diagnosed in the IPE analysis, defaulting to economic logics in core courses while relegating social and ecological reasoning to peripheral modules rather than embedding them within a governing theoretical framework (Meadows, 2008; Daly & Farley, 2011). Pedagogical content knowledge applies to SEE with particular force because of a structural feature of the field itself. SE emerged historically as a practice before its codification in scholarship, with practitioners across regions developing dual value creation through community participation, family practice, and lived experience accumulated over generations (Teasdale et al., 2023; Goldstein et al., 2010). The codified scholarship that organises SEE content represents a partial and recent attempt to formalise what practitioners have been doing for centuries. Pedagogical content knowledge is therefore not an additive pedagogical refinement in SEE but a constitutive requirement of educational design in a field where the most extensive and tested knowledge base resides in practitioner experience rather than in academic publications. Treating learners as carriers of tacit knowledge to be activated and integrated, rather than as empty recipients of disciplinary content, is the only educational orientation consistent with the epistemic structure of the phenomenon SEE seeks to teach.

4.3.3.1.2 The Andragogical Lens

Examined through the andragogical lens, the education approach can be further analysed through the characteristics of the adult learner and what the analytical framework established in Section 4.2 implies for SEE andragogical design. The andragogical characteristics of adult learners and the empirical evidence of their adoption within SEE are established in Section 3.2.4.5.3. The literature documents a measurable shift toward learner-centred, experiential, and reflective designs positioning adult learners as active participants bringing prior experience, values, and intentions into the learning environment (McNally et al., 2020). However, the pedagogical models derived from EE cannot be transposed into SEE because the knowledge base, operational, and relational logics of the two fields differ fundamentally across three interconnected value dimensions.

The knowledge bases are structurally different. EE draws on a relatively standardised body of knowledge grounded in economic optimisation logic that transfers across contexts regardless of regional variation (Fayolle and Gailly, 2015; Hindle, 2007), while SEE reveals fragmented and discipline-specific content selection, an absence of universally adopted curriculum frameworks, and substantial variation in core knowledge domains across programmes and regions (Bacq & Janssen, 2011; Roslan et al., 2022). The operational logics also differ. EE is organised around opportunity recognition and profit as a stable organising principle (Porter, 1985; Shane &

Venkataraman, 2000), while SEE requires continuous recalibration of social value propositions as social needs and institutional contexts evolve (Chen & Shabbir, 2025; WEF, 2025).

The relational logics further differ. In EE, relationships primarily support competitive positioning, whereas SEE places collaboration, partnership formation, and sustained stakeholder engagement at the centre of social value creation, with empathy functioning as a core relational capability enabling trust building and the maintenance of mutually supportive practice environments (Passarelli & Bongiorno, 2025). The ethics of care framework reinforces this relational requirement by establishing that in contexts of vulnerability, trust is a precondition for meaningful engagement rather than a by-product of it, requiring educators to intentionally centre the vulnerability of MEs as marginalised learners rather than treat it as a deficit to be corrected (Apostolova & Gauthier-Mamaril, 2018; Todd, 2003).

Responsible teaching within this framework requires protecting learners from attempting nearly impossible strategies and preserving conditions for independent judgement (Siegel, 1988), while higher education carries an obligation to cultivate critical reasoning rather than prescribe predetermined beliefs or normative judgements (Nussbaum, 2010). Joorst (2021) and Clemons (2021) further converge on this position, arguing that a relational approach to education extends the educator's responsibility to include honest structural understanding of the conditions learners will encounter, including realistic assessment of coordination costs, institutional barriers, and the limits of available support, on the grounds that education suppressing structural realities in favour of optimistic framing denies adult learners the basis for genuine agency.

SEE must therefore cultivate a genuinely dual orientation in learners, combining competitive analytical capacity for navigating economic viability within existing institutional architectures with collaborative relational capacity for building the partnerships and shared accountability structures through which social value emerges. Neither orientation alone is sufficient, and pedagogical models designed exclusively around one approach, competitive or collaborative, will systematically underprepare learners for the demands of the practice (Myyryläinen, 2022).

The analytical framework established in Section 4.2 reinforces the position established in Section 3.2.4.5.3 that lived experience constitutes primary analytical knowledge rather than anecdotal background. Where dual value creation is a systemic requirement rather than a normative aspiration, proximity to social problems constitutes contextual intelligence directly relevant to understanding the structural conditions generating those problems (Yousafzai et al., 2022). Respecting adult learners as self-directing agents therefore entails providing conceptual tools that enable informed judgement rather than aspirational narratives that obscure structural realities.

4.3.3.1.3 The Pragmatic Lens

Examined through Dewey's pragmatic lens, the education approach is further informed by the principle that knowledge derives its validity from its consequences in practice. Pragmatism, as articulated by Dewey (1916) and operationalised through Schön's (1983) concept of reflective practice, establishes that knowledge functions as an adaptive instrument for navigating uncertainty

and resolving real-world problems rather than as a fixed representation of reality (Dewey, 1916; Garrison, 1994). For Dewey, education is not preparation for life but participation in it, and learning is most effective when organised around genuine problems that learners recognise as consequential to their own circumstances.

Applied to SEE, curricular decisions should ultimately be evaluated by whether they enable learners to design, launch, and sustain social enterprises in real socioeconomic environments. Dewey (1938) argues that experience alone is insufficient without the reflective capacity to extract transferable understanding from it, requiring education to build the connective tissue between experience, conceptual understanding, and future action. Schön (1983) identifies this capacity as reflection in action, the defining competence of effective professional education.

For SEE specifically, experiential, project-based, and service-based learning approaches constitute illustrations of SE practice rather than substitutes for the theoretical and applied knowledge coupled with an analytical framework that gives meaning to practice. The educational value of experience-based and service-based learning depends on whether learners possess sufficient conceptual grounding to recognise within experience the structural elements and operational logic of dual value creation they are intended to develop. Without that broader grounding, experience and exposure to social entrepreneurs remains illustrative rather than generative, and the connective tissue between practice and understanding that Dewey identifies as the purpose of education is not established.

It is important to note that pragmatism appears in this thesis in two interrelated but analytically distinct roles. The pragmatic epistemology established in Section 2.3.2 operates at the level of research design, guiding which knowledge to collect, integrate, and structure according to its capacity to inform effective SE practice across contexts (Creswell & Poth, 2018; Morgan, 2014). Dewey's pragmatism, examined in this section, refers to a philosophical theory of inquiry grounded in experiential problem-solving, where knowledge develops through the resolution of problematic situations and the testing of ideas in practice (Dewey, 1916). The research epistemology integrates Dewey's philosophical foundations, while the educational dimension addresses how Dewey's ideas specifically inform SEE design.

4.3.3.2 Analytical Implications for SEE

The three analytical lenses converge on complementary specifications for SEE framework development while simultaneously identifying the limits of what pedagogical innovation alone can accomplish. Andragogy specifies learner positioning but cannot determine applicable knowledge content. Pragmatism provides validity criteria but cannot generate knowledge meeting those criteria. Professional education architecture specifies organisational requirements but cannot produce the macro-level theoretical framework SEE currently lacks. Knowles' sixth assumption is particularly salient in this regard: adults considering SE as a career path deserve to understand why dual value creation is structurally necessary, what conditions shape its feasibility in their context, and what the practice genuinely demands, and providing that understanding is the minimum that an ethics of care toward adult learners requires.

SEE therefore requires theoretical and conceptual frameworks accomplishing what pedagogical richness cannot, by establishing society as an open system governed by systemic conditions as foundational knowledge, distinguishing non-negotiable constraints from negotiable socioeconomic architectures, and organising this understanding into hierarchical structures enabling progression from macro-principles to contextualised application.

The critical analysis in Sections 4.3 and 4.4 progressively integrated disciplinary insights from IPE, SE, and education scholarship, with Section 4.3 building cumulative integration across disciplines and Section 4.4 identifying the three knowledge gaps that integration revealed. The theoretical framework in Section 4.5 completes this integration by articulating the common ground the cumulative analysis established. The conceptual framework in Section 4.6 translates the integrated understanding into operational specifications for SEE design.

4.3.3.3 Andragogical Approach to SEE

The three lenses examined above generate specific design specifications for SEE that structurally embed andragogical principles within the educational dimension rather than appending pedagogical guidance to a content-only architecture, honouring Shulman's (1987) requirement that effective professional education demands equal partnership between subject matter knowledge and instructional approach.

Knowles (1984) identified six characteristics defining the adult learner: an independent self-concept moving toward self-direction, accumulated experience serving as a resource for learning, readiness to learn emerging from real-life developmental tasks, a problem-centred rather than subject-centred orientation to learning, internal rather than external motivation, and the need to understand why something must be learned before undertaking it. Table 4.3.3 specifies how each characteristic maps onto the framework's theoretical commitments and generates concrete implications for SEE design.

Table 4.3.3: Andragogical Integration Within the Theoretical Framework

Knowles' Adult Learner Characteristic	Theoretical Framework Response	SEE Design Implication
Self-directed orientation	Learner navigates between universal systemic knowledge and context-specific institutional knowledge independently	Framework distinguishes what is stable from what requires diagnostic judgement and enables informed choice
Experience as primary learning resource	Prior professional and lived experience activated as analytical asset	Integration mechanism connected to learner's existing practice knowledge
Readiness emerging from real-life demands	Learning organised around genuine dual value creation challenges in learner's context	Meso-level content adapted to institutional environment learner operates within
Problem-centred orientation	Content structured around enterprise design challenges, not disciplinary categories	Two-tier knowledge architecture organises content by function not by discipline
Internal motivation	Intrinsic commitment to social purpose respected, not manufactured through normative framing	Systemic necessity explained rather than ethical aspiration promoted

Knowles' Adult Learner Characteristic	Theoretical Framework Response	SEE Design Implication
Need to understand why	Dual value creation explained as thermodynamic requirement before operational content	Macro-level systemic conditions taught first as foundational rationale

Table 4.3.3 maps each of Knowles' six adult learner characteristics to the corresponding theoretical framework response and its implication for SEE design, demonstrating how andragogical principles are structurally integrated within the framework rather than appended as a separate pedagogical layer.

Interdisciplinary education scholarship establishes that the cross-level nature of dual value creation cannot be addressed through additive disciplinary instruction, requiring instead integrative reasoning that recognises interdependence across values and situates operational choices within regional institutional structures and global systemic conditions simultaneously (McMurtry, 2020, 2024; Morin, 2008). Global education requirements establish that SEE curricula must be simultaneously globally intelligible and locally responsive, reflecting the constitutively dual nature of the content itself (Žalėnienė & Pereira, 2021).

Pragmatism provides the epistemological principle for knowledge selection and validation: learners evaluate competing theories by their operational usefulness in particular contexts rather than by attempting to resolve disciplinary disputes (Dewey, 1916; Schön, 1983; Garrison, 1994). Theory functions as an instrument for navigating complex realities, and learners require understanding of systemic conditions and socioeconomic variables not to achieve disciplinary competence but to exercise informed entrepreneurial judgement across diverse institutional environments.

The andragogical instructional approach derived from critical analysis of education scholarship, operationalises Shulman's (1986) pedagogical content knowledge framework by activating tacit knowledge that learners bring from practice and integrating it with the theoretical and applied content of the SEE knowledge architecture. The result is an educational approach grounded in knowledge cocreation rather than transmission, which is the only orientation consistent with a field whose practice predates and exceeds its codification in scholarship.

4.4 Integrating Disciplinary Insights and Identifying Research Gaps

The sequential and incremental analysis conducted in Section 4.3 identified three gaps that persist across IPE, SE, and education scholarship. Each gap was identified through the critical analysis of disciplinary scholarship and addressed through the partial integrations performed within each section. The integration that follows identifies what each gap is, what it produces, and how the analysis responded to it.

Gap 1: Absence of a universally accepted theory and definition of social enterprise.

The conclusions of the problem analysis in Chapter 1 are further supported by the critical analysis presented in this chapter and by recent scholarship, which indicate that although SE has matured as an academic field, a unified interdisciplinary theory has not yet emerged. Hota (2023)

and Klarin and Suseno (2023) document that the field operates as a collection of decentralised disciplinary silos spanning ethics, sociology, management, and economics, each applying its own analytical logic to the same phenomenon without integration across traditions. Zeyen et al. (2025) argue that the absence of an integrated theoretical system prevents the transition from individual-level observations to a cumulative macro-level understanding of social impact, leaving the field in a state of diversity without conceptual unity. The research fragmentation continues to prevent the development of a standardised definition (Scott, 2026).

The gap produces persistent consequences for both SE practice and SEE. The absence of a universally adopted theory of SE has significant implications for practice at the micro level, as it hinders the identification of recurring patterns in enterprise design and constrains the study of the phenomenon across contexts through a common analytical lens (Klarin & Suseno, 2023). Consequently, the cross-regional proliferation of dual value creation and its historical existence prior to modern institutional architectures remain unexplained within existing scholarship (Teasdale et al., 2023).

Without a theoretical framework capable of explaining why the practice exists, SE appears as an organisational anomaly rather than a structural response to systemic conditions, and the reasons for its persistence across diverse institutional contexts remain opaque (Zeyen et al., 2025). SEE inherits this absence directly, producing high variation in programme content, an inability to establish macro-level foundations from which coherent curricula could derive, and no basis for explaining to learners why dual value creation matters beyond normative aspiration (Neck & Greene, 2011).

The analysis addressed this gap by applying the interdisciplinary analytical framework established in Section 4.2 to identify why the gap persists. The critical analysis traced the gap to the separability premise shared across IPE and SE scholarship, which inverts the explanatory logic from systemic conditions to disciplinary analytical categories.

The Chapter 1 redefinition of SE as simultaneous social and economic value creation provided the definitional anchor enabling the analysis to trace the phenomenon across disciplinary terminologies. The theoretical proposition formalised in the sections that follow closes this gap by establishing social enterprise as a structurally necessary organisational response to conditions governing all nested open systems, explaining why dual value creation emerges and persists across institutional contexts independently of socioeconomic design.

Gap 2: Absence of an integrated meso-level theory of value creation across societies.

IPE scholarship, despite its interdisciplinary character, has not produced an integrated account of how societies create social and economic values or how they design the institutions, including enterprises, through which value creation is organised. The critical analysis in Section 4.3.1 revealed that meso-level theories of value creation diverge substantially across regional political economy traditions, reflecting fundamentally distinct theoretical foundations about the relationship between state, market, and society. These differences range from China's integrationist state-directed model to Western liberal differentiated architectures, from African liberationist traditions grounded in Indigenous philosophical systems to South American

structuralism embedding economic activity within national development projects and Indigenous socioecological practices predating market-state separation. Regional approaches are not reducible to a single substantive framework without misrepresenting the legitimacy and distinctiveness of each tradition, and the field has not generated the integrated perspective that would connect these diverse accounts within a shared analytical structure.

The gap produces a direct barrier to scaling SE practice globally. Because meso-level theories of value creation diverge fundamentally across regional political economy traditions, a macro-level global theory cannot be derived from any single meso-level framework or from their aggregation, as each embeds assumptions that contradict the others. Dual value creation is understood differently across regions, and institutional design does not support it uniformly. Legal forms, financing mechanisms, governance requirements, and accountability provisions vary substantially across jurisdictions (Peter et al., 2023; Defourny & Nyssens, 2017; Kerlin, 2013). Social entrepreneurs operating across contexts encounter fundamentally different institutional logics governing the same practice, while SEE programmes reflect this fragmentation by selecting content according to disciplinary and regional traditions rather than a shared knowledge framework, advancing pedagogical innovation without advancing toward a coherent knowledge base for meso-level content.

The analysis addressed this gap by separating systemic conditions that apply globally from socioeconomic variables that define how societies approach value creation and how they understand SE. Systemic conditions, established in Section 4.2, provide the shared analytical anchor applicable across all contexts. Socioeconomic variables, encompassing governance structures, legal frameworks, financing mechanisms, cultural logics, and institutional architectures, are recognised as legitimate regional responses to systemic conditions rather than deviations from a universal model. The thesis structures regional perspectives on value creation according to shared analytical categories derived from the systemic conditions framework, as developed in Chapter 5, while maintaining that the meso level remains the only dimension requiring context-specific treatment because the divergence in regional political economy traditions can be organised around shared categories but cannot be integrated into a single substantive framework. At the micro enterprise level, the integration-coordination typology derived in Section 4.3.2.3 provides globally transferable knowledge about the mechanisms of dual value creation, applicable across institutional contexts because it is grounded in systemic conditions rather than in regional socioeconomic variables.

Gap 3: Absence of a knowledge architecture supporting globally applicable SEE.

Gap 3 is a direct consequence of the two preceding gaps. Without a universally applicable theoretical framework explaining why dual value creation exists and persists (Gap 1), and without an integrated meso-level account of how societies organise value creation across regions (Gap 2), SEE cannot be supported by a knowledge architecture that would enable the practice to be taught, understood, and scaled across contexts. The field currently lacks a structure that distinguishes what learners everywhere need to know from what they need to learn specifically for the institutional context in which they intend to operate.

The consequences of this gap are visible across the field. SEE content varies substantially across programmes, institutions, and regions, with educators selecting material according to their own disciplinary traditions rather than a shared framework (Chen & Shabbir, 2025; Mejri et al., 2025). Learners trained in one region cannot transfer their understanding to another because the knowledge they acquire is embedded within the socioeconomic assumptions and institutional logics of the context in which it was taught. Global best practices in SE cannot be leveraged across regions when the analytical categories through which those practices are understood differ fundamentally. The potential of education to scale SE practice globally remains unrealised because the knowledge base from which curricula are constructed is fragmented at the source, and pedagogical sophistication, however advanced, cannot compensate for the absence of the theoretical content those pedagogies are designed to convey.

The analysis addressed this gap across all three phases of the research by constructing a multilevel knowledge architecture that separates globally applicable knowledge from knowledge that must remain context-dependent in Chapter 5, evaluating the research-based knowledge architecture against regional SEE practice in Chapter 6, testing the resulting content and pedagogical approach in Chapter 7, and discussing the research results in Chapter 8. The resulting knowledge architecture positions andragogy as the central organising principle of educational design, grounded in an ethics of care that provides learners with honest structural understanding of what dual value creation demands in practice rather than motivational content alone.

The three gaps and the integrative responses to them establish the requirements for formalising the theoretical and conceptual frameworks that follow. The redefinition of SE established in Chapter 1 allowed the analysis to focus on the core characteristic of SE practice, dual value creation, and to systematically examine whether this process at the enterprise level is a consequence of socioeconomic conditions or whether it emerges from interactions across the nested hierarchy of open systems within which social enterprises exist.

The analysis identified that dual value creation is a systemic condition within the nested hierarchy in which social enterprise is embedded as an open system. Socioeconomic architectures and the institutional designs through which they are governed represent variable responses to these systemic requirements. The same phenomenon receives fundamentally different explanations depending on the analytical framework applied to it, as the interdisciplinary analysis in this chapter demonstrates. The hypothesis advanced at the opening of this chapter can now be assessed against the results of the critical analysis.

The chapter hypothesised that the alternative strand in SE and IPE scholarship, when complemented by systemic conditions, would more successfully resolve the paradoxes identified by the dominant SE strand, and would provide a more powerful explanation of why SE practice has persisted historically and recurs across diverse institutional contexts, including periods and regions that predate the institutional conditions the dominant strand identifies as its cause (Teasdale et al., 2023; Prouchet, 2025). Table 4.4 below summarises the predictions the hypothesis generated and the outcomes the analysis produced.

Table 4.4: Hypothesis Testing Through Critical Analysis

Hypothesis Prediction	Tested In	Result
Root causes of three paradoxes are identifiable and pathways to reduce their influence emerge when systemic conditions and socioeconomic variables are properly distinguished	4.3.2.1, 4.3.2.2, 4.3.2.3	Root cause of paradoxes identified as analytical separations of values in literature and separation of values in institutional design
Socioeconomic variables are context-dependent while systemic conditions are universal	4.3.1	Identified across six regional traditions in IPE critical analysis
Dual value creation persists across institutional contexts and historical periods	4.3.1, 4.3.2	Supported across examined sources, including pre-state market division
The framework explains cause of SE practice	4.2	Identified through derivation of systemic conditions as a cause of SE practice
Enterprise types are classifiable along integration-coordination spectrum	4.3.2.1, 4.3.2.4	Proposed through deductive derivation, with limited cross-contextual case evidence
Existing SE theories are insufficient for globally applicable SEE	4.3.2	Indicated for Santos (2012) and Goldstein et al. (2008, 2010)
Framework explains historical and cross-regional continuity of SE practice independent from socioeconomic architectures	4.3.1, 4.3.2	Supported by scholarship through systemic conditions positioning SE as a derivable organisational response

As summarised in Table 4.4, the critical analysis supports the hypothesis. The analytical framework derived from the alternative strand provided a more coherent and explanatory account of the relationships among IPE, SE, and education scholarship than dominant disciplinary approaches. Rather than merely registering the paradoxes identified in the literature, the framework traced their origins to shared analytical premises and demonstrated how their effects can be reduced once those premises are made explicit.

The framework enabled the thesis to explain why SE, as redefined in this study, exists and why SE practice persists historically and recurs across regional contexts. By distinguishing systemic conditions from socioeconomic variables, the analysis revealed patterns of convergence that remain obscured when SE is explained solely through institutional categories that conflate structural constraints with context-specific arrangements. This distinction repositioned SE from an anomalous or residual phenomenon into a logical and necessary response to recurring systemic conditions across macro, meso, and micro levels, uncovering functional equivalence across diverse institutional contexts and disciplinary perspectives. The theoretical framework formalised in Section 4.5 rests on both deductive derivation and analytical corroboration across independent disciplinary scholarship and cross-regional evidence. The conceptual framework developed in Section 4.6 translates this integrated understanding into operational specifications for SEE design.

4.5 Integrated Theoretical Framework

The preceding analysis established the analytical foundation from which the theoretical framework can now be formalised. The framework constitutes new theoretical knowledge that did not previously exist within the examined literature in any contributing field. The theoretical derivation in this Chapter, provides the macro-level integration of interdisciplinary scholarship and a shared knowledge base for SEE, currently absent from IPE, SE, and education scholarship, by identifying four analytically distinct dimensions, including the relevant system configuration as a nested hierarchy and systemic conditions established in Section 4.2, socioeconomic variables distinguished from systemic conditions in Section 4.2.3.6 and examined across regional traditions in Section 4.3.1, and an educational dimension integrating andragogical, interdisciplinary, and pragmatist commitments as established in Section 4.3.3.

Whetten (1989) established that a complete theory requires four essential elements: constructs identifying the factors relevant to the phenomenon (What), propositions specifying relationships among those factors (How), underlying logic justifying those relationships (Why), and boundary conditions delimiting where the theory applies (Who, Where, When). The three dimensions are developed in text that follows, and their integration is assessed against Whetten's criteria in Section 4.5.4.

The nested hierarchy of open systems and two systemic conditions, planetary boundaries and the dual value imperative, were derived in Section 4.2 and supported through the critical analysis in Section 4.3. Their role within the theoretical framework is to establish the non-negotiable parameters within which all SE practice occurs, providing the macro-level anchor from which globally transferable SEE content can be derived. The dual value imperative applies at the level of the human society system as a whole, with the pathway through which it is satisfied, whether through organisational integration or coordination across differentiated organisations, depending on the socioeconomic architectures adopted in specific contexts.

The critical analysis in Section 4.3.1 established that socioeconomic variables diverge substantially across regional political economy traditions, reflecting deeply embedded philosophical assumptions not reducible to a single substantive framework. Their role within the theoretical framework is to define the domain of context-specific knowledge that SEE must teach diagnostically rather than prescriptively. Conflating systemic conditions with socioeconomic variables produces characteristic errors in both directions: treating reformable structures as immutable generates fatalism, while treating systemic conditions as negotiable generates overconfidence (Meadows, 2008; Daly & Farley, 2011). Effective SEE must therefore cultivate the capacity for accurate categorisation across both dimensions.

4.5.1 Theoretical Proposition for Social Entrepreneurship

The derivation of systemic conditions governing interactions across nested open systems, combined with the analytical distinction between those conditions and the socioeconomic variables through which societies respond to them, leads to the following theoretical statement:

Social entrepreneurship is an entrepreneurial activity resulting in dual value creation, defined as the simultaneous creation of social and economic value, regardless of organisational

structure, with social value understood as outcomes that sustain human life and wellbeing and therefore include ecological responsibility as a condition of human system continuity. Social enterprise is conceptualised as a complex open dynamic system embedded in a hierarchy of nested open systems characterised by entropy exchange and nonlinear feedback loops. SE is therefore a theoretically possible and structurally necessary organisational response to the systemic conditions of planetary boundaries and dual value imperative governing the nested hierarchy of open systems in which social enterprise is embedded.

This theoretical statement is advanced as a theoretical proposition, analytically derived through interdisciplinary integration of existing scholarship and offered as an explanatory account rather than a fully specified theory. Transformation as a common ground technique within IRP approach was applied to develop the theoretical proposition (Repko & Szostak, 2025). The theoretical proposition remains subject to empirical examination and refinement through comparative and contextual analysis.

The theoretical proposition constitutes the fourth application of the IRP transformation strategy in this thesis (Repko & Szostak, 2025). Starting from the systemic conditions and analytical framework, transformation integrates complementary insights from systems theory, complexity science, thermodynamics, ecological economics, and SE scholarship to resolve the opposition between systems theory-based and dominant accounts of SE. The theoretical proposition transforms this opposition by establishing SE as a necessary, possible, and structurally predictable organisational response to the systemic conditions within the nested hierarchy of open systems in which social enterprise is embedded. Transformation therefore establishes a value generation continuum through which social enterprises become interpretable not as anomalous organisational practice, but as differentiated responses to the structural properties and systemic conditions of the nested systems configuration. The proposition therefore provides an explanation for the historical (Teasdale et al., 2023; Prouchet, 2025) and global (Peredo & Anderson, 2006; WEF, 2024) presence of social enterprises.

The dual value imperative, derived from thermodynamic requirements of entropy regulation across nested system boundaries, applies at every level of that hierarchy, from planetary boundaries through ecological and social systems to the enterprise. Social enterprise emerges wherever human activity is organised within this hierarchy, independently of specific institutional forms, governance mechanisms, or cultural contexts.

The critical analysis established that the dual value imperative can be pursued through two logically derived pathways, each representing a distinct organisational response to the same structural requirement. The integration pathway designs the enterprise's core activity such that social and economic value emerge from the same operational process, making revenue generation and social impact structurally inseparable. The coordination pathway optimises separately toward social and economic objectives and relies on institutional mechanisms, including governance structures, profit distribution rules, and stakeholder arrangements, to manage the relationship between the two.

These two pathways were derived deductively from the systemic conditions framework as the only two logically possible relationships between social and economic value production within a single enterprise. In practice, enterprises may combine elements of both or shift between them as institutional conditions evolve, such that the typology describes a spectrum of organisational design rather than a rigid binary classification. Which pathway, or combination of pathways, is viable in a given context depends on the socioeconomic architecture within which the enterprise operates, including the market regimes, governance traditions, financing mechanisms, and policy frameworks available to practitioners in that institutional environment.

The theoretical proposition advanced here provides an explanatory foundation for SE practice as a structural response to systemic conditions. The same proposition, combined with the integration-coordination typology derived in Section 4.3.2.3 and the scale analysis in Section 4.3.2.3.1, also provides an analytical foundation for forward-looking questions about social design across scales. At the micro enterprise level, integration reduces entropy accumulation at source, suggesting that SE practice oriented toward integration carries structural advantages where the scale of operations permits it. At meso and societal levels, where the integration mechanism becomes progressively less feasible, the same systemic conditions point toward acceleration and synchronisation of coordination architectures. From this perspective, the diverse pathways through which societies generate social, economic, and ecological value can be analysed as case studies of how societies adapt to the same systemic conditions through different socioeconomic architectures, providing learners with the analytical material through which to understand how their enterprises can be integrated within particular societies. The full development of these design implications lies beyond the scope of this chapter and is taken up in Chapter 8, where the cumulative contributions of the research across the three phases are integrated.

The proposition advanced here names a process already underway across societies. The critical analysis of IPE scholarship in Section 4.3.1 documented that societies pursue different pathways toward dual value creation through different socioeconomic architectures. The rising interest in SE documented across regions (OECD, 2024; Euclid Network, 2025), alongside the diversity of mechanisms through which societies generate social, economic, and ecological value, can be read as visible evidence of self-adjustment by societies operating as open dynamic systems within the nested hierarchy. Complexity science establishes that open dynamic systems are self-adjusting by definition, with subsystems responding to systemic pressure through entropy exchange and nonlinear feedback whether or not the systemic conditions driving the adjustment are formally theorised (von Bertalanffy, 1968; Prigogine & Stengers, 1984; Holland, 1995; Meadows, 2008). The proposition therefore makes explicit what societies are already doing through their own institutional and cultural logic, and the integration of cultural philosophies with the theoretical proposition in Chapter 5 develops this recognition through the historical and cross-regional evidence that supports it. Chapter 5 examines how this absence has fragmented SE knowledge across regional scholarships, and demonstrates how the theoretical proposition enables

previously dispersed practices to be recognised as manifestations of a shared structural phenomenon within nested open systems.

4.5.1.1 Evaluation of the Theoretical Proposition and SEE Framework

In the absence of a universally adopted theory of SE capable of explaining how and why dual value creation emerges and persists across institutional contexts, this study developed a theoretical proposition for SE. Methodological scholarship distinguishes between a theory or theoretical proposition, which provides an explanatory account of a phenomenon, and a theoretical framework, which applies that account to structure and guide a specific investigation (Kivunja, 2018; Stalmeijer & Varpio, 2026). The evaluation presented in this section assesses the SE theoretical proposition as an explanatory account. The theoretical framework for SEE, which integrates the SE proposition with andragogical and pragmatist commitments to guide the research and SEE model design, is developed and evaluated separately in Section 4.5.5.

Because the theoretical proposition was derived rather than imported, it requires evaluation against established criteria for theoretical contribution. Whetten (1989) argued that a complete theory must specify what factors are included, identifying the relevant constructs with sufficient breadth and parsimony; how those factors are related, establishing the structure of relationships among constructs; why those relationships hold, providing the underlying explanatory logic that justifies the proposed causal connections; and who, where, and when the theory applies, clarifying boundary conditions and scope. These elements distinguish theoretical explanation from description and provide a sufficient basis for assessing whether a contribution constitutes a coherent and complete theoretical account. Whetten further noted that relationships are the domain of theory, and that the addition of new constructs to an existing model does not by itself constitute a theoretical contribution unless the change alters accepted relationships among variables (Whetten, 1989). Table 4.5.1.1a evaluates the SE theoretical proposition against these criteria.

Table 4.5.1.1a: Assessment Against Whetten's (1989) Criteria for the SE Theoretical Proposition

Criterion	Element	SE Proposition Response
What (Constructs)	Factors relevant to the phenomenon	Social enterprise defined as open dynamic system within nested hierarchy of open systems; two systemic conditions (planetary boundaries, dual value imperative); socioeconomic variables as contingent institutional arrangements; two enterprise types (integrators, coordinators) define the SE spectrum aligned with systemic conditions
How (Propositions)	Relationships among factors	Entropy exchange and nonlinear feedback loops govern cross-system interactions within the nested hierarchy; two pathways (integration, coordination) represent the boundary of SE types as the only two logically possible relationships between social and economic value production within a single enterprise; socioeconomic variables determine which pathway or combination is viable in context

Criterion	Element	SE Proposition Response
Why (Logic)	Underlying rationale justifying relationships	Thermodynamic necessity within nested open systems rather than normative preference or ideological commitment; entropy propagation across system boundaries requiring simultaneous regeneration of social, economic, and ecological value
Who, Where, When (Boundary Conditions)	Conditions delimiting applicability	Systemic conditions apply universally across all open systems in nested hierarchy; socioeconomic variables are context-specific and historically contingent; proposition applies wherever social enterprise operates as an open subsystem within nested hierarchy

Table 4.5.1.1a demonstrates that the theoretical proposition addresses all four of Whetten's essential elements by specifying the relevant constructs, the relationships among them, the underlying explanatory logic, and the boundary conditions delimiting applicability.

Whetten (1989) identified that the most productive theoretical contributions commonly involve borrowing a perspective from other fields, which challenges the underlying rationales supporting accepted theories. The SE proposition accomplishes these requirements by integrating multidisciplinary scholarship, producing an explanation of dual value creation that the contributing disciplines did not generate independently. The proposition does not merely add new constructs to existing SE theory; it alters the relationships among constructs by repositioning dual value creation from a normative aspiration or organisational strategy to a structural requirement derived from the thermodynamic properties of nested open systems.

Whetten (1989) proposed seven evaluative criteria for assessing whether a theoretical contribution merits consideration as a significant addition to existing understanding. Table 4.5.1.1b assesses the SE proposition against five of required criteria. The remaining two criteria, whether the work is well executed (Done well?) and whether it addresses a sufficiently broad audience (Who cares?), pertain to the dissertation as a whole and are assessed through further research focused on SE.

Table 4.5.1.1b: Assessment Against Whetten's (1989) Criteria for the SE Theoretical Proposition

Criterion	Assessment	Evidence
What is new? Does the proposition make a significant, value-added contribution to current thinking?	Repositions dual value creation as structural requirement of nested open systems	No existing SE theory derives dual value creation from systemic conditions applicable at macro , meso , and micro levels or positions SE as a necessary and possible organisational response
So what? Will the proposition likely change practice in this area?	Provides the shared theoretical account of SE currently absent from the field, enabling practitioners and educators to connect across institutional and cultural contexts	The absence of a universally adopted definition and theory prevents global connectivity among practitioners and inhibits scaling; the redefinition and proposition establish globally applicable foundations from which shared content can be developed

Criterion	Assessment	Evidence
Why so? Is the proposition built on a foundation of convincing argumentation?	Assumptions grounded in established interdisciplinary scholarship drawing on both natural and social sciences	Five premises derived from 11 core disciplines with convergent support across 21 countries. Typology derived deductively from four disciplines.
Well done? Does the proposition reflect completeness and thoroughness?	All four building blocks addressed	Assessed in Table 4.5.1.1c
Why now? Is the proposition timely and non-redundant?	SE practice expanding without shared theoretical foundation	Global social problems growing in complexity; SE identified as viable response, but scaling hampered by fragmented definitions and absence of shared knowledge base as documented in Chapter 1

The evaluative assessment in Table 4.5.1.1b indicates that the SE theoretical proposition addresses a need established in Chapter 1 and satisfies five of Whetten's seven evaluative criteria, with the remaining two assessed through subsequent empirical phases of the research. The SE theoretical proposition draws on both natural and social sciences across 11 core disciplines, including biology, sociology, psychology, political science, computer science, philosophy, management, economics, physics, environmental science, and earth science, arriving at the same structural insight from different starting points, with convergent support from SE and IPE scholars across 21 countries on five continents. However, Whetten (1989) also emphasised that theoretical propositions must be testable, and that boundary conditions require empirical examination. Whetten noted that applying a model to new settings has theoretical merit only when something about those settings suggests the theory should not work under those conditions, and that theorists need to learn something new about the theory itself as a result of working with it under different conditions.

The theoretical proposition for SE was assessed against existing scholarship, cross-regional evidence, and historical patterns. Table 4.5.1.1c specifies which elements of the SE proposition have been analytically corroborated and which require further empirical examination.

Table 4.5.1.1c: Theoretical Proposition for SE: Analytical Status and Empirical Examination

Proposition	Status	Addressed
Dual value creation is a structural requirement of nested open systems	Analytically corroborated	Section 4.3, convergent disciplinary evidence
Three paradoxes originate in the separability premise	Analytically corroborated	Section 4.3.2, root causes identified
Socioeconomic variables differ across contexts while systemic conditions remain constant	Analytically corroborated	Section 4.3.1, six regional traditions
SE practice persists across institutional contexts and historical periods	Analytically corroborated	Sections 4.3.1 and 4.3.2, across regions

Proposition	Status	Addressed
Integration and coordination represent the two logically exhaustive pathways, with enterprises operating along a spectrum between them	Analytically derived; requires empirical validation	Section 4.3.2.4
Dual value creation mechanisms across two types (integrator and coordinator) are observable across diverse cultural and institutional contexts	Partially analytically derived; Requires empirical examination	Section 4.3

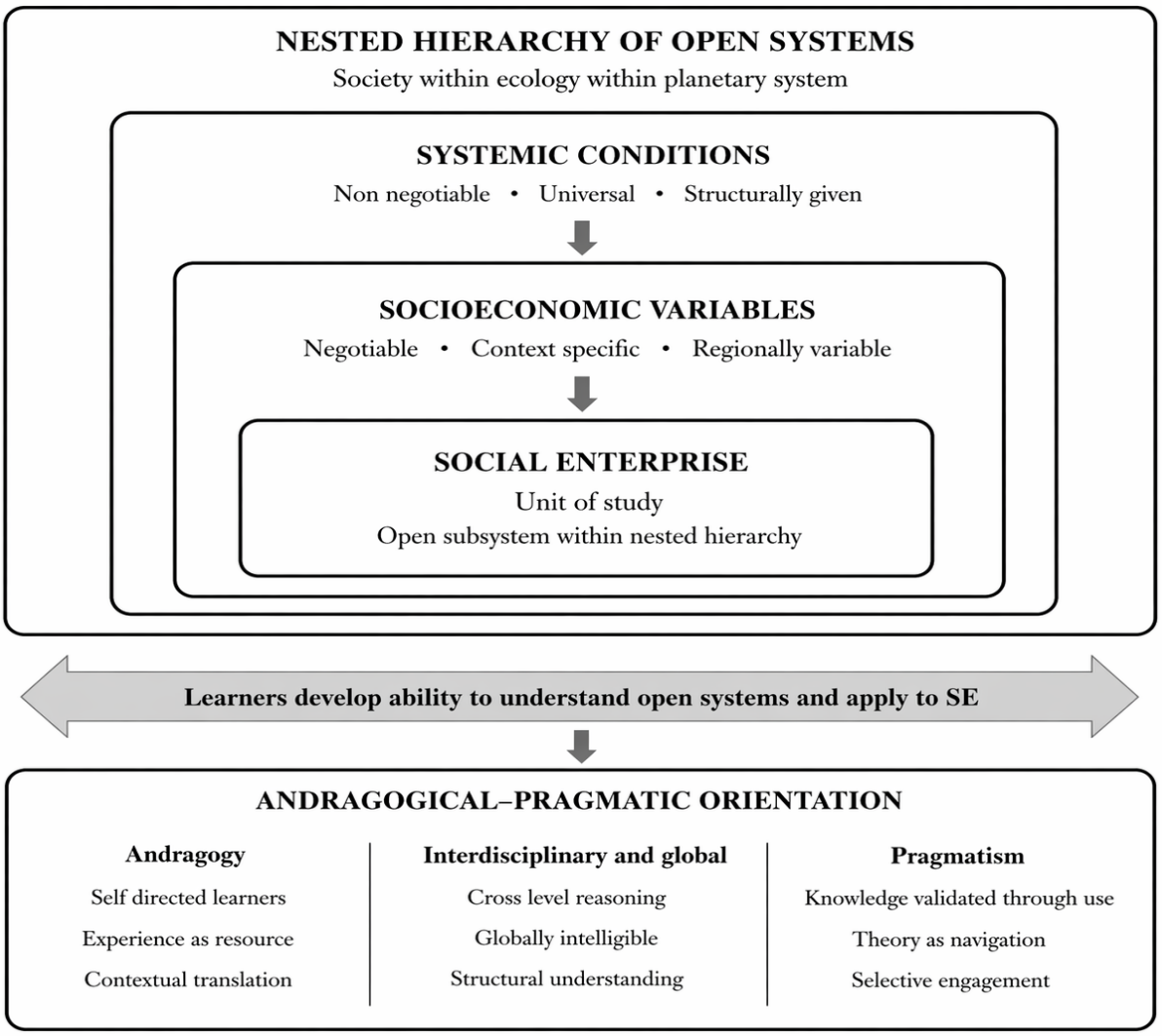
Table 4.5.1.1c distinguishes between elements of the theoretical proposition that have been analytically corroborated through the critical analysis and elements requiring further empirical examination in subsequent phases of the research. The theoretical proposition for SE is further used in developing the SEE theoretical framework in Section 4.5.2.

4.5.2 Theoretical Framework for SEE

The theoretical proposition for SE established in the preceding section explains why dual value creation emerges and persists as a structural requirement of nested open systems. The theoretical framework for SEE complements this proposition with a pedagogical dimension, specifying how adult learners develop the capacity to work across both universally applicable knowledge and context-specific content. The framework therefore organises two interdependent domains, the substantive content of the SE proposition and the educational approach through which that content becomes accessible, across four distinct dimensions namely nested hierarchy of open systems, systemic conditions, socioeconomic variables, and an andragogical approach integrating interdisciplinary education requirements, global education principles, and Dewey's pragmatism.

The relationship among these dimensions reflects the nested logic established in Section 4.2. Nested systems hierarchy and systemic conditions occupy the outer boundary, influencing the socioeconomic variables operating within them. Socioeconomic variables constitute the institutional environment practitioners must navigate, shaped by systemic constraints while remaining subject to collective redesign. The andragogical dimension specifies the conditions under which adult learners develop the capacity to distinguish between what is structurally given and what is institutionally constructed, and to act effectively across both. Figure 4.5.2 illustrates the relationships among dimensions and their connection to the knowledge architecture developed in this thesis.

Figure 4.5.2: Theoretical Framework for Social Entrepreneurship Education



The framework presented in Figure 4.5.2 serves two distinct functions within this research. Within the dissertation, it provides the theoretical foundation from which the conceptual framework, the knowledge synthesis, the comparative regional study, and the GSIL evaluation all derive their analytical coherence. For SEE design, it provides the shared starting point from which globally applicable curricula can be developed, ensuring that programmes across institutional and cultural contexts draw on the same structural understanding while adapting meso-level content to regional circumstances.

The framework connects with the vessel metaphor introduced in Section 4.2.2 which posed a question that the analysis had not yet answered: what are the systemic conditions that regulate the environment, and how does the crew navigate to the objective of dual value creation? The theoretical framework provides that answer. Systemic conditions specify the constraints applicable to the waters, the currents, the vessel, and the crew equally, and no act of the crew can suspend

them. Socioeconomic architectures represent the crew's navigation strategy, channels and harbours the crew encounters in each region, and not all harbours or channels look the same.

The crew that understands systemic conditions can sail in any water and adjust to unfamiliar harbours because it knows what drives the currents. The crew that does not understand the way winds and currents develop can only operate where sheltered channels have been built. The framework does not prescribe a route. It equips the crew to read the waters accurately, distinguishing what is structurally given from what is institutionally constructed, and to exercise the judgement that informed navigation requires. The andragogical commitment means that the crew is trusted to choose its own course once it understands the conditions.

4.5.2.1 Evaluation of the Theoretical Framework

The evaluation of the theoretical framework against established criteria is necessary to finalise the theoretical contribution. Kivunja (2018) identifies six criteria that a theoretical framework must satisfy: derivation from established theory, logical analytical structure with clearly defined concepts, capacity to guide data analysis, relevance to the research question, explicit assumptions and boundary conditions, and demonstration of scholarly mastery through synthesis rather than mere description. Table 4.5.2a assesses the framework against each criterion.

Table 4.5.2a: Assessment of the SEE Theoretical Framework Against Kivunja's (2018) Criteria

Criterion	How the Framework Satisfies It
1. Derived from Established Theory	Emerges from interdisciplinary synthesis of systems theory, complexity science, thermodynamics, ecological economics, political economy, and SE scholarship across 42 scholars on six continents
2. Logical Analytical Structure	Three dimensions with relationships derived from structural properties of nested open systems; key constructs defined with precision and structurally derived
3. Guides Data Analysis	Provides interpretive lens for comparative regional analysis (Chapter 6) and GSIL evaluation (Chapter 7); specifies dual value creation as core characteristic and systemic conditions versus socioeconomic arrangements as explanatory factors
4. Relevant to Research Question	Addresses what knowledge, education, and skills are needed to launch and sustain social enterprises across diverse contexts by distinguishing universally applicable content from regionally adaptive content
5. Explicit About Assumptions	Systemic conditions are universal structural properties applying regardless of context; socioeconomic variables are contextually specific and subject to human agency; boundary conditions specified through SE redefinition and theoretical proposition
6. Demonstrates Scholarly Mastery	Derived through critical interdisciplinary integration across 11 disciplines rather than application of a single existing theory

Table 4.5.2a indicates that the SEE theoretical framework satisfies all six of Kivunja's criteria, with the framework derived through critical interdisciplinary integration across 11 disciplines rather than through application of a single existing theory.

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The theoretical framework is not advanced as a static analytical construct but as a proposition subject to empirical examination across the chapters that follow. The research questions guiding this examination are derived directly from the framework's central distinction between universal systemic conditions and contextually variable socioeconomic arrangements. Table 4.5.2b presents the testing design, specifying each research question and the chapter in which the translation of the theoretical framework into SEE knowledge architecture is examined, including the criteria for support and counterevidence.

Table 4.5.2b: Testing Design for the SEE Knowledge Architecture

Evaluative Question	Ch.	How the Framework Satisfies It	Disconfirmation
Is dual value creation uniformly present as a core SE characteristic regardless of institutional arrangement?	6	Dual value creation consistently identifiable across all examined regions	Absent or marginal in one or more regions
Does the theoretical fragmentation of regional SEE approaches confirm the need for an integrating framework?	6	Regional SEE models are theoretically fragmented with no transferability across regions at macro-, meso-, or micro level, supporting the need for an integrating framework.	Existing regional models already provide transferable theoretical grounding making an integrating framework unnecessary.
Does the knowledge architecture developed in Phase 1 reflect and integrate the theoretical and applied knowledge present in regional SEE practice?	6	Knowledge architecture elements are present across regional practice, indicating that the proposed architecture reflects SEE practice.	Regional practice contains significantly different knowledge elements absent from the architecture
Do socioeconomic variables explain regional fragmentation of SEE?	6	Regional differences explicable as variations in socioeconomic variables within the same systemic conditions	Differences requiring explanation at the level of systemic conditions
How do learners respond to the knowledge architecture and pedagogical approach?	7	Learners distinguish structural from contextual knowledge and construct SE models	Learners unable to draw from proposed content and pedagogies to complete SE models

Table 4.5.2b specifies the empirical conditions under which the framework would be supported or disconfirmed, establishing the criteria against which Chapter 6 and Chapter 7 assess the theoretical contribution. Chapter 6 and Chapter 7 constitute the empirical testing ground for the theoretical framework and the SE theoretical proposition from which it derives. The conclusion draws on this combined evidence to assess the extent to which the proposition is supported by

empirical findings, to identify the conditions under which the framework demonstrated explanatory power, and to specify the directions in which future research should proceed.

4.6 Conceptual Framework: Structuring Knowledge and Instructional Approach

The theoretical framework developed in Section 4.5 supports the content architecture required for SEE but does not specify how knowledge should be organised for curriculum design and instructional sequencing. The detailed description and analysis of the knowledge clusters within this architecture are presented in Chapter 5, Article 2. The conceptual framework presented in this section introduces knowledge clusters and operationalises the theoretical framework by structuring knowledge into forms that enable educators to design curricula, select content, and sequence learning progressions.

Organisation as a common ground technique for integrating pertinent insights within the IRP was applied in the construction of the conceptual framework (Repko & Szostak, 2025). The first application produced the educational dimension of the theoretical framework in Section 4.3.3.3, organising complementary insights from professional education scholarship, andragogy, interdisciplinary education, and Dewey's pragmatism into a unified instructional architecture specifying the pedagogical requirements SEE frameworks must satisfy. The application of organisation as an IRP strategy for integration identified complementary pedagogical relationships across educational traditions and structured them into a cohesive instructional framework suitable for teaching SEE content describing SE as an entrepreneurial tradition emerging from professional and community practice across regions and contexts.

The second application of IRP organisation strategy produced the conceptual framework presented in this section, organising the knowledge derived from the critical analysis of IPE, SE, and education scholarship into a two-tier architecture distinguishing globally transferable theoretical knowledge from context-dependent applied knowledge. The application of organisation as an IRP strategy for integration identified systems of causal relationships linking the invariant structural properties of the nested systems configuration in which social enterprises operate, the systemic conditions governing interactions across systems, and the recurring cross-regional and historical emergence of SE practice. Different disciplines and knowledge traditions explain the SE recurrence through different causal relationships, including entrepreneur characteristics, financing mechanisms, organisational structures, institutional arrangements, governance systems, and cultural traditions. The organisation process demonstrated that these explanations, while analytically valuable, do not sufficiently explain the recurring emergence of SE practice when treated in isolation from the broader systems configuration and systemic conditions established through transformation. Together, these two applications of organisation translate the analytical outcomes of the critical analysis into structures that educators can use to design curricula, select content, and sequence learning progressions across diverse institutional contexts.

The conceptual framework aligns with knowledge structures characteristic of professional education, where disciplines organise content into high-level theoretical frameworks explaining underlying principles and applied knowledge guiding implementation (Shulman, 2005; Lattuca & Stark, 2009). The integration of these tiers addresses a key deficit identified in Section 4.3 by

ensuring that learners develop both theoretical understanding and the capacity to apply knowledge in practice, while remaining adaptable to changing contexts and systemic conditions (Kolb, 1984; Schön, 1983).

4.6.1.1 Tier One: High-Level Theories

Tier One encompasses theories explaining how social and economic values are created in human society, how and why dual value creation operates as systemic condition, how socioeconomic architectures enable or constrain integrated practice, and how institutional arrangements vary across contexts. Within this tier, knowledge is organised by theory type to support the dual educational objectives of navigation within current structures and imagination of alternative arrangements.

1. Globally Applicable Macro-Level Knowledge

At a macro-level, Theoretical Proposition for SE including systems theory and complexity science interpret systemic conditions that necessitate dual value creation. This macro-level theoretical position transfers across contexts and disciplines. Systems theory and complexity science, including concepts such as open systems dynamics, entropy, hierarchical nestedness, and nonlinear feedback, represent analytical frameworks applied across both natural and social sciences globally (von Bertalanffy, 1968; Prigogine, 1984; Holland, 1995; Arthur, 2010; Page, 2018). In the absence of a fully developed global theory of SE, this theoretical foundation provides globally unifying knowledge explaining how dual value creation emerges as a logical organisational response to systemic necessity.

2. Context-Specific Meso-Level Theories of Dual Value Creation

The meso-level theories address value creation approaches present in different societies and regions. These theories are context-specific and are grouped according to their influence on SE practice and SEE. Although meso-level theories are context-specific, exposure to diverse regional approaches is pedagogically valuable, as understanding what is institutionally possible in other societies expands learners' repertoire for scaling, partnership formation, and cross-regional practice. Detailed convergences across cultural and philosophical traditions are examined in Chapter 5. Meso-level theories of dual value creation therefore include:

a. Dominant Theories Influencing Socioeconomic Architectures

Dominant theories presented in Chapter 3 refer to theoretical traditions discussing value creation, that have historically informed the institutional structures and policy frameworks shaping contemporary socioeconomic systems (Balaam & Dillman, 2019). While these theories differ across regions in focus and institutional logic, they consistently define the socioeconomic environments that social entrepreneurs must navigate, including market structures, regulatory frameworks, and the distribution of responsibility for social and economic value creation. As the IPE analysis demonstrates, dominant theories span a political economy spectrum and are institutionalised differently across regions, shaping state market relations, welfare systems, and governance arrangements. Examples include liberal IPE theories, which separate economic and social value responsibilities, and state directed models, which embed dual objectives within

governance structures (Keynes, 1936; Hall & Soskice, 2001). Although dominant theoretical frameworks do not inherently support dual value creation, their value lies in enabling context-specific assessment of opportunities and constraints and supporting the integration of social enterprise within prevailing institutional systems, rather than providing transferable templates for institutional design.

b. Alternative Theories Proposing Scientific Perspectives

Alternative theories propose reforms to existing socioeconomic architectures by outlining how policy changes, institutional innovations, and movement building can expand what is feasible (Raworth, 2017; Rockström et al., 2009). The importance of these theories lies in their application within sustainability science and global policy frameworks, including the United Nations Sustainable Development Goals and OECD policy agendas, where they inform approaches to sustainable development, social innovation, and inclusive economic systems (OECD, 2024; Jackson, 2025). These theories equip learners to navigate emerging policy and funding environments while recognising that socioeconomic variables remain subject to collective redesign rather than fixed constraints.

c. Cultural Theories that Shape Practice in Communities

Cultural theories constitute a third category within Tier One. However, this group of theories and philosophical approaches warrant distinct methodological consideration. These frameworks, including Ubuntu philosophy, Buddhist economics, Islamic economics, Gandhian thought, and Indigenous perspectives across regions, explain how communities integrate economic and social value creation through practices that predate or operate outside dominant academic and institutional frameworks (Ostrom, 1990; Gibson Graham, 2006; Nabudere, 2005). They demonstrate that dual value creation represents a historical norm across contexts and, in some regions, directly shape political economy and SE.

Although not systematically examined within disciplinary analyses in Sections 4.2 through 4.3, they are examined in detail in Chapter 5. The inclusion of cultural theories reflects an expansion beyond conventional academic SE research. This integration recognises that effective SEE requires incorporating cultural frameworks that demonstrate dual value creation as lived practice. Cultural theoretical knowledge broadens learners' understanding of how economic activity can be organised, supports contextual adaptation, and enhances cultural literacy. Together with dominant and alternative theories, these perspectives form a balanced knowledge structure that supports exploration of alternative approaches to SE, and responsiveness to diverse contexts.

4.6.1.2 Tier Two: Applied Operational Knowledge

Tier Two encompasses practical guidance for social enterprise on two levels:

1. Adaptive Solution Design and Operational Mechanisms

Solution design, including dual value creation mechanisms, whether integrative or coordinated, adaptive planning, partnership building, revenue logic, and scaling strategies, constitutes a category of applied knowledge that is transferable across contexts. This transferability derives from its grounding in systems theory and complexity science, which conceptualise

organisations as open dynamic systems subject to shared systemic conditions rather than region specific institutional arrangements (von Bertalanffy, 1968; Holland, 1995; Goldstein et al., 2008). Within SEE, this aligns with andragogical approaches emphasising learners' capacity to diagnose situations, respond to feedback, and adapt action (Knowles et al., 2015; Hindle, 2007). Adaptive operational skills enable monitoring of feedback signals and adjustment of strategies while maintaining dual value focus (Meadows, 2008). Because these skills are grounded in open system properties, they remain applicable across contexts as functional insight rather than fixed tools (Prigogine, 1984; Georgescu Roegen, 1971).

2. Socioeconomic and Institutional Integration

Socioeconomic system integration knowledge, including domains such as financing opportunities, impact measurement regimes, organisational and legal forms, stakeholder engagement practices, and governance arrangements, constitutes a category of applied knowledge that is inherently context dependent. The applied knowledge domains in this category integrate directly with both macro-global systemic conditions and meso level political economy theories, as they are simultaneously shaped by system level feedback requirements and by region specific regulatory frameworks, welfare regimes, financial systems, and culturally embedded expectations regarding value creation, legitimacy, and accountability (North, 1990; Scott, 2003). Figure 4.6 depicts the knowledge architecture derived from the conceptual framework.

Figure 4.6: Conceptual Framework

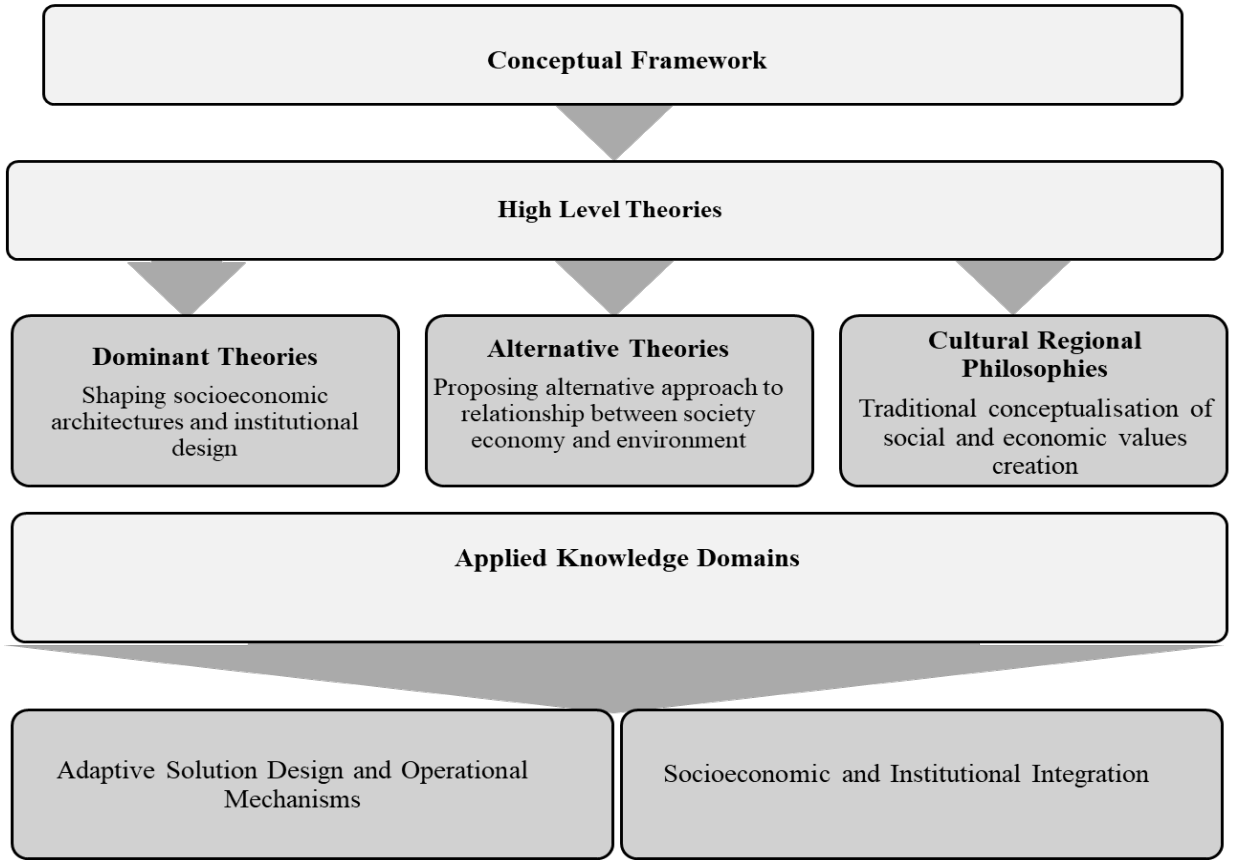


Figure 4.6 presents the knowledge architecture derived from the conceptual framework, organising knowledge across two tiers: high-level theories at the macro- and meso-levels and applied operational knowledge at the micro level, with Chapter 4 establishing their analytical validity and Chapter 5 developing the classification into globally applicable and context dependent categories. Alignment with macro-level systemic conditions is required to monitor how institutional arrangements respond over time to shifting ecological, social, and economic constraints, while alignment with meso level political economy theories is required to interpret how these constraints are translated into concrete institutional designs within particular societies.

It is important to emphasise that although meso level political economy theories may not be directly applicable to a learner's immediate context, they remain essential for understanding scaling and cross-regional expansion, which requires engagement with diverse institutional logics governing financing, accountability, and organisational legitimacy (Spanuth and Urbano, 2024), particularly in coordinated mechanisms of dual value creation where jurisdictions impose distinct governance, organisational, and legal requirements. This distinction aligns with global EE scholarship differentiating between transferable entrepreneurial competences and context dependent institutional knowledge, where opportunity development, venture design, and adaptive decision-making are broadly transferable, while knowledge of legal forms, financing instruments, governance requirements, and stakeholder accountability must be acquired in relation to specific institutional environments (Hindle, 2007; Fayolle and Gailly, 2015).

The interdisciplinary analysis presented in this chapter established the theoretical and conceptual frameworks necessary for constructing a coherent SEE knowledge base. The theoretical framework provides the macro-level integration currently absent from the field. The conceptual framework operationalises this architecture through a two-tier structure integrating high-level theoretical knowledge with applied operational knowledge.

However, the frameworks established in this chapter specify the architecture of knowledge without identifying the substantive content that populates it. Chapter 5 addresses this gap by presenting the comprehensive knowledge synthesis, drawing on the expanded literature base of 116 sources developed through the iterative IRP process to identify three essential theoretical domains and six applied knowledge domains, organised according to the multilevel, multi-theory-type architecture articulated in the conceptual framework. Chapter 5 is presented through Article 2, "From Theory to Praxis: Inclusive Social Entrepreneurship Education," developed as IRP Steps 7 through 9 progressed.

4.6.1.3 From Interdisciplinary Analysis to Integrated Knowledge Framework

Chapter 4 and Chapter 5 together complete Phase 1 of the doctoral research. Chapter 4 establishes the analytical foundation by deriving the environment of social enterprise as a nested hierarchy of open systems and identifying two systemic conditions, planetary boundaries and the dual value imperative, that govern interactions across the hierarchy. It further introduces an analytical framework distinguishing systemic conditions from socioeconomic variables, enabling IPE, SE, and education scholarship to be examined as complementary rather than competing accounts, and formalises the theoretical proposition for SE in Section 4.5.1, positioning social

entrepreneurship as a possible organisational response to systemic conditions alongside the integration-coordination typology in Section 4.3.2.3.

Chapter 5 articulates the specific theories, concepts, and operational knowledge domains constituting globally informed, contextually adaptable SEE content. This integrated foundation informs the examination of SEE approaches across four regional contexts in Phase 2, presented in Chapter 6, and the development and evaluation of the SEE model in Phase 3, presented in Chapter 7.

Chapter 5 From Theory to Praxis: Globally Inclusive SEE

5.1 Introduction to Chapter 5 Based on Article 2

This chapter advances from the conceptual framework proposed in Chapter 4 to a knowledge architecture that describes theoretical knowledge at the macro- and meso levels and applied knowledge at the micro level, thereby enabling the translation of the proposed architecture into actionable educational content for globally inclusive SEE. Chapter 4 established a theoretical proposition positioning dual value creation as a systemic condition within the nested system hierarchy in which social enterprises operate, distinguished systemic conditions from socioeconomic variables, and developed a two-tier knowledge architecture for structuring educational content. The redefinition of SE advanced in Chapter 1, which removed the restriction to specific organisational structures and broadened value creation to include ecological value, opened the analytical space for the broader interdisciplinary investigation in Chapter 4 and Chapter 5.

The integration strategies applied in this chapter follow the common-ground techniques identified in the IRP methodology (Repko & Szostak, 2025), specifically organisation and transformation, each applied at distinct analytical levels as described below. At the macro- level, the transformation conducted in Chapter 4 resulted in a theoretical proposition that informs the macro-level, shared foundational knowledge for SEE. At the meso level, critical analysis demonstrated that disciplinary knowledge drawn from IPE and SE cannot be fully integrated into a single meso level theoretical framework. Therefore, for analytical purposes, organisation as a common ground technique within the IRP was applied to structure and integrate relevant insights (Repko & Szostak, 2025). The distinction between dominant and alternative theories was introduced in Chapter 3, with dominant theories referring to theoretical approaches that shape discourse and institutional design in the reviewed literature, while alternative theories challenge the positions established by dominant theoretical strands.

At the micro level, the analysis in Chapter 4 established a differentiated approach to operational knowledge. Knowledge related to adaptive solution design and operational mechanisms can be integrated into a globally applicable knowledge base, while knowledge addressing socioeconomic and institutional integration remains context-specific and must be structured to reflect regional regulatory, financial, and governance environments. Within the IRP approach, Chapter 4 executed Steps 6 through 10, completing integration and synthesis at the macro- level while establishing the knowledge architecture at the meso and micro levels without specifying substantive content.

Chapter 5 proceeds by identifying specific theories and applied knowledge through Article 2, From Theory to Praxis: Globally Inclusive Social Entrepreneurship Education, introduced in this chapter. Article 2 partially reiterates elements of the literature review and analysis presented in Chapter 3 and Chapter 4 because it was developed earlier in the doctoral research process, when organisation as a common ground strategy within the Interdisciplinary Research Process (IRP) was applied to integrate insights from multiple disciplines prior to the formulation of the theoretical proposition presented in Chapter 4 (Repko & Szostak, 2025).

The publication therefore serves as an artefact of the research progression and was intended to present a structured knowledge architecture that would enable educators and learners to situate knowledge taught across different programs within a research based SEE content framework, addressing the fragmentation of SEE knowledge identified during the initial stage of the research. Article 2 structures meso-level knowledge around dominant and alternative theories complemented by cultural philosophies and organises applied knowledge into six categories. The discussion following the article examines which knowledge components at the meso and micro levels can be applied globally, and which must remain context-specific, clarifying their respective roles within SEE and their value for learners. While organisation maps complementary relationships among theories and practices, synthesis of SEE content is achieved through transformation as a common ground strategy within the IRP, resulting in an integrated knowledge architecture (Repko & Szostak, 2021, 2025).

5.1.1 Knowledge Sources and Content Scope

The article introduced in Chapter 5 was developed through a systematic literature review drawing on 116 sources identified through Scopus, Web of Science, and EBSCO databases, complemented by expert consultations exploring connections between cultural philosophies and SE. The SLR employs English language search terms aligned with mainstream SE scholarship. Therefore, the literature base reflects predominantly North American and European academic production. The SLR identified dominant theories of value creation, alternative theories proposing institutional reforms, some cultural philosophies documented within academic literature, and the six applied knowledge domains structured in Article 2.

Cultural and regional theories enter the knowledge structuring through a distinct pathway. The theoretical and conceptual frameworks developed in Chapter 4 analysed and integrated scholarship from three established disciplines meeting academic standards for inclusion in IRP methodology, namely IPE, SE scholarship, and education research. Cultural and philosophical traditions including Ubuntu, Buen Vivir, and Daoist and Confucian thought were not included in the literature review in Chapter 3 nor examined through the disciplinary analysis in Chapter 4 because they do not constitute the primary corpus of knowledge developed within IPE, SE, or education as conventionally defined within academic scholarship and identified through SLR.

In addition, three decades of practitioner experience implementing SEE across Europe Asia, North America, and South America, identified enterprise practice documented under different conceptual vocabularies across regional scholarship that does not surface through SE specific search protocols. This practitioner experience, combined with expert consultations, provided the basis for incorporating cultural philosophies as a distinct category within the knowledge architecture. The inclusion of cultural philosophies reflects a knowledge expansion grounded in practitioner experience, justified by the pragmatic orientation established in Chapter 4. The pragmatic orientation recognises that when academic theories are insufficient to explain how SE occurs in practice, empirically demonstrated knowledge validated through enterprise practice constitutes a legitimate source of data informing the architecture of SEE.

The distinction between literature-derived disciplinary knowledge and practice-informed cultural knowledge requires explicit recognition. This distinction determines how each knowledge source is incorporated into the structuring process and how its contribution is evaluated. Disciplinary scholarship was analysed through IRP methodology and SLR as a method, meeting adequacy criteria. Cultural philosophies and associated SE practices are introduced through practitioner experience and regional scholarship. They are examined in the Chapter 5 introduction and discussion to situate them within the theoretical framework developed in Chapter 4. This examination assesses how these philosophies relate to the framework's analytical distinction between systemic conditions and socioeconomic variables to determine their global or context-specific relevance for the knowledge architecture supporting globally inclusive SEE.

5.1.2 The Structural Incompleteness of Academic Value Creation Theories

Academic theories addressing value creation demonstrate a consistent structural limitation: no theoretical framework integrates social, economic, and ecological value within a single analytical model that includes institutional mechanisms for implementation. Each theory examined in Chapter 4 explains only a portion of the value creation process and therefore fails to provide SE with a comprehensive foundation for understanding integrated value emergence.

Table 5.1 evaluates the major paradigms according to four criteria: recognition of social value, recognition of economic value, recognition of ecological value, and specification of socioeconomic architecture, together with geographical reach to capture cross-regional influence. The evaluation highlights a clear pattern of partiality across all academic traditions surveyed, which explains why social entrepreneurs must rely on these theories for contextual navigation while recognising that no existing paradigm offers a complete foundation for dual value creation practice. Abbreviations SV, EV and EcV denote social, economic and ecological values.

Table 5.1: Value Creation Theories and Their Limits

Paradigm (with Geographical Context)	SV	EV	EcV	Socioeconomic Architecture Specification
Smith (1776/1976, Western, globally diffused)	Yes (morality)	Yes	No	No institutional specification
Keynes (1936, Western, globally implemented through IMF, World Bank, WTO)	Yes (welfare)	Yes	No	State manages social value; markets produce economic value
Friedman (1962, Western, globalised through corporate governance and business education)	No	Yes	No	No institutional mechanism for social or ecological value
Polanyi (1944, Western academic with multi-regional analysis)	Yes (embeddedness)	Yes	No	Markets generate economic value; state and society protect social value

Stiglitz (2012, Western academic with global policy influence)	Yes	Yes	No	Regulation and welfare through state and civil society
Sen (1999, global application across UNDP, India, Latin America, Africa, Southeast Asia)	Yes (capabilities)	Yes (agency)	Implicit but limited	Normative framework without institutional mechanisms
Raworth (2017, Western sustainability discourse with strong EU uptake)	Yes	Yes	Yes	Normative model without institutional specification
Rockström et al. (2009, global scientific framework)	No	No	Yes	No socioeconomic mechanism
Daly (1991, Western academic with limited policy implementation)	Yes (fairness, wellbeing)	Yes (state principles)	Yes	Critique of existing systems without institutional redesign

Table 5.1 demonstrates a consistent pattern of incompleteness across academic value creation theories. Paradigms shaping contemporary institutional reality, including Keynesianism and neoliberalism, provide operational architectures through fiscal policy, corporate governance, and market regulation, yet each framework excludes at least one value dimension essential for dual value creation. Article 2 examines each dominant theory in detail, demonstrating that Keynesianism separates social welfare from market activity, while neoliberalism sidelines both social considerations and ecological boundaries, producing analytical foundations that contradict the open systems dynamics and nested systems hierarchy established in Chapter 4 (Keynes, 1936; Friedman, 1962, 1970; Meadows, 2008).

Article 2 further examines alternative theories, including Doughnut Economics, Ecological Economics, and the Capabilities Approach, grouped as such within the knowledge architecture. These theories recognise thermodynamic constraints, nested systems, and ecological limits with greater accuracy (Raworth, 2017; Rockström et al., 2009; Daly & Farley, 2011; Spash, 2024). However, as the article demonstrates, alternative theories diagnose the nestedness analysed in Chapter 4 without providing institutional architectures that operationalise integration through governance mechanisms, resource allocation systems, or enterprise design (Raworth, 2017; Spash, 2024; Sen, 1999).

The geographical reach of the theories in both groups reinforces the fragmentation pattern that makes each inadequate for supporting dual value creation at a global scale. Both dominant and alternative theories presented in Article 2 originate primarily within Western academic and policy environments, including Europe and North America, and have shaped institutional design across many jurisdictions through policy transfer, development lending, and international governance structures (Babb & Kentikelenis, 2021; Chang, 2002; Mkandawire, 2001). However, their conceptual foundations reflect Global North institutional histories and welfare regimes, and

they offer limited relevance for learners operating in Global South regions or Indigenous contexts whose governance traditions, social institutions, and cultural logics differ substantially (Escobar, 1995; Santos, 2014). The Capabilities Approach (Sen, 1999) offers broader geographical influence through UN adoption and policy application across multiple regions. However, the framework provides evaluative criteria for human development rather than institutional mechanisms linking capability expansion with integrated value creation. Polanyi's analysis of embeddedness contributes understanding applicable across diverse societies, but the framework remains primarily conceptual and has not been translated into consistent institutional design.

Table 5.1 highlights the central conclusion established through Chapter 4 namely that academic theories addressing value creation perform essential contextual and diagnostic functions but do not offer comprehensive foundations for designing dual value enterprises.

5.1.3 Implications for Social Entrepreneurship Education

Within the pragmatic epistemological approach established in Chapter 2, dominant meso level theories function as knowledge for contextual navigation rather than as prescriptive pathways leading to SE models of dual value creation. The approach is consistent with Dewey's pragmatism proposed in Chapter 4 that positions knowledge as instrument for action (Dewey, 1916; Schön, 1983).

Consequently, the theories presented in Table 5.1 contribute to SEE in three circumscribed ways. These theories enable learners to understand institutional environments in which social enterprises operate (Kerlin, 2013; Nicholls, 2010). They support engagement with academic discourse that continues to rely on these frameworks (Battilana & Lee, 2014; Smith et al., 2013). Finally, these theories provide conceptual vocabulary for articulating critique and advocating reform (Raworth, 2017; Sen, 1999; Fraser, 2016). This perspective aligns with the distinction established in Chapter 4 Section 4.6 between systemic conditions, which require universal understanding, and socioeconomic variables, which require contextual analysis (Meadows, 2008; Holland, 1995).

The article associated with this chapter introduces dominant and alternative theories not as explanatory foundations for dual value creation in SE practice but as contextual knowledge that helps learners understand the institutional environments within which social enterprises must function and the frameworks informing the training they receive across SEE programmes. This positioning aligns with findings in SEE scholarship presented in Chapter 1 and Chapter 3 showing that curricula rely heavily on academic theoretical traditions from different disciplines and regions due to the absence of agreement on universal political economy theories or institutional structures (Fayolle & Gailly, 2015; Kickul & Lyons, 2020; Al Issa et al., 2024).

Reliance on regional political economy theories in SEE limits the ability of learners to engage in global practice where they encounter different theoretical perspectives and institutional designs. Learning about the mechanisms through which different societies coordinate social and economic value production by specialised organisations, and the extent to which each society legitimises enterprises that produce both values simultaneously, is necessary so that learners and

practitioners can identify institutional environments where their solutions may be easier to implement.

Learners from different disciplines and regions must understand both dominant and alternative theories to recognise the perspectives shaping institutional environments, funding regimes, and regulatory systems within which social entrepreneurs operate, and to integrate these perspectives into practice to develop global literacy and the capacity to scale. Engagement with diverse perspectives, as well as cultural philosophies and regional traditions, provides culturally grounded entry points into the systemic logic governing dual value creation, as established in Chapter 4 and developed further in Section 5.1.4. The structuring proposed in this article follows the organisation strategy within the IRP (Repko & Szostak, 2025), presenting existing knowledge as a navigable reference while incorporating practice-informed cultural logics and operational mechanisms (Uhl-Bien & Arena, 2018).

Moreover, research on policy diffusion demonstrates that Western economic frameworks, including neoliberal, Keynesian, and social democratic models, have been disseminated globally through the International Monetary Fund, World Bank, OECD, and bilateral development agencies, often without alignment to local institutional realities (Stiglitz, 2002; Rodrik, 2006; Ferguson, 1994). At the same time, Western sustainability frameworks such as green growth and European welfare environmentalism rarely engage substantively with non-Western governance systems, including community-based management, customary law, and Indigenous stewardship practices (Berkes, 2018; Agrawal, 2005; Kimmerer, 2013). However, as the analysis in Chapter 4 indicates, recognition does not equal implementation. While societies around the world understand how Western societies approach values creation, all regions do not necessarily align with Western perspective or design their societies in the same way.

Consequently, learners in Africa, Asia, Latin America, and Indigenous territories encounter SEE curricula structured around theoretical traditions that do not reflect their institutional environments or value systems, limiting applicability for dual value venture design. Scholarship on Indigenous, postcolonial, and Global South social enterprise models consistently documents this misalignment and calls for inclusion of plural epistemologies and culturally grounded governance approaches (Peredo & Anderson, 2006; Banerjee, 2011; Alawattage et al., 2021; Dey & Lehner, 2017).

The structural incompleteness documented in Table 5.1 creates an educational imperative to explore regional knowledge sources demonstrating successful dual value generation. If academic theories do not support the SE mandate to create dual value simultaneously, and if there is insufficient similarity among socioeconomic architectures shaping SE, educators face a professional obligation to identify knowledge sources that address these gaps, regardless of whether such sources meet conventional disciplinary criteria (Flyvbjerg, 2001).

5.1.4 Cultural Philosophies and Values Integration in Social Entrepreneurship

Cultural philosophies receive more detailed examination in this introduction than dominant and alternative theories because their inclusion in the knowledge base for SEE requires explicit

justification. The knowledge validation criteria established in Chapter 2 provide the basis for this justification.

Indigenous economies, cooperative traditions, and culturally embedded philosophies across African, Asian, South and North American contexts demonstrate integrated value creation through practices predating the dominant institutional frameworks documented in Western scholarship (Peredo & Anderson, 2006; Banerjee, 2011; Escobar, 1995). These traditions provide theoretical foundations treating social, economic, and ecological wellbeing as unified phenomena. They also provide enterprise-level architectures operationalising integration through specific governance mechanisms, resource management systems, and distribution practices observable across generations of sustained community function (Berkes, 2018; Kimmerer, 2013). SE practice grounded in these cultural philosophies flourishes across regions and is documented in regional scholarship.

The knowledge validation criteria established in Chapter 2 assess knowledge by its explanatory capacity regarding dual value creation within nested open systems rather than by disciplinary origin (Section 2.5). Cultural philosophies meet these criteria because they reflect independent historical recognition of the same nested structural reality that systems theory formalises. Across unconnected regions and traditions, communities recognised that individuals are embedded in communities, communities in societies, and societies in ecological systems. From that recognition, these philosophies arrived at the practical conclusion that enterprise activity must generate social, ecological, and economic value simultaneously.

Article 2 examines cultural philosophies across regions in detail, including Ubuntu, Buen Vivir, Confucian and Daoist thought, Islamic economics, Buddhist economics, and Gandhian economics. The introduction to Article 2 does not restate the philosophical foundations presented in article text but examines the enterprise practice each tradition produces, its relationship to governance environments analysed in Chapter 4, and the evidence for values integration absent from academic theoretical frameworks.

Ubuntu informed post-colonial and contemporary policy and institutional discourse in Southern and East Africa, shaping governance frameworks emphasising communal obligation and social reproduction as identified in the IPE critical analysis in Section 4.3.1. Seneque et al. (2023) position Ubuntu as a philosophy for systems transformation, while Njenga and Massyn (2024) demonstrate how African perspectives enrich systems practice by introducing relational and communal dimensions that Western scholarship overlooks. Social enterprise practice operating from Ubuntu foundations is documented across Southern and East Africa (Kajiita & Kang'ethe, 2020; Adeola, 2024; Du Toit, 2021; Woermann & Engelbrecht, 2019; Njie, 2022). These enterprises integrate social and economic value not as a deliberate strategic choice balancing competing objectives but as the natural expression of a philosophical foundation that treats these dimensions as inseparable.

Buen Vivir has been translated into constitutional and policy frameworks in Ecuador and Bolivia, generating institutional environments within which community enterprises proliferate (Gudynas, 2011; Acosta, 2013). Vargas & Guedes (2023) recognise confluences between systemic

alternatives and Buen Vivir, confirming from within the tradition its orientation toward systemic coherence. Enterprise practice grounded in Buen Vivir is documented across South America (Morales & Calvo, 2022; Jimenez et al., 2022; López-Fernández, 2025). Across these studies, enterprises integrate agricultural, ecological, and social functions through reciprocity and harmony principles without requiring the reconciliation of competing value dimensions that Western SE scholarship treats as the central challenge of dual value creation.

In the Chinese context, cultural philosophy operates primarily at the political economy level, shaping governance frameworks that embed social purpose within enterprise mandates as identified in the IPE critical analysis in Section 4.3.1 (Zu, 2023; Zhao, 2022). Liang and Segalas (2025) develop a Daoist-inspired approach to systemic sustainability transitions, demonstrating from within the tradition a structural orientation toward systemic coherence. Regional literature documents that Chinese social enterprises proliferate under policy mandates reflecting these cultural foundations, integrating dual value not because individual entrepreneurs adopt Daoist philosophy as personal commitment but because the governance framework shaped by Confucian and Daoist traditions expects and enables integration as institutional norm.

Indigenous-led social enterprise in North America demonstrates the same structural pattern (Salmon et al., 2023). The enterprises depicted in these studies operate from philosophical foundations treating economic activity as embedded within and accountable to community and ecological systems, reflecting the same commitment to values integration that Ubuntu, Buen Vivir, and Daoist thought express through different cultural vocabularies. This culturally oriented scholarship circulates predominantly within regional journals, development studies, Indigenous studies, business ethics, and area studies rather than within the framing institutions that shape dominant definitions and typological categories in SE research.

Therefore, what is absent is not documentation of practice but a shared theoretical framework that would connect insights from dispersed literatures into a coherent body of SE knowledge. Without such a framework, Ubuntu enterprises appear within African studies, Buen Vivir enterprises within Latin American and Indigenous studies, and Daoist enterprise practice within Chinese management scholarship. Each regional scholarship documents enterprises integrating social and economic value, yet the practices appear scattered and disconnected rather than as manifestations of a shared structural phenomenon that is consistent with the SE redefinition established in Chapter 1.

Table 5.2 evaluates cultural and regional philosophies against identical criteria applied to academic theories in Table 5.1, enabling direct comparison revealing systematic differences in integration approaches.

Table 5.2: Cultural Philosophies Evaluated Against Value Integration Criteria

Philosophy and Region	Social Value	Economic Value	Ecological Value	Socioeconomic Architecture
Ubuntu (Southern and East Africa)	Relational dignity, collective wellbeing	Shared profits, community reinvestment	Integrated within social domain	Community cooperatives sharing profits and services (Nabudere, 2005)

Philosophy and Region	Social Value	Economic Value	Ecological Value	Socioeconomic Architecture
Buen Vivir / Sumak Kawsay (Ecuador, Bolivia, Peru)	Harmony, reciprocity	Family farming, agroforestry markets	Integrated (humans, community, nature inseparable)	Community enterprises (Walsh, 2010)
Netukulimk (Atlantic Canada)	Community welfare	Harvest for community needs	Integrated (seven-generation stewardship)	Elder governance, quotas, community allocation (Davis and Jentoft, 2001)
Mino Bimaadiziwin (Canada, Northern United States)	Circle of life	Cooperatives, cultural lodges	Integrated (social, spiritual, ecological inseparable)	Cultural cooperatives with community governance (Peredo & Anderson, 2006)
Confucian Datong (China, East Asia)	Social harmony, shared prosperity	Fair distribution, stable income	Separate (addressed implicitly)	State-business collaboration with community benefit requirements (Hsu, 2017; Zhao, 2018)
Waqf and Zakat (Global Muslim communities)	Redistribution, poverty relief	Revenue reinvested for public benefit	Separate (ecological implicit in Sharia)	Trustees managing assets for welfare and public services (Çizakça, 2000)
Ahimsa (South Asia, global diaspora)	Nonviolence, protection of all beings	Ethical production, cruelty-free enterprise	Integrated (harm avoidance includes ecosystems)	Community cooperatives guided by nonharm principles (Chapple, 1993)

Table 5.2 demonstrates systematic differences between cultural philosophies and academic theories. Every philosophy listed recognises social value as foundational rather than derivative (Ramose, 1999; Mbiti, 1969). Every philosophy specifies economic value creation mechanisms appropriate to ecological and social contexts. Most philosophies integrate ecological value within unified worldviews rather than treating it as separate analytical domain (Gudynas, 2011; Kimmerer, 2013). Finally, cultural philosophies specify enterprise level architectures that operationalise dual value integration at the community level, which is the dimension where the academic theories reviewed in Table 5.1 demonstrate the greatest limitation.

Cultural philosophies operate simultaneously at two levels within the knowledge architecture. At the meso societal level, they enter political economy discourse and shape governance expectations, as the IPE critical analysis demonstrated for Ubuntu in Southern Africa (Ouma & Innocent, 2025), Buen Vivir in the Andes (Gudynas, 2011; Acosta, 2013), and Confucian and Daoist thought in China (Zu, 2023, 2025; Zhao, 2022).

At the micro enterprise level, they produce specific operational architectures through community cooperatives, elder governance systems, resource allocation mechanisms, and trust-based management structures through which enterprises operationalise values integration (Kajiita

& Kang'ethe, 2020; Morales & Calvo, 2022; Peredo & Anderson, 2006). Regional research documents numerous examples of enterprise practice that meets the SE redefinition established in Chapter 1, yet these examples rarely enter dominant SE research (Defourny & Nyssens, 2017; Prouchet, 2025). Each practice is treated as cultural and regional rather than as manifestation of a structurally shared phenomenon applicable across contexts (Dompere, 2024; Teasdale et al., 2023). The question of whether a shared theoretical basis connects these dispersed practices is addressed in the Chapter 5 discussion.

The contrast proves analytically significant. Where Raworth's Doughnut Economics offers normative model without institutional specification, Ubuntu operates through community cooperatives with defined governance structures validated across generations (Nabudere, 2005; Longweni & Mdaka, 2023). Where Sen's Capabilities Approach provides ethical framework without implementation mechanisms, Buen Vivir functions through community enterprises managing production and distribution according to reciprocity principles (Acosta, 2013; Walsh, 2010). Where Ecological Economics critiques existing systems without designing alternatives, Netukulimk specifies elder governance, harvest quotas, and community allocation mechanisms maintaining ecological integrity across centuries (Prosper et al., 2011; Berkes, 2018).

Table 5.3 provides overview of selected regional philosophies with core principles and illustrative social enterprise examples demonstrating contemporary application.

Table 5.3: Cultural Philosophies with Core Principles and Illustrative Applications

Philosophy	Core Principles	Illustrative Social Enterprise Example
Ubuntu (Southern Africa)	Personhood achieved through relationships communal wellbeing; rooted in reciprocity dignity (Ramose, 1999; Mbiti, 1969)	Farmer and craft cooperatives sharing profits and reinvesting in schools and health services
Buen Vivir / Sumak Kawsay (Andes)	Good Living based on harmony between humans, community, and nature rather than extractivism (Gudynas, 2011; Acosta, 2013)	Amazonian cacao and quinoa cooperatives using agroforestry to protect rainforest and support families
Netukulimk (Mi'kmaq, Canada)	Using resources only to meet community needs while protecting ecological integrity for future generations (Prosper et al., 2011)	Indigenous community fisheries with quota systems, trap limits, and food distribution for elders
Mino Bimaadiziwin (Cree, Ojibwe)	Economic, cultural, spiritual, and ecological wellbeing inseparable; decisions must benefit entire circle of life (Kimmerer, 2013; Simpson, 2011)	Indigenous cultural lodges and craft cooperatives funding language revitalisation and land stewardship
Confucian Datong (China)	Great Unity where governance ensures fairness, shared prosperity, and social harmony (Zhao, 2018)	Community supported agriculture distributing harvest fairly and stabilising farmer income
Waqf and Zakat (Islamic)	Religious obligation of redistribution; private assets held for public benefit (Çizakça, 2000; Khan, 2025)	Waqf funded schools, clinics, and microenterprise programmes reinvesting revenue in social services

Philosophy	Core Principles	Illustrative Social Enterprise Example
Ahimsa (Hindu, Jain, Buddhist)	Nonviolence toward all beings; ethical responsibility to avoid harm to humans, animals, ecosystems (Chapple, 1993)	Ethical vegetarian food cooperatives, cruelty free agriculture, animal sanctuary enterprises

Table 5.2 and Table 5.3 demonstrate that integrated value creation appears across philosophical, cultural, and religiously grounded traditions, and that each tradition specifies the community-level institutional architectures through which integration is enacted. The interconnected nature of religious principles and cultural philosophies is illustrated by zakat, a religiously mandated practice of wealth redistribution defined in Islamic jurisprudence and intended to support social welfare and poverty alleviation (Kahf, 1999), whose collection and distribution are organised through diverse societal arrangements including state systems, charitable organisations, and community practices.

Contemporary poverty alleviation mechanisms such as microfinance pursue similar objectives of enabling economic participation among disadvantaged populations, as demonstrated in the work of Muhammad Yunus and the Grameen Bank, though they emerge from secular development practice rather than religious obligation (Yunus, 2007). Religious obligation provides the normative foundation while cultural and institutional context determines operational form.

The redefinition of SE advanced in Chapter 1, which applied redefinition as an integration strategy within IRP approach, to define SE by the activity of dual value creation rather than by organisational form or terminology, provides the broader explanatory perspective necessary to identify this practice where it occurs under different terms across cultures (Repko & Szostak, 2025). Without the redefinition, dual value creation mechanisms appearing across Ubuntu, Buen Vivir, Daoist, Indigenous, and Muslim practice remain invisible to SE research because they are not labelled as entrepreneurial activity, resulting in the global proliferation of dual value creation practice being significantly understated. The next section extends this analysis by demonstrating how the principles embedded in cultural logics are operationalised in contemporary social enterprise practice.

5.1.5 Operational Logics: Transferable Principles from Cultural Practice

Cultural philosophies provide not only theoretical foundations explaining why integration represents lived reality but also operational logics demonstrating how integration manifests through specific practices transferable across contexts (Defourny & Nyssens, 2017). These logics emerge from communities addressing concrete challenges through designs respecting cultural values and environmental constraints, producing innovations applicable beyond originating contexts when practitioners recognise underlying principles rather than replicate surface features (Nowotny et al., 2001).

Within the knowledge architecture established in Chapter 4, operational logics are analytically distinct from and complementary to the cultural philosophies presented in the preceding section. Where cultural philosophies operate at the meso level shaping institutional

environments within which dual value enterprise proliferates, operational logics operate at the enterprise level describing how practitioners design solutions to specific problems under contextual constraints. Cultural philosophies enter Tier One of the knowledge architecture level as meso level theories influencing institutional design. Operational logics enter Tier Two as applied knowledge guiding enterprise level practice at the adaptive applied level since they can be applied in any context.

Operational logics describe problem solving mechanisms rather than context-specific operational practice that depends on regional socioeconomic architectures. The cross-regional circulation of operational logics further demonstrates their transferability. Frugal innovation originating as Jugaad in India appears in enterprise practice across Kenya and other Global South contexts (Auka, 2025; Singh & Awasthy, 2025), indicating that communities facing similar resource constraints recognise the logic intuitively regardless of cultural origin.

Table 5.4 overviews selected operational logics identified through researcher's practice and organised by strategic orientation and cultural origin.

Table 5.4: Operational Logics and Social Enterprise Examples

Operational	Origin	Core Principle	Illustrative Enterprise
Jugaad	India	Frugal innovation under resource constraints; improvisation over optimisation (Singh & Awasthy, 2023; Prabhu & Jain, 2015)	SELCO Solar: modular solar systems codesigned with low income households ensuring affordability
Smekalka	Russia, Slavic regions	Practical ingenuity; adaptive solutions under extreme constraints (Sadigov, 2021)	Gruzovik Repair Collectives: community workshops maintaining trucks and machinery during shortages
Aprovechamiento	Latin America	Resource revalorisation; maximising value through repair, repurpose, circular practices (Almeida et al.,, 2023)	Bicitec Guatemala: discarded bicycles transformed into pedal powered food processing machinery
Gotong Royong	Indonesia	Mutual aid and collective action for shared benefit (Wirastuti et al., 2020)	Desa Wisata Ngalangeran: community ecotourism restoring water systems and employing families
Sisu	Finland	Perseverance and resilience through persistent community effort (Lahti, 2019)	Snowchange Cooperative: Indigenous led ecological restoration of wetlands through multiyear labour
Biomimicry	USA origin Global application	Nature as design template for efficiency, circularity, regeneration (Benyus, 2002; Kinay, 2023)	ECOncrete: biomimetic marine infrastructure supporting biodiversity and coastal restoration

Operational	Origin	Core Principle	Illustrative Enterprise
Shanzhai	China	Grassroots manufacturing through rapid prototyping and open collaboration (Lindtner, 2015)	Shenzhen Maker Enterprises: affordable electronics and assistive devices through collaborative design

Table 5.4 introduces operational logics that Article 2 examines in detail across problem solving techniques, including Jugaad expressed in the literature as frugal innovation, Smekalka, circular economy principles including Aprovechamiento, collective action mechanisms articulated through Gotong Royong and Sisu, and design innovation through biomimicry. Within the knowledge architecture described in the conceptual framework in Chapter 4, the distinction concerns the mechanisms through which dual value creation operational practices transfer across contexts, while Article 2 examines the specific content and regional expressions of each logic.

Frugal innovation as an operational mechanism involves redesigning products, services, or delivery models to function under severe constraints of capital, infrastructure, and institutional support. The approach prioritises robustness, affordability, and adaptability over efficiency maximisation (Radjou et al., 2012; Ovharhe, 2025). The inclusion of biomimicry alongside culturally specific logics illustrates that living, flexible practices focused on values integration emerge wherever practitioners prioritise systemic coherence over categorical separation (Benyus, 2002). Biomimicry asks how nature would solve a problem rather than how profitability can be balanced with environmental responsibility. The reframing eliminates apparent tension by positioning ecological integration as a design criterion rather than a constraint.

In each case, the operational logic transfers across cultures because it addresses a problem-solving mechanism applicable to common problems affecting humanity as a whole, wherever communities face similar challenges rather than prescribing specific organisational forms or institutional arrangements. The discussion following Article 2 examines how these mechanisms connect to the theoretical proposition and where they are positioned within the knowledge architecture.

5.1.6 Positioning Article 2 within the SEE Knowledge Architecture

The preceding sections positioned the categories of high-level theory and applied knowledge identified in Article 2 within the proposed knowledge architecture. Article 2, From Theory to Praxis: Globally Inclusive Social Entrepreneurship Education, directly addresses specific research question in Phase 2, stated as how can interdisciplinary scholarship inform the development of globally inclusive SEE that prepares learners to create dual value across diverse institutional and cultural contexts?

Article 2 was submitted for publication after several revisions, in 2024 in Economic Alternatives Journal as the output of Phase 1 research and is therefore presented verbatim in its submitted form, as the thesis by articles format requires. The article summarises the knowledge base collected initially through Phase 1. Some overlap between the introductory sections and the article is therefore expected.

Within the IRP methodology, Article 2 adopts organisation as a common ground technique, mapping how insights from different disciplinary and cultural traditions function as complements rather than substitutes within the content architecture established in the conceptual framework in Chapter 4 (Repko & Szostak, 2025). The article does not attempt further integration that would lead to a synthesis of knowledge around the shared theoretical proposition, as this level of integration requires the analytical examination conducted in the discussion following the article.

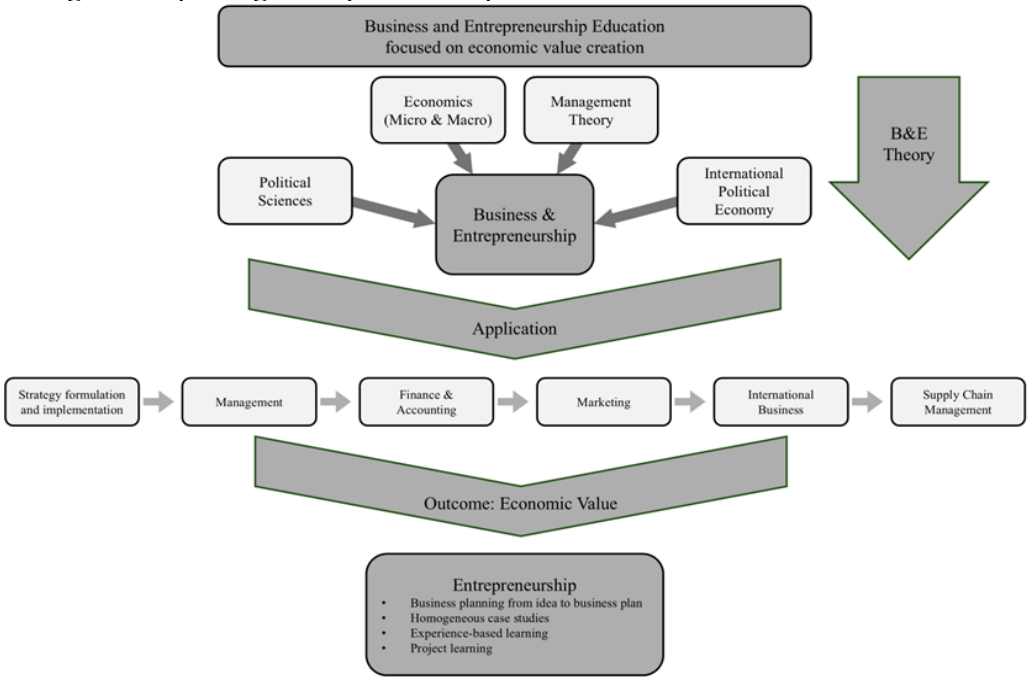
The Chapter 5 discussion following the article examines how the three theory types and applied knowledge domains relate to the theoretical proposition developed in Chapter 4, applying transformation to demonstrate correspondence between cultural philosophies and systems theory, and achieving synthesis across the globally applicable knowledge components to produce the integrated knowledge architecture. This further integration establishes which knowledge components can be synthesised into a globally applicable knowledge base, and which must be structured as context-dependent knowledge. The structured context-sensitive knowledge base at the macro, meso, and micro levels, presented at the end of the discussion section along with Article 2, completes Phase 1 of the doctoral research.

5.2 Article 2: From Theory to Praxis: Globally Inclusive SEE

The evolving field of SE demands an educational strategy that is as dynamic and multifaceted as the phenomenon it seeks to teach (Reimers. 2024). The comparison between EE and SEE is well established in the literature, as both aim to develop entrepreneurial capacity within formal education (Chang et al., 2021; Al Issa et al., 2024). While this shared foundation justifies analytical alignment, the two frameworks diverge in educational objectives.

EE is conventionally situated within business schools and supported by disciplinary theories from economics, political science, and management. These theoretical foundations are systematically operationalised through applied domains such as marketing, finance, strategic planning, operations, and business modelling, and instruction is typically delivered through modular, subject-specific formats (Han et al., 2023; Shahid & Alarifi, 2021). This curricular design reflects a unified disciplinary identity aligned with institutional mandates, professional standards, and labour market expectations, thereby equipping learners with both conceptual frameworks and practical competencies (Chang et al., 2021) as illustrated in Figure 1.

Figure 1: Diagram Depicting Entrepreneurship Education



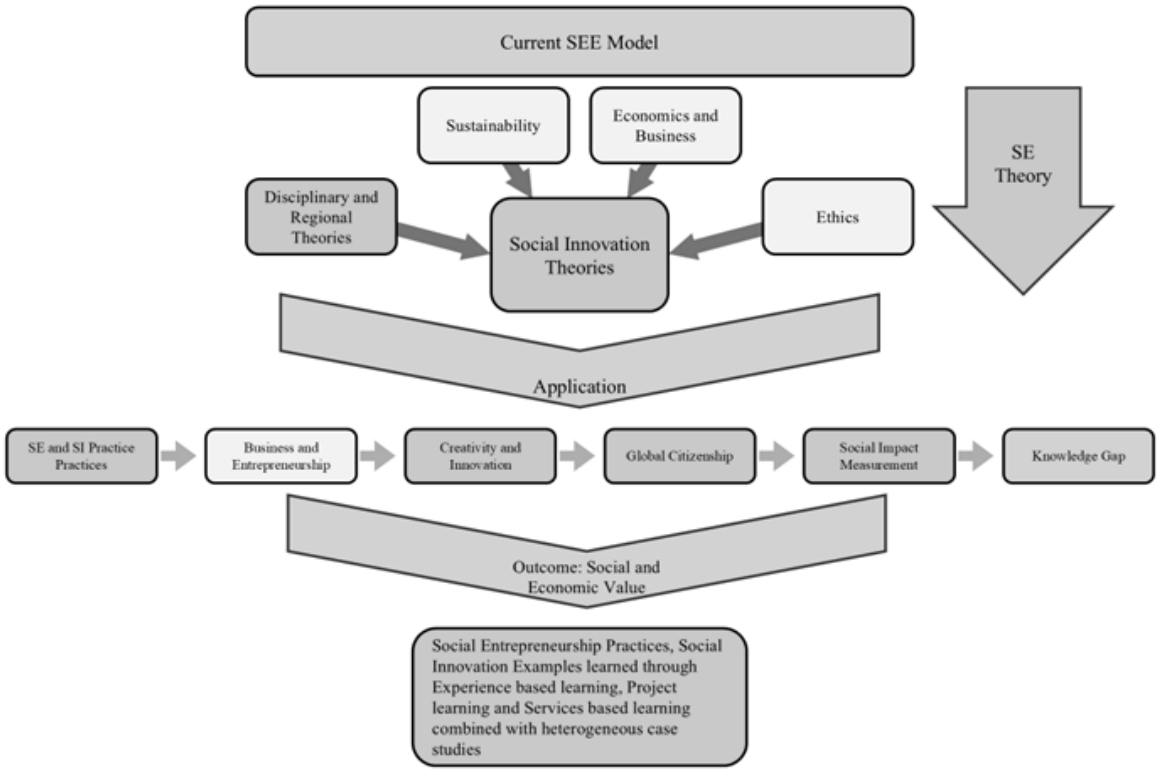
Note. Adapted from Shahid and Alarifi (2021).

As depicted in Figure 1, traditional EE achieves coherence through systematic alignment of disciplinary theories such as economics with applied knowledge domains like marketing and finance, all delivered through sequenced modular formats (Chang et al., 2021).

While the literature reflects a proliferation of innovative pedagogical approaches in SEE, comparable progress in the development of coherent theoretical and operational content remains limited (Azqueta et al., 2023). SEE programs frequently draw upon content adapted from EE and are largely shaped by educational research oriented toward pedagogy and mechanisms of delivery rather than development of the knowledge base (Shahid & Alarifi, 2021). As a result, SEE curricula tend to emphasise broad concepts such as sustainability, systems thinking, innovation, and changemaking, without providing the structured knowledge or tools required to establish, manage, and sustain social ventures (Ndou, 2021).

Figure 2 illustrates a representative SEE model and highlights key knowledge gaps. The orange zones indicate the absence of theoretical foundations specific to SE, as well as missing applied knowledge essential to the practice of SE (Ndou, 2021). The yellow zones mark areas of contested knowledge where academic research and educational practice lack a consensus on core content (Azqueta et al., 2023; Shahid & Alarifi, 2021).

Figure 2: Diagram Depicting Current SEE Models and Knowledge Gaps Adapted from Shahid and Alarifi, 2021



A comparative analysis of curricula for social and business entrepreneurs reveals a persistent gap in SEE: an underdeveloped knowledge base, spanning both theoretical foundations and applied content. This clearly demonstrates that, due to limited access to structured, practice-oriented knowledge, SEE graduates are not adequately prepared to initiate or sustain social ventures (Azqueta et al., 2023; Ngyuen et al., 2025).

Moreover, professional education research affirms the importance of aligning theoretical knowledge with applied content emerging from practice to ensure learner readiness (Lattuca & Stark, 2009). Curriculum theory highlights that professional education functions most effectively when conceptual foundations are explicitly linked to practice-oriented competencies (Lattuca & Stark, 2009). Shulman's (2005) notion of signature pedagogies further emphasises the need for discipline-specific modes of instruction that integrate epistemology, identity, and performance. In SEE, the absence of such coherence impedes learners' ability to internalise and operationalise the dual mandate of social and economic value generation. Disciplines like medicine, entrepreneurship and engineering exemplify this alignment through structured curricula that combine theoretical foundations with applied disciplinary content and practical training (Shulman, 2005).

In SEE, the lack of alignment between content and instructional structure intensifies curricular fragmentation and constrains learners' capacity to develop dual value creation competencies (Azqueta et al., 2023). Recent studies have further highlighted gaps in SEE development. Ndou (2021) argues that while SEE requires both knowledge exploitation and

exploration, it remains disconnected from the theoretical and empirical foundations of SE research. Azqueta et al. (2023) identify persistent fragmentation in both theory and practice, citing a lack of standardised content frameworks, defined learning outcomes, and alignment with entrepreneurial competencies required for dual value creation. This curricular disjunction provides insight into the knowledge implementation gap often observed among SEE graduates (Roslan et al., 2020).

To address the SEE limitations, this paper advances a typology for SEE curriculum design that integrates theoretical foundations, applied knowledge, and pedagogical coherence, reflecting core principles in curriculum theory (Barnett & Coate, 2005; Lattuca & Stark, 2009). Barnett and Coate (2005) emphasise the interdependence of knowing, acting, and being in professional education, while Lattuca and Stark (2009) highlight the importance of aligning content, learning outcomes, and instructional strategies. The proposed typology applies these insights to the specific dual value demands of SE.

The theoretical foundations dimension draws substantively from political economy and institutional analysis (Banerjee et al., 2020), addressing what Ndou (2021) has termed the field's "theoretical poverty" associated with the widespread neglect of the structural and systemic factors shaping SE practice. The applied knowledge dimension operationalises Kolb's (1984) experiential learning theory in conjunction with Freire's (1970) concept of praxis, offering actionable frameworks for key operational areas such as hybrid governance, blended-value models, and impact measurement (Hockerts, 2017). The pedagogical integration dimension builds on Shulman's (2005) theory of signature pedagogies, positioning pedagogy as the critical mediator between conceptual understanding and applied learning (García et. al, 2016).

This tripartite structure, theories, applied knowledge and pedagogy, draws on validated curriculum models from established professional domains such as medicine, law, and engineering (Lattuca et al., 2009), while simultaneously addressing the dual imperative of SE: creating measurable social value while sustaining financial viability (Santos, 2012). Rather than simply documenting existing practices, the typology offers a prescriptive, research-informed blueprint for advancing SEE.

By insisting on the co-equal importance of conceptual clarity, operational guidance, and pedagogical coherence, this framework avoids the polarising tendencies toward either ungrounded activism or excessive abstraction that continue to characterise much of the SEE landscape (Reimers, 2024). In this regard, the typology reflects the epistemological hybridity and integrative demands inherent to SE. Epistemological hybridity refers to the deliberate blending of different ways of knowing, including theoretical models, experiential insights, and culturally grounded practices, to better address complex social realities. In the context of SEE, this hybridity is essential for ensuring that learners can navigate both academic frameworks and lived entrepreneurial challenges. The integrated knowledge base underpinning this typology was deliberately constructed to incorporate insights from both the Global North and South, responding to growing critiques regarding the epistemic dominance of northern frameworks in SEE and the marginalisation of southern knowledge systems (Altbach, 2024; Tikly, 2019; Khan, 2025). By

doing so, the framework aims to support a more pluralistic and inclusive vision of SEE that is globally relevant and locally grounded.

Research Integration and Structuring Methodology

This research in this paper is grounded in an interdisciplinary methodology developed to address the conceptual and applied fragmentation within SEE. Given the field's inherent complexity spanning disciplines such as education, SE, IPE, and business, a single-discipline approach would be inadequate. The study therefore adopts Repko and Szostak's (2025) IRP, with particular emphasis on Phases 6 through 8: analysing disciplinary insights, identifying conflicts and common ground, and structuring these into an integrated framework. This process was selected for its structured capacity to bridge epistemological divides and generate actionable knowledge in response to real-world problems.

A Systematic Literature Review (SLR) formed the empirical foundation of this research, following established protocols for qualitative inquiry and evidence integration (Tranfield et al., 2003; Snyder, 2019; Weerakoon, 2024; Bonfanti et al., 2024). The 116 academic texts, and policy reports were identified through major databases including Scopus, Web of Science, and EBSCO. Keyword searches for "social entrepreneurship education," "dual value creation," and "social entrepreneurship" were refined through expert consultation. Given the dispersion of relevant content across disciplines, all sources were manually reviewed for relevance to SEE. Selection criteria prioritised conceptual clarity, global applicability, relevance to dual value creation, and contributions to SEE theory and practice. The researcher's lived experience as an SEE educator across four continents informed the interpretive lens used to assess the practical significance of selected sources (Nowotny et al., 2001; Repko & Szostak, 2025).

The literature structure, selection criteria, and PRISMA diagram are provided in Appendix 3: Literature Review. To interrogate the assumptions embedded in the literature, the study employed Critical Research Analysis (CRA), an interpretive strategy suited to revealing epistemological tensions, conceptual ambiguities, and disciplinary silos. While Critical Discourse Analysis (CDA) is common in policy research, CRA was preferred for its focus on theory construction and knowledge integration across fields (Creswell & Poth, 2018; Pan et al., 2024; Tam et al., 2024).

The typology derived from the SLR provided a structured analytical lens, categorising insights into high-level theories, applied domains, and pedagogical elements. These categories were then examined through the IRP's phases to develop a coherent SEE framework that addresses the field's two most pressing challenges: the absence of a unified theoretical foundation and the lack of structured applied knowledge. This methodological design ensures both theoretical integration and practical relevance. The triangulation of SLR, CRA, and IRP supports rigorous analysis while producing insights that are accessible to educators, policymakers, and practitioners seeking to operationalise SEE in diverse contexts.

Interdisciplinary Literature Analysis and Integration

Building on the conceptual framework and extended literature base, this section analyses how theories of economic and social value creation inform SEE by evaluating their conceptual

coherence, institutional influence, and contextual relevance. The analysis draws on organisation as a common ground strategy for integration established within the Interdisciplinary Research Process (IRP), which enables insights from different theoretical traditions to be systematically mapped and compared without requiring conceptual uniformity (Repko & Szostak, 2021). Theories informing dual value creation can be organised into three broad categories. The first includes dominant models of social and economic value creation (such as neoliberalism, Keynesianism, and the social market economy) which continue to shape institutional arrangements and global systems of wealth distribution (Harvey, 2005; Stiglitz, 2019).

The second group consists of normative alternatives, including Doughnut Economics, the Capabilities Approach, and Ecological Economics, which emphasise social value and sustainability as central outcomes (Raworth, 2017; Spash, 2024). The third category captures regionally embedded models, such as Ubuntu, Gandhian economics, Islamic finance, and Buddhist economics, which draw on culturally grounded principles to support dual value creation (Chakrabarti, 2024; Longweni & Mdaka, 2023). Together, these perspectives offer a pluralistic and context-sensitive foundation for SEE, bridging gaps between dominant frameworks and alternative theoretical frameworks.

Dominant Value Creation Theories

The reconstruction of global economic systems after the Second World War catalyzed the emergence of competing macroeconomic paradigms that continue to shape contemporary governance into the present day. Four influential frameworks, Keynesianism, Marxism, neoliberalism, and Polanyian embedded market theory, have structured the dominant narratives around social and economic wealth creation (Balaam & Dillman, 2018). These paradigms frame the roles of states, markets, and civil society in producing and distributing value, each with distinct implications for dual value creation (Battilana & Lee, 2014; Santos, 2012).

Keynesian economics, developed in response to the Great Depression, separated economic value generated by markets from social value delivered through state intervention. Though effective at macroeconomic stabilization, it failed to conceptualise integrated value creation at the organisational level, leaving SE structurally marginalised (Harvey, 2005; Santos, 2012). While social enterprises could access public funds, they lacked a theoretical framework supporting hybrid logic (Dacin et al., 2010).

Marxist political economy identified labour as the source of both economic and social value but viewed market-based solutions as inherently exploitative. Although insightful in diagnosing inequality, Marxist theory offered little actionable guidance for SE practice within existing capitalist systems (Banerjee, 2020; Harvey, 2014; Karatas-Ozkan et al., 2023).

Neoliberalism, ascendant in the late 20th century, subsumed all value under market metrics, marginalising social missions. Its institutionalisation through the Washington Consensus imposed rigid financial logics that undermined dual purpose organisations (Harvey, 2005; Williamson, 1990). These dynamics contributed to rising inequality and systemic precarity, as widely documented in contemporary critiques (Piketty, 2014; Stiglitz, 2019).

In contrast, the Social Market Economy emerged in postwar Europe as a model integrating market coordination with social protection. Drawing on Polanyi's concept of embeddedness, it advances moral economy principles as a corrective to market disembedding (Block and Somers, 2014; Roy & Grant, 2020). Coordinated Market Economies (CMEs), such as those in Scandinavia and Germany, institutionalise long-term cooperation among firms, labour, and the state. promoting both innovation and redistribution of wealth (OECD, 2024).

Despite its theoretical promise, Polanyi's framework remains underapplied in educational or organisational design (Banerjee, 2020). Moreover, the lack of concrete mechanisms for implementing embeddedness at the enterprise level limits its practical utility (Battilana et al., 2017).

This analysis shows that none of the dominant economic theories fully supports the integration of social and economic objectives. Each maintains conceptual or structural barriers that marginalise SE. Keynesianism and neoliberalism divide or collapse social and economic value into opposing domains; Marxism provides a critique without implementation pathways; Polanyian theory offers ethical grounding but lacks operational models. As institutional theorists argue, hybrid organisations must navigate these incompatible logics, often without institutional support (Mair & Rathert, 2020). A new integrative framework is required to support SEE and enable the development of dual-value enterprises in contemporary economies.

Subsequent scholarship adapted these paradigms to regional contexts, producing frameworks that define how economic and social value are generated and linked (Balaam & Dillman, 2019). Chalmers Johnson's Developmental State Theory (1982) analysed post-war Japan, South Korea, Taiwan and Singapore, where state institutions directed industrial policy, promoted technological upgrading and coordinated markets to maximise economic value, while social value was pursued indirectly through employment and welfare derived from growth (Johnson, 1982).

John Williamson's Washington Consensus (1990) outlined policy prescriptions in many Global South economies that advanced economic value through market liberalisation, fiscal discipline and export orientation, while social value was limited to targeted safety nets (Williamson, 1990). Luiz Carlos Bresser-Pereira's Neo-Developmentalism (2016) proposed a strategy for emerging economies that combined industrial policy and demand management to generate economic value, explicitly linking it to social value through redistribution, inclusion and protection from external financial shocks (Bresser-Pereira, 2016). Theoretical evolution, therefore, considered the balance between state and market roles in generating and distributing economic and social value, connecting domestic policy choices with a country's position in the global economic system.

Alternative Theories

While dominant economic paradigms struggle to conceptualise dual value creation, a constellation of alternative frameworks has emerged from interdisciplinary critique. These theories are distinguished from mainstream approaches by their academic origins, rejection of growth dependence, and marginalisation in economic governance despite their theoretical sophistication

(Mazzucato, 2018; Fath et al., 2019). The alternative economic frameworks are fundamentally normative, offering visions of what economies ought to prioritise, such as equity, sustainability, or well-being, rather than describing how they currently operate (Phillips et al., 2024). When examined comparatively, each of these theories presents distinct advantages and constraints.

Doughnut Economics (Raworth, 2017) represents perhaps the most visible attempt to theorise dual value creation systematically. Its innovative contribution lies in replacing traditional circular-flow models with an ecologically bounded framework that simultaneously establishes social foundations and environmental ceilings. Where mainstream economics treats social and environmental factors as externalities, Raworth's model makes them constitutive elements of economic activity. However, its implementation challenges reveal a theory-practice gap that is characteristic of alternative frameworks. Although it has attracted global interest, scholars note the ambiguity around its practical outcomes and potential for co-optation into conventional business models (Satyadini & Song, 2023). The theory's visual simplicity, while pedagogically useful, lacks the complex institutional work required to operationalise its principles (Solenko, 2024).

Feminist Economics fundamentally challenges value accounting by exposing how neoclassical models exclude unpaid care work and social reproduction (Bergeron, 2023). It redefines value beyond market transactions. Haase et al. (2018) show how feminist lenses reveal diverse economic practices. However, by critiquing embedded patriarchy, it demands systemic change that many institutions resist (Benería et al., 2015). While useful in analyzing power dynamics in SEE, this theory lacks operational tools for balancing social and financial imperatives.

Ecological economics contributes two core insights that distinguish it from other alternative frameworks. First, its thermodynamic analysis of economic processes (Spash, 2024) asserts absolute biophysical limits to growth constraints that even Raworth's doughnut model accommodates rather than challenges. Second, it offers concrete nonfinancial metrics (Hickel, 2021), advancing beyond the Capabilities Approach's qualitative assessments. Unlike mainstream theories that treat environmental concerns as trade-offs, ecological economics frames them as existential foundations, as reflected in Bhutan's Gross National Happiness index (Hickel, 2021). Its rejection of growth paradigms accounts for both its scholarly influence and policy marginalisation (Froese et al., 2023). For social entrepreneurs, this creates a paradox: while the theory compellingly links ecological and social value, its anti-growth stance complicates sustainability in competitive markets (Schaltegger et al., 2016).

Modern Monetary Theory (MMT) rethinks value creation's institutional basis. Kelton (2020) argues that monetary sovereignty enables increased public investment in social innovation. At the same time, MMT's limited uptake and polarised reception highlight the challenges that paradigm-shifting theories face. While MMT challenges fiscal constraints on SE, it provides limited entrepreneurial guidance (Tymoigne, 2024).

The Capabilities Approach (Sen, 1999; MacKenzie, 2023) provides a normative ethical framework for assessing value creation, emphasising the expansion of individual freedoms and human agency. Its departure from conventional output-based metrics toward a focus on substantive capabilities resonates with the mission of SEE. However, the approach's predominant emphasis

on individual-level analysis presents limitations in addressing structural and systemic barriers to empowerment. Additionally, while composite indices such as the UNDP's Human Development Index (HDI) and Gross National Happiness Index offer macro-level assessments, their applicability to enterprise-level evaluation remains constrained (Robeyns, 2017).

Uniting factors of these theories are academic vitality and institutional marginality. Each alternative theory makes a unique contribution: Doughnut Economics' systemic framing, Feminist Economics' value pluralism, Ecological Economics' biophysical grounding, MMT's fiscal innovation, and the Capabilities Approach's ethical orientation However, as Wright (2013) notes, these frameworks face what he terms the transition paradox: they envision compelling alternatives to dominant economic systems, including models focused on sustainability, social justice, and collective well-being, but lack clear, feasible pathways for institutional transformation.

While normative frameworks such as Doughnut Economics (Raworth, 2017), the Capabilities Approach (Sen, 1999; MacKenzie & Chiang, 2023) and Feminist Economics (Bergeron, 2023), articulate rich ethical and ecological visions, their translation into formal policy, curricula, or enterprise design remains limited. This disconnect reflects a broader challenge identified in institutional theory: the difficulty of embedding alternative logics within established systems governed by entrenched power structures and accountability mechanisms (Agarwal, Krishnan, & Weiler, 2024).

As a result, these frameworks often remain marginalised in mainstream policy and educational discourse, despite their growing relevance to global crises. For SEE, this raises a fundamental tension, on how to incorporate the values and insights of these frameworks into educational content without losing operational relevance or institutional legitimacy. These approaches critique dominant models and inspire alternatives but fall short of guiding dual value enterprises operating in existing systems (Battilana et al., 2017). While these normative theories highlight essential dimensions of SEE, like social equity, ecological sustainability, and ethical governance, they risk diverting attention from actionable knowledge and practical support for dual value creation. Sustained largely by academic social capital, their influence paradoxically redirects both intellectual and public resources away from applied SE practice (Solonenko, 2024).

Regional Theories

Regional economic frameworks challenge the binary separation of economic efficiency and social welfare prevalent in dominant theories by advancing integrated systems wherein financial sustainability and community benefit are mutually constitutive (Santos, 2018; Connell, 2007) Although varying in degrees of institutionalisation and global uptake, such frameworks provide conceptually rich and contextually grounded alternatives to dominant value creation narratives. Originating across Asia, Africa, and South America, they reflect diverse philosophical traditions and socio-political contexts that often prioritise ethical governance, community welfare, spiritual well-being, and ecological harmony over individual profit maximisation or state-led redistribution (Nguyen et al, 2025).

Looking to Asia, three major theories seek to reconcile the need for economic development and growth with a broader value system that prioritises social harmony. The Confucian theory of

political economy exemplifies the integration of moral governance with market mechanisms. China's "common prosperity" agenda institutionalises this approach by fostering rural social enterprises that align profitability with poverty alleviation (Zhao, 2024). Distinct from Western social enterprises, which frequently encounter mission-market tensions, the Confucian model embeds social purpose into state-business collaborations (Hsu, 2020). Nonetheless, its top-down design may limit capacity for community ownership and grassroots innovation.

Buddhist economics represents a holistic framework that redefines value through spiritual and ecological principles. Bhutan's Gross National Happiness index operationalises this model by evaluating enterprise success across four pillars: sustainable development, cultural preservation, environmental conservation, and good governance (Herman, 2024). This diverges from conventional social enterprise metrics by defining non-economic indicators as equal in significance to financial outcomes.

Further, Japanese stakeholder capitalism offers a relational model for dual value creation, rooted in the keiretsu system's emphasis on long-term employment, supplier trust, and reciprocal obligations (Kawamoto, 2020). These practices create stable corporate ecosystems where economic and social value are co-generated. Although diluted by global market pressures, this tradition continues to influence Japanese social ventures focused on employee welfare and relational accountability (Witt, 2019).

In other regions, religious ethics and value systems underpin economic structures conducive to dual value creation. Islamic economics, based on Sharia principles, forbids exploitative practices and mandates redistributive instruments such as zakat. It promotes ethical finance, risk-sharing, and social responsibility, exemplified by institutional models including Islamic banking and social waqf across Malaysia, Indonesia, and Iran (Anisa, 2024; Lanzara, 2021). Despite limited representation in SEE discourse, Islamic finance aligns well with ethical entrepreneurship and social inclusion objectives.

Another spiritually grounded model, Ghandian conomics in India emphasises swadeshi or local self-reliance. Small-scale, community-oriented enterprises prioritise subsistence, ecological balance, and labour dignity over market competition. Though seldom formally embedded in mainstream SEE and EE, Gandhian principles continue to inform grassroots enterprise and ethical business practice in the region (Charkrabarti, 2019).

In South America, solidarity economy traditions such as Buen Vivir and mutualist cooperativism propose an ecological and relational vision of all values creation. These models reject extractive growth logics in favour of reciprocity, democratic governance, and stewardship of the commons. Their institutional manifestations include Brazil's solidarity networks and Ecuador's constitutional recognition of nature's rights (Acosta, 2018; Villalba et al. 2023). Although largely absent from global economic orthodoxy, these regional approaches embody applied expressions of SEE principles. African regional perspective is reflected in communitarian economics, grounded in the Ubuntu philosophy articulated through the expression "I am because we are." This framework underscores relational ethics, reciprocity, and collective well-being. Ubuntu has informed post-apartheid reconstruction policies in South Africa and supports

community-based enterprise models across the continent. While seldom formalised as economic theory, Ubuntu reflects an embedded logic of social value that resonates with SEE's emphasis on inclusivity and plural governance (Longweni & Mdaka, 2023; Alimi et al., 2024).

Collectively, these regional theories advance dual value creation through three principal mechanisms: value system integration (Buddhist, Islamic), relational economic structures (Japanese, Ubuntu), and participatory governance models (Latin American, Gandhian). Their shared emphasis on embeddedness and reciprocity challenges the assumption that a tension must exist between social and economic goals in enterprise design. Instead, these models reveal that such tensions are often culturally constructed rather than structurally inevitable (Escobar, 2018). For SEE practitioners and educators, regional frameworks offer alternative institutional logics and educational resources that can inform more inclusive and pluralistic approaches to SE.

Applied Knowledge Base Analysis

This section critically examines the applied knowledge base, highlighting recurring focus areas identified in the reviewed literature and recent studies (Prasetio et al, 2025; Weerakoon, 2024). These include strategic approaches to dual value creation, organisational models and legal structures, financial sustainability mechanisms, stakeholder engagement and social marketing practices, impact measurement frameworks, and leadership strategies in complex environments. While each domain reflects a distinct conceptual lineage, together they discuss the practical challenges social entrepreneurs face in designing, sustaining, and scaling ventures that pursue both economic and social objectives. This analysis assesses the scope, utility, and instructional relevance of the applied knowledge generated across these domains, highlighting strengths, gaps, and implications for SEE.

Strategic Dual Value Creation and Entrepreneurial Logic

Despite the absence of a universally accepted definition of SE, the creation of both social and economic value is widely recognised as a defining characteristic of its strategic logic. However, scholars across disciplines use varied and often overlapping terms to describe this dual value, contributing to conceptual ambiguity and limiting the development of actionable frameworks for education or practice (Nicholls, 2009).

Emerson's (2003) blended value concept integrates financial, social, and environmental returns into a unified performance construct. Porter and Kramer's (2011) shared value framework situates social impact as a strategic asset that enhances business competitiveness. Santos (2012) focuses on positive externalities, defining SE as the creation of societal value not captured by market prices. Elkington's (1997) triple bottom line model introduces the idea that businesses should measure success not only in profit but also in social and environmental impact. While these constructs each affirm the centrality of dual value, their divergent assumptions, ranging from mission-first logic to market compatibility, create confusion in academic discourse and learning environments. The proliferation of case studies across varied organisational types has yet to produce generalisable patterns that guide how dual value creation can be operationalised across contexts (Dacin et al., 2010; Kickul & Lyons, 2020).

Foundational concepts such as effectuation and bricolage continue to offer procedural insights for navigating uncertainty in entrepreneurship. Effectuation, introduced by Sarasvathy (2001), emphasises starting with existing means and evolving goals through stakeholder engagement. Bricolage, described by Baker & Nelson (2005), involves creatively using available resources to respond to constraints. These models are widely cited in entrepreneurship literature for their practical utility though they remain value neutral (Barki et al., 2023). Both concepts apply to SE and can guide how to act, not why or toward what ethical aim. Recent work highlights the need to pair such procedural models with purpose-driven frameworks (Flaminiano, 2024). Several contributions highlight the need for integrative frameworks that align entrepreneurial actions with social objectives. For instance, contemporary stakeholder theory reframes entrepreneurial action within systems of accountability, sustainability, and value cocreation (Freeman et al., 2020; McGahan, 2021). Moreover, hybrid organising theories articulate the institutional tensions that social enterprises must navigate, including risks of mission drift, impact decoupling, and performative sustainability (Agarwal et al. 2024).

A related issue emerges from the empirical turn in SE research. Practice-oriented studies (Kucher & Raible, 2022) emphasise situated, tacit knowledge and document how social entrepreneurs improvise in specific contexts. However, these studies fail to identify generalisable patterns, limiting their utility for cross-regional SEE. Thus, although the literature affirms dual value creation, the applied knowledge base remains fragmented and insufficiently directional for guiding practice or informing SEE programmes.

Organisational Models and Legal Structures

The design of organisational structures that balance commercial viability and social purpose constitutes a second major focus in the literature addressing applied knowledge. Early typologies such as Dees's (2007) Social Enterprise Spectrum and Alter's (2007) models provide conceptual scaffolding for understanding variations in mission-market alignment. These frameworks distinguish between embedded, integrated, and external models and remain widely used in SEE, but are primarily taxonomic, offering limited guidance for structural decision-making under specific regulatory, cultural, or resource constraints (Dees, 2007; Alter, 2007).

The concept of the hybrid organisation, referring to entities that integrate competing institutional logics, commercial and social objectives, has been adopted across disciplines but defined inconsistently. Battilana and Lee (2014) introduced the term within institutional theory to analyse how commercial microfinance institutions in Bolivia managed value tensions through identity coherence and employee socialisation. Similarly, Battilana et al., (2017) explore how hybrid organisations actively negotiate conflicting demands from multiple stakeholder groups.

Other authors use the term more descriptively to refer to any legal or operational combination of for-profit and not-for-profit practices (Defourny & Nyssens, 2017). While these perspectives share an interest in dual-purpose models, they diverge in focus: some emphasise internal governance, others external legitimacy, and few offer prescriptive models that can inform practical design decisions in SE practice. Moreover, in global contexts, structural misalignments such as incompatible legal forms, restrictive tax codes, and siloed funding mechanisms undermine

the viability of hybridity, making this concept a theoretical aspiration rather than a feasible organisational strategy (Battilana et al., 2017).

Additionally, although contextual variables such as donor preferences, policy environments, and stakeholder power are frequently acknowledged in research, they are rarely integrated analytically into frameworks guiding organisational design or governance strategy (Ebrahim & Rangan, 2014). This limits the practical utility of existing models in educational settings, particularly for learners tasked with designing context-sensitive social enterprise structures.

Jurisdictional variation in legal frameworks further complicates the picture. Legal forms such as B Corporations (US), Community Interest Companies (UK), social cooperatives (Italy), and Sociétés à Mission (France) embed mission protection through statutory innovation (Ebrahim et and Rangan, 2014). However, their uptake is geographically uneven, and their strategic value is contested. Studies suggest that the presence of a legal form alone is a weak predictor of mission fidelity, and many social enterprises achieve impact through informal governance and stakeholder alignment rather than legal coding (Joy et al., 2024).

Despite the significance of legal forms in shaping organisational behaviour, SEE programs rarely address it systematically. Comparative legal instruction, if present, is seldom linked to strategic choice, capital structure, or long-term mission integrity. There is a clear gap between the descriptive richness of organisational typologies and their pedagogical utility for preparing learners to design viable, compliant, and context-sensitive structures.

Financial Sustainability and Impact Capital

Scholarly engagement with the financial realities of social enterprise has increasingly centred on the development and limitations of impact capital markets. Nicholls and Cho (2006) provided a foundational analysis of this emergent domain by identifying instruments such as social impact bonds, blended finance structures, and mission-related investments. These tools decouple financial return from traditional financial benchmarks and instead embed social externalities into investment logic. This reconceptualisation requires investors to adopt multidimensional risk-reward frameworks, where impact and financial yield are interdependent rather than sequential.

Building on the Nicholls and Cho (2006) research, Bugg-Levine and Emerson (2011) analyzed the institutional logics necessary to integrate philanthropic, public, and commercial capital within hybrid finance ecosystems. They contend that impact investing can only achieve its transformative potential through the development of new intermediation structures, including social venture funds and multi-stakeholder capital platforms. Such mechanisms enable the alignment of divergent stakeholder interests while ensuring capital allocation generates both social value and financial returns.

Despite such advances, empirical studies indicate the continued presence of persistent structural barriers. Wang and Zhou (2021) noted that investor behaviour remains anchored in market-rate expectations, and that hybrid ventures often encounter resistance when articulating non-financial value propositions. This misalignment produces a credibility deficit between the

rhetoric of impact capital and its practical deployment, especially in ventures with high social complexity or uncertain cash flows.

Impact measurement frameworks have become indispensable yet deeply contested tools in social capital markets. While these frameworks are widely recognised as essential for assessing value creation, their methodological rigor remains a subject of debate. The Social Return on Investment (SROI) model, for instance, has gained prominence in practitioner circles and policy discourse (Ebrahim & Rangnan, 2014). However, it continues to face significant scholarly criticism regarding its theoretical foundations, measurement validity, and practical applicability. Hill et al., (2025) critiqued its limitations in causality attribution, counterfactual design, and monetisation of qualitative impacts. These methodological flaws are exacerbated by inconsistent application across organisations and sectors, leading to concerns about both reliability and comparative validity.

Ebrahim and Rangan (2014) responded to these concerns by proposing a tiered framework for impact logic models, which attempts to align mission clarity, outcome metrics, and causal inference. Their model distinguishes between output, outcome, and impact levels, advocating for strategic alignment between an enterprise's theory of change and its reporting mechanisms. Despite their conceptual clarity, adoption of such models remains uneven, partly due to the technical demands they impose on resource-constrained organisations.

The institutionalisation of broader impact-reporting frameworks, such as the Triple Bottom Line (Elkington, 1997), IRIS+ (GIIN), and the Global Impact Investing Rating System (GIIRS), reflects ongoing efforts to standardise impact accounting. These systems provide structured taxonomies for social and environmental indicators and have gained traction among investment funds and certifying bodies. However, Rawhouser et al. (2019) notes that their usability is often confined to well-capitalised, investment-ready enterprises, primarily in Global North contexts. For social enterprises operating in postcolonial or informal economies, these tools are frequently experienced as administratively onerous, culturally unadapted, and operationally irrelevant.

Moreover, there remains no consensus on core reporting conventions analogous to Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS) for social enterprises. The lack of standardised definitions, accounting procedures, and performance thresholds inhibits comparability across ventures and regions. This opacity undermines both investor confidence and ecosystem-wide learning. The result is a fragmented landscape in which impact reporting serves multiple, often conflicting purposes: compliance, strategic management, stakeholder communication, and legitimacy-building. Ebrahim and Rangan (2014) argue that this multifunctionality is not inherently problematic but necessitates differentiated frameworks that align with the specific strategic and institutional contexts of social enterprises. Therefore, the literature on impact capital and financial reporting in SE reveals a field that is methodologically innovative but institutionally fragile.

Social Marketing and Stakeholder Engagement

Social marketing in SE redefines the discipline as a normative intervention mechanism aimed at achieving public benefit rather than profit maximisation. This reframing aligns marketing

with social transformation, positioning it within domains such as public health, environmental stewardship, and civic engagement (Dibb & Carrigan, 2013).

Subsequent research has deepened this reorientation. Dibb and Carrigan (2013) highlight the centrality of trust, legitimacy, and stakeholder values in social venture communication. Unlike commercial enterprises, social ventures operate in multistakeholder ecosystems where legitimacy is constructed through dialogue rather than market dominance. In such contexts, marketing functions as engagement and not persuasion, with stakeholder trust emerging as a key determinant of survival (Nicholls, 2009; Santos, 2012).

Leal et al. (2018) underscore the importance of ethical storytelling and participatory branding. Their work shows that identity in SE is constructed dialogically, evolving through co-created narratives that reflect stakeholder experiences. Despite this, there is little methodological consensus on how such narratives should be structured or evaluated within organisational systems.

Mair and Rathert (2020) critique the persistent use of conventional tools such as the four Ps and SWOT analysis, arguing that they are normatively misaligned with the complex, value-laden contexts in which SE operates. This critique is especially salient in postcolonial and resource-constrained settings, where engagement requires navigating asymmetrical power relations, diverse knowledge systems, and collective decision-making norms (Samapti & Satyajit, 2021).

Empirical work remains limited, with much of the literature relying on qualitative case studies or interpretive analyses. There is a marked absence of comparative studies that assess the effectiveness of different marketing logics across diverse cultural and institutional contexts. Moreover, little attention has been paid to the performative risks of narrative construction, such as overpromising impact or instrumentalising marginalised voices for brand value.

Leadership, Ethics, and Inclusive Governance

Leadership in SE departs fundamentally from corporate and nonprofit models by privileging ethical deliberation, relational leadership, and inclusive stakeholder engagement. Drawing on Freeman's (1984) stakeholder theory, SE leadership involves mediating diverse interests and maintaining mission alignment across constituencies rather than exercising hierarchical authority (Doherty et al., 2014; Bacq & Janssen, 2011).

Although leadership development is often cited as a priority in SEE, current pedagogical approaches typically replicate conventional business models. These methods emphasise strategic vision, personal charisma, and ethical outcomes, while neglecting the competencies needed to engage and develop the transformative leadership characteristics critical to dual value creation (Suriyankietkaew et al., 2022; Leal et al., 2018).

A growing body of literature supports the use of embodied pedagogies to foster empathy, intercultural sensitivity, and values-based decision-making. However, structured learning interventions, such as ethics simulations, stakeholder role-play, and co-governance design, remain underutilised (Kromydas, 2017). These pedagogies are particularly important in postcolonial and marginalised contexts, where leadership is often shaped by trust deficits and legitimacy struggles (Banerjee, 2020).

Inclusive governance frameworks, though frequently discussed in normative literature, are rarely operationalised in SEE. While cooperative models and worker-led enterprises provide concrete examples of distributed governance, they are not widely embedded in SEE curricula as blueprints for practice (Mair & Rathert, 2020).

This absence creates a significant blind spot in leadership education. SEE learners are often unprepared to address ethical conflicts, stakeholder tensions, or the complexities of participatory governance. Key competencies such as emotional intelligence, reflective judgment, and intercultural fluency require dialogic, immersive learning environments that are still not standard in SEE programs (Berglund and Verduijn, 2018). Despite advances in research, the leadership dimension of SEE remains under-theorised and insufficiently implemented, particularly in domains of inclusive governance and conflict mediation.

Regional Applied Knowledge in Dual Value Creation

While global theoretical integration is essential, SEE must also engage with culturally embedded forms of entrepreneurial logic. The next section presents applied regional knowledge drawn from diverse traditions and lived experiences that illustrate how dual value creation takes shape in context-specific ways. Regional innovation logics offer a critical expansion of the applied knowledge base in SEE by anchoring SE action in locally embedded, globally transferable frameworks, that have for centuries supported dual value creation. These culturally grounded approaches to dual value creation have emerged from the researcher's direct engagement across multiple regions and are supported by interdisciplinary scholarship (Defourny & Nyssens, 2017).

In China, the sharing economy (gòngxiǎng jīngjì) is state-supported and integrated into national economic policy, facilitating platform-based collaboration and sustainable urban development (Lyu et al,, 2024). In South America, aprovechamiento (resource revalorization) embodies a logic of dual value creation, where informal recycling networks simultaneously generate economic livelihoods and advance circularity. This practice transcends mere waste recovery, constituting a grassroots model of socio-environmental provisioning, one that redistributes both material and economic benefits while mitigating ecological harm (Maldonaldo, 2023).

In North Africa, the Amazigh and Maghrebi tradition of Tweeza (ⵜⵡⵣⵉ), a form of mutual aid and community labour, gets applied in women-led cooperatives and agriculture initiatives (Degen, 2023). India's jugaad represents a grassroots innovation mindset that enables resource-constrained entrepreneurs to solve social problems through frugal, adaptive strategies (Singh & Awasthy, 2025). Russia's smekalka, a culturally embedded form of practical ingenuity, manifests in enterprises that repurpose discarded materials and deliver services to remote communities under extreme constraints (Sadigov, 2021).

In the Global North, the principle of biomimicry draws inspiration from ecological systems to support regenerative product and infrastructure design, linking nature-based knowledge to sustainable enterprise development (Kinay, 2023). These regional logics illustrate diverse forms of applied knowledge and innovation capacity that remain underrepresented in SEE literature and curricula. Integrating them into SEE is essential for advancing culturally inclusive, context-

sensitive learning models that reflect the real-world knowledge used by social entrepreneurs worldwide.

Interdisciplinary Analysis: Toward a Knowledge Base for SEE

To address the fragmented nature of SEE knowledge, the following section undertakes an interdisciplinary analysis of key conceptual and theoretical contributions relevant to dual value creation. The examined interdisciplinary literature indicates that SEE lacks a unified theoretical foundation for dual value creation and an integrated applied knowledge base capable of supporting SE action in complex socioeconomic environments. This gap is partially addressed by evaluating high-level theories and applied frameworks present in the scholarly research analyzed in this paper.

Scholarly contributions are systematically analysed and structured into a coherent SEE knowledge base through Repko and Szostak's (2025) IRP guidelines, employing three validity criteria: global relevance (OECD, 2024; Santos, 2012), institutional adoption patterns (Battilana et al., 2017; Li and Niels, 2024), and educational efficacy (Kickul & Lyons, 2020; Ndou, 2021). This interdisciplinary analysis deliberately incorporates regional theories from both the Global South (Nabudere, 2005, Acosta, 2018) and the Global North (Hall & Soskice, 2001) to counter regional dominance in research. This integration and structuring is further refined through phronetic validation (Flyvbjerg, 2001), where 20 years of applied research and cross-continental teaching experience across four continents serve as both an epistemic filter and a praxis-based corrective, ensuring that the framework meets the Nowotny et al. (2001) test of "socially robust knowledge" while advancing pluralistic understanding of SE. This outcome represents the interdisciplinary integration of disciplinary knowledge and provides a rationale for the strategic inclusion of theories and concepts presented in global research that can support a globally relevant SEE knowledge base.

Theoretical Knowledge Base in SEE

The persistent research gap in conceptualising dual value creation, specifically the absence of robust theoretical frameworks explaining its societal mechanisms, institutional enablers, and systemic positioning, does not negate the imperative for SEE. As empirical evidence indicates (Santos, 2012; Battilana et al., 2017), social enterprises operate irrespective of theoretical gaps, necessitating SEE curricula that engage with existing socioeconomic paradigms while acknowledging their limitations.

This pragmatic approach aligns with Repko's and Szostak's (2025) "adequacy criterion" for interdisciplinary research: where disciplinary knowledge is incomplete, provisional integration of practice-informed frameworks becomes methodologically justified to sustain real-world impact (Flyvbjerg, 2001; Nowotny et al., 2001). From this perspective, the inclusion of mainstream economic paradigms such as Keynesianism, neoliberal monetarism (Balaam & Dillman, 2018), and the Social Market Economy (Hall & Soskice, 2001) is foundational. These paradigms continue to influence financial systems, regulatory frameworks, and policy environments. Although they do not align with the values of social entrepreneurs or offer a model for dual value creation (Dacin et al., 2010; Santos, 2012), they define the institutional parameters within which social enterprises function. Their inclusion in SEE is essential for contextual literacy, enabling learners to critically

engage with systemic forces, access public and private capital, and align enterprise models with local and national policies (Stiglitz, 2019).

In contrast, alternative frameworks such as Doughnut Economics (Raworth, 2017), the Capabilities Approach (Sen, 1999), Feminist Economics (Bergeron, 2023), and Ecological Economics (Spash, 2024) offer normative foundations more closely aligned with the ethical and social commitments of SE. These theories reframe value creation to prioritise equity, sustainability, and social justice. Although their institutional uptake is limited and they largely remain aspirational academic constructs, their pedagogical value is significant. They provide learners with conceptual tools to reimagine economic systems and articulate alternative futures. Among these, Doughnut Economics and the Capabilities Approach are especially useful for SEE due to their visual clarity and alignment with the sustainability goals (Raworth, 2017).

Culturally embedded frameworks including Ubuntu (Nabudere, 2005), Gandhian economics (Chakrabarti, 2024), Buddhist economics (Herman, 2024), Islamic economic thought (Anisa, 2024), and Japanese stakeholder capitalism (Kawamoto, 2020) illustrate that integrated approaches to economic and social value are not theoretical abstractions but established practices in many societies.

These models demonstrate that financial viability and social value can coexist, and they invite SEE to include perspectives from the Global South that are often marginalised in mainstream discourse. Their use in SEE promotes cultural adaptability and pluralism, helping learners understand how economic logic and institutional arrangements vary across traditions. While these theories should be explored through grounded case studies, their conceptual integration reinforces SEE's commitment to global relevance and inclusive practice.

Taken together, these contextual, normative, and culturally embedded theoretical foundations contribute to a pluralistic and pragmatic SEE knowledge base. Each supports complementary learning goals: understanding systemic constraints, articulating values-based strategies, and designing context-sensitive enterprise models. Their integration into SEE would enable learners to move beyond rhetorical commitments to dual value creation and instead develop the conceptual fluency, policy literacy, and ethical reasoning needed to operate effectively across diverse global contexts.

Applied Knowledge Base in SEE

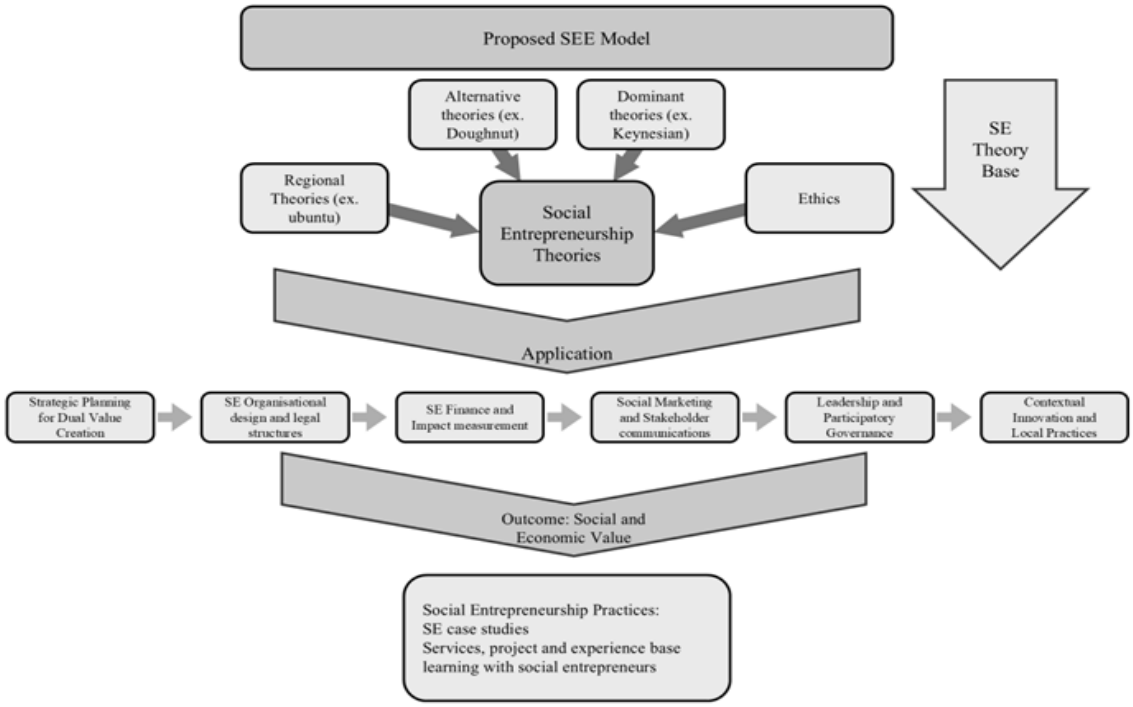
While much of the research on SEE focuses on pedagogical approaches and theoretical alignment, the applied knowledge base remains underdeveloped and highly fragmented. Nevertheless, a consistent pattern emerges across the literature indicating that applied content can be systematically organised into instructional subjects similar to those found in traditional business EE. These subjects, including strategy, finance, marketing, organisational design, leadership, and regional case studies, are well established within business-focused EE but remain limited to economic value creation. SE practice draws on similar knowledge domains; however, the content must be expanded and reframed to reflect the goals of dual value creation. In SEE, these areas require adaptation to prioritise ethical reasoning, social impact, and sustainability alongside economic viability. Based on interdisciplinary research, these subjects can be organised as follows:

1. **Strategic Planning for Dual Value Creation -** Strategic thinking in SEE must extend beyond conventional models focused on market share and profit maximisation. Concepts such as blended value (Emerson, 2003), shared value (Porter & Kramer, 2011), and positive externalities (Santos, 2012) provide foundational insights for aligning social and economic objectives. These frameworks help learners articulate the logic of dual value and should be integrated as core framing concepts in SEE strategy courses. To enhance their relevance, they must be illustrated by regional case studies and translated into decision-making tools that reflect the constraints and opportunities faced by social entrepreneurs in various policy environments.
2. **Organisational Design and Legal Structures -** Designing a social enterprise involves navigating institutional logics, regulatory conditions, and hybrid value propositions. Typologies developed by Dees (2007) and Alter (2007), as well as hybrid organisation theory (Battilana & Lee, 2014), provide analytical tools for mapping structural models. Instruction in this domain should include comparative legal frameworks, such as B Corporations, Community Interest Companies, regional legal forms, and cooperatives. Emphasis should be placed on the relationship between legal form, mission integrity, and stakeholder trust. Additionally, applied instruction should address governance structures that support transparency, accountability, and inclusive decision-making (Ebrahim & Rangan, 2014).
3. **Finance and Impact Measurement -** SEE must reorient financial education to emphasise sustainability and mission alignment. Instruction should include topics such as impact investing, blended finance, social impact bonds, and mission-related investments that integrate social and environmental criteria into financial planning (Nicholls & Cho, 2006; Bugg-Levine & Emerson, 2011). Learners should also engage with practical tools for measuring and communicating impact, including Social Return on Investment (SROI), IRIS+, and logic models (Ebrahim & Rangan, 2014). Although global standardisation remains incomplete, a deep understanding of the trade-offs between financial returns and social outcomes is a fundamental entrepreneurial competency.
4. **Social Marketing and Stakeholder Communication -** Unlike conventional marketing that centres on consumer acquisition and brand competitiveness, SEE requires participatory communication strategies grounded in values, legitimacy, and trust. Social marketing should be reframed as a practice of stakeholder dialogue and co-created narrative building. Drawing from Dibb and Carrigan (2013) and Freeman's (2020) stakeholder theory, learners should be trained to develop inclusive communication strategies that resonate with diverse communities, investors, and policy partners. Instructional methods should prioritise storytelling, participatory branding, and culturally responsive engagement.

5. **Leadership and Participatory Governance -** Leadership in SE must be understood as collaborative, reflexive, and ethically grounded. SEE should equip learners to manage multi-stakeholder legitimacy, navigate power asymmetries, and foster shared accountability. This includes the cultivation of emotional intelligence, intercultural competence, and reflective judgment (Bacq & Janssen, 2011). Innovative pedagogy, such as role-play, scenario simulations, and co-governance design can provide practical frameworks for teaching inclusive leadership.
6. **Contextual Innovation and Local Practice Models -** The applied knowledge base in SEE must also include regional problem-solving mechanisms. Concepts such as frugal innovation, expressed through Jugaad and Smekalka (Radjou et al., 2012), circular economy principles including Aprovechamiento (Ghisellini et al., 2016; Bauwens et al., 2020), biomimicry as ecological design methodology (Benyus, 2002), and collective action mechanisms articulated through Gotong Royong and Sisu (Peredo & Anderson, 2006) provide foundational operational insights for designing enterprises that integrate social and economic values.

The following visual model (Figure 3) presents a potential framework for SEE curriculum design that has emerged from this research, organising high-level theory, applied knowledge, and pedagogical strategies into a structured, practice-oriented educational approach for SE.

Figure 3: Structured SEE Models with Interdisciplinary Knowledge Foundations



This framework advances an interdisciplinary approach to SEE that integrates theoretical foundations, applied operational knowledge, and allows pedagogical coherence. Grounded in the IRP and a SLR, the research responds to persistent fragmentation in SEE by identifying essential knowledge domains, incorporating both dominant and alternative economic theories, and

including culturally embedded models from the Global South. The resulting typology reflects a globally inclusive, practitioner informed structure for SEE curriculum design, aligned with the realities of dual value creation.

Pedagogical Considerations

Although SEE requires a construction of a distinct interdisciplinary knowledge base, its pedagogical delivery can be built drawing on established practices instructional approaches in adult EE education. Transformative learning theory, particularly Mezirow's work, offers a foundation for cultivating critical reflection, ethical reasoning, social consciousness, and resilience qualities essential for navigating SE's dual value logic (Banerjee, 2020; Leal et al., 2018). Complementary models, including Freire's critical pedagogy, Kolb's experiential learning, and emancipatory traditions grounded in Dewey, Gadamer, and Habermas, further support dialogic engagement and praxis (Kromydas, 2017).

Although these approaches foster changemaking and agency, they do not fully address content gaps. SEE must also ensure structured delivery of conceptual and applied knowledge needed to design, launch, and sustain social enterprises. Integrating transformative pedagogies with rigorous curriculum design is essential to align educational outcomes with the strategic demands of SE practice. By addressing the conceptual, operational, and pedagogical gaps in existing SEE models, this framework offers actionable guidance for educators, institutions, and policymakers aiming to build more effective and transferable educational programs. Future research and implementation efforts may apply this framework in diverse contexts to evaluate use of pedagogies in different settings and the model's utility in supporting aspiring social entrepreneurs, particularly those from underrepresented or marginalised backgrounds, to launch and sustain socially impactful ventures.

Conclusion

The structuring of interdisciplinary literature and practice confirms that SEE continues to face both theoretical and applied gaps. While foundational concepts are found across economics, education, and organisational theory, no unified framework has yet emerged to comprehensively support dual value creation. More urgently, the applied knowledge base needed to operationalise SEE remains fragmented and underdeveloped. Few structured curricula adequately prepare learners to navigate complex institutional environments, manage hybrid models, or achieve measurable social and economic outcomes.

Addressing these limitations demands a shift toward transdisciplinary approaches that bridge disciplinary silos and prioritise cocreation of knowledge with practitioners (Gibbons et al., 1994; Nowotny et al., 2001). This includes embedding experiential learning into SEE and designing educational models that integrate theory, practice, and pedagogy across diverse cultural and institutional contexts. Steiner and Brock (2024) demonstrate how sustainability education benefits from similar transdisciplinary and problem-oriented frameworks offering valuable parallels for SEE.

Comparative case studies are especially needed to explore how regional education systems, policies, and institutional arrangements support or inhibit social entrepreneurship. Such studies

can illuminate not only what knowledge is taught but how it is internalised and applied across varying socioeconomic environments. These insights are vital for developing context-sensitive, globally adaptable SEE models that can genuinely advance dual value creation.

A viable SEE framework must integrate high-level theory, applied knowledge, and pedagogical practice in a coherent structure. Transdisciplinary collaboration, experiential learning, and practitioner engagement are essential to creating a knowledge base that is both academically rigorous and practically relevant. Aligning curriculum development with the lived realities of social entrepreneurs will allow SEE to evolve into a field that empowers learners to build ventures that are not only economically viable but socially transformative.

This paper contributes a structured, interdisciplinary knowledge base for SEE grounded in theory, informed by practice, and inclusive of global perspectives. By integrating macro-level theories, applied knowledge domains, and culturally embedded innovation logics, the proposed model addresses persistent curricular gaps, particularly the absence of structured guidance for dual value creation. It offers educators a practical tool for designing SEE programs that are contextually grounded, pedagogically sound, and operationally effective. Future research should deepen comparative analysis of regional SEE ecosystems, refine instructional design for applied domains, and explore broader integration of diverse epistemologies into SEE.

Limitations

This study presented in this chapter is limited to research published in English, French, and Spanish, potentially excluding insights from regions where SE is most active. While practitioner cases add contextual depth, their singularity limits generalisability across ecosystems. The lack of a universally accepted SE definition further complicates interdisciplinary alignment and curricular coherence in SEE. Although the framework integrates education, economics, and IPE, it does not fully address disciplinary variations in SEE implementation globally. Informed by practitioner experience, the study lacks primary fieldwork or interviews, limiting regional and practitioner-specific perspectives. The proposed framework remains conceptual; its empirical validation and educational effectiveness require further research.

5.3 Discussion

The principal contribution of Article 2 lies in organising dispersed insights from research and lived experience into a coherent and navigable architecture aligned with the conceptual framework established in Chapter 4 (Azqueta et al., 2023; Ndou, 2021). The following discussion completes IRP Steps 9 and 10 at the meso and micro levels by performing analytical operations not undertaken in the article. The analysis advances the integration strategy from organisation to transformation, examining each knowledge component through the theoretical proposition developed in Chapter 4. This process determines which components constitute globally applicable knowledge and which remain context dependent. The structured knowledge inventory is subsequently translated into the two tier knowledge architecture, with the substantive content specified that Chapter 4 established without populating (Battilana & Lee, 2014; Defourny & Nyssens, 2017; Repko & Szostak, 2025).

5.3.1 High-Level Theories in Knowledge Architecture

This section examines what each theory group identified in Article 2 contributes to learner and practitioner needs and then assesses whether each constitutes globally applicable or context-dependent knowledge within the architecture.

Dominant theories explain societal structure and the market state division. Learners require this knowledge to understand the institutional and policy environments within which social enterprises operate, including regulatory frameworks, financing systems, legal forms, and governance expectations that shape the conditions for SE practice in each jurisdiction (North, 1990; Kerlin, 2013). Without understanding dominant theories, learners cannot navigate the socioeconomic architectures through which societies coordinate social and economic value production by specialised organisations, nor can they identify the extent to which each society legitimises enterprises that produce both values simultaneously.

Alternative theories, including Doughnut Economics (Raworth, 2017), Ecological Economics (Daly, 1996), and the Capabilities Approach (Sen, 1999), provide learners with diagnostic vocabulary for the systemic conditions that Chapter 4 established as governing dual value creation. These theories articulate planetary boundaries, thermodynamic constraints, and human development as systemic requirements. They also connect directly to the Sustainable Development Goals shaping policy environments and funding criteria that learners encounter across regions (United Nations, 2015; Sachs et al., 2019). Learners require this knowledge to engage with sustainability discourse, to understand the policy frameworks through which funding and legitimacy are increasingly allocated, and to articulate reform advocacy grounded in systemic analysis rather than normative aspiration alone.

Cultural philosophies address a different dimension of SEE knowledge. They explain why and how dual value creation persists across successive historical transformations in socioeconomic architecture. Rather than emerging from formal institutional design, dual value practices are sustained through culturally embedded knowledge systems and communal norms that govern enterprise activity in ways that predate, coexist with, and outlast the institutional arrangements described by dominant theories (Peredo & Anderson, 2006; Morales & Calvo, 2022; Kimmerer, 2013). For learners, cultural philosophies provide culturally grounded entry points to the systemic logic the theoretical proposition formalises, enabling engagement with concepts such as nestedness, open systems dynamics, and values interdependence through narratives already present within their cultural and regional contexts. Cultural philosophies also provide enterprise-level design principles for operationalising dual value creation through integration, drawing on accumulated practical wisdom about viable community organisation within nested ecological systems.

Within the theoretical proposition developed in Chapter 4, these three theory groups serve complementary analytical functions. Table 5.5 summarises how each theory type identified in Article 2 contributes to the SEE knowledge architecture and the kind of value it provides for learners and practitioners.

Table 5.5: Value of Theory Types for Social Entrepreneurship Education

Theory Type	Value for Learner or Practitioner	Level in Knowledge Architecture
Dominant theories (Keynesianism, neoliberalism, social democracy)	Understanding socioeconomic architectures at state and market level including regulatory frameworks, financing systems, legal forms, and governance expectations that shape the institutional environment within which social enterprises operate and must integrate their practice	Meso-level contextual navigation (Tier One High-Level Theories)
Alternative theories (Doughnut Economics, Ecological Economics, Capabilities Approach)	Diagnostic vocabulary for systemic conditions; understanding policy environments and funding criteria shaped by sustainability and human development discourse; conceptual tools for reform advocacy	Meso-level diagnostic function (Tier One High-Level Theories)
Cultural philosophies (Ubuntu, Buen Vivir, Daoist and Confucian thought)	Deepened understanding of the theoretical framework through culturally accessible narratives demonstrating nestedness, open systems dynamics, and values interdependence; enterprise level design principles for operationalising dual value creation through integration	Meso-level culturally grounded theoretical function (Tier One High-Level Theories)

As Table 5.5 demonstrates, each theory group serves a distinct function at the meso level in providing knowledge that learners and practitioners need. The question that follows is whether each theory group constitutes globally applicable or context-specific knowledge within the knowledge architecture.

Chapter 4's critical analysis established that legal arrangements, governance structures, financing mechanisms, subsidy regimes, and organisational forms depend fundamentally on context and cannot be readily adopted across contexts. These socioeconomic variables reflect how particular societies have organised themselves through distinct political systems, economic arrangements, and regulatory traditions that have evolved over extended periods and remain embedded within institutional structures resistant to external modification (North, 1990; Ostrom, 1990; Kerlin, 2013).

Dominant theories support these regional socioeconomic architectures and are therefore context-specific, varying across liberal, coordinated, and state-led political economy traditions. The historical roots of the analytical separation between social and economic value within these traditions, traced through the parallel development of macroeconomic management and General Systems Theory across disciplinary boundaries, are analysed in Chapter 4 Section 4.3.1.

From the perspective of the theoretical proposition, however, the context specificity of dominant theories does not diminish their analytical value within the knowledge architecture. The institutional arrangements dominant theories describe can be understood as different ways in which societies containing organisations that create only social value or only economic value coordinate these separate activities at the societal level to align with the systemic imperative of

dual value creation. Viewed through this lens, dominant theories can be integrated into the knowledge architecture for SEE not as competing perspectives necessitating debate on which society adopts the better approach, but as case studies demonstrating how different societies align with systemic conditions through distinct institutional designs.

The theoretical proposition therefore enables learners from different regions to exchange their perspectives and productively discuss different societal designs, learning from one another and identifying what each society has accomplished that may be adapted to other institutional contexts. This analytical reframing applies transformation as an integration strategy within the IRP, placing what appeared to be competing perspectives on a shared continuum defined by the theoretical proposition (Repko & Szostak, 2025).

Alternative theories are grounded in the same open systems ontology and recognition of nested hierarchies that support the theoretical proposition. When examined through the theoretical framework developed in Chapter 4, these alternative theories align at a diagnostic level. However, while these theories recognise the open systems hierarchy described in Chapter 4, they do not explore connections across social, economic, and ecological systems, nor do they specify institutional or organisational mechanisms for operationalising integration at the enterprise level (Spash, 2024). Alternative theories recognise the nested hierarchy and identify the existence of entropic exchanges between social and environmental systems but do not complete the reasoning to the enterprise micro level or produce operational architectures through which enterprises can pursue dual value creation. SE practice guided by alternative theories is therefore left to follow normative aspirations rather than structural design principles. Despite this limitation, alternative theories and the theoretical proposition share foundations in systems theory and open system dynamics (von Bertalanffy, 1968; Meadows, 2008), which underpin policy and funding mechanisms associated with the Sustainable Development Goals across regions, positioning these theories as globally applicable rather than context-dependent knowledge (United Nations, 2015; Sachs et al., 2019).

The diagnostic alignment between alternative theories and the theoretical proposition therefore enables their full integration within the globally applicable knowledge base, achieving synthesis within the IRP by demonstrating that the two arrive at compatible conclusions through independent analytical pathways (Repko & Szostak, 2025).

The logical inclusion of alternative theories within the knowledge architecture therefore complements the theoretical proposition at the macro- and meso levels while leaving the enterprise-level reasoning to the proposition itself and to the applied knowledge domains examined in Section 5.3.2. The alignment between cultural philosophies and the theoretical proposition requires closer examination than either dominant or alternative theories and is addressed in the following section.

5.3.1.1 Cultural Philosophies as Globally Applicable Frameworks

Cultural philosophies warrant closer examination. Unlike dominant theories, Ubuntu, Buen Vivir, and Daoist thought do not treat social and economic value as analytically separate categories requiring reconciliation. Each regional philosophy positions these value dimensions as

interdependent and inseparable, a premise consistent with the foundational position established through the five premises in Chapter 4, where systems theory and complexity science demonstrate that value dimensions are structurally interdependent within nested open systems. The following analysis focuses on three illustrative philosophies to establish whether the apparent correspondence with the theoretical framework is substantive.

Buen Vivir aligns with the theoretical framework through its explicit recognition of nestedness. The philosophy rejects the separation of economy and society into autonomous spheres and frames human livelihood as embedded within ecological regeneration and community reproduction (Gudynas, 2011; Acosta, 2013). This orientation corresponds to the open systems requirement that subsystems cannot persist while degrading the containing systems on which they depend, as established in Chapter 4. Buen Vivir treats ecological boundaries not as external constraints on economic activity but as constitutive conditions within which viable economic practice must be designed.

Entropy in Buen Vivir manifests as extractivism, the progressive depletion of social and ecological order for economic gain. The philosophy frames extractivism as inherently self undermining because it degrades the relational and ecological systems on which production depends, corresponding to the entropy dynamics through which economic subsystems exporting disorder to containing systems destabilise the conditions of their own viability (Georgescu-Roegen, 1971; Meadows, 2008). Feedback in Buen Vivir operates through the principle of reciprocity, where community wellbeing and ecological health provide continuous signals regulating economic activity, aligning with the nonlinear feedback mechanisms discussed in Chapter 4 (Kauffman, 1995; Prigogine, 1984).

Ubuntu aligns with the theoretical framework through its emphasis on relationality, reciprocity, and collective coherence. Open systems theory conceptualises organisations as dependent on environmental inflows and on the integrity of relational fields through which resources, legitimacy, and information circulate (Katz & Kahn, 1966; von Bertalanffy, 1968). Ubuntu provides a cultural language for this same structural dependency by framing agency and identity as constituted through relationships, positioning the individual within community within ecological systems in a nested hierarchy of open systems (Ramose, 1999; Mbiti, 1969).

Entropy in Ubuntu emerges as social fragmentation, the breakdown of reciprocal obligations and communal bonds that sustain collective wellbeing. When subsystems pursue objectives that degrade relational coherence, the resulting disorder propagates across nested boundaries, a dynamic consistent with the entropy analysis developed in the theoretical framework (Seneque et al., 2023; Njenga and Massyn, 2024). Feedback in Ubuntu operates through communal accountability mechanisms where community responses to individual and organisational action regulate behaviour continuously, corresponding to the nonlinear feedback dynamics that the theoretical framework identifies as characteristic of nested open systems. Kroeze (2025) confirms this alignment by grounding information systems values in Ubuntu business ethics, demonstrating how relational accountability functions as a feedback mechanism within enterprise practice.

Daoist thought aligns with the theoretical framework by conceptualising effective action as action attuned to the patterned regularities of a larger process rather than imposing linear control upon a nonlinear environment. Systems and complexity science emphasise that open systems remain viable through adaptive regulation and responsiveness to feedback rather than rigid optimisation against singular performance metrics (von Bertalanffy, 1968; Prigogine, 1984). Daoist concepts of wu wei and ziran express this same principle and conclude that viable enterprise emerges from alignment with systemic dynamics rather than from attempts to override them (Zhao, 2022; Liang and Segalas, 2025). Nestedness in Daoist thought is expressed through the understanding that all phenomena are interdependent manifestations of a unified natural order, rendering separation of social from economic value conceptually incoherent.

Entropy in Daoist thought corresponds to disruption of natural harmony through forced separation of interdependent processes, while feedback operates through the cyclical dynamics of yin and yang where system responses continuously regulate action toward balance. Contemporary Chinese institutional scholarship grounded in these traditions provides empirical confirmation of the alignment between the theoretical framework adopted in this thesis and enterprise design at the institutional level. Duan et al. (2026) propose a dual wheel drive model of sustainable business model innovation in social enterprises, in which commercial and social value function as mutually reinforcing engines within a single integrated enterprise rather than as competing logics requiring reconciliation. This framework, developed within Chinese institutional scholarship and enacted across multiple enterprise types, independently arrives at the integrative design that Chapter 4 identifies as one of two types at the end of the social enterprise design spectrum Table 5.3.1.1 summarises the recognition of theoretical proposition concepts across the three theory types, demonstrating why SE practice grounded in cultural philosophies remains invisible within academic scholarship.

Table 5.3.1.1: Recognition of Theoretical Proposition Concepts across Theory Types

Concept from Theoretical Proposition	Dominant Theories	Alternative Theories	Cultural Philosophies
Open systems dynamics	Not recognised	Recognised at macro- level	Operationalised through enterprise practice
Nestedness	Not recognised	Recognised through planetary boundaries	Embedded in worldview and governance structures
Entropy dynamics	Not recognised	Recognised as ecological degradation	Understood as extractivism, social fragmentation, disruption of harmony
Nonlinear feedback	Not recognised	Partially recognised through systems modelling	Operationalised through reciprocity, communal accountability, yin-yang dynamics
Dual value creation as systemic condition	Not recognised	Normatively endorsed but not structurally explained	Practised as inseparable dimensions of enterprise activity

Table 5.3.1.1 demonstrates that dominant theories shaping institutional environments and definitional categories in SE do not recognise the full extent of the open systems hierarchy in which social enterprises are embedded, treating the economy and society as two interdependent but closed systems while leaving their interaction with ecological and planetary systems unaddressed. Consequently, SE practices driven by approaches that recognise the full scope of the nested hierarchy do not necessarily appear in dominant SE literature as social entrepreneurship, but rather as cultural practices or normative aspirations pursued by exceptional individuals with different value systems. The three philosophies examined arrive at positions consistent with the theoretical framework through independent epistemological and cultural pathways. Scholars from within these traditions confirm this orientation independently. Seneque et al. (2023) and Njenga and Massyn (2024) for Ubuntu, Vargas and Guedes (2023) for Buen Vivir, and Liang and Segalas (2025) for Daoist thought. The convergence across traditions that share no common intellectual genealogy suggests structural correspondence rather than coincidental similarity.

Beyond the three philosophies analysed in detail above, other traditions overviewed in Table 5.2 of Section 5.1.4 that integrate social, economic, and ecological value also recognise the nested hierarchy and systems configuration established in Chapter 4. Netukulimk recognises nestedness through the seven-generation principle, which positions present community within an extended temporal hierarchy where current harvest decisions are accountable to descendants seven generations forward, and through governance structures that locate human activity within ecological systems whose integrity must be maintained across centuries (Prosper et al., 2011; Berkes, 2018). Mino Bimaadiziwin recognises nestedness through the circle of life concept, which treats economic activity, cultural practice, spiritual life, and ecological systems as inseparable layers of a single integrated whole, with decisions evaluated against their effect across all layers simultaneously (Kimmerer, 2013; Simpson, 2011). Ahimsa recognises nestedness through the principle of nonharm extended across humans, animals, and ecosystems, positioning enterprise activity within a moral hierarchy where ethical responsibility flows outward from the individual through community to the broader living world (Chapple, 1993).

The convergence across regional traditions strengthens the alignment established in this chapter, indicating that culturally embedded approaches in diverse regions independently recognise the nested hierarchy and systemic conditions articulated in the theoretical proposition. Parallel empirical research conducted by the author across six regions in Europe, North and South America, documents convergent recognition of nested hierarchy and integrated value creation through historically unconnected traditions, namely the South Slavic Zadruga, the Andean Suma Qamaña and Sumak Kawsay, the Mi'kmaq Netukulimk, and Cree practice (Brkic, forthcoming).

The South Slavic Zadruga, documented across 300 villages, coordinated economic activity, social cohesion, and ecological stewardship through a single collective process governed by the principle of sloga, harmonious social coexistence ensuring that organisational activity remained within the viability conditions of the surrounding socioecological systems (St. Erlich, 1966; Katičić, 2008). The Zadruga thereby operationalised dual value creation through a single institutional process integrating economic, social, and ecological outcomes, with production,

resource allocation, and social reproduction governed as a single coordinated system rather than as separable domains. The word zadruga derives from the prefix za, meaning together or in association, and the root drug, meaning companion or fellow, denoting people joined in collective association.

Within a South Slavic cosmological frame, the nested hierarchy is articulated at the level of worldview rather than solely through institutional arrangements. Vesna, the goddess of nature, anchors the ecological layer as the personification of seasonal renewal requiring reciprocal human conduct (Belaj, 1998). Perun, a planetary deity, upholds Prav, the ordering principle governing relations among beings and natural cycles, thereby anchoring the planetary layer within which ecological systems and human communities persist (Katičić, 2008). The institution zadruga, which has persisted into the modern period, thus inherits and operationalises a cosmological structure that locates individual activity within collective obligation, collective obligation within ecological reciprocity, and ecological reciprocity within the broader planetary order on which the persistence of human community depends.

The analysis of cultural philosophies in this chapter, and their demonstrated alignment with the theoretical proposition, the nested hierarchy configuration, and the systemic conditions established in Chapter 4, enables the fifth application of transformation as an IRP strategy for integration (Repko & Szostak, 2025). The interdisciplinary integration proceeds across two steps. The first step integrates the cultural philosophies analysed in this chapter, including Ubuntu, Buen Vivir, and Daoist thought examined in detail, together with Netukulimk, Mino Bimaadiziwin, and Ahimsa overviewed in Table 5.2 of Section 5.1.4 and examined in Article 2. These regional traditions had been documented within scholarship as discrete cultural philosophies circulating across separate regional literatures, with each typically interpreted as articulating a regionally bounded worldview not directly comparable to the others.

However, this characterisation does not align with the analysis conducted in this chapter, which demonstrates that the traditions share an ontological foundation, namely the recognition of open systems in nested hierarchy and the dual value imperative, expressed by each tradition through its own cultural vocabulary. Transformation therefore establishes a cross-cultural continuum linking previously discrete knowledge traditions as differentiated descriptions of the same nested systems configuration and value creation processes emerging through cross-system interactions. The first step therefore produces the recognition that these philosophies converge on the same systemic configuration and the same systemic conditions, despite the absence of a shared intellectual genealogy.

The second interdisciplinary integration step creates common ground between convergent cultural knowledge and the analytical framework and theoretical proposition developed in Chapter 4. Formal systems theory, complexity science, IPE and SE scholarship and culturally embedded practical wisdom have conventionally been treated as fundamentally different kinds of knowledge, with the former positioned as scientific and the latter as cultural or experiential. This characterisation does not align with the analysis conducted in this chapter, which demonstrates that both trajectories describe the same nested open systems dynamics through independent

epistemological pathways. The second step therefore produces the integration of cultural philosophies into Tier One of the knowledge architecture as globally applicable high-level theory, joining alternative theories as the second globally applicable theory group, on the basis of their direct correspondence with the theoretical proposition (Repko & Szostak, 2025).

5.3.2 Integrating Applied Knowledge into the Knowledge Architecture

The conceptual framework established in Chapter 4 identified two categories of applied knowledge at Tier Two without populating them with specific content: adaptive solution design, which is globally transferable, and socioeconomic integration knowledge, which is context dependent. Article 2 identified six applied knowledge domains for SEE. This section completes IRP Steps 9 and 10 at the applied knowledge tier by sorting the six domains into globally applicable and context-dependent knowledge against the theoretical proposition.

Two domains are context dependent and enter Tier Two as socioeconomic integration knowledge: Organisational Models and Legal Structures, and Financial Sustainability and Impact Capital. Both knowledge domains depend on institutional design that varies across jurisdictions. Statutory legal forms such as Community Interest Companies in the United Kingdom and social cooperatives in Italy require congruence with national regulatory environments, while certifications operating across multiple jurisdictions, such as B Corporation certification, depend on local legal forms for incorporation and on national regulatory recognition for substantive effect (Battilana et al., 2017; Ebrahim & Rangan, 2014). Financial sustainability instruments are similarly bound to regional conditions, as impact investment structures, social finance mechanisms, and revenue models presuppose banking systems, regulatory oversight, and capital markets specific to particular jurisdictions (Young & Lecy, 2014). Within the knowledge architecture, these two domains integrate with dominant high-level theories in Tier One, since the institutional environments dominant theories describe are precisely the environments within which this applied knowledge must be operationalised.

Four domains are globally transferable and enter Tier Two as adaptive solution design: Strategic Dual Value Creation and Entrepreneurial Logic, Regional Applied Knowledge in Dual Value Creation, Social Marketing and Stakeholder Engagement, and Leadership, Ethics, and Inclusive Governance. These domains apply across contexts because they address systemic conditions common to all human communities rather than socioeconomic variables specific to particular jurisdictions.

Strategic Dual Value Creation and Entrepreneurial Logic equip learners with the foundational logic of creating social and economic value within enterprise design. The domain connects directly to the deductive typology derived in Chapter 4 distinguishing integration and coordination as the two poles of SE practice. Integration enterprises deliver solutions in which social and economic objectives are mutually reinforcing through a single unified operational process. Coordination enterprises contain specialised units focusing on either social or economic value creation, requiring internal coordination to align these distinct functions within a single organisational structure. Most social enterprises operate within the spectrum between these two

poles. Learners require understanding of both strategies to design enterprises that align with the systemic conditions the theoretical proposition establishes, regardless of institutional setting.

The integration and coordination typology shifts the analytical focus of SEE from how social enterprises integrate within existing social structures to the mechanisms through which dual value creation occurs at the enterprise level. Both contemporary research and cultural traditions contain substantial knowledge about these mechanisms and about how to make them more efficient. Frugal innovation through Jugaad and Smekalka redesigns products and services to deliver social value under severe resource constraints while reducing material throughput, integrating social and ecological outcomes within the same design act (Singh & Awasthy, 2025; Sadigov, 2021). Aprovechamiento revalues discarded materials and labour through repair, repurposing, and circular practices that simultaneously generate livelihoods and reduce ecological burden (Almeida et al., 2023). Design for Environment specifies a priori product and process design for biodegradability and reusability, while substituting products with services minimises resource utilisation where feasible (Schaltegger et al., 2016). Biomimicry models enterprise design on ecological systems, where ecological alignment and economic output derive from the same design principle (Benyus, 2002; Aguilar-Planet & Peralta, 2024). Across these examples, dual value creation does not entail balancing separate objectives but constitutes a single process through which social, economic, and ecological outcomes emerge together. This focus on the dual value creation process simultaneously enhances enterprise competitiveness, reduces operational costs, and drives innovation, as demonstrated by Design for Environment and by numerous Jugaad applications achieving resource efficiency while generating market value.

Regional Applied Knowledge in Dual Value Creation positions the operational logics introduced above as a globally transferable knowledge category within Tier Two. The transferability does not depend on cultural origin. Communities facing comparable resource constraints and ecological pressures recognise these logics across regional boundaries, as Section 5.1.5 documented through the cross-regional circulation of Jugaad from India into Kenyan and other Global South enterprise practice (Singh & Awasthy, 2025). The category therefore equips learners to identify and adapt mechanism-based design principles across institutional and cultural settings rather than to replicate culturally specific instances.

Social Marketing and Stakeholder Engagement addresses how social enterprises communicate value, build legitimacy, and mobilise stakeholders. While specific communication strategies and legitimacy expectations are shaped by cultural norms that vary across regions, the underlying competencies of stakeholder identification, value articulation, and community engagement are required wherever social enterprises operate. Learners scaling solutions across regions encounter diverse stakeholder expectations shaped by different cultural norms regarding trust, authority, and collective decision-making. Understanding these differences as assets rather than obstacles equips learners to design communication and engagement approaches responsive to local dynamics while maintaining coherence with the dual value creation logic.

Leadership, Ethics, and Inclusive Governance develop collaborative, reflexive, and ethically grounded capacities required wherever social enterprises navigate multi-stakeholder

environments. Leadership traditions and governance practices vary substantially across cultures, reflecting embedded expectations regarding authority, participation, and collective responsibility (Hofstede, 2001; House et al., 2004). The domain equips learners from different regions and disciplinary backgrounds to collaborate effectively in multicultural and multidisciplinary teams and to draw on diverse leadership traditions and governance practices when establishing social enterprises, treating cross-cultural difference as a complementary resource rather than as an obstacle to coherent practice.

The four globally transferable domains together extend the integration logic of Tier One cultural philosophies into enterprise-level applied knowledge. Where cultural philosophies articulate dual value creation as systemic worldview, the four applied domains specify the mechanisms through which enterprises operationalise that integration across institutional and cultural contexts. The two context-dependent domains complete the architecture by providing the navigational knowledge learners need to embed enterprise design within particular regulatory and financial environments. The sections that follow examine two questions the delineation raises but does not resolve. Section 5.3.3 examines the scale and empirical depth of SE practice grounded in cultural philosophies. Section 5.3.4 provides the theoretical explanation for why cultural philosophies across unconnected regions converge in their recognition of nested interdependence. The integrated knowledge architecture is presented in Section 5.3.5, followed by empirical support provided in Section 5.3.6.

5.3.3 Cultural Approaches and Social Entrepreneurship Practice

This section examines the empirical scale and historical depth of SE practice grounded in cultural philosophies, demonstrating that this practice constitutes a substantial body of activity largely invisible through core SE scholarship. The recognition gap is structural rather than empirical. Scholarship documenting Ubuntu cooperatives across Southern and East Africa (Kajiita & Kang'ethe, 2020; Adeola, 2024), Buen Vivir agroforestry enterprises across the Andes (Morales & Calvo, 2022), Indigenous fisheries in Atlantic Canada (Islam & Berkes, 2016; Salmon et al., 2023), Confucian ethical leadership and CSR practice in China (Zheng et al., 2025; Zu, 2023), biomimicry enterprises (Benyus, 2002; Aguilar-Planet & Peralta, 2024), and frugal innovation ventures (Singh & Awasthy, 2025) circulates within African studies, Latin American studies, Chinese management scholarship, Indigenous studies, and sustainability science rather than within SE framing institutions.

The historical depth of this practice extends well beyond contemporary documentation. The 儒商 (rushang, Confucian merchant) tradition originating in the Ming Dynasty (1368 to 1644) represents one of the earliest documented enterprise forms combining commercial activity with ethical cultivation and social responsibility. Daoist management principles have been applied to contemporary responsible management education with explicit attention to sustainable development outcomes (Zu, 2023), and Confucian ethical leadership has been documented as a foundation for socially and environmentally responsible enterprise innovation in China (Zheng et al., 2025).

Across these traditions, value is understood as inherently plural and indivisible. Social, economic, and ecological outcomes are pursued as mutually reinforcing dimensions of a single process rather than traded off against one another. Ubuntu cooperatives across Southern and East Africa (Kajiita & Kang'ethe, 2020; Adeola, 2024), Buen Vivir enterprises across the Andes (Morales & Calvo, 2022), and Indian Jugaad resourcefulness (Singh & Awasthy, 2025) all demonstrate the same pattern. The integration problem that dominates Western SE scholarship, expressed as mission-market tension, impact-profit trade-offs, and mission drift, does not arise within these enterprises because the philosophical frameworks from which they operate never separated what academic analysis treats as distinct. The Chapter 4 analysis of the separability premise demonstrated that this separation is an artefact of progressive disembedding in Western economic thought (Polanyi, 1944). Cultural philosophies never underwent this separation.

The scale of this practice is significant. Recent scholarship examining the Global South increasingly recognises that many practices presented in mainstream SE literature as newly discovered or exceptional have long existed across Asia, Africa, and Latin America under different terminologies and institutional arrangements (Prouchet, 2025; Contreras & Dornberger, 2022). Research on social innovation and entrepreneurship in emerging economies similarly documents how socially embedded enterprise practices arise from local problem-solving traditions and community-oriented economic activity rather than from formal SE frameworks developed in Western scholarship (Lakkol & Savitha, 2024; Appiah & Grimm, 2026). These regions together account for more than 85 per cent of the world's population, suggesting that a substantial share of socially embedded enterprise practices operate outside the conceptual and definitional frameworks through which SE has traditionally been analysed (United Nations, 2024).

The redefinition of SE advanced in Chapter 1, which defines SE by the activity of dual value creation rather than by organisational form or terminology, enabled the identification of these practices as SE within the knowledge architecture, consistent with the application of redefinition as an integration strategy within the IRP (Repko & Szostak, 2025). The knowledge architecture advanced in this thesis therefore connects these dispersed literatures into a coherent SE knowledge body.

5.3.4 Nested Systems and Heterarchical Interaction in Cross-Regional Convergence

The convergence established in Section 5.3.1.1 raises a fundamental question. If cultural philosophies that emerged independently across different regions articulate comparable relationships between individuals, organised human activity, society, and the natural environment, this correspondence suggests common conceptual foundations concerning how human systems operate within broader ecological contexts rather than coincidental regional similarity.

The explanation lies in the distinction between two subsystems within any society. Sociological systems theory conceptualises societies as composed of multiple differentiated subsystems performing distinct functions within the broader social system (Parsons, 1951; Luhmann, 1995). Socioeconomic architectures and institutional designs constitute one such subsystem, describing the formal organisation of economic activity and social coordination. Alongside this institutional subsystem, societies contain a community subsystem consisting of

shared cultural values, symbolic systems, and philosophical traditions through which communities articulate relationships between human activity, society, and the natural environment (Geertz, 1963; Berger & Luckmann, 1966).

This distinction is analytically consequential. Political economy analyses value creation through socioeconomic architectures and institutional design, examining how political and economic systems organise production, exchange, and resource distribution through institutional rules and governance structures (Balaam & Dillman, 2019). Institutions constitute the rules structuring economic interaction and social organisation, and socioeconomic architectures emerge historically as societies develop arrangements shaping incentives and behaviour over time (North, 1990). Cultural philosophies arise through a different process. Rather than resulting from institutional design or theoretical debates concerning economic organisation, they develop through historically accumulated knowledge within communities concerning the relationship between human activity, society, and the natural environment (Morin, 2008; Capra & Luisi, 2014). Research in ecological anthropology demonstrates that human societies developed these knowledge systems through direct interaction with ecological conditions, producing cultural frameworks that encode relationships between human activity and environmental constraints (Berkes, 2018; Capra & Luisi, 2014).

Although socioeconomic architectures and cultural philosophies influence each other in practice, the two develop following analytically distinct pathways and evolve differently over time. Cultural philosophies have shaped institutional design where embedded in formal frameworks. Buen Vivir has been recognised in the constitutional frameworks of Ecuador and Bolivia (Gudynas, 2011; Acosta, 2013). Ubuntu has shaped post-apartheid governance discourse in Southern Africa (Seneque et al., 2023). Confucian and Daoist traditions have shaped Chinese governance frameworks (Zu, 2023).

Conversely, institutional environments shape how cultural philosophies are operationalised in enterprise practice. Despite these reciprocal influences, the two domains can be analytically distinguished. Socioeconomic architectures change through institutional reform and political economic transformation altering the organisation of economic systems (Balaam & Dillman, 2019; North, 1990). Cultural philosophies persist as community-grounded bodies of knowledge that develop gradually through accumulated historical experience (Morin, 2008; Capra & Luisi, 2014). This analytical distinction may explain why cultural philosophies converge across contexts in describing relationships among individuals, organised human activity, society, and the natural environment. Institutional arrangements analysed in political economy are historically contingent and vary depending on political development, economic organisation, and reform trajectories. Cultural philosophies emerge from earlier historical contexts in which human communities interacted directly with ecological systems. In the absence of formal welfare mechanisms, reliance on mutual support made interdependence directly experienced and preserved integrated understandings linking individuals, organisations, society, and ecology.

An even deeper structural explanation for this convergence can be proposed by examining the architectural distinction between systems organised through nested containment and systems

organised through heterarchical interaction. Natural systems are designed as nested hierarchies in which inner subsystems depend on outer containing systems for their conditions of possibility, and outer systems impose binding constraints that propagate inward across levels (Simon, 1962; Allen & Starr, 1982). Daly (1996) and Georgescu-Roegen (1971) establish that economic activity is in turn nested within these biophysical systems and is therefore subject to the thermodynamic constraints they impose, a nested framing operationalised empirically by Raworth (2017) through the doughnut model.

Human social systems, by contrast, are not designed as strict nested hierarchies internally. Within the social system, subsystems including political, economic, institutional, community, cultural, and educational domains exist in parallel rather than nested relationships, interacting heterarchically through reciprocal influence rather than through containment (McCulloch, 1945; Stark, 2009). These social subsystems are mutually constitutive and interdependent, but no subsystem fully contains the others or provides the viability conditions for the others in the strict sense in which the biosphere provides the systemic conditions for social viability within ecological and planetary systems.

This architectural distinction constrains the identification of causal relationships that give rise to SE across social subsystems, including communities and institutions, when analysis is confined to the social system in isolation from ecological and planetary systems. Hierarchically nested systems support the derivation of systemic conditions because systems containment imposes binding constraints that yield necessary causality. Heterarchically parallel systems do not support such derivation because the relationships among subsystems are interaction rather than containment, and interaction produces contingent causality whose outcomes depend on initial conditions, historical sequences, and reciprocal influences specific to particular contexts. Real causal mechanisms operate among parallel social subsystems, but they cannot be aggregated into systemic conditions applicable across societies, because no architectural feature within the social system supplies the nested structure required for such derivation.

The distinction has direct implications for ecosystem approaches in systems informed SE scholarship. As noted in Chapter 3, substantial research applies systems thinking, complexity theory, and entrepreneurial ecosystem frameworks to SE within the boundaries of the social system, examining how political, economic, institutional, cultural, and educational subsystems interact to enable or constrain SE practice (Schwandt et al., 2009; Goldstein et al., 2010; Swanson & Zhang, 2011; Trivedi & Misra, 2015; De Ruysscher et al., 2017; Spigel, 2017; Roundy et al., 2018; French et al., 2022; Akinboade et al., 2023; Bhardwaj et al., 2023; Nabiyeva and MacNeil, 2025). This work is valuable for understanding the heterarchical dynamics within particular social systems, but its analytical scope remains contained within the social system itself. Bibliometric reviews of this literature note research fragmentation, lack of theoretical convergence, and absence of generalizable findings (Klarin & Suseno, 2023; Velt et al., 2020; Trabskaia et al., 2023; Budumuru & Paruchuru, 2025). The architectural framing proposed here suggests that the lack of common patterns may reflect the structural properties of heterarchical interaction rather than

failures of research effort, and that systemic conditions for SE practice are unlikely to emerge from analyses confined within the social system.

Systemic conditions for SE activity can therefore be derived from the relationship between the social system as a whole and the ecological and planetary systems within which the social system is contained, because that is the locus at which genuine containment, and therefore genuine systemic conditions, obtain. The dual value imperative developed in this thesis follows from this cross-system containment, not from any internal social architecture. The independent convergence of cultural philosophies including Buen Vivir, Ubuntu, Daoist and Confucian ecological ethics, and Indigenous relational ontologies on similar structural principles is consistent with the proposal that the cross-system architecture is perceptible and that human social systems can be designed to register it (Bermúdez-Restrepo & Vaca-López, 2026).

The architectural account therefore explains why the historical pathway produces convergence across cultures rather than divergence. Communities engaging directly with ecological systems are positioned to recognise the nested architecture, while discipline-specific political-economy reasoning operates within social sciences and remains limited to exploring social systems.

The implications for SEE are direct. Cultural philosophies across regions articulate comparable ontological positions regarding relationships between organisations, society, and the natural environment and therefore constitute elements of a knowledge base extending beyond specific institutional contexts. These traditions provide learners with culturally grounded reference points that correspond to the theoretical proposition developed in this thesis. Rather than introducing entirely new concepts, the proposition formalises relationships long recognised within diverse cultural traditions, relationships that are not explicitly articulated within contemporary theories of political economy or within the socioeconomic architectures through which societies organise economic activity.

The pedagogical implication follows directly from the architecture presented in Section 5.3.5. Cultural philosophies enter Tier One as universally applicable knowledge taught across contexts, while context-dependent knowledge concerning regional socioeconomic architectures is taught with regional adaptation. The local cultural philosophy provides each learner with a culturally grounded entry point, and comparative engagement across traditions allows the learner to recognise that distinct cultural vocabularies describe the same systemic configuration. The pedagogical assumption that universally applicable knowledge transfers across cultural and institutional contexts when taught comparatively is empirically evaluated in Chapter 7 through the Global Social Innovation Lab, which examines whether the proposed architecture enables learners to apply pattern-based reasoning to unfamiliar contexts.

5.3.5 The Integrated Knowledge Architecture for Globally Inclusive SEE

The preceding sections completed IRP Steps 9 and 10 by examining each knowledge component identified in Article 2 for its alignment with the theoretical proposition and its global applicability or contextual specificity. The analysis positioned dominant theories as context-specific knowledge, alternative theories and cultural philosophies as globally applicable

knowledge, and applied knowledge as divided between adaptive solution design and socioeconomic integration.

Article 2 applied organisation as the common ground technique within the IRP to structure the collected knowledge as complements within the content architecture. The discussion advanced from organisation to transformation, demonstrating correspondence between cultural philosophies and systems theory, and achieved synthesis across the globally applicable knowledge components. For context-specific knowledge, the theoretical proposition serves as an analytical lens through which learners interpret the content of dominant theories and context-dependent applied knowledge, enabling them to examine how different societies respond to the same systemic conditions through distinct institutional designs rather than treating institutional arrangements as competing perspectives. The resulting architecture represents the integrated outcome of these progressive strategies and can now be presented as a structure specifying both the substantive content and the relationships among its components.

Figure 5.3.1: The Integrated Knowledge Architecture for Globally Inclusive SEE

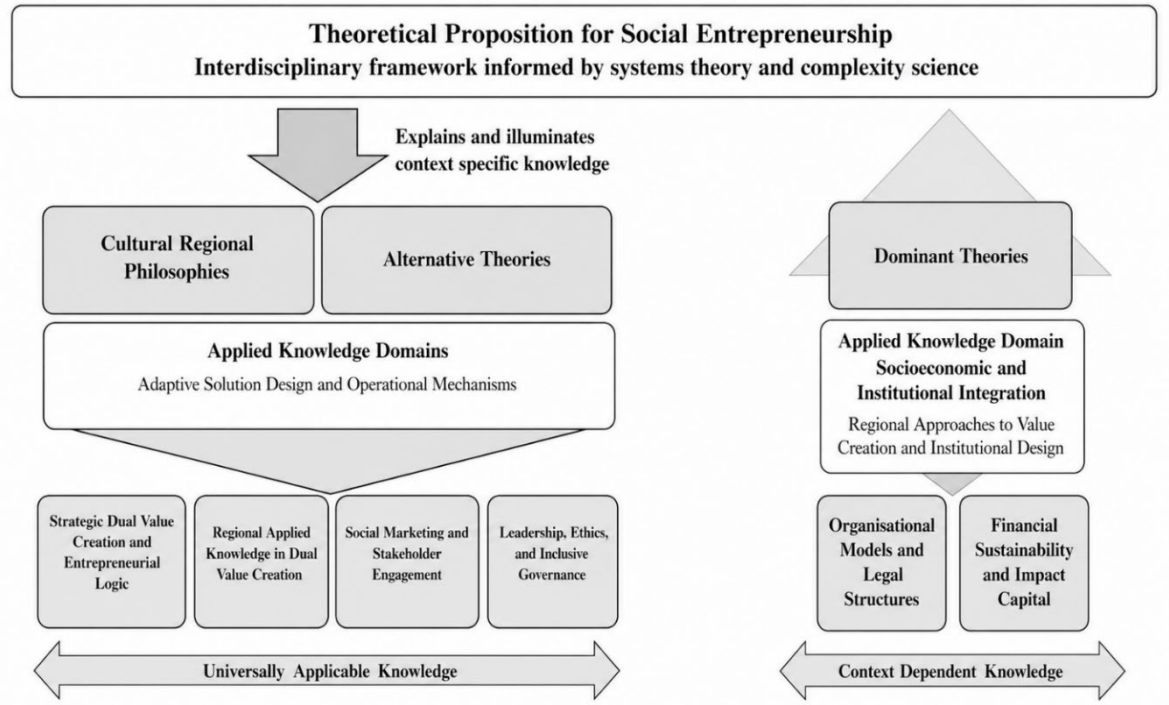


Figure 5.3.1 shows that the theoretical proposition established in Chapter 4 occupies the foundational position at the macro- level within the architecture. The proposition establishes the systemic conditions governing dual value creation within nested open systems and provides the analytical foundation against which all meso-level and micro level knowledge is evaluated for global applicability or contextual specificity.

Within Tier One at the meso level, two theory groups constitute globally applicable content. Alternative theories, grounded in the same open systems ontology as the theoretical proposition, provide diagnostic knowledge articulating planetary boundaries, thermodynamic constraints, and human development as systemic requirements. Cultural philosophies provide

culturally grounded narratives through which learners engage with the systemic logic the proposition formalises, drawing on accumulated practical wisdom about viable community organisation within nested ecological systems. Both theory groups align directly with the theoretical proposition and apply across all regional and institutional contexts. Dominant theories occupy a distinct position within Tier One as context-specific content, describing institutional configurations, governance models, and market–state arrangements that vary across jurisdictions. The theoretical proposition frames these theories and the institutional designs they produce as different paths through which societies have adapted to systemic conditions. Dominant theories therefore require contextual interpretation rather than universal application, yet they remain essential for learners navigating the specific socioeconomic architectures within which social enterprises operate.

Within Tier Two at the micro level, applied knowledge divides into two clusters mirroring the globally applicable and context-specific distinction established at the meso level. Globally applicable applied knowledge consists of Strategic Dual Value Creation and Entrepreneurial Logic, Regional Applied Knowledge in Dual Value Creation, Social Marketing and Stakeholder Engagement, and Leadership, Ethics, and Inclusive Governance. These domains integrate directly with the theoretical proposition at the macro- level and with cultural philosophies and alternative theories at the meso level, addressing systemic conditions common to all human communities and equipping learners with adaptive solution design applicable across institutional settings. Context-specific applied knowledge consists of Organisational Models and Legal Structures, and Financial Sustainability and Impact Capital. These domains integrate with dominant theories at the meso level, forming a navigational cluster that enables learners to operationalise dual value creation within the particular socioeconomic architectures of their regions.

The architecture therefore specifies two integrated pathways for SEE. The globally applicable pathway runs from the theoretical proposition through alternative theories and cultural philosophies to adaptive solution design, providing the foundational knowledge all learners require regardless of institutional context. The context-specific pathway runs from the theoretical proposition through dominant theories to socioeconomic integration knowledge, providing the navigational knowledge learners require to operate within specific regional environments. The theoretical proposition connects both pathways at the macro- level, establishing that dominant political economy traditions and the institutional arrangements they produce represent context-dependent responses to systemic conditions rather than the conditions themselves. The identification of specific knowledge components in this chapter, combined with the macro-level integration achieved in Chapter 4, establishes the full substantive foundation for globally inclusive SEE.

5.3.6 Empirical Assessment across Teaching Practice and Subsequent Chapters

Evidence from the researcher's educational practice indicates that learners recognise patterns in dual value creation across disciplines and regions, even when organisational forms differ substantially. This observation, gathered across teaching environments in Canada, China,

the European Union, and Southeast Asia, suggests that the knowledge architecture reflects the structure of SE practice rather than imposing an analytical framework upon it.

Chapter 6 conducts empirical research comparing the knowledge architecture proposed at the end of Phase 1 with current SEE practice across four regional ecosystems, documenting how curricula, institutional support, and programme design vary according to socioeconomic context. Chapter 7 evaluates the SEE architecture through the Global Social Innovation Lab, examining whether the proposed architecture enables learners to apply pattern-based reasoning to unfamiliar contexts more effectively than organisation-based or theory-based reasoning, consistent with educational research on professional preparation in practice-oriented disciplines (Shulman, 2005; Lattuca & Stark, 2009).

Chapter 6 Comparative Analysis of Regional SEE Ecosystems

6.1 Introduction to Comparative Analysis of Regional SEE Ecosystems

Chapter 6 presents the comparative analysis of SEE practices across four regional ecosystems and constitutes Phase 2 of the doctoral research. Building on the interdisciplinary theoretical integration developed in Chapter 4 and the knowledge architecture synthesised in Chapter 5, which together conclude Phase 1 of the research, this chapter proceeds to an empirical investigation of how SEE is designed, structured, and delivered within specific institutional environments in Canada and the European Union, and assesses whether the fragmentation of knowledge identified in research is reflected in current regional SEE practices. Chapter 6 operationalises Step 10 of the Interdisciplinary Research Process by moving from integrated theoretical understanding to empirical examination and evaluation (Repko & Szostak, 2025).

The chapter is guided by the research question introduced in Chapter 1, namely how SEE is designed, structured, and delivered across diverse regional contexts. This question is directly connected to the overall objective of the dissertation, which is to develop a coherent and globally applicable SEE knowledge framework grounded in dual value creation. Within this context, Phase 2 evaluates whether the conceptual framework, dual value objectives, and knowledge components identified in Chapter 5 are reflected in regional SEE models, and whether observed divergences can be explained by the distinction between globally applicable systemic conditions and context-specific socioeconomic variables.

The chapter integrates Article 3, which provides a comparative case study of SEE ecosystems in Manitoba, Prince Edward Island, Slovenia, and Croatia. Article 3 is reproduced verbatim in Section 6.2, with its original introduction replaced by the extended theoretical framing developed in Chapters 1 through 4. The article provides the core empirical evidence for examining how SEE functions in practice and how regional practices support or constrain the development of globally applicable knowledge.

Following Article 3, the chapter develops a discussion that expands the analytical scope of the article to examine convergences and divergences in SEE provision across the four regional ecosystems. The discussion analyses ecosystem configurations, the roles of key actors, and the distribution of SEE provision across universities, community organisations, and incubators, and evaluates how regional curricular content and pedagogical approaches align with the SEE model developed through the interdisciplinary research in Chapter 4 and Chapter 5. Through this process, the chapter identifies the extent to which existing programmes reflect, contradict, or fall outside the structured knowledge base established in Phase 1.

Chapter 6 is organised as follows. Section 6.1.1 states the Phase 2 research objectives and summarises the outcomes of the analysis against those objectives. Section 6.1.2 presents the rationale for the selection of the four regions and the researcher's positionality within them. Section 6.1.3 positions Article 3 and explains the adapted Triple Helix framework that structures the empirical analysis. Section 6.2 reproduces Article 3 verbatim. Section 6.3 develops the post-article discussion. Section 6.4 assesses the empirical findings against the theoretical proposition

and the knowledge architecture by applying Kivunja's (2018) four evaluative criteria as outlined in Chapter 4.

6.1.1 Phase 2 Research Objectives and Outcomes

The primary objective of Phase 2 within the thesis research design is to evaluate the extent to which regional SEE content and pedagogies correspond to the SEE model developed through the interdisciplinary research in Phase 1 and presented in Chapter 5. The empirical evidence assembled through the comparative analysis of the four regional case studies revealed that fragmentation in SEE provision is more pronounced than the scholarly literature indicates and that uneven content distribution operates both across and within regions. This finding prompted the extension of the analysis through a post-article discussion that interprets the empirical evidence through the theoretical framework developed in Chapter 4 and surfaces patterns of convergence and divergence in content, pedagogy, and institutional delivery that refine the understanding of SEE and SE practice.

The four ecosystems converge on a common learning objective, namely the preparation of learners to establish and operate social enterprises that generate dual value. The knowledge foundations supporting this objective, however, diverge substantially across regions. All theoretical clusters and applied knowledge segments identified through the interdisciplinary research in Chapter 5 are present in the content taught across Manitoba, Prince Edward Island, Slovenia, and Croatia, although no region transfers the full structured content to learners. Sustainability and business modelling are the only segments that appear consistently across all four regions. Beyond these two, the theoretical and conceptual foundations underpinning what is taught vary across regions, producing substantive differences in how learners understand SE according to where they are educated.

The empirical research identified context-specific applied knowledge related to integration within institutional structures, particularly in the EU, that had not been captured in the Phase 1 synthesis and was subsequently integrated into the SEE content evaluated in Phase 3, thereby strengthening the empirical grounding of the SEE model. However, the empirical data also revealed that regional SEE provision is theoretically rich, often introducing learners to a wide range of conceptual and theoretical approaches drawn from the literature. Operational guidance centres on financing mechanisms, organisational forms, and legitimisation within specific jurisdictions rather than on the design of transferable mechanisms for generating dual value across regions independent of underlying socioeconomic support structures. Learners across the four regions are introduced to multiple perspectives on SE, yet they are not provided with an analytical structure that enables them to navigate divergent theoretical positions and translate theoretical knowledge into the design of dual value creation mechanisms in SE practice.

Moreover, content fragmentation identified in empirical research is more pronounced than indicated in the literature, with different content supporting SEE both within regions and across them. In Manitoba and Croatia, for example, institutions located in the same cities teach SEE from incompatible theoretical positions, constraining transferability even within a single regional context. SEE is delivered by multiple institutional actors, including universities, community

organisations, and incubators, each conveying distinct forms of content and exposing learners to competing conceptualisations of social entrepreneurship within the same ecosystem. None of the regional models therefore demonstrates transferability beyond its own jurisdiction, and learners seeking to scale SE activity beyond the region in which they were trained encounter unfamiliar knowledge domains that require independent integration.

The empirical findings support the case for the theoretical proposition developed in Chapter 4 and the knowledge architecture proposed in Chapter 5 as an integrative reference for SEE. They further suggest that an effective SEE model capable of operating across contexts must begin from existing learner knowledge and provide a framework that connects diverse knowledge components into a coherent structure, an insight that informs the andragogical design applied in Chapter 7.

6.1.2 Regional Selection Criteria and Researcher Positionality

Before proceeding to the presentation of Article 3, it is necessary to justify the selection of the regions included in the comparative analysis to establish whether the selected cases provide sufficient insight into the current state of regional SEE practices. Several interconnected criteria guided regional selection and align with the research objectives established in Chapter 1 and Chapter 2. The four regions occupy structurally comparable positions within broader federated or supranational systems. Canadian provinces exercise full control over education within a federal parliamentary democracy. Sovereign EU member states coordinate education policy in alignment with European priorities including the Bologna Process, while maintaining autonomy in educational design and delivery. Structural comparability across four regions enables meaningful analysis of how SEE develops within similar governance frameworks while maintaining distinct institutional arrangements (George & Bennett, 2005).

All four regions share fundamental values including democracy, rule of law, social equity, and public investment in services such as education and healthcare (OECD, 2022; World Bank, 2023). Shared values provide a basis for identifying commonalities in SEE approaches that transcend immediate contextual differences. Regional selection within unified systems sharing similar values enables identification of whether such synchronisation remains feasible despite institutional diversity.

Regional selection critically reflected the researcher's positionality as a long-term resident and active participant in SE and SEE communities across all four contexts. Embedded engagement spanning three decades of teaching SEE, operating social enterprises, and conducting policy work provided insider understanding of ecosystem development dynamics, access to established networks, and the linguistic and cultural competence necessary for nuanced interpretation of regional practices. Positionality encompassing roles as educator, curriculum developer, researcher, and practitioner was recognised not as a source of bias but as a legitimate methodological asset enabling elicitation of tacit knowledge and interpretation of context-specific systems of meaning inaccessible through detached observation (Tracy, 2020; Guba & Lincoln, 1994).

Despite consistent emphasis from international organisations including the United Nations, the World Economic Forum, and the Organisation for Economic Co-operation and Development

on the need for synchronised global action to advance SE in response to complex and interconnected global challenges (UN, 2021; WEF, 2022; OECD, 2022), the empirical study presented in this chapter reveals significant differences in SEE design and limited transferability of supporting knowledge across regions.

Selection of regions with similar structural positions but divergent SEE trajectories enables analytic precision by examining how differences in institutional design and curriculum governance correspond to variations in SEE content (George & Bennett, 2005). Small N comparative research methodology recommends selecting cases with comparable structural features to identify systematic contrasts linked to institutional variation (Bartlett & Vavrus, 2017).

The researcher's lived experience as an educator, social entrepreneur, and policy consultant in all four regions provided the contextual insight necessary for accurate interpretation of SEE development patterns. Long term insider familiarity with curriculum structures, policy cycles, practitioner networks, and regional understandings of dual value creation enabled interpretation of dynamics that would have been inaccessible through short term fieldwork or detached observation (Guba & Lincoln, 1994; Tracy, 2020). Situated knowledge strengthened the analytic capacity to interpret how academic programs, policy incentives, funding structures, and community expectations influence SEE content across different institutional settings.

The empirical evidence presented in Article 3 reveals that all three theory groups synthesised in Chapter 5 appear in regional curricula. However, which theories receive emphasis depends on the academic discipline delivering SEE and the regional policy context. Regional diversity in emphasis illustrates fragmentation in educational practice that prevents the emergence of a community of practice based on a shared knowledge foundation, establishing the practical necessity of creating a structured integrated content that enables learners from different disciplines and cultural contexts to work together on SE ideas.

Regional selection therefore reflects alignment between research objectives, structural comparability, and researcher positionality. The regions provide sufficient variation to capture differences in SEE development while remaining similar enough to allow meaningful comparison (Creswell & Poth, 2018). The analysis benefits from contextual competence accumulated through decades of multisector engagement which supports accurate interpretation of nuanced institutional dynamics and translation of regional insights into coherent cross-regional analysis. Table 6.1.2 offers insights into key economic and education indicators in four regions.

Table 6.1.2: Comparative Structural Indicators for Manitoba, PEI, Slovenia, and Croatia

Indicator	Manitoba (Canada)	PEI (Canada)	Slovenia (EU)	Croatia (EU)
Political Status	Province	Province	Union State	Union State
Share of Union Population	3.6%	0.4%	0.5%	0.9%
GDP per Capita (USD)	43,000	31,000	31,000	19,000
Education Spending per Capita (USD)	9,500	11,000	9,000	2,300

Education Spending as % of GDP per Capita	22.1%	35.5%	29.0%	12.1%
Education Spending as % of Total GDP	~6.5%	~7.2%	~5.8%	~4.2%
Education Governance	Provincial	Provincial	National (Bologna-Aligned)	National (Bologna-Aligned)
SEE Policy Presence	Partial and Provincial	Minimal	Formal national strategy	Formal national strategy
Legal Recognition of SE	No national definition	No national definition	Legally and policy recognised	Policy recognised

As shown in Table 6.1.2, indicators considered in establishing comparability include gross domestic product (GDP) per capita, education spending per capita, the proportion of education spending relative to GDP, and the existence of formal SEE policies or legal definitions of social enterprise. These indicators are commonly used in comparative education and policy research to establish structural comparability while capturing institutional variation across cases (George & Bennett, 2005; Bartlett & Vavrus, 2017; OECD, 2024). Manitoba and PEI allocate significantly more funding to education per capita than Slovenia and Croatia, reflecting the broader fiscal capacity of Canadian provinces. However, higher fiscal investment has not been accompanied by the same level of formal policy development in the SE domain. Slovenia and Croatia have adopted national strategies for the social economy.

Slovenia has a legally recognised form of social enterprise supported by national legislation and policy instruments and embedded within the broader European social economy framework which encompasses more than four million organisations across the EU, of which approximately 246,000 are identified as social enterprises (European Commission, 2021). Within EU policy terminology the social economy represents a broader organisational category that includes social enterprises together with cooperatives, associations, foundations, and mutual organisations. Across the European Union the social economy is estimated to include more than 4 million organisations employing approximately 13 to 14 million people, representing about 6 percent of total employment (European Commission, 2021; OECD, 2024).

Employment and revenue statistics reported for the social economy therefore aggregate organisations with different operational models. While social enterprises generate dual value through market activity, associations, nongovernmental organisations, and foundations typically depend primarily on public funding or philanthropic support. Recent EU benchmarking studies estimate that approximately 240,000 to 250,000 organisations are classified as social enterprises, representing roughly 5 to 6 percent of all social economy entities and about one quarter of employment within the broader social economy sector (European Commission, 2024). The reporting policies are reinforced through EU cohesion funding mechanisms and alignment with the Bologna higher education framework (European Commission, 2021; OECD, 2024). Divergent patterns among the four regions illustrate that fiscal investment alone does not determine the maturity or coherence of SEE frameworks.

Within EU policy frameworks organisations are classified as social enterprises when they pursue a primary social objective, engage in continuous economic activity through the production of goods or services, reinvest the majority of profits toward achieving the social mission, and apply governance structures that ensure accountability to stakeholders or the community served (European Commission, 2021). These criteria broadly correspond with the analytical indicators proposed by the EMES research network, which conceptualises social enterprises as organisations combining economic activity, social purpose, and participatory governance, although the EMES framework itself represents a research typology rather than a formal legal classification (Defourny & Nyssens, 2014).

Therefore, it remains difficult to determine the exact number of enterprises that meet the redefinition criteria established in Chapter 1, because the redefinition adopted in this thesis allows a broader interpretation of SE in which any organisation generating dual value may qualify as SE practice regardless of governance structure, profit distribution rules, or legal form. Empirical research conducted in this study indicates that the classification criteria that include socioeconomic factors, create practical difficulties for social entrepreneurs. In practice, social entrepreneurs must not only generate dual value but also conform to evolving policy definitions to be recognised within official SE frameworks.

The empirical findings presented in the article and subsequent discussion indicate that enterprises operating in several sectors widely recognised as contributing to sustainable development and dual value creation do not appear in official social enterprise statistics. These sectors include green technology, sustainable forestry and agriculture, and sustainable tourism. International organisations, including the UN, recognise that enterprises operating across these sectors simultaneously generate economic value while producing social and environmental benefits (UN, 2016; UNCTAD, 2020). However, organisations operating in these sectors are not formally classified as social enterprises under existing EU policy frameworks unless they meet additional criteria related to governance structures or profit distribution requirements. As a result, enterprises that communities recognise as generating both social and economic value are recorded as conventional businesses and receive no policy recognition or financial incentives despite producing demonstrable social and environmental benefits. These policy classifications create additional difficulties for educators because they must choose between equipping learners to design dual value solutions that can transfer across contexts but may not fit within regional classifications or teaching how to establish enterprises that conform to regional policy definitions of SE that are applicable only within specific jurisdictions.

Further differences emerge when examining regions with similar sociodemographic profiles. PEI and Slovenia, the two smallest units within the Canadian and EU systems respectively, have comparable GDP per capita and similar levels of post secondary attainment and digital connectivity according to international development indicators (OECD, 2022; World Bank, 2023). Despite these similarities, approaches to SEE diverge significantly. Slovenia has institutionalised SEE through national legislation, integrated university curricula, and dedicated incubators. PEI remains largely reliant on informal community led initiatives with limited

academic or policy structure. A similar pattern of divergence is observed between Manitoba and Croatia. Although Manitoba enjoys greater wealth and higher educational attainment, Manitoba lacks the policy coordination and legislative backing that Croatia has developed partly through engagement with EU social economy frameworks and accession related policy alignment (European Commission, 2021; Vidović & Baturina, 2021).

Distinctions among the regions therefore justify in depth comparative examination through a case study lens, as recommended in small N comparative research designs that seek to identify institutional variation within structurally comparable systems (George & Bennett, 2005; Bartlett & Vavrus, 2017). Each case provides a different model of how SEE emerges. The two smallest regions within each system demonstrate markedly different pathways of SEE development. Slovenia demonstrates a policy and research driven institutionalisation of SEE, while PEI demonstrates grassroots community based educational practices with limited formal policy support. Among the mid sized regions, Croatia represents a system where civil society and academic leadership have helped compensate for limited financial resources, while Manitoba illustrates a context where SEE development intersects with Indigenous knowledge traditions and community-based approaches to SE practice.

6.1.3 Positioning of Article 3 and the Adapted Triple Helix Framework

The empirical research presented in Article 3 was first published in the conference proceedings (Brkic, 2025) as a paper titled Social Entrepreneurship Education Challenges and Opportunities: A Comparative Case Study Canada–European Union which was presented at the 15th Canada International Conference on Education (CICE 2025). An expanded and revised version of the conference paper has been invited for journal publication and submitted for publication in the International Journal of Technology and Inclusive Education.

Article 3 applies an adapted Triple Helix framework to analyse SEE through three interrelated dimensions including institutional provision of SEE, production of scholarly research, and educational design (Etzkowitz & Leydesdorff, 2000). The framework extends the traditional university-industry-government model by incorporating elements of the quadruple helix, particularly community-driven knowledge production (Shyiramunda & van den Bersselaar, 2024). This adaptation enables analysis of how academic, practitioner, and community knowledge interact within regional SEE ecosystems. The full rationale and operationalisation are presented in the methodology section of Article 3.

Article 3 draws on insights collected through key informant interviews, structured observations, document analysis, and regional literature reviews across the four regions, with over 100 participants engaged in total. The combination of methods enabled triangulation of evidence and captured the contextual nuances shaping SEE delivery in each regional context (Creswell & Poth, 2018; Flick, 2018; Bartlett & Vavrus, 2017). Detailed methodological description is provided in Section 6.2.3. The Article is integrated verbatim into this chapter as Section 6.2 to preserve the integrity of the peer reviewed analysis. The introductory section of the article is condensed because its conceptual foundations are already developed in expanded form in Chapters 1 through 4 of the thesis.

Section 6.3 provides an extended interpretation of the empirical findings through the theoretical proposition and knowledge architecture established in earlier chapters. The discussion analyses the significance of the Triple Helix findings for understanding regional differentiation in SEE ecosystems and examines how divergent theoretical foundations and operational approaches restrict cross-regional knowledge transfer even when regions share an explicit commitment to dual value creation. The after-article discussion also considers community level recognition of dual value practices alongside persistent confusion surrounding SE terminology and synthesises these insights toward the development of inclusive SEE models that respect contextual variation while enabling systematic knowledge integration across regions.

The subsequent analysis examines how institutional coordination, academic leadership, faculty engagement, and the presence or absence of integrated public policy correspond to observed differences in the development, coherence, and durability of SEE provision. Comparative examination of the four cases identifies patterns of convergence and divergence in SEE design across regions as well as barriers that limit shared development of SEE within and across federated systems. The findings highlight substantial diversity in SEE approaches among subnational and small state contexts, demonstrating that even structurally comparable regions produce distinct SEE ecosystems.

The findings presented in Chapter 6 support the practical necessity of the globally inclusive SEE framework proposed in Chapter 4 and Chapter 5 and empirically examined in Chapter 7. The empirical evidence indicates that the components of a globally applicable SEE are present across regional practice but are nowhere assembled into an integrative whole, leaving learners to navigate fragmented content on their own.

6.2 Article 3: SEE Across Cultures: Toward Inclusive Models

Abstract

Social Entrepreneurship Education (SEE) has expanded globally in response to social enterprises' ability to simultaneously address social and economic objectives. However, rapid growth in SEE has not produced a corresponding increase in social enterprises, partly due to regional differences that hinder knowledge transfer and scaling. This study investigates contextual differences in educational approaches through a comparative case analysis of four regions in Canada and the EU with similar socioeconomic characteristics but distinct SEE approaches. The paper examines educational actors, curricular design, and community perspectives, drawing on data from key informant interviews and structured observations and comprehensive document and literature reviews. Findings show that regional SEE approaches share a common structural foundation focused on dual value creation, while diverging in theoretical framing and pathways to operational competencies.

EU cases demonstrate structured frameworks guided by policy alignment, while Canadian cases reflect community-driven models informed by Indigenous worldviews. The study contributes a novel framework for inclusive education. Findings demonstrate that social enterprise scaling may be achieved through SEE consolidation around structural commonalities rather than theoretical uniformity. The common knowledge base architecture focused on common objective

of social and economic value creation may enable practitioners and aspiring social entrepreneurs to recognise shared practices and scale dual value creation mechanisms across contexts, while providing educators practical pathways to develop inclusive SEE that overcomes knowledge exchange barriers and supports global expansion of social entrepreneurship practice.

Introduction

Fragmentation within SEE manifests primarily across two dimensions. At the disciplinary level, relevant knowledge, theoretical and conceptual frameworks remain dispersed throughout economics, sociology, political economy, business and entrepreneurship, and education without systematic interdisciplinary integration (Al Issa et al., 2024). At the regional level, the field is predominantly informed by scholarship and theoretical perspectives from the Global North, while intellectual contributions from the Global South remain substantially marginalised. Furthermore, operational knowledge often reflects distinct regional policies and institutional logics, which constrains knowledge transfer, hinders the development of inclusive educational models, and obstructs the consolidation of a global community of practice (Azqueta et al., 2023). The field's fragmentation is compounded by a lack of comparative SEE studies, which prevents the identification of common elements and foundational knowledge, thereby leading to further divergences in regional SEE approaches (Borzaga et al., 2020).

The comparative case study design addresses the gap in identification of common foundations across regions and responds to the practical problem that SEE programme growth has not translated into proportionally greater SE activity or impact. By analysing divergences and convergences in regional practice, the study advances knowledge integration and contributes to building a coherent and globally connected SEE framework capable of supporting solutions to complex social and environmental challenges.

A qualitative comparative case study methodology guides the analysis, employing triangulated sources including key informant interviews, structured observations, document reviews, and regional literature (Al Issa et al., 2024). An adapted Triple Helix framework provides the analytical structure. Extending the model previously applied in EE ecosystems (Biggs et al., 2022), the study considers three strands relevant to SEE: providers of SEE such as universities, incubators, and practitioners; curricular content and research that supports pedagogical design; and communities acting as a proxy for industry, encompassing aspiring social entrepreneurs and practitioners engaged in the cocreation and application of knowledge (Azqueta et al., 2023).

The paper presents a comparative analysis of SEE practices across four regions: Manitoba and Prince Edward Island (PEI) in Canada, and Croatia and Slovenia in the European Union. The analysis begins with a review of global literature on SE and SEE, situating this regional research within the wider scholarly field. Case studies examine SEE delivery and programs in each region, highlighting the roles of institutional actors, analysing the knowledge base reflected in curricula, and assessing community perspectives on SE practice. The paper concludes by discussing the findings and highlighting the study's relevance for advancing more inclusive models of SEE that treat regional differences as valuable sources of insight that can enhance a global understanding of

SE and support educational pathways for expanding the reach and implementation of SE internationally.

Empirical findings from the four regions, drawing on key informant interviews and observations, reveal persistent differences in approach alongside shared patterns in SEE design. Convergence is evident in the prioritisation of dual value creation and in the alignment of knowledge structures with EE, particularly through theoretical perspectives focused on value creation and applied knowledge concerning social marketing and hybrid organisational forms. Divergences manifest in the theoretical framing of dual value creation, with three predominant approaches: normative frameworks rooted in social innovation theory, economic paradigms informed by Friedmanian and Keynesian traditions, and culturally embedded philosophies that include Indigenous perspectives. Applied knowledge layers diverge according to regional organisational models, financing mechanisms, and policy environments.

Analysis reveals that SEE follows EE typology in educational design commonly structured into theoretical foundations and applied layers. The theoretical foundations of SEE include theories focused on dual value creation, analogous to EE theoretical foundations associated with economics focused on economic value creation. The applied layers encompass domains such as social marketing and hybrid organisations, which correspond to established business domains including marketing and business models. The findings presented in this paper indicate that SEE operates not as a singular model bound to a uniform disciplinary base, but as a mosaic of practices situated within distinct cultural, institutional, and political contexts. Recognising this diversity in approaches to SEE as an advantage for global application in diverse contexts is imperative for cross-cultural knowledge sharing and the development of adaptable, inclusive and scalable educational frameworks that can support the global expansion of Social Entrepreneurship.

Literature Review

The literature review drew on 76 scholarly sources and four policy reports, encompassing both foundational SEE literature and region-specific studies from the four examined regions within the global SEE research landscape. In total, the review covered 21 global sources, 16 on Manitoba, 18 on Slovenia, 22 on Croatia, and 3 on PEI. Complementing these works, over 200 additional documents were analysed, including government policies, curricula, and programme materials. Terminological variations across contexts necessitated expert consultation and manual verification of sources. A comparative assessment of research priorities, thematic coverage, and theoretical orientations revealed significant lack of consistency in approach to SE across disciplines and regions that has thus far impeded the development of SEE as a coherent academic and applied field.

Based on the reviewed foundational work shaping global SEE practices, research on SE and SEE spans multiple disciplines with distinct conceptual and methodological orientations. Management and organisation studies analyse definitional clarity, hybrid organising, and governance structures (Battilana & Lee, 2014; Defourny & Nyssens, 2017). Economics and international political economy examine value creation, institutional structures, and state-led development frameworks that shape social enterprise behaviour and SE responses to public

incentives (Hall & Soskice, 2001; Mazzucato, 2018). Education research centers on pedagogical design and instructional approaches such as experiential learning and curriculum development, frequently in dialogue with the longer tradition of EE (Kickul & Lyons, 2020). Sociology and international development literatures emphasise community practice, cultural traditions, and power relations as constitutive of field dynamics and outcomes (Santos, 2012; Dacin et al., 2010).

The disciplinary breadth enhances explanatory reach while revealing theoretical fragmentation that constrains knowledge transfer between regions, as evidenced by significant differences in approach ranging from SEE focused on European policy alignment to Indigenous-centred epistemologies in the examined cases. Diversity in disciplinary approaches expands the richness of the field while increasing theoretical divergence rather than contributing to a more coherent view of the field. Political economy and social innovation scholarship advance theory but often under-specify the applied knowledge required for SE practice. Education studies propose innovations in pedagogy but rarely integrate SE-specific content. Policy analyses clarify institutional architectures but remain weakly connected to cross-regional implementation. Limited interdisciplinary and comparative integration continues to impede the consolidation of a structured SEE knowledge base (Al Issa et al., 2024; Azqueta et al., 2023).

Researchers consistently identify recurring knowledge gaps in SEE. The field lacks integrative frameworks connecting theoretical foundations with applied competencies relevant to dual value creation across contexts (Biggs et al., 2022; Chen & Shabbir, 2025). Comparative analyses that situate regional SEE practices within global context remain sparse, limiting the identification of generalizable foundational elements versus context-contingent features shaped by institutions and policies (Azqueta et al., 2023; Borzaga et al., 2020).

In Canada, PEI scholarship is the most limited. The literature review identified only a handful of academic publications directly addressing SEE, complemented by a small body of work on social enterprise dynamics in Atlantic Canada and analyses of pedagogical models for global SEE. The literature emphasises community economic development traditions, cooperative governance, and resilience-oriented enterprise, with conceptual framing rooted in the Antigonish legacy and collective ownership rather than an explicit focus on dual value creation (Pauley, 2021). SE appears primarily as a continuation of community development practice rather than as a differentiated field with distinct pedagogical requirements.

Manitoba scholarly literature emphasises community-driven approaches, with Indigenous-led enterprise models representing a distinctive feature of research in the region. Several studies document SE's role in addressing structural inequities, advancing reconciliation, and building community resilience through nonprofit enterprises, cooperatives, and Indigenous-led initiatives that prioritise cultural preservation and equitable governance. Scholarship recognises the transformative potential of SE while also acknowledging compensatory functions in contexts of systemic injustice and reconciliation (Oloke, 2021).

In the EU, Slovenian research extensively examines SE implementation aligned with national and EU frameworks. Core contributions by Bradač Hojnik, Kedmenec, Rebernik and Tominc, Slavec Gomezel, and Weis emphasise sustainable development, hybridisation practices,

and the legal structuring of SE. These works situate SE within the broader social economy, emphasising sustainability, social innovation, and institutional legitimacy while engaging EU-level typologies and comparative evidence on SE models (Borzaga et al., 2020; Defourny & Nyssens, 2017). Formalisation of organisational status functions as both an enabling condition and a constraint. Pedagogical innovation has expanded alongside policy alignment, although incorporation of applied SE competencies into SEE curricula remains partial and heterogeneous (Borzaga et al., 2020).

Croatian SEE scholarship is more diverse as research conceptualises SEE through the EMES Ideal Type Social Enterprise model (Defourny & Nyssens, 2017), hybrid enterprise theory, and social innovation frameworks, with selective integration of North American perspectives. Organisational forms are examined primarily through cooperatives and associations, with recurrent attention to the absence of a dedicated SE legal framework. Research explores legal forms, financing, marketing, and impact measurement, noting persistent challenges in financial support instruments. Croatian literature also documents the use of service learning and experiential projects in SEE, though the translation of theoretical frameworks into operational capabilities and scalability remains underdeveloped (Vidović & Baturina, 2021).

Cross-regional comparison reveals a divergence in conceptual framing but convergence in the shared principle of dual value creation. PEI scholarship centres on community development and ecological resilience, Slovenia and Croatia align with EU social economy traditions and typologies, and Manitoba integrates Indigenous worldviews and social justice priorities. Across the reviewed literature, hybridisation and dual value creation function as central constructs, though operationalisation is addressed unevenly in regional contexts. All four regions emphasise theoretical frameworks at the expense of applied operational research examining mechanisms of dual value creation, particularly replicable patterns that can support SE scaling across borders.

The comparative analysis of regional literature aligns with broader evidence that the conceptualization and implementation of SEE remain fragmented across disciplines and geographies. General EU alignment has expanded research volume and institutional clarity in Slovenia and Croatia, but progress in theory and policy has not consistently translated into comprehensive educational frameworks capable of building a globally transferable knowledge base (Borzaga et al., 2020). Manitoba demonstrates the normative force of Indigenous traditions but lacks systemic curricular development, while PEI has yet to consolidate a scholarly foundation for SEE. The divergences in research output confirm that the absence of disciplinary and regional integration constrains the development of the consistent SEE knowledge foundation necessary for scaling SE practice (Azqueta et al., 2023; Borzaga et al., 2020).

Methodology

The study adopted a qualitative comparative case study design within a post-positivist paradigm, selected to combine empirical rigour with context-specific interpretation and enable systematic comparison while retaining sensitivity to local complexity. The comparative case study methodology facilitates the identification of similarities and differences across contexts while preserving depth (Etzkowitz & Leydesdorff, 2000; Repko & Szostak, 2025).

Four cases were selected through maximum variation sampling to reflect diversity in SEE ecosystems while ensuring comparability through shared membership in broader socioeconomic unions. The cases examined were Croatia, Slovenia, Manitoba, and PEI. Each region belongs to either the EU or Canada and therefore operates within broadly comparable political and economic structures, yet the cases differ in institutional support, programme design, and ecosystem maturity. Variation within shared unions sharpened the comparative logic and provided insight into how different trajectories emerge under similar macro-conditions. Practical considerations, including stakeholder access and the researcher's 30 years of lived experience across EU and Canadian regions working in SEE development and community projects, further supported case selection (Repko & Szostak, 2025). The researcher's positionality as both practitioner and scholar was acknowledged, with reflexivity guiding interpretation to balance insider knowledge with critical distance.

Data collection integrated multiple methods to ensure triangulation. Forty-three interviews were conducted with key stakeholders: 10 in Croatia, 14 in Slovenia, 12 in Manitoba, and seven in PEI. Fifty-six structured observations recorded community engagement with SEE, including 15 in Croatia, 13 in Slovenia, 15 in Manitoba, and 13 in PEI. Systematic document reviews added contextualisation, covering 83 documents in Croatia, forty in Slovenia, 90 in Manitoba, and 115 in PEI. Triangulation across informative interviews with SEE providers, observations, and documents enhanced validity and reliability. The researcher's professional background in curriculum design, applied research, and community engagement, including direct involvement in SEE development across all four regions between 1995 and 2025, contributed to the depth of the insights (Repko & Szostak, 2025).

Ecosystem mapping was applied to identify the principal actors responsible for SEE provision in each region, focusing on universities, incubators, community organisations, and social enterprises. The analytical framework adapted the Triple Helix model (Etzkowitz & Leydesdorff, 2000). Rather than analysing university, government, and industry, the adapted framework addressed three strands specific to SEE. The first strand comprised providers of SEE, including universities, community organisations, peer networks, and incubators, reflecting institutional arrangements and sources of SEE beyond higher education (Vidović & Baturina, 2021). The second strand encompassed SEE content and its relation to regional research, including curricula, pedagogical approaches, and scholarly work integrated into the knowledge base. The third strand focused on community, which acted as a proxy for industry and included practitioners, community members, and social entrepreneurs who functioned simultaneously as recipients and co-creators of SEE knowledge.

On-site observations assessed visibility, relevance, and community engagement with SEE, with particular attention to equity-seeking and underserved groups. Data was organised into five themes: familiarity with SE as a practice, concern for social and environmental issues, interest in SEE, awareness of educational pathways leading to SE careers, and recognition of local best practices in dual value creation. The structured observations provided ethnographic context,

strengthened triangulation, and reflected the advantages of combining insider and outsider perspectives in qualitative research.

The researcher's dual position as an SEE educator and social entrepreneur facilitated access to diverse actors, including learners, entrepreneurs, and citizens, with the deliberate inclusion of microenterprise demographics to enhance contextual interpretation (Etzkowitz & Leydesdorff, 2000). Informative interviews with SEE providers and educators across regions provided institutional context and curricular insights that were systematically compared using the adapted Triple Helix framework to identify convergent and divergent patterns in provider approaches, content delivery, and community engagement.

Adapting the Triple Helix to SEE enabled a structured comparison of how provision, curricula, and community engagement interact to produce and apply knowledge across regions. The methodological design combines comparative case study logic, triangulated data collection, and an adapted Triple Helix framework, providing a multidimensional understanding of how SEE ecosystems emerge, evolve, and remain constrained. The methodology and case selection were designed to uncover SEE variations and explore transferability of insights to comparable contexts rather than universal claims (Repko & Szostak, 2025).

Case Studies

The regional SEE cases in this study are situated within larger political and economic unions, the EU or Canada, where shared legal and policy architectures enable meaningful comparison across contexts. Cross-union contrasts reveal the impact on SEE stemming from different degrees of coordination. EU regions operate within supranational strategies for the social economy, with research funding that facilitates alignment between policy, education, and research; whereas Canadian regions function in a federal system that assigns SE and SEE support to provinces, resulting in the decentralised interpretation of educational content.

Divergences occur within unions as well. Within the EU, Slovenia demonstrates high policy coherence with university-anchored integration, while Croatia combines cross-faculty diffusion with interdisciplinary SEE approaches. Within Canada, Manitoba advances Indigenous-centred models and applied college pathways, whereas PEI relies on community incubators with limited formal academic engagement. Analysing the cases in parallel highlights how union-level rules and funding instruments intersect with local institutional histories to generate distinct SEE approaches and capacities for dual value creation.

Case Study: Croatia

SEE in Croatia has developed under the dual influence of EU frameworks and the historical legacy of Yugoslavian market socialism (Vidović & Baturina, 2021). Social enterprises thrive across diverse sectors such as sustainable agriculture, tourism, fashion, and green energy. However, SEE implementation practices remain varied across educational institutions, community organisations, and entrepreneurial practice. Universities function as the primary SEE providers, with limited systemic coordination constraining the translation of educational efforts into scalable practice (Konecki et al., 2023).

Research directions influencing SEE curricula include policy analysis, ecosystem mapping, and curricular development, notably through a widely used SEE textbook authored by Dr. Baturina, which frames dual value creation as a central organising principle. The text integrates the EMES definition of social enterprise, bricolage and resourcefulness models, opportunity framing theories, and foundational conceptualisations by Santos and Nicholls, thereby providing a common reference point that helps reduce disciplinary divergences (Santos, 2012; Nicholls. 2010; Defourny & Nyssens, 2017; Vidović & Baturina, 2021).

SEE courses are embedded within the faculties of business, law, and social work at the University of Zagreb, the University of Osijek, and the University of Rijeka, as well as at regional universities in Pula and Dubrovnik (Konecki et al., 2023). SEE integration remains decentralised, reflecting faculty-level initiatives rather than institution-wide strategies, resulting in substantial variation. At the University of Zagreb, SEE is taught primarily through business and legal frameworks, supported by theories of entrepreneurship, sustainability, and EU policy frameworks. The Faculty of Social Work in Zagreb approaches SEE from the perspective of welfare and the social economy. At Osijek and Pula, SE is embedded within broader entrepreneurship and nonprofit management courses, while Rijeka and Dubrovnik emphasise interdisciplinary connections to social innovation and sustainable tourism. Across institutions, the Social Innovation and Social Entrepreneurship textbook provides a shared conceptual foundation and frames curricular engagement with dual value creation (Vidović & Baturina, 2021).

Experiential learning opportunities exist through incubators such as CEDRA Split, RiHub Rijeka, and the Student Business Incubator Split, with significant variation in the delivery of SE-specific support (Konecki et al., 2023). Service learning, project-based assignments, and internships with social enterprises are increasingly employed, reflecting European pedagogical trends rooted in experiential and transformative learning (Biggs et al., 2022; Brkić et al., 2022). These pedagogical approaches encourage contextual engagement with sustainability and community development challenges. However, systematic training in applied competencies such as venture design, SE modelling, impact measurement, scaling strategies, and hybrid finance remains inconsistent. Interdisciplinary integration across economics, management, law, and social policy is emerging, and explicit links to transdisciplinary debates on the Sustainable Development Goals remain underdeveloped (Azqueta et al., 2023; Konecki et al., 2023). Community organisations like ACT Group and SMART Association provide SE-focused accelerator programs and consultancy support yet operate largely outside formal academic structures.

Social entrepreneurs, such as Green Energy Cooperative, Humana Nova, and Eko Liburnia, exemplify dual value creation in practice across renewable energy, textile recycling, and sustainable tourism. Other frequently referenced exemplar cases include ACT Group in Čakovec, tourism-oriented initiatives such as Konoba Mate, and the Hvar Coop, all of which illustrate the operationalisation of dual value creation within local economies (Vidović & Baturina, 2021). While strong informal collaborations among universities, incubators, community groups, and peer networks exist, there is no structured mechanism for systematically incorporating practitioner

expertise into SEE curricula. This fragmentation weakens the feedback loop between research, education, and practice, impeding the creation of a cohesive, practice driven SEE framework.

Community observations revealed a strong baseline familiarity with dual value creation as a core mechanism of SE among diverse stakeholders, including students, NGOs, municipal actors, and business owners. Less than 50%, however, demonstrated familiarity with the terminology used to describe SE in research. More than 90% of participants recognised SE concepts, typically associating them with sustainability, ethical consumption, and resilience. Awareness was particularly pronounced among youth and community-based participants. Social entrepreneurs were frequently cited as trusted exemplars, though rarely recognised as formal educators. Universities and incubators were identified as the principal providers of structured SEE, with incubators and community organisations regarded as complementary actors diffusing knowledge through EU-funded projects and local initiatives (Brkić et al., 2022; Konecki et al., 2023). Interest in SE and SEE was consistently high across observations. Student participants called for more applied, problem-oriented learning, while practitioners stressed the need for competencies in social finance, marketing, dual value creation mechanisms, and scaling. Climate change and textile waste were recurrent themes in discussions of social priorities, reinforcing perceptions of SE as a mechanism for environmental sustainability.

Croatia's SEE ecosystem manifests substantial institutional strengths through university-based foundations and established curricular resources, with EU policy alignment reinforcing national development. Nevertheless, faculty-driven approaches with limited systemic support constrain SEE consistency and scalability (Vidović & Baturina, 2021; Konecki et al., 2023).

Case Study: Slovenia

The development of SEE in Slovenia reflects the structured interaction of legislation, academic engagement, and practitioner networks. Building on social economy traditions and European Union integration, Slovenia has cultivated one of the most formalised approaches to SE and SEE in Europe, characterised by policy alignment, academic institutionalisation, and practitioner engagement (Rakar & Uršič, 2025). The Social Entrepreneurship Act of 2011, reinforced by EU directives and OECD guidelines, provides a legislative foundation for social enterprises (socialna podjetja), complemented by cooperative and association-based models. This legal recognition supports the embedding of SE into higher education and links national initiatives to broader European strategies.

Academic provision is concentrated at the University of Ljubljana and the University of Maribor, where SEE content is delivered within the faculties of economics, social sciences, and organisational sciences. Curricula incorporate principles of social entrepreneurship, sustainable enterprise models, social impact evaluation, and hybrid organisational management. Undergraduate teaching in Ljubljana integrates institutionalist approaches, stakeholder perspectives, and third-sector economics, while graduate programmes emphasise mission-oriented business, social innovation, and the triple bottom line.

The University of Maribor contributes with courses on institutional entrepreneurship, business model innovation, and regulatory frameworks. Both universities employ project-based

learning linked to enterprises such as Skuhna, KnoF, and Simbioza Genesis, which enhances contextualised knowledge transfer. Applied disciplinary content, particularly in finance, legal structuring, and growth management, remains underdeveloped. Curricular orientation is influenced by state ministries and the Public Employment Service, which prioritise labour market integration and social inclusion, reinforcing policy–education alignment. Practitioner incubators such as the Ljubljana University Incubator and CAAP in Maribor complement these initiatives, though integration with academic curricula remains project-dependent (Rakar & Uršič, 2025).

Pedagogical practices increasingly employ experiential, interdisciplinary, and problem-based methods, drawing on European SEE frameworks. Design thinking, service learning, and impact assessment are prominent, yet systemic incorporation across faculties is uneven. Practitioner organisations such as the Slovenian Forum of Social Economy and the Association of Social Economy Entities contribute applied training, while community organisations anchor projects in sustainability, inclusion, and circular economy practice (Rakar & Uršič, 2025). Nevertheless, the integration of practitioner knowledge into curricula remains partial and inconsistent.

Social enterprises serve as both educational resources and exemplars of dual value creation. Initiatives such as Skuhna (intercultural catering), Center Ponovna Uporaba (reuse centre), cooperatives such as eTRI, and the Vincenc Draksler Foundation (boutiques employing vulnerable groups) embody SE principles in practice. These organisations collaborate with universities through guest lectures, joint projects, and case-based teaching. However, systematic mechanisms for embedding practitioner expertise into curricula remain limited (Rakar & Uršič, 2025).

Community observations reveal a high level of public familiarity with SE, which distinguishes Slovenia from less institutionally developed contexts. Students, entrepreneurs, non-governmental organisations, and municipal actors typically demonstrate immediate recognition of SE concepts and reference concrete local initiatives. Interest in SEE is strong in sectors such as sustainability, youth engagement, and social inclusion, with participants expressing demand for structured and accessible learning pathways. Universities and incubators are perceived as primary providers of knowledge, although informal collaboration with practising entrepreneurs is equally valued. Respondents emphasised the role of SE in addressing climate change and social exclusion, though explicit articulation of international agendas such as the Sustainable Development Goals remains less consistent (Rakar & Uršič, 2025).

Despite these strengths, several challenges persist. Rural access to SEE remains limited, and outreach beyond urban centres is weak. Interdisciplinary integration is incomplete, with applied competencies in finance, digital technologies, and scaling strategies insufficiently addressed. Collaboration with practitioners, while active, is heavily reliant on individual champions and project-based funding cycles, which undermines sustainability (Rakar & Uršič, 2025). Slovenia's SEE ecosystem is characterised by coherent policy support, formal legal recognition of social enterprises, and integration of SE into university curricula. Strong practitioner networks and visible enterprises reinforce its institutional development relative to other regions. However, curricular inconsistency, uneven applied training, and limited systemic incorporation of

practitioner expertise constrain its potential. Expanding interdisciplinary collaboration, extending outreach to rural communities, and embedding practical scaling competencies are essential to ensuring Slovenia's capacity to transform its policy and academic strengths into sustainable and scalable SEE outcomes (Rakar & Uršič, 2025).

Case Study: Manitoba

SEE in Manitoba is shaped by long-standing traditions of community economic development, Indigenous entrepreneurship, and cooperative practice. These traditions create an orientation toward resilience, equity, and inclusion rather than rapid scaling (Oloke, 2021). Manitoba's SEE ecosystem reflects a commitment to grassroots empowerment and local resilience rather than the pursuit of high-growth enterprise models. Manitoba's SE scholarly discourse influencing SEE consistently emphasises the strategic balancing of economic resilience and social mission, prioritising community outcomes over rapid scaling or commercial profit maximisation (Oloke, 2021).

Provision within higher education institutions remains uneven, with strong incubator support. Red River College Polytechnic has established an Indigenous Social Entrepreneurship diploma grounded in project-based learning and complemented by courses in business and organisational behaviour. Canadian Mennonite University offers a business degree with a specialisation in SE, supported by the Centre for Resilience, which functions as a collaborative hub where students and practitioners jointly develop innovation projects. The University of Manitoba integrates SE and innovation content within commerce programs, with limited direct engagement with SE models. Smaller institutions such as Providence University College and Brandon University provide general EE with limited emphasis on SE (Pauley, 2021; Oloke, 2021).

Experiential learning opportunities have been expanded through hubs like the Social Innovation and Community Service-Learning program at the University of Manitoba and through initiatives led by the Canadian Community Economic Development Network (CCEDNet). However, access to structured SEE mentorship, dual value enterprise development, and venture scaling strategies remains uneven. Community-based organisations, such as BUILD Inc., Manitoba Green Retrofit, and the Social Enterprise Centre, provide important applied learning environments while operating largely independently from academic institutions (Oloke, 2021).

SE practitioners in Manitoba represent a diverse array of sectors, from construction and energy efficiency (BUILD Inc.) to food security and recycling (Mother Earth Recycling). These enterprises embody dual value creation by providing employment, community revitalisation, and environmental stewardship while maintaining financial viability. However, systematic channels for integrating practitioner expertise into formal SEE curricula are limited, with partnerships often reliant on project-based funding rather than sustained institutional frameworks (Oloke, 2021).

Community organisations and incubators like Enclave and North Forge strengthen the SEE ecosystem through practice-oriented training and mentorship. The Canadian Community Economic Development Network and the Social Enterprise Centre play important roles, though their connection to higher education institutions remains fragmented and project specific.

Consequently, the SEE ecosystem draws on diverse actors including universities, incubators, and practitioners, without broader systemic coordination (Oloke, 2021).

The knowledge base delivered through Manitoba's SEE follows a two-layered structure consistent with the wider field of EE (Kickul & Lyons, 2020). At the theoretical level, students are introduced to dual value creation and its embedding in traditions of cooperative development, Indigenous practice, and community economic development (Oloke, 2021). At the applied level, training emphasises entrepreneurial skills such as finance, management, and marketing, reinforced through service learning and social innovation projects. Systematic instruction in impact finance, measurement, scaling, and hybrid governance remains underdeveloped, leaving significant gaps between learner aspirations and the operational demands of dual value creation (Dacin et al., 2010). Programs with the most explicit SEE emphasis, such as those at Red River College Polytechnic and Canadian Mennonite University, prioritise experiential learning and prototyping, whereas larger universities approach SE more indirectly (Pauley, 2021; Oloke, 2021).

Observations in the community indicate high levels of interest in SEE, particularly among Indigenous groups, youth, and newcomer populations. Nevertheless, awareness of structured training opportunities remains concentrated in Winnipeg. Participants in observations frequently cited exemplar enterprises such as BUILD Inc., Manitoba Green Retrofit, and Mother Earth Recycling as key sources of knowledge about SE. Approximately one third of participants identified practitioners as their principal educators, underscoring the centrality of mentorship and lived experience within the ecosystem. Themes of climate action, Indigenous self-determination, and inclusive employment consistently emerged as focal points for future SEE development (Oloke, 2021).

Manitoba's SEE ecosystem demonstrates important strengths alongside significant fragmentation. Higher education institutions provide partial coverage of a coherent curriculum, while community organisations generate enthusiasm and practice-based learning opportunities without sustained integration into formal education. The outcome is an ecosystem where the normative commitment to dual value creation is clear, but the progression from conceptual foundations through applied competencies to enterprise scaling remains incomplete. A coordinated provincial strategy has the potential to consolidate Manitoba's cultural diversity, community traditions, and Indigenous leadership into a more robust framework for SEE, thereby translating widespread interest into sustainable practice. Manitoba's SEE system builds on robust community and strong Indigenous foundations. Advancing SEE in the province will require creating sustained academic–practitioner linkages, developing comprehensive curricula focused on applied competencies for dual value creation, and fostering a unified ecosystem strategy (Oloke, 2021).

Case Study: Prince Edward Island

SEE in PEI has developed within a context where sustainability, entrepreneurship, and climate resilience are recognised as priorities for regional development, yet the system remains fragmented and insufficiently consolidated (Pauley, 2021). Curricular provision reflects these limitations. The Social Enterprise Incubator of the Community Sector Network of PEI (CSNPEI)

offers the most focused SEE training, including modules on business planning, financial management, fundraising, and impact measurement.

The CSNPEI Incubator is open to all community members. At the University of Prince Edward Island, SEE remains anchored in general business curricula, with SEE-specific programming being peripheral or emergent. Courses in engineering and science occasionally link entrepreneurial projects with environmental or social challenges, but systematic integration into SEE frameworks is absent. Holland College contributes applied programs and micro credentials such as Sustainable Business Leadership, Green Infrastructure and Renewable Energy Technologies, and Applied Climate Change and Adaptation. These initiatives indirectly build competencies relevant to SEE, but the absence of a cohesive provincial strategy limits systematic curricular alignment. Nonetheless, initiatives such as the Global Social Innovation Lab provide interdisciplinary and cross-cultural training opportunities and represent important innovation in the island context (Brkić, Shah, Liu, & Tong, 2022; Pauley, 2021).

Community organisations sustain a substantial share of SEE-related practice. Groups such as the PEI Certified Organic Producers Co-operative, Island Nature Trust, and the Environmental Coalition of PEI offer mentorship and informal learning in sustainable agriculture, conservation, and renewable energy. Local enterprises model dual value creation in diverse sectors, including Solely in renewable energy, OakLeaf in sustainable agriculture, and MacPhail Woods in sustainable forestry. Culinary ventures such as The Table and the Inn at Bay Fortune combine tourism with environmental stewardship. Despite this alignment, most of these enterprises do not self-identify as social enterprises, nor do they maintain strong connections with academic providers, relying instead on peer networks and informal exchanges of knowledge (Pauley, 2021; Brkić et al., 2022).

Community observations highlight a limited awareness of SEE as a distinct educational field. Participants frequently equated SE initiatives with community development rather than structured SE practice connected to SEE. Once the concept of dual value creation was introduced, participants consistently pointed to concrete examples of enterprises achieving this in practice, expressing strong alignment with SE principles and particular interest in their potential to address climate change mitigation, food security, and cultural preservation. One third of participants identified social entrepreneurs as their most trusted source of knowledge, underscoring the reliance on peer-led, experiential learning. While enthusiasm for SE and SEE was evident, especially among youth and sustainability-oriented entrepreneurs, pathways for transforming interest into social enterprise creation remained unclear. More than 90% of participants were unaware of existing incubator initiatives, which reflects the gap between grassroots energy and institutional visibility (Pauley, 2021; Brkić et al., 2022).

PEI's SEE ecosystem reveals significant potential while remaining constrained by insufficient systemic coherence. Strengthening SEE requires deliberate institutional frameworks integrating university support, academic curricula, incubator training, and practitioner knowledge (Pauley, 2021).

Comparative Analysis of SEE Providers

Academic engagement in SEE across the examined regions reflects distinct patterns shaped by regulatory frameworks, institutional priorities, and policy alignment. Participation is present in all four contexts, and the coherence and strategic depth of engagement differ considerably, raising broader questions about institutionalisation, legitimacy, and integration within education systems (Borzaga et al., 2020; Repko & Szostak, 2025).

Slovenia and Croatia illustrate policy-aligned, university-anchored ecosystems that integrate formal education, applied learning, and policy coherence. Structured funding and legal frameworks support consolidation across faculties and programmes, embedding SEE within undergraduate and postgraduate programs (Vidović & Baturina, 2021; Rakar & Uršič, 2025). Manitoba and PEI demonstrate decentralised, community-driven approaches that prioritise accessibility and contextual innovation but lack national policy support and consistent curricular frameworks. Manitoba exhibits curricular depth through Indigenous-centred models, whereas PEI relies on community organisations, leaving formal academic pathways underdeveloped (Oloke, 2021; Pauley, 2021). These contrasts emphasise the balance between institutionalisation and inclusivity in regional SEE models.

Variation among regions also extends to the depth and accessibility of SEE provision. European contexts benefit from policy environments that encourage cross-disciplinary alignment and curricular integration, ensuring structured exposure across disciplines. Canadian contexts favour inclusivity and local responsiveness, although fragmentation and the absence of coherent policy reduce curricular consistency and formal recognition (Borzaga et al., 2020; Pauley, 2021).

The comparative evidence reveals four distinct regional approaches to SEE, each demonstrating specific strengths. Manitoba emphasises cultural grounding, Croatia focuses on disciplinary diversification, Slovenia demonstrates institutional alignment, and PEI implements accessible community-oriented delivery that improves access to education for broader society (Vidović & Baturina, 2021; Rakar & Uršič, 2025; Oloke, 2021; Pauley, 2021). Each region contributes to the evolution of SEE in unique ways, highlighting opportunities and directions for improving knowledge transfer to learners and best practice exchange.

Table 1: Academic SEE Programming by Region

Region	Dominant SEE Provider	Characteristics
Croatia	Universities with community-based support	Theory-driven content with applied components; decentralised; varied disciplinary anchoring; limited coordination
Slovenia	Universities with policy and incubator alignment	Experiential focus; policy-aligned curricula; inclusion-oriented; embedded in social economy frameworks
Manitoba	Postsecondary institutions and community-based provision	Diverse content; cultural grounding in Indigenous knowledge; limited integration; absence of unified academic identity

Region	Dominant SEE Provider	Characteristics
PEI	Community-based incubator	Informal integration; community-based delivery; minimal academic involvement; limited structured pathways

The comparison demonstrates that Slovenia and Croatia benefit from structured integration supported by policy and academic institutions, while Manitoba and PEI rely on community networks that enhance accessibility and local relevance. Each regional model highlights complementary advantages: Slovenia illustrates the benefits of institutional alignment, Croatia advances disciplinary diversification, Manitoba contributes a culturally grounded education model, and PEI provides a pathway to inclusive access through community delivery of SEE. No region has developed a system that integrates all four dimensions in a single framework. This gap explains the continuing fragmentation of SEE ecosystems while also pointing to the potential for cross-regional synthesis. By drawing on these complementary strengths, SEE as a discipline can progress toward more coherent, adaptable, and inclusive systems capable of addressing diverse educational and societal contexts (Defourny & Nyssens, 2017; Kickul & Lyons, 2020).

SEE Provision, Approaches, and Community Engagement

A comparative analysis of curricular foundations reveals distinct logics across Slovenia, Croatia, Manitoba, and PEI, each combining theory and application in context-specific ways. Slovenia aligns SEE with EU frameworks such as EMES indicators and social innovation policy instruments, producing a functionalist orientation in which theory legitimises institutional design and compliance (Borzaga et al., 2020; Defourny & Nyssens, 2017). Croatia advances a normative–critical orientation: business tools are integrated with solidarity economy and public administration frameworks, enabling insight into state–market relations and hybrid welfare arrangements (Vidović & Baturina, 2021). Manitoba reframes theory through Indigenous relational worldviews centred on reciprocity, land stewardship, and collective well-being, establishing an ontological basis for enterprise design beyond Western individualism (Oloke, 2021). PEI prioritises pragmatic application, treating theory as secondary and concentrating on toolkits and short-cycle capability building (Pauley, 2021).

Theoretical foundations and applied knowledge underpinning dual value creation are present in SEE across the examined regions with different levels of integration and focus. Slovenian curricula integrate planning, forecasting, and policy-aligned viability assessment, where economic competence supports institutional accountability. Croatian curricula combine market analysis and financial planning with socio-political critique, preparing learners to adapt models within contested governance contexts. Manitoba embeds finance and marketing in community-defined value, culminating in co-created projects that translate entrepreneurial skills into collective stewardship. PEI provides opportunity scanning, cost–revenue mapping, governance preparation, and pitching through incubator formats designed for accessibility and immediate utility (Kickul & Lyons, 2020; Pauley, 2021).

The process of social value creation is integrated in SEE across the regions, though with significant divergence in approaches. Slovenia operationalises social value through EU metrics and legal frameworks, where legitimacy is derived from measurable outcomes and codified governance. Croatia situates legitimacy in participatory structures and solidarity principles, using legal frameworks to question institutional arrangements. Manitoba embeds legitimacy in Indigenous ethics of relationship and responsibility, often substituting narrative and community indicators for standardised metrics. PEI reduces social value to procedural competencies such as logic models, dashboards, and risk governance, oriented to execution rather than normative debate (Oloke, 2021; Pauley, 2021; Rakar & Uršič, 2025).

Applied knowledge reflects regional differences in SE practice. Slovenian SEE emphasises legal documentation, policy tools, and impact accounting, while Croatian education combines technical competencies with cooperative law and stakeholder governance, blending practice with institutional critique. Manitoba structures SE implementation around complete venture lifecycles, including participatory governance, product and service prototyping, modular innovation, and community-based implementation. PEI delivers applied modules on feasibility scans, business canvases, board preparation, networking, and scaling strategies, accessible to non-academic learners (Pauley, 2021; Vidović & Baturina, 2021).

Convergence among regional SEE appears in business planning, stakeholder engagement, and hybrid organisational forms. Divergence dominates in enterprise structuring, financing logics, and impact evaluation. The comparison highlights complementary strengths among examined regions. EU-aligned formalisation ensures consistency, transferability, and accountability (Borzaga et al., 2020). Croatian interdisciplinarity fosters adaptability across sectors (Vidović & Baturina, 2021). Manitoba's Indigenous foundations embed sustainability and equity at the design stage (Oloke, 2021).

PEI's pragmatic delivery widens participation and lowers entry barriers (Pauley, 2021). An approach that integrates institutional alignment, normative critique, cultural grounding, and accessible delivery in one curriculum has not been identified in any of the regions examined. A forward-looking SEE framework can assemble these strengths into a modular design: a theoretical spine spanning policy, normative, and cultural perspectives; an applied layer of interoperable tools for finance, governance, and impact that accommodate diverse evidence standards; and context modules that adapt pedagogy to regional epistemologies. The integrated SEE model would preserve pluralism while enabling comparability, collaboration, and cross-regional learning in advancing dual value creation (Repko & Szostak, 2025).

Innovative pedagogical practices and research orientations together shape the development of social entrepreneurship education across the four regions. Experiential and project-based learning are widely applied, with European programmes incorporating simulations, role-play, and policy assignments, while Canadian regions emphasise storytelling, land-based learning, and peer mentoring rooted in community traditions (Biggs et al., 2022; Brkić et al., 2022; Oloke, 2021). Manitoba demonstrates the closest alignment between pedagogy and Indigenous knowledge, placing narrative and ecological practices at the centre of instruction, whereas Prince Edward

Island relies on practitioner-led workshops and competitions that enhance accessibility but remain less systematically embedded in curricula. Croatia occupies a distinctive position by producing the only dedicated textbook among the four regions, which integrates legal, economic, and social theory into a consolidated curricular resource (Vidović & Baturina, 2021). Slovenia depends on modular materials and policy frameworks, which ensure alignment with EU requirements but constrain theoretical plurality. Manitoba and Prince Edward Island rely primarily on practitioner-generated or in-house resources, enriching local perspectives but limiting curricular consolidation. The comparative evidence indicates that pedagogical innovation is present in all regions, while the durability and coherence of curricular design depend on the strength of the research ecosystem, exemplified by the Croatian case (Konecki et al., 2023).

Community perspectives indicate that the term SE is not universally recognised, with close to 90% of respondents in PEI misidentifying it compared to more than 80% familiarity in Slovenia. In contrast, the practice of dual value creation is widely acknowledged, with recognition rates ranging from just above 70% in Manitoba to over 90% in Croatia. Recognition of SE and pathways to SEE implementation correlate strongly with the maturity of university-led ecosystems, as demonstrated in Slovenia and Croatia, whereas Manitoba and PEI depend primarily on peer learning and practitioner mentorship. Across all regions, interest in SE practice and willingness to engage in SEE increase substantially when framed through the lens of dual value creation, highlighting the accessibility of practice-based legitimacy and the necessity of educational systems that integrate institutional clarity with community-driven learning (Borzaga et al., 2020; Konecki et al., 2023; Oloke, 2021; Pauley, 2021; Rakar & Uršič, 2025; Vidović & Baturina, 2021).

Conclusion

The comparative analysis demonstrates that social entrepreneurship education evolves as regionally embedded systems that interpret dual value creation through distinct epistemologies. Slovenia and Croatia illustrate the integrative potential of policy-aligned and university-led frameworks, where curricular consolidation and policy coherence ensure systemic legitimacy (Borzaga et al., 2020; Vidović & Baturina, 2021; Rakar & Uršič, 2025). Manitoba and Prince Edward Island exemplify the inclusivity and adaptability of community-driven ecosystems, where Indigenous epistemologies and practitioner mentorship expand accessibility despite weaker institutional scaffolding (Oloke, 2021; Pauley, 2021). The divergence between these ecosystems reveals a structural tension: formalised systems provide coherence and accountability, whereas decentralised systems extend accessibility and contextual legitimacy.

The analysis demonstrates that SEE can be advanced as a framework that unites theoretical diversity, applied competencies, and practice-derived insights around dual value creation. Policy-aligned systems in the EU show how coherence and accountability can be institutionalised, while Manitoba highlights the capacity of Indigenous epistemologies to embed inclusivity and sustainability at the design stage. PEI illustrates how pragmatic and community-based accessibility can lower entry barriers and extend participation beyond academic settings. Together, these regional perspectives show that inclusivity in SEE can emerge through multiple pathways, each

adapted to distinct institutional and cultural contexts, yet converging on the shared principle of dual value creation.

Research Significance and Limitations

The study advances SEE theory by identifying a common knowledge base architecture comprising high-level theories and applied knowledge with shared focus on dual value creation (Battilana & Lee, 2014; Defourny & Nyssens, 2017; Kickul & Lyons, 2020). Common structure and focus accommodate diverse epistemological approaches within coherent educational frameworks, demonstrating that SEE consolidation across regions may occur through structural commonalities rather than theoretical uniformity. A critical implication is that the study leads to inclusive SEE that may provide a pathway to creating communities of practice centred on simultaneous social and economic value creation, which is essential for knowledge exchange and scaling of SE practice. The common knowledge architecture focused on the same objective of dual value creation identified across regions may overcome terminological and conceptual barriers that prevent cross-cultural collaboration, enabling practitioners and those who aspire to create social ventures to recognise shared practices, exchange successful models, and scale social and economic value creation mechanisms across diverse contexts rooted in a coherent knowledge base (Borzaga et al., 2020; Repko & Szostak, 2025).

The study is limited to four regional cases, which restricts generalisability and does not capture intra-regional or longitudinal variation. Despite these constraints, the comparative design reveals robust insights into how SEE can be structured to balance institutional coherence with contextual inclusivity. Future research should investigate modular SEE frameworks that systematically integrate diverse epistemological foundations while maintaining cultural authenticity, particularly examining how technology-mediated platforms can facilitate cross-regional knowledge exchange without undermining community-embedded learning approaches (Brkić et al., 2022; Hall & Soskice, 2001; Mazzucato, 2018).

6.3 Discussion: Interpreting Cross-Regional Findings

The comparative analysis presented in Article 3 produces empirical findings that highlight how SEE develops within distinct institutional environments. This discussion extends the article's findings by interpreting the empirical evidence through the theoretical framework and knowledge architecture established in Chapter 4 and Chapter 5. The post article discussion and analysis examine SEE ecosystems in greater detail to identify the reasons for fragmentation in SEE approaches across regions, as well as opportunities and challenges associated with the integration of globally applicable SEE approaches. In addition, the discussion examines more closely the content and pedagogies adopted across the examined regions to identify additional content and instructional approaches that can be integrated into the research based SEE model developed in Chapter 5. Two analytical layers structure this discussion, including a comparative examination of key actor roles within SEE ecosystems and an interpretation of findings through the adapted Triple Helix framework.

6.3.1 Regional SEE Ecosystems: Comparative Analysis of Key Actors

SEE in the examined regions prepares learners to launch SE practice by drawing on a broad range of organisational structures and knowledge sources. The way these knowledge and institutional structures relate to one another shapes what learners encounter as SE practice. The theoretical framework developed in Chapter 4 established that socioeconomic architectures vary across jurisdictions, while systemic conditions governing dual value creation in entrepreneurial practice remain constant. The purpose of this analysis is to determine whether the socioeconomic architectures shaping each regional ecosystem support SEE that transfer beyond the jurisdictions in which they are implemented, or whether each ecosystem reflects a regionally bound representation of SE practice.

The empirical research shows that SEE provision and the knowledge sources on which social entrepreneurs rely extend beyond universities, despite the predominance of university-focused research in the SEE literature. Formal and informal learning related to SE practice occurs across incubators, community networks, practitioners, and government agencies. Aspiring social entrepreneurs therefore acquire knowledge from multiple sources within regional ecosystems, often encountering approaches that differ substantially from those taught in universities. This multiplicity of knowledge sources suggests that learners may develop different understandings of SE in different regions.

The interaction between institutional and community recognition of knowledge sources determines whose expertise and practices are validated within society, which forms of knowledge are incorporated into curricula, and whether SEE models can be adapted and transferred across contexts (Vedula et al., 2022). While Article 3 adapts the Triple Helix model to three SEE-specific strands of provision, content and research, and community, the discussion that follows unpacks the provision strand into five actor categories, namely academic institutions, incubators, community networks, social entrepreneurs, and government entities, to examine in greater detail how each contributes to and constrains SEE within regional ecosystems.

6.3.1.1 Academic Actors in SEE Development

Academic institutions across the four regions function as translational nodes within SEE ecosystems, mediating between policy frameworks, community practice, and formal curricula. Their role and reach reflect the alignment of educational mandates with governmental priorities and cultural logics.

The two EU regions, although operating within unifying EU policies, exhibit significant differences in academic treatment of SEE. In Slovenia, universities collaborate with registered social enterprises and policy-aligned incubators, such as the Ljubljana University Incubator, through consulting projects, curricular modules, and European Union–funded initiatives. These arrangements secure structured access to practice and strengthen academia's influence on policy, but they also narrow the curricular focus to state prioritised inclusion objectives, which may lead learners to perceive environmental, tourism, cultural, agricultural, and forestry ventures creating dual value as outside the domain of social enterprise when they lack formal status (OECD, 2024). In Croatia, the expiry of the Strategy for Social Entrepreneurship (2015–2020) has left universities

without a national policy framework. Academic engagement is maintained through European Union funded interdisciplinary projects in energy democracy and sustainable tourism, which temporarily connect research and practice. The time-limited nature of these projects prevents the institutionalisation of community-based knowledge and concentrates SEE activity within law, economics, and tourism rather than across the full disciplinary spectrum (Tišma et al., 2024).

Canadian regions differ further. Manitoba's decentralised provision reflects the absence of coherent national or provincial SEE policy. Red River College Polytechnic's Indigenous Social Entrepreneurship Diploma integrates Indigenous cultural philosophies, Elder-led storytelling, ceremony, and land-based accountability into entrepreneurship training, embedding Indigenous epistemology and collective well-being into formal instruction. Mainstream SEE integrated in business programs rarely adopt these cultural approaches, limiting their diffusion. The absence of policy linkages limits broader curricular integration of cultural approaches in SEE (Sengupta et al., 2019).

In PEI, where no formal SEE policy exists, academic engagement is peripheral. The University of Prince Edward Island and Holland College include SE within broader business or sustainability courses, with limited reference to social objectives. Apprenticeship-oriented learning observed in sectors such as sustainable forestry and conservation is seldom integrated into SE frameworks, keeping knowledge tacit and highly localised. Table 6.3.1 summarises academic SEE provision across the four regions.

Table 6.3.1: Academic SEE Offerings by Region

Region	Number of SE Programs	Number of SE Courses	Notes
Croatia	No dedicated programme, courses integrated in business, law (social work and tourism)	More than five courses	Programs across law, economics, tourism; theory-driven with applied components
Slovenia	Within dedicated initiatives such as BEST Project	Around five courses	Strong synergy with policy; experiential focus; social inclusion emphasis
Manitoba	One program at Red River Polytech	More than five courses	Highly diverse content across Indigenous and general innovation streams; fragmented
PEI	No academic programs, informal ties with community-based program	Two peripheral EE courses with social elements	Marginal integration within sustainability and entrepreneurship courses

Table 6.3.1 indicates that the SEE landscape varies considerably across the four regions, with the result that what learners encounter in academic SEE corresponds to the disciplinary orientation and policy context of the institution and region in which they study rather than to the structural characteristics of SE practice.

6.3.1.2 Incubators and Support Organisations

Across the four regions, the institutional legitimacy of incubators and their degree of community embeddedness are reflected in how they engage with SEE objectives. Institutional legitimacy, often derived from policy alignment and formal recognition, enables access to resources, curricular integration, and sustained partnerships with academic institutions. In contrast, legitimacy grounded in community embeddedness prioritises responsiveness to local needs, informal knowledge exchange, and adaptive capacity, but operates with limited curricular reach beyond the local context.

High institutional legitimacy characterises the Croatian and Slovenian incubation models. In Croatia, a network of specialised urban-based incubators, including CEDRA Split and Step Ri, combines technical services, mentorship, and sustainability objectives within structured, policy-relevant frameworks (Konecki et al., 2023; Vidović & Baturina, 2021). Similarly, Slovenia's policy-aligned incubators, embedded in European Union–supported social enterprise registries, operate in close coordination with academic institutions, ensuring coherent integration into SEE curricula (Rakar and Uršič, 2025).

Although models reflecting broader regional policies reinforce institutional coherence, they also risk narrowing innovation to state-sanctioned objectives, as in Slovenia's prioritisation of workforce integration (Defourny & Nyssens, 2017), potentially overlooking interconnected challenges such as environmental degradation or cultural marginalisation (Borzaga et al., 2020). By contrast, PEI and Manitoba exemplify incubator legitimacy rooted in community embeddedness. In PEI, the Social Enterprise Incubator operates with provincial support, drawing authority from strong local networks and delivering practical training aligned with community-defined priorities. Manitoba's incubators, such as the Social Entrepreneurship Incubator Enclave, similarly prioritise responsiveness to local contexts, incorporating Indigenous knowledge systems and flexible program design. However, in both contexts, the absence of coordinated policy frameworks and fragmented institutional linkages constrains broader curricular integration and hinders ecosystem navigation for learners.

The comparative analysis indicates that policy embedded incubator models and community embedded incubator models exhibit complementary but distinct strengths. Policy embedded incubator models are formally integrated within academic institutions and aligned with governance frameworks, while community embedded incubator models enhance contextual relevance and adaptive responsiveness to local needs. However, policy embedded models do not incorporate locally grounded, adaptive learning, while community embedded models are not structurally integrated into academic and policy frameworks. The analysis further demonstrates that the socioeconomic architecture of each jurisdiction exerts a critical influence on SEE. Policy embedded incubators` orient learners toward institutionally sanctioned enterprise forms, whereas community embedded incubators orient learners toward locally grounded practice. As a result, neither model equips learners to interpret and apply dual value creation as a systemic process operating across different socioeconomic architectures.

6.3.1.3 Community Networks

Across the four regions, community embeddedness provides legitimacy where formal recognition is absent or misaligned, creating parallel infrastructures for knowledge circulation in SEE. Divergent legitimacy regimes and definitions of SE shape the extent to which community members and organisations access formal education systems either as contributors to SEE or as experiential learning providers.

PEI's community-based organisations, Manitoba's Treaty-anchored Indigenous enterprises, and multicultural initiatives such as Folklorama operate from distinct sources of authority but share an absence of institutionalised pathways into SEE curricula despite their active community presence. The degree of policy integration also determines the SEE visibility of community networks. Community networks such as Slovenia's state-aligned associations, embedded through municipal partnerships and registries, gain structured access to education systems. In contrast, PEI's community organisations, Manitoba's Indigenous associations, and Croatia's zadruga and sector-specific networks operate outside policy mechanisms, resulting in exclusion from formal SEE, except for facilitating experience-based learning. Community organisations note a high level of reliance among social entrepreneurs on informal peer exchange for knowledge circulation.

Community networks foster thriving peer-to-peer knowledge exchange, illustrating the informal SEE proliferation that leverages community embeddedness across contexts. In PEI, informal mentorship networks connect emerging and established entrepreneurs in fisheries, artisan production, and hospitality. In Croatia, ACT Group coordinates training, advocacy, and cross-sector collaboration to link cooperative zadruga-based enterprises with market opportunities and policy dialogue (Vidović & Baturina, 2021). Both models demonstrate how embedded networks can sustain SEE in the absence of strong institutional scaffolding. Slovenia's integration of community actors into official SEE governance expands the scope for policy alignment, while in Manitoba the connection between community networks and formal SEE structures is established primarily through Indigenous-led programming, with broader community networks operating outside this institutional framework.

6.3.1.4 Social Entrepreneurs as Agents of SEE

Social entrepreneurs contribute to SEE not only as practitioners but also as exemplars, mentors, and sources of tacit knowledge that formal curricula rarely capture. However, the extent to which they can fulfil this educational role depends on whether their enterprises receive institutional recognition as social enterprises within their jurisdictions. Where recognition exists, enterprises become accessible to experiential and service-based learning through structured partnerships with educational institutions. Where recognition is absent, enterprises operating through identical dual value creation logic often remain outside formal SEE, narrowing the range of models learners encounter and shaping their perceptions of what SE practice entails.

Social enterprises operate across comparable sectors in all four regions. Sustainable tourism initiatives combine locally owned hospitality ventures with sustainable agriculture and inclusive employment. Croatian green energy producers organise as cooperatives under the local

zadruga form, reflecting traditions of democratic economic governance. Comparable enterprises in Slovenia appear as socialno podjetje, the legally defined social enterprise form in that jurisdiction. The same solutions in PEI and Manitoba emerge as business solutions. Although the operational dual value creation mechanisms are consistent across regions, differences in institutional recognition determine which enterprises are used as examples in SEE programmes and which remain invisible to learners despite operating through the same SE models.

Institutional recognition is also associated with access to capital and financial sustainability impacting the capacity of enterprises to assist as educational partners. In Slovenia, more than 60% of registered social enterprises receive public subsidies, although support is directed primarily to inclusion-oriented ventures. Enterprises pursuing green or circular economy objectives without official designation depend on unstable private or donor funding (OECD, 2022). In Croatia, EU structural funds channel resources into time-limited projects rarely reaching social entrepreneurs unless partnered with academia. Manitoba exhibits disparities, with Indigenous innovation receiving dedicated support through the Indigenous Growth Fund while non-Indigenous ventures navigate fragmented pathways. PEI relies on circular local reinvestment from tourism and agriculture, with limited connection to formal educational systems.

Learners in different jurisdictions therefore encounter substantively different representations of SE practice shaped not by differences in the practice itself but by definitional and policy frameworks that determine which enterprises become visible within educational systems. This pattern reinforces the fragmentation documented throughout this thesis and demonstrates that experiential knowledge acquisition in SEE is conditioned by institutional recognition as much as by the actual diversity of SE practice within regions.

6.3.1.5 Government and Policymakers

Government engagement in SEE ecosystems varies widely across the examined regions, with comparative observation indicating that policy contexts correspond to two observable indicators relevant to this study, namely the prevalence of SEE provision and community recognition of SE terminology. Across both EU and Canadian contexts, a core divide emerges between legally grounded SEE frameworks, as seen in Slovenia, and more strategy-based or informal approaches, as seen in Croatia, Manitoba, and PEI.

Slovenia and Manitoba, for example, both emphasise social innovation in national strategies but differ sharply in articulation and implementation. Slovenia's Social Entrepreneurship Act passed in 2011 mandates interministerial coordination and academic engagement, resulting in a legal framework that binds SEE to the Bologna education standards. This alignment is associated with the integration of SEE into curricula and applied learning environments at higher education institutions such as the University of Maribor (OECD, 2022). Manitoba's Social Enterprise Strategy recognises the role of social innovation, particularly in Indigenous communities, but focuses on employment outcomes and channels support through agencies such as Employment Manitoba. This labour market orientation corresponds to limited integration with academic institutions and to a disjuncture between SE practice and education.

A similar contrast exists between Croatia and PEI. Both regions articulate support for SE through government strategies or programmes in some ways, depending on regional understanding and perspective on SE practice. Croatia through its Strategy for Social Entrepreneurship from 2015 to 2020 focuses directly on SE as a dual value creation practice. PEI in contrast takes a social objective approach through climate action, while strengthening business entrepreneurship at both universities and through community-based incubators. However, neither region has enacted legislation to structure SEE, and both rely heavily on short-term or project-based funding.

This analysis indicates four broad configurations of governmental engagement with SEE across the examined regions. Slovenia operates within an integrated legislative framework that aligns legal recognition, funding mechanisms, and institutional partnerships. Croatia draws on a national strategy without dedicated legislation, with SEE support articulated through policy direction rather than legal mandate. Manitoba relies on a sector-targeted approach that supports community-based practice with limited integration into academic provision. PEI operates without a dedicated SEE framework, with support emerging through related policy areas and community-based initiatives rather than through formal SEE structures.

Table 6.3.1.5: Regional Actor Coordination Typologies in SEE Ecosystems

Region	Configuration	Observable Features	Observable Limitations
Croatia	Strategy-based framework without legislation	Faculty, NGO, and incubator alliances articulated through national strategy	Urban and rural fragmentation, limited consistency of implementation
Slovenia	Integrated legislative framework	Ministry, incubator, and academia coordination supported by legal recognition and aligned funding	Sectoral exclusion of enterprises operating outside inclusion-oriented categories
Manitoba	Sector-targeted framework	Indigenous-led practice networks supported through targeted programmes	Limited provincial coordination across the broader SEE landscape
PEI	No formal SEE framework	Peer-to-peer knowledge flows sustained through community-based initiatives	Absence of formal pathways between community provision and academic structures

Each region exhibits configurational features that bear on programme prevalence and terminology recognition. Slovenia's structured alignment across sectors corresponds to a mature SEE ecosystem, with associated risks of sectoral narrowing. Croatia's less formal and interdisciplinary programme integration corresponds to broader sectoral inclusion across farming, social inclusion, and clean energy. Manitoba's social enterprises, outside Indigenous-led initiatives, operate without provincial coordination. PEI's peer-driven support networks sustain grassroots provision in the absence of formal pathways. The analysis indicates that policy structure and contextual responsiveness produce different SEE configurations across the four regions.

6.3.1.6 Socioeconomic Structuring of SEE Ecosystems and Transferability

The comparative analysis of SEE ecosystems provides a clear empirical basis for identifying the root causes of fragmentation in SEE content in regional application, which in turn constrain the capacity of social entrepreneurship to scale as a global practice. The comparative examination of all five actor categories, universities, government, incubators, community organisations and social enterprises, leads to a consistent conclusion.

Each regional SEE ecosystem reflects the socioeconomic architecture of its jurisdiction, corresponding to a representation of SE practice that draws on local institutional arrangements, policy frameworks, and cultural traditions. A learner educated in Slovenia encounters SE as a policy regulated, inclusion oriented organisational form. A learner in Manitoba encounters SE through Indigenous ontology and community economic development. A learner in Croatia encounters SE as a multidisciplinary field situated within post socialist institutional reform. A learner in PEI acquires pragmatic business competencies with social focus and limited theoretical grounding. These approaches are not merely different emphases within a shared field but constitute substantively different conceptualisations of what SE practice is and how it operates. No regional ecosystem examined in this study is designed to prepare learners to interpret SE practice beyond its own jurisdiction, which indicates that the limited cross-regional transferability of SEE identified in the introduction to this chapter reflects a structural feature of how socioeconomic variables shape SEE design, rather than a deficiency of any individual programme.

6.3.2 SEE Knowledge Base: Theoretical and Applied Knowledge Divergence

The comparative findings reveal that SEE operates not as a singular model bound to a uniform disciplinary base, but as a mosaic of practices situated within distinct cultural, institutional, and political contexts. This section examines what the evidence reveals about the relationship between disciplinary fragmentation and practical integration of dual value creation.

The Chapter 4 analysis established that socioeconomic variables, including legal arrangements, governance structures, and financing mechanisms, are context-specific and cannot be readily adopted across contexts, while systemic conditions governing dual value creation apply universally. The regional divergence documented in this chapter provides empirical support for this distinction. Each region teaches different theories and applies different implementation pathways because these reflect context-specific socioeconomic variables shaped by regional political economy traditions. At the same time, all four regions share the commitment to dual value creation as the defining characteristic of SE practice, consistent with the theoretical proposition that dual value creation reflects a systemic condition rather than a preference or policy choice specific to any single institutional context.

6.3.2.1 Theoretical Foundations Across Regions

A comparative analysis of theoretical foundations in SEE curricula reveals distinct logics and institutional orientations in Slovenia, Croatia, Manitoba, and PEI. These observed divergences reflect not only regional priorities but also deeper cultural and epistemological trajectories shaping how SEE is conceptualised and delivered. Across all four regions, regional SEE includes

sustainability as a macro-level reference but lacks a systemic macro-level theory that connects sustainability to enterprise-level dual value creation.

In Slovenia, curricula are anchored in EU frameworks such as the EMES Criteria and Social Innovation Theory, employed primarily to ensure institutional compliance and policy alignment (Defourny & Nyssens, 2014; European Commission, 2021). The theoretical orientation is functionalist, offering structured tools for designing social ventures in accordance with European standards. Implicit influences include a Schumpeterian model of innovation mediated through EU policy and a Keynesian logic emphasising the role of welfare states (Keynes, 1936; Schumpeter, 1934), resulting in a technocratic and regional integration focused approach with strong contextual embeddedness.

Croatia presents a theory-rich and critically reflexive multidisciplinary approach, drawing on interdisciplinary and normative traditions. The theoretical framework aligns with Slovenia by referencing the EMES Criteria. However, Croatian curricula also integrate solidarity economy principles and public administration theory to encourage interrogation of socioeconomic institutions and post-socialist transitions (Vidović & Baturina, 2021). The inclusion of Polanyian concepts such as market embeddedness and welfare-state hybridity shifts the use of theory beyond legitimacy, enabling critique of dominant systems and exploration of alternative models (Polanyi, 1944/2001). The primary function of theory is normative, emphasising social value generation over market performance and aligning with broader EU social economy orientations (Defourny & Nyssens, 2014).

Manitoba departs from EU and institutional frameworks entirely, constructing SEE on Indigenous ontologies emphasising relationality, land ethics, and collective stewardship, which are conceptually aligned with principles of nested systems and energy or entropic exchange described in systems theory and complexity science (von Bertalanffy, 1968; Meadows, 2008; Holland, 1995). The curriculum develops through Indigenous governance principles, land based accountability structures, and collective well being frameworks that do not separate economic activity from social and ecological responsibility (Cajete, 2004; Wilson, 2020). These foundations offer an ontologically distinct perspective from both EU technocratic models and mainstream Anglo-American business-oriented approaches.

PEI, by comparison, adopts a pragmatic, atheoretical model that prioritises business viability and applied competencies over theoretical depth. This approach implicitly adheres to a utilitarian logic in which social value is equated with market success, reflecting assumptions aligned with Friedmannian views of value creation (Friedman, 1962). Consequently, SEE is reduced to a competency-based framework emphasising systems and creative thinking while lacking sustained engagement with theoretical foundations. Table 6.3.2.1 summarises the principal theories and frameworks identified in SEE curricula across the four regions and illustrates how distinct theoretical orientations underpin regional approaches to SE education.

Table 6.3.2.1 High-Level Theories in SEE Curricula by Region

Region	Theories and Frameworks	Underlying Theories
Croatia	EMES Criteria; Solidarity Economy Principles; Public Administration Theory	Polanyian Embeddedness; Welfare-State Hybridity; Sustainability
Slovenia	EMES Criteria (Defourny & Nyssens); EU Social Economy Charter; Social Innovation Theory	Schumpeterian Innovation (policy-filtered); Polanyian Embeddedness; Keynesian Technocracy (state efficiency); Sustainability
Manitoba	Indigenous Relationality (Minobimaadiziwin); Collective Stewardship	Decolonial Economics; Reciprocity Ethics; Sustainability through Indigenous lens
PEI	None formally stated	Friedmannian; Revenue Primacy

Table 6.3.2.1 indicates that all three categories of high-level theories identified in the knowledge architecture in Chapter 5, dominant, alternative, and cultural, appear across regional SEE, although each region teaches different meso-level theories shaped by regional disciplinary traditions and institutional orientations. Learners are exposed to dominant economic traditions including Keynesian, Friedmannian, and Schumpeterian perspectives that inform institutional and market design (Keynes, 1936; Friedman, 1962; Schumpeter, 1934). At the same time, alternative theoretical frameworks and cultural philosophies are introduced in regionally specific ways, with European programmes drawing on Polanyi, Raworth, and sustainability scholarship (Polanyi, 1944/2001; Raworth, 2017; Rockström et al., 2009), while programmes in Manitoba incorporate Indigenous philosophical traditions.

These theoretical perspectives remain analytically isolated from one another in regional curricula. EU regional interpretations rely primarily on the EMES theoretical framework reinforced by Polanyi's embeddedness concept, which challenges the market-state division theoretically but does not integrate with enterprise-level design, leaving learners to connect theoretical foundations with entrepreneurial practice through normative aspirations. Manitoba proposes Indigenous ontology that reflects the nestedness of open systems and extends beyond the societal level toward embeddedness in nature, while coupling this ontological approach with EE where economy is not regarded as embedded in society or nature. Learners in Manitoba are therefore placed in a position to apply a cultural philosophy recognising systemic interdependence within a business entrepreneurial logic, without a pathway connecting the perspectives. PEI's pragmatic approach circumvents theory altogether, equipping learners with operational competencies detached from any explanatory foundation.

Across the four regions, learners therefore acquire contextual literacy specific to their jurisdiction without a shared theoretical foundation that would enable interpretation of SE practice across levels, recognition of common patterns across regions, and transfer of knowledge beyond the institutional context in which it was acquired. The limited cross-regional transferability of SE knowledge reflects a structural property of the knowledge architecture underpinning SEE rather than a deficiency in pedagogy or learner capability. The integrated knowledge architecture

developed in Chapter 4 and Chapter 5 addresses this limitation by introducing a macro-level theoretical foundation that connects sustainability to meso-level theories and micro-level applied knowledge through the two-tier structure supported by the empirical evidence presented in this chapter.

6.3.2.2 Applied Knowledge Divergence

The applied knowledge layer in SEE demonstrates significant variation and persistent knowledge gaps across the four examined regions. Although the applied knowledge domains identified in the interdisciplinary synthesis in Chapter 5 appear in each region, their curricular implementation reflects divergent operational, legal, and strategic priorities. Table 6.3.2.2 summarises how applied knowledge domains are translated into content components across the four regional SEE ecosystems.

Table 6.3.2.2: Applied Knowledge and Competency Integration by Region

Domain	Croatia	Slovenia	Manitoba	PEI
Strategic Planning for Dual Value Creation	Solidarity-economy SWOT tools, hybrid legal forms, mission-market negotiation exercises	Policy-aligned viability metrics, triad planning tools (desirability, feasibility, sustainability)	Land-based opportunity assessments, oral history-guided enterprise design, community need mapping	Opportunity scans, revenue modelling, business prototyping tools
Finance and Impact Measurement	Profit-sharing models, social audit exercises, stakeholder dashboards	SROI calculations, forecasting aligned to EU funding mechanisms	Story-based impact, collective well-being indicators, community-defined reciprocity tools	Cost–benefit mapping, logic model development, funding
Organisation Design and Legal Structures	Cooperative law drafting, hybrid organisation simulations, participatory structure planning	EMES-aligned legal templates, administrative guidance. Socijalno podjetje legal form	Kinship organisational forms, community accountability protocols	Board preparation sessions, legal clinics, basic compliance structures
Leadership and Participatory Governance Social Marketing and Stakeholder Communication	Power-mapping, solidarity network design, stakeholder assembly practices, hybrid governance	Stakeholder role identification, partnership protocols, policy communication strategies	Intergenerational communication circles, governance via land-centred values, kinship governance	Pitch workshops, storytelling as engagement, networking strategies
Contextual Innovation and Local Practice	Post-socialist hybridity, emphasis on legal instruments to rebuild trust	Emphasis on EU institutional legitimacy	Indigenous relational approaches, land-centred values in solutions design	Survival entrepreneurship, pragmatism and emphasis on local narratives

Elements corresponding to the six applied clusters identified in the knowledge architecture appear in SEE practice. However, no region distinguishes analytically between knowledge that transfers across institutional contexts and knowledge that applies only within specific regional arrangements. In the absence of an integrative knowledge structure, sustainability frameworks establish normative boundary conditions for economic activity, but they do not explain how those normative aspirations translate into the ways enterprises design dual value creating mechanisms. The focus of SEE across regions is on theoretical concepts and organisational modelling rather than on the mechanisms of dual value creation and the strategies that can support it.

Regional programmes therefore organise applied knowledge according to institutional and disciplinary priorities rather than through a coherent analytical distinction between globally transferable and context dependent content. Slovenian applied knowledge connects primarily to regional organisational forms and EU policy instruments, producing operational guidance calibrated to a specific institutional environment. Croatian programmes provide applied EE content that learners must complement with social value drawing on multiple theoretical perspectives proposed across different faculties without a unifying framework linking theory to operational enterprise design. Manitoba couples EE knowledge with Indigenous cultural philosophy at the ontological level. However, the EE components operate from premises that do not recognise the Indigenous logic that recognises embeddedness of economic activity within social and ecological systems. PEI implements applied knowledge as a largely stand-alone operational framework detached from any theoretical orientation, reducing SEE to competency acquisition without explanatory foundation. As a result, learners are left without a clear explanation of why SE exists and how its cross-regional presence coexists within divergent theories and worldviews.

Learners therefore acquire operational competencies calibrated to their own jurisdiction without clarity regarding what is portable across regions and what requires adaptation. This fragmentation creates substantial barriers to the coherence and scalability of SEE and SE practice. The integrated two-tier structure proposed in the conceptual framework and knowledge architecture addresses this limitation by distinguishing globally applicable adaptive solution design from context dependent socioeconomic integration knowledge and linking both to the systemic conditions identified in the theoretical proposition.

6.3.3 Community Recognition and the Limits of Terminological Precision

A consistent finding across all four regions concerns the disconnect between terminological recognition and practical understanding. This pattern provides empirical support for the redefinition of SE introduced in Chapter 1 and carries significant implications for the theoretical framework developed in this dissertation. Community perspectives across the four regions were examined through comparative structured field observations, which served as an approximation of industry input within a Triple Helix framework. The analysis focused on five recurrent predefined themes including conceptual interpretations of SE, recognised sources of SEE, levels of awareness concerning global challenges, interest in SEE when framed as dual value creation, and the capacity to recognise and cite local SE practices.

A central insight from community structured observations concerns the knowledge disjuncture between institutional terminology and community-level understanding. Slovenian respondents demonstrated precise conceptual knowledge of SE, consistently referencing the Social Entrepreneurship Act and national policy frameworks that formally regulate the sector and define eligible organisational categories (Government of Slovenia, 2011; European Commission, 2021). Within these policy frameworks, SE is primarily positioned as an instrument for labour-market integration and social inclusion, particularly for vulnerable demographic groups such as the long-term unemployed, persons with disabilities, and other marginalised populations. Participants in Slovenia frequently reflected this policy framing in their responses, describing SE primarily as a mechanism for integrating vulnerable groups into the labour force. However, when discussion shifted from policy terminology to enterprise practice and dual value creation, respondents articulated broader interpretations of SE that emphasised sustainable business models, community benefit, and environmental responsibility. These responses indicate that community members can distinguish between the institutional policy framing of SE and the broader practice of dual value creation identified in the redefinition introduced in Chapter 1.

In contrast, participants in PEI overwhelmingly conflated SE with charities, community organisations, or associations, with an 87% misrecognition rate. This pattern reflects regional policy and institutional discourse in which social innovation and SE are frequently treated as interchangeable concepts, creating ambiguity regarding the organisational and operational characteristics of SE practice. Manitoba respondents expressed similar uncertainty. Respondents often interpreted SE through existing policy narratives linking social innovation, community initiatives, and non-profit activity rather than through a distinct understanding of enterprise models generating both social and economic value. Although Croatian respondents demonstrated high operational familiarity with SE activities, their responses revealed a similar level of uncertainty when asked to define SE as a formal concept.

Moreover, in both Slovenia and Croatia, the term "social" carries explicit social welfare connotations in native languages, contributing to additional confusion. In response to this definitional ambiguity, community members in Croatia described SE simply as a "good economy." This locally generated expression illustrates how communities adapt terminology to reflect practices they recognise in everyday economic life even when institutional language fails to align with local understanding. Rather than relying on the formal terminology used in policy and academic discourse, respondents articulated their understanding of SE through this locally meaningful expression, indicating that communities recognise the underlying practice of dual value creation even when institutional terminology fails to align with local linguistic and conceptual frameworks.

However, when SE was reframed through the redefinition advanced in Chapter 1, which conceptualises SE through the activity of dual value creation rather than through organisational form or institutional designation, community respondents across all four regions demonstrated the capacity to identify the practice within their own contexts, cite concrete enterprise examples, and articulate the contribution of SE practice to community wellbeing. In PEI, those initially unable to

cite examples subsequently identified multiple social enterprises, including ecological restoration enterprises integrating employment programming, sustainable tourism and agriculture enterprises. Croatian respondents consistently highlighted cooperatives (local zadruga forms), sustainable agriculture operations, sustainable tourism enterprises, and businesses adopting energy efficiency or recycling strategies. In Manitoba, understanding of SE was largely reliant on concrete examples of Indigenous, and inclusive employment enterprises. The way participants recognised SE through specific enterprises rather than formal definitions illustrates how dual value recognition emerges through concrete enterprise examples and the importance of contextual exemplification in bridging semantic gaps between institutional terminology and lived experience.

The structured observations indicate that the conceptual ambiguity observed in community discussions does not arise from the absence of SE practice but from policy and institutional terminologies that frame SE in ways that obscure the underlying phenomenon. When SE is defined through dual value creation rather than organisational labels or policy categories, community respondents across all regions demonstrate consistent recognition of the practice and its contribution to local economic and social wellbeing.

An empirical study conducted in parallel with the doctoral research, supporting both a Mitacs project focused on SE practice and education and the broader PhD research, extended community observations to six regions across three continents, thereby confirming and strengthening this finding (Brkic, forthcoming). A total of 133 community observations were conducted across Croatia, Slovenia, Manitoba, Prince Edward Island, Argentina, and Bolivia using a two stage inquiry procedure in which community members were first asked whether they were familiar with the concept of social entrepreneurship and then asked to identify which organisation in their community earns money and serves society at the same time.

Findings from the expanded sample mirrored the outcomes observed in the EU and Canada. More than 70% of respondents across all six regions did not relate to the term social entrepreneurship. When the operational phrasing derived from the redefinition was introduced, community members across all regions immediately identified three to four enterprises, and more than 70% volunteered unsolicited descriptions of what the identified enterprises contribute and how they operate. Across the six regions, communities identified diverse enterprise models including textile recycling, renewable energy cooperatives, agritourism, social rehabilitation through employment, media and education enterprises, vertical food production, sustainable transport, forestry and ecological education, housing and community mobilisation, and sustainable tourism integrating Indigenous cultural practices.

The diversity of identified enterprises across sectors suggests that community members can recognise SE practice as dual value creation regardless of industry sector or enterprise model. The number of observations required to reach the convergence threshold of eight independent identifications per enterprise did not differ significantly across regions, regardless of whether the regional SE ecosystem included formal policy support, dedicated SE legislation, or established SE education programmes. Communities in Slovenia, where SE is defined by national legislation and supported by dedicated policy frameworks (Rakar and Uršič, 2025), required a comparable number

of observations to identify dual value creators as communities in Manitoba, Prince Edward Island, Argentina, and Bolivia, where no equivalent formal SE ecosystem exists.

This finding indicates that community capacity to recognise dual value creation is independent of the degree of formal institutionalisation of SE within a given regional context. Eight of 10 enterprises meeting all selection criteria were businesses with no formal SE designation. Communities identified dual value creators predominantly among organisations that existing governance-based or legal-form definitions would not classify as social enterprises (Defourny & Nyssens, 2017). The identification of enterprises with ecological focus alongside enterprises with purely societal focus, without additional information provided by the researcher and without participants distinguishing between the two, provides further empirical confirmation that communities perceive ecological value as integral to social value, consistent with the extension applied in this thesis through the IRP. These findings demonstrate that community recognition of SE as a practice of dual value creation operates consistently across six institutionally diverse regions regardless of sector, organisational form, institutional context, or the presence of formal SE support structures, extending the evidence base from the four regions examined in this chapter to include South American contexts with distinct Indigenous cultural traditions and institutional histories.

These observations indicate that the redefinition of SE resonates with community interpretations of the practice and enables recognition of activities already understood locally as producing simultaneous social and economic value. Within the IRP, redefining the phenomenon in terms of dual value creation functions as an integration strategy that dissolves disciplinary and institutional boundaries separating social and economic value, thereby enabling synthesis across perspectives (Repko & Szostak, 2025). In this case, the redefinition enabled conceptual recognition in communities by dissolving definitional constraints that had prevented community members from connecting experiential knowledge of dual value creation in their communities with the formal SE research and policy category.

The shift in recognition was consistently associated with strong interest in SEE. Interest levels ranged from 73 percent to 89 percent across all regions. Nearly half of all participants indicated they were unaware that SE was a field of study and expressed interest in learning about practices in other regions. More than 90 percent of respondents across communities were uncertain about ways to acquire the knowledge needed to engage in practice. These findings indicate that dual value creation is widely recognised in community experience but remains obscured within institutional and scholarly discourse by terminological and classificatory frameworks that do not correspond to the ways communities identify and organise the simultaneous production of social and economic value.

The community-level findings support the argument developed in Chapter 5 that cultural philosophies and collective values support SE in practice. Practitioners and community members recognise and engage in dual value creation without requiring the terminological apparatus developed within academic disciplines. Terms such as social enterprise, SE, or hybrid organisation

therefore represent scholarly attempts to categorise practices that communities already recognise through lived experience rather than through academic terminology.

The implication is that SEE faces a pedagogical challenge distinct from knowledge transmission in established disciplines. Learners do not require introduction to an unfamiliar phenomenon but rather frameworks that make explicit the tacit knowledge already embedded in community practice while providing operational guidance for navigating institutional environments shaped by disciplinary distinctions. The redefinition of SE introduced in Chapter 1 addresses this challenge by aligning scholarly interpretation of the phenomenon with the way communities recognise and describe the practice itself, thereby operationalising redefinition as a strategy of integration within interdisciplinary research (Repko & Szostak, 2025).

If learners already possess tacit understanding of dual value creation through lived experience and community engagement, then SEE must provide a shared theoretical foundation through which learners can recognise knowledge they already possess, connect their experiential understanding to the systemic logic the theoretical proposition formalises, and from that shared foundation interpret the specific theories and operational frameworks their regional programmes have taught them.

The knowledge architecture developed in Chapter 4 and Chapter 5 proposes this foundation by distinguishing the universal systemic conditions learners intuitively recognise from the context-specific socioeconomic variables their regional training addresses. The empirical data therefore shifts the pedagogical orientation of SEE from transmission of unfamiliar content to activation and analytical organisation of knowledge already present in lived experience. The tacit knowledge finding emerging from this chapter is therefore not incidental to the theoretical contribution of the dissertation but central to it. The empirical findings support an integrative SEE framework that brings content and pedagogy together in line with Shulman's pedagogical content knowledge framework (Shulman, 1986) and demonstrate its pedagogical viability by showing that the underlying recognition it requires is already present within the communities and learners SEE seeks to serve.

6.3.4 Implications for Globally Inclusive SEE

The comparative analysis within examined regions indicates that SEE currently operates as a set of parallel regional educational traditions rather than a coherent global field. The four regional approaches teach valuable context-specific implementation knowledge that learners need to operate within their respective jurisdictions, and the case for a globally applicable foundation does not arise from any deficiency in regional SEE but from the limits of context-specific knowledge to support transferability and scaling beyond the jurisdiction in which it was developed. SEE emerges from the dynamic interplay of constitutive elements including alignment across policy, education, and research, supported by regional ecosystem actors. The four regions demonstrate distinct positions along this continuum, each offering insight into the conditions associated with the development of regional SEE ecosystems as presented in Table 6.3.4.

Table 6.3.4: SEE Ecosystem Performance Matrix

Dimension	Croatia	Slovenia	Manitoba	PEI
Policy Education Tie	Strategically decoupled	Legislatively fused	Demographically targeted	Absent
Actor Network	Urban concentrated	Institutionalised	Culturally embedded	Community sustained
Knowledge Base	Interdisciplinary	EU-standardised	Indigenous/cultural	Tacit/practitioner
Cross-regional transferability	Moderate locally	High locally	Low (context-bound)	Low (informal)

Table 6.3.4 indicates that the four regions present distinct configurations of policy alignment, actor networks, and knowledge bases, while sharing the same observation regarding cross-regional transferability. Each configuration supports SEE within its own jurisdiction but does not translate directly into other regional contexts.

The shared challenge across the four regions is therefore not the quality of regional SEE but the insufficient SE-specific shared knowledge and theoretical foundation needed for education acquired in one context to inform practice across others. The globally applicable foundation proposed in this dissertation is intended to combine with regional SEE rather than replace it, providing a macro-level structural account of dual value creation and an analytical vocabulary enabling learners trained within one regional tradition to interpret SE practice beyond their own jurisdiction. By organising knowledge around the shared objective of dual value creation and distinguishing universally applicable components from context-specific insights shaped by socioeconomic variables, the proposed knowledge architecture could support cross-regional learning while preserving the contextual responsiveness characterising regional SEE.

6.3.5 Findings: Empirical and Research Based SEE Model Comparison

The empirical evidence presented in Article 3 and extended through this discussion provides support for several theoretical claims developed earlier in this dissertation. The pattern of SEE convergence toward dual value creation despite persistent theoretical fragmentation and institutional divergence supports the argument that disciplinary and regional differences generate analytical complexity that does not correspond to equivalent complexity in practice. Across all four regions examined, social entrepreneurs integrate social and economic value within enterprise activity, whereas academic frameworks frequently represent these dimensions as requiring complex theoretical reconciliation. Figure 6.3.5 illustrates the distribution of theoretical and applied knowledge domains across the four regions.

Figure 6.3.5: Knowledge in Regional SEE Models

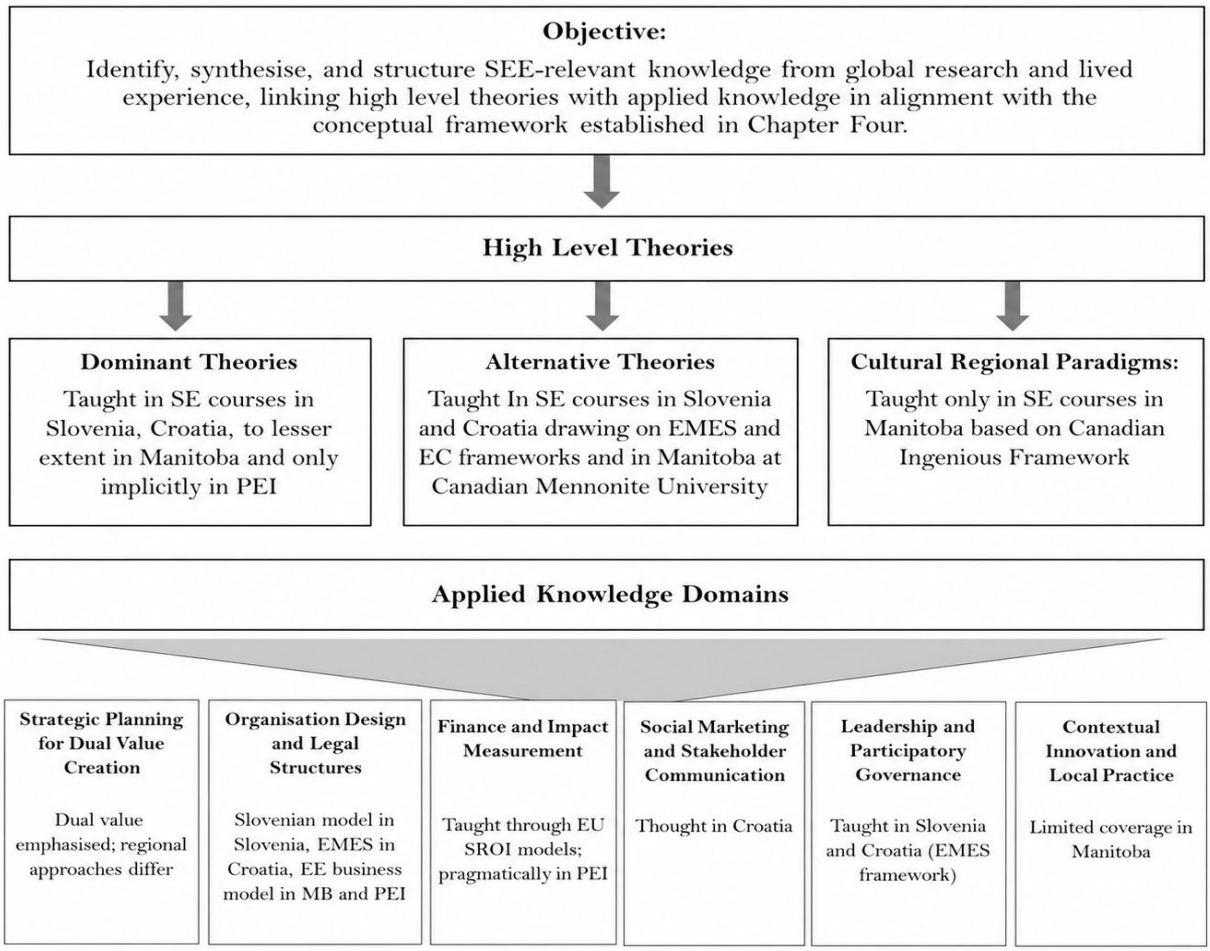


Figure 6.3.5 illustrates the recurring theory and operational knowledge architecture observed across regions and indicates that educators recognise the relevance of theoretical and applied domains identified in the conceptual framework and integrated knowledge architecture in Chapter 5, although the SEE content remains fragmented and only partially integrated within each context. All three categories of high-level theories and all six applied knowledge domains derived from global research and lived experience in Chapter 5 are represented within the regional programmes examined. However, no single region covers the full set of high-level theory clusters or applied domains, nor is the coverage consistent across institutions. Without an analytical framework distinguishing systemic conditions from socioeconomic variables, SEE curricula tend to organise knowledge around regional institutional frameworks rather than around the structural conditions governing dual value creation.

The uneven distribution shown in Figure 6.3.5 indicates that the examined regions incorporate high-level theories and applied knowledge domains in markedly different ways. Slovenian SEE courses cover both dominant and alternative theoretical paradigms, focusing primarily on regional frameworks and drawing on national policy and selected EU approaches. Croatian SEE offers a more comprehensive curriculum in terms of regional breadth, expanding

beyond Croatia while remaining centred on theories and applied knowledge developed within the EU. Manitoba incorporates alternative theoretical perspectives through culturally grounded approaches, particularly Indigenous knowledge, while its applied domains emphasise business model logic rather than SEE-specific structures. PEI presents the most limited coverage, drawing implicitly on high-level theories and offering applied content in pragmatic, practice-oriented forms without reference to formal SEE frameworks.

The empirical evidence further points at the limits of analyses of SE conducted exclusively at the level of social ecosystems. Studies that examine SE through the institutions, policies, networks, and cultural arrangements of a single jurisdiction explain SE by reference to features of that jurisdiction, which yields context-bound accounts that cannot explain why SE practice appears across radically different social ecosystems. The PEI case is particularly instructive in this respect. Institutional and policy support for SE in PEI is the weakest of the four regions, yet visible SE practice exists, and community recognition of dual value creation is consistent with that observed in regions with established SE policy. The persistence of SE practice under these conditions is consistent with the argument advanced in Chapter 4 that SE cannot be adequately explained by socioeconomic variables operating in isolation from the ecological and planetary systems within which all economic activity is embedded. The systemic conditions governing interactions across nested open systems represent the missing analytical link explaining why meso-level theories and micro-level enterprise design remain disconnected in regional SEE models.

The empirical phase of the research also contributed knowledge that complements the Phase 1 synthesis presented in Chapter 5. Indigenous relational ontology and land-based accountability frameworks emerged from Manitoba as theoretical foundations not fully captured by the global research analysed in Chapter 5. The community-generated expression “good economy” emerged from Croatia as a vocabulary for dual value creation that the academic literature does not provide. Regional applied tools in finance, governance, and impact measurement, such as story-based impact, collective well-being indicators, and kinship organisational forms, emerged across the four regions as additions to the applied domains identified through global research. The discovery that communities recognise dual value creation independently of academic terminology emerged from the empirical phase rather than from the Phase 1 synthesis. These contributions enrich the knowledge architecture and indicate that the empirical examination of regional SEE serves not only to test the architecture but also to refine and expand it.

A further observation concerns the focus of SEE across regions. Regional curricula consistently emphasise theoretical concepts and organisational modelling, while the mechanisms through which dual value creation actually occurs in operating social enterprises remain underrepresented in SEE content. The empirical evidence shows that enterprises across the four regions generate dual value through identifiable mechanisms, including sustainable agriculture combined with employment integration, green energy cooperatives combined with democratic governance, and Indigenous-led geothermal energy combined with community wealth-building. These mechanisms are not analysed in SEE curricula as transferable strategies. Best practices

remain locked within their regional context rather than being offered as patterns from which other regions could learn. A globally applicable foundation that surfaces these mechanisms as transferable knowledge while preserving regional context would close this observable gap in SEE provision.

Community-level recognition of dual value creation independent of disciplinary terminology supports the claim that integration constitutes the natural condition of practice, with separation representing an analytical artefact introduced through disciplinary specialisation. This finding aligns with the analysis in Chapter 5 of cultural philosophies that maintain integrated value frameworks precisely because they never institutionalised the conceptual separations characteristic of Western academic disciplines.

The theoretical proposition developed in Chapter 4 therefore functions as the connective tissue between macro-level sustainability frameworks, meso-level institutional theories, and micro-level enterprise design. By identifying the dual value imperative as a systemic condition emerging from entropic exchange across nested systems, the proposition enables existing theoretical perspectives such as ecological economics and embeddedness theory to be interpreted as complementary components of a broader systemic structure rather than as competing paradigms. The empirical evidence presented in this chapter indicates that the analytical framework proposed in Chapter 4 and the knowledge architecture developed in Chapter 5 together respond to a structural gap in SEE provision that the comparative analysis has documented.

6.4 Analytical Scope and Empirical Findings

The empirical examination presented in Article 3 and the discussion that follows addressed two analytical tasks. The first task evaluated the theoretical proposition and knowledge architecture developed in Phase 1 against four criteria specified in Table 4.5.2b in Chapter 4, drawing on Kivunja (2018). The second task addressed the specific objective of Phase 2, namely, to compare regional SEE practice in Canada and the European Union with the knowledge components identified through the interdisciplinary research synthesis presented in Chapter 5. Findings against each task are reported below.

The unit of analysis throughout is SEE and the knowledge architecture, not enterprise design or sectoral activity. The chapter examined what is taught in regional SEE, who delivers it, how it is delivered, and how communities recognise SE practice. The chapter did not assess the effectiveness of regional SEE in producing operating social enterprises, the relative success of regional policies, the design of SE ecosystems, or the integration-coordination typology proposed in Chapter 4, which awaits empirical validation through enterprise-level research not undertaken in this dissertation. Each of the four regional approaches teaches valuable context-specific implementation knowledge that learners need to operate within their respective jurisdictions. The findings reported here are not a critique of regional SEE but an evaluation of where the proposed knowledge architecture corresponds to current practice and where a complementary globally applicable foundation could close observable gaps.

6.4.1 Evaluation against the Four Evaluative Criteria

Evaluative framework introduced in Chapter 4, drawing on criteria for assessing theoretical contributions in applied research (Kivunja, 2018), specified criteria against which the theoretical proposition and knowledge architecture are to be assessed through empirical examination in Chapter 6. Table 6.4.1 reports findings against each of the four evaluative criteria specified in Table 4.5.2b.

Table 6.4.1: Evaluation of the Theoretical Proposition and Knowledge Architecture against Empirical Evidence

Evaluative Criterion (Table 4.5.2b)	Finding	Status
Is dual value creation uniformly present as a core SE characteristic regardless of institutional arrangement?	Dual value creation appears as the orienting commitment of SEE in all four regions despite substantive differences in theoretical framing, legal recognition, and institutional support. Communities in all four regions recognise dual value creation as a familiar practice when it is described redefined.	Supported
Does the theoretical fragmentation of regional SEE approaches confirm the need for an integrating framework?	Fragmentation operates both across and within regions. In Manitoba and Croatia, institutions in the same cities teach SEE from incompatible ontological foundations. No regional framework provides a sufficient foundation for globally transferable SEE.	Supported
Does the knowledge architecture developed in Phase 1 reflect and integrate the theoretical and applied knowledge present in regional SEE practice?	All three categories of high-level theories and all six applied knowledge domains identified in Chapter 5 appear within the regional programmes examined. No single region covers the full architecture. The integrative connection between macro, meso, and micro levels is consistently absent.	Supported with limits
Do socioeconomic variables explain regional fragmentation of SEE?	Regional differences in theoretical emphasis, applied content, legal frameworks, and financing instruments correspond directly to differences in socioeconomic architectures. Socioeconomic variables explain the observed fragmentation in regional SEE design. They do not explain the persistence of SE practice itself, which is observable in regions with minimal institutional ecosystem support, including PEI.	Supported with limits

Table 6.4.1 indicates that the four evaluative criteria are met within the scope of what comparative case study evidence can establish. The first two criteria are supported directly by the empirical evidence. The third and fourth criteria are supported within the limits of the research design. The architecture corresponds to regional practice, and its claim to enable cross-regional transferability is examined empirically in Chapter 7 rather than in this chapter. Socioeconomic variables explain regional variation in SEE design, but they do not explain the persistence and prevalence of SE practice itself, which is consistent with the Chapter 4 argument that SE practice requires explanation at the level of systemic conditions rather than at the level of socioeconomic variables alone.

6.4.2 Summary of Phase 2 Findings

The findings against the two Phase 2 objectives indicate that the SEE approach and content architecture produced through the interdisciplinary research in Phase 1 are reflected in the knowledge transferred through regional SEE ecosystems. Regional SEE approaches partially transfer the content identified in Chapter 5, drawing on advanced pedagogies to overcome the absence of an integrated interdisciplinary knowledge base and theoretical foundation supporting SE. The ecosystem analysis identifies the reasons for regional fragmentation of SEE content and the structural barriers to scaling SE practice globally. Table 6.4.2 reports the findings against the Phase 2 objectives.

Table 6.4.2: Findings Against the Phase 2 Objectives

Finding	Description
Architecture coverage	All theoretical clusters and applied knowledge segments identified in Chapter 5 appear across the four regions, although no region transfers the complete architecture.
Sustainability and business modelling as the only common segments	Sustainability and business modelling are the only segments that appear consistently across all four regions. Beyond these two content areas, theoretical and conceptual foundations vary by jurisdiction, producing substantive differences in how learners understand SE.
Theoretical plurality without operational structure	Regional SEE content in EU theoretically rich, with operational guidance calibrated to the establishment of SE practice within specific jurisdictions. Canadian regions are more focused on business planning. Learners across regions are not provided with an analytical structure needed to navigate divergent theoretical positions and translate theoretical knowledge into the design of dual value creating enterprises.
Pedagogical Convergence	Pedagogical approaches across the four regions converge on experiential learning and advanced pedagogical approaches with competences such as creative thinking and global perspectives nurtured but not supported with transferable content.
Regional strengths	Slovenia provides institutional alignment through policy-coordinated university programming and legal frameworks. Croatia provides disciplinary diversification through cross-faculty integration of legal, economic, and social theory. Manitoba provides cultural grounding through Indigenous relational ontology and land-based accountability frameworks. PEI provides accessible community-oriented delivery that extends participation beyond academic settings. No region combines these strengths within a single framework.

The summary of findings in Table 6.4.2 suggest that the research-based SEE model and conceptual framework developed in Phase 1 are reflected in regional SEE practice, although with limited transferability and uneven coverage of content areas. None of the four regions provides learners with the structuring required to distinguish between globally applicable knowledge and context-specific knowledge, and the convergence on advanced pedagogical methods does not compensate for the absence of an analytical structure that would allow learners to translate theoretical exposure into the design of dual value creating enterprises across jurisdictions.

The extended analysis presented in the post-article discussion surfaced additional findings that the research design had not anticipated. The four ecosystems are composed of the same categories of key actors, namely academic institutions, incubators, community networks, social entrepreneurs, and government bodies, yet the interactions among these actors differ substantially across regions, ranging from the policy-aligned and legislatively integrated SEE and SE practice in Slovenia to the pragmatic, community-based SEE provision in Prince Edward Island. Government engagement also varies in form and depth, corresponding to differences in programme prevalence and recognition of SE terminology rather than to differences in community recognition of dual value creation. Table 6.4.2.a reports these additional findings.

Table 6.4.2.a: Additional Findings Emerging from the Extended Analysis

Finding	Description
Configurations of government engagement	Four descriptive configurations of regional government engagement with SEE are identified: integrated legislative framework (Slovenia), strategy-based framework without legislation (Croatia), sector-targeted framework (Manitoba), and absence of formal SEE framework (PEI). Government engagement corresponds to differences in programme prevalence and recognition of SE terminology, not to differences in community recognition.
Tacit community recognition of dual value creation	Across all four regions, communities recognise dual value creation when expressed in operational terms, even where institutional terminology remains unfamiliar or contested. Recognition ranged from 73 percent in Manitoba to over 90 percent in Croatia under dual value framing, while terminology recognition fell as low as 13 percent in PEI. Locally grounded expressions such as Croatia's "good economy" illustrate SE perception in practice.
Empirical contributions to the Phase 1 synthesis	Indigenous relational ontology and land-based accountability frameworks identified in Manitoba extend theoretical foundations beyond those captured in Phase 1 global research. The EMES framework contributes in-depth insight into EU policies SEE and SE practices.
Mechanisms of dual value creation underrepresented	Regional curricula consistently emphasise theoretical concepts and organisational modelling, while the mechanisms through which dual value creation occurs in SE practice remain underrepresented in SEE content. Best practices remain locked within their regional context rather than being offered as transferable strategies.
Empirical support for the IRP redefinition strategy	Reframing SE through the redefinition advanced in Chapter 1 enabled communities across the four regions to recognise practice that institutional terminology had obscured. This provides empirical evidence that redefinition functions as a viable integration strategy within the IRP.

The community-level findings presented in Table 6.4.2.a carry particular weight for the broader argument of this dissertation. Communities across regions with substantially different policy environments, legal frameworks, and educational traditions recognised dual value creation as a familiar practice when presented in operational terms, suggesting that the redefinition of SE introduced in Chapter 1 has cross-regional applicability. The same observations further indicate that community members hold tacit knowledge of dual value creation, enabling identification of diverse enterprise models as SE practice without recourse to academic terminology. These

additional findings strengthen the argument that the integrated SEE framework proposed in this dissertation can be grounded in forms of recognition already present within the communities and learners SEE seeks to serve.

The analysis of empirical data presented in this chapter is limited to the four regions examined, and the findings should not be generalised beyond these contexts without further validation in additional jurisdictions. Even with the extension of community observations to six regions across three continents reported in Section 6.3.3, the total number of observations remains modest relative to the global population, and the findings identify patterns within the regions analysed rather than confirming universal applicability.

A further observation arising tentatively from the community data is that a greater number of SEE programmes within a region does not appear to correspond to a significantly greater number of operating social enterprises recognised by community members. This observation is offered cautiously and only on the basis of community observations conducted in this study, and it requires further investigation through enterprise-level research before it can be advanced as a substantive claim. The researcher's teaching experience in Asia and South America indicates that fragmentation in SEE approaches may be more pronounced in other contexts, particularly where SEE design is shaped by strong cultural frameworks or where institutional categories differ, such as in China where SE is not treated as a distinct category due to policy requirements for enterprises to integrate social and economic value. These observations are offered to situate the findings within a broader professional perspective and to indicate directions for future research, but they fall outside the empirical scope of the present study.

6.4.3 From Empirical Findings to SEE Model Evaluation

The findings consolidated in Section 6.4 provide the empirical foundation for the next phase of the research. Chapter 6 has identified the components of a globally applicable SEE that are present across regional practice, the integrative connection that is consistently absent, the tacit recognition of dual value creation that communities already hold, and the additional content that emerged from the empirical phase to complement the Phase 1 synthesis.

Chapter 7 evaluates the integrated framework developed in this dissertation through the GSIL, examining how the proposed knowledge architecture and theoretical framework function in practice when applied with university students, incubator participants, social entrepreneurs, and community-based learners. The objective is to assess whether the integrated framework enables learners from diverse disciplinary and regional backgrounds to recognise the systemic logic of dual value creation, to connect their prior knowledge with the macro, meso, and micro level structure of SE practice, and to apply the framework alongside the context-specific knowledge their regional training has provided. Chapter 7 therefore tests the complementarity of the integrated framework with regional SEE rather than examining the framework in isolation.

Chapter 7 Testing and Evaluation of the SEE Model

7.1 Introduction to the Testing and Evaluation Phase

Chapter 7 describes the SEE evaluation process and provides empirical validation of the educational applicability of the content and instructional approach refined in this thesis. The practice-informed SEE model was complemented by the integrated interdisciplinary scholarship developed in Phase 1 of the research and by the insights drawn from regional SEE models investigated in Phase 2. The resulting integrated interdisciplinary content presented in Chapter 5, together with the andragogical instructional design grounded in Shulman's pedagogical content knowledge framework (Shulman, 1986, 1987), in which content and pedagogy are treated as inseparable elements of educational design, was implemented through five delivery iterations in the format of the Global Social Innovation Lab (GSIL).

The preceding chapters established the analytical foundation and SEE architecture supporting the testing phase. Chapter 4 derived dual value creation as a systemic condition governing interactions within a nested open systems hierarchy and advanced the theoretical proposition as shared macro-level knowledge, positioning SE as an organisational response to planetary boundaries and the dual value imperative. Chapter 5 structured the SEE knowledge architecture across three theoretical clusters and six applied domains, providing the content foundation progressively integrated into GSIL resources across successive iterations. Chapter 6 demonstrated that SEE provision remains fragmented across and within regions, that no regionally specific knowledge architecture transfers beyond its originating context, and that tacit knowledge of dual value creation is embedded in communities even where formal education lacks coherent framing. Together, these chapters define both what must be taught and why no existing regional approach can support globally applicable SEE, thereby establishing the conditions that the GSIL testing phase was designed to address.

The integrated SEE model delivered through GSILs has been refined and empirically tested through an academic-industry partnership supported by a Mitacs Accelerate Entrepreneur grant, with participation from Saint Paul University, the University of Prince Edward Island, the researcher's social enterprise, and the incubators Atelier and Esplanade in Canada. The partnering incubators facilitated guest lectures and hosted one of the GSIL implementations, thereby contributing to both knowledge dissemination and the empirical testing of the SEE model. The GSIL constitutes the proprietary curricular design of SOS for Sustainable Future, a social enterprise founded by the researcher prior to the doctoral programme. The enterprise contributed the GSIL curricular design, practice-derived SEE content, and instructional approach. Partnering universities provided academic supervision and guidance for the empirical research and evaluation of the SEE model, while the doctoral investigation examined relevant scholarship from which the interdisciplinary theoretical framework was developed. A detailed description of the GSIL design as implemented in its first iteration is presented in Article 4 in Section 7.4.

The resulting SEE model, evaluated through five GSIL implementations over a four-year period, represents the integrated outcome of complementary contributions from practice and academia. Practice-informed resources evolved through enterprise and policy consulting activities,

while research derived content was progressively incorporated as the doctoral research advanced. The SEE model implementation was further evaluated against the Kivunja (2018) criteria specified in Table 4.5.2b of Chapter 4, namely whether learners distinguish between globally applicable and context-specific knowledge and draw on both the SEE content and the instructional approach to develop viable SE ideas. The evaluation also examined the SEE content and instructional approach in relation to the IRP integration of disciplinary insights, assessing whether the proposed approach enables learners to recognise and articulate converging patterns through which scholarship and cultural philosophies align on a shared system configuration and systemic conditions.

Iterative testing of the SEE model demonstrated that the theoretical proposition and framework established in Chapter 4 are operationally viable, that the knowledge architecture developed in Chapter 5 is transferable across cultural and disciplinary contexts, and that the andragogical instructional approach connecting content to learners' lived experience produces coherent SE solutions across diverse learner populations. While the evaluation remains partial and limited to a single curricular application, the initial results suggest that the interdisciplinary theoretical foundation developed in Chapter 4 can serve as a shared knowledge base capable of explaining both the regional and historical proliferation of SE.

It is important to highlight that the evolution of SEE content and instructional approach was not linear but cyclical, as specified in the research design established in Chapter 2. Each advancement in Phase 1 of interdisciplinary research, which explored scholarship across disciplines and regions, and Phase 2 which investigated regional SEE approaches, was implemented in the GSIL-based evaluation of Phase 3, which in turn informed further interdisciplinary research and regional investigation, returning to Phases 1 and 2. This cycle was repeated four times over the course of the doctoral studies, and the knowledge architecture presented in Chapter 5 represents its final consolidated outcome.

The first GSIL iteration is documented in Article 4, which examines the application of educational theories in cross-cultural SEE delivery and identifies the limits of education as a single discipline in producing a globally applicable model. The findings of that initial iteration established the interdisciplinary direction that subsequent doctoral phases pursued. The subsequent four iterations incorporated the SEE architecture as it was progressively refined through the doctoral research, enabling each implementation to test a more developed version of the model while advancing the pedagogical approach in parallel.

Chapter 7 is structured as follows. Section 7.2 provides an overview of the five GSIL implementations, describing their sequence, contexts, and the design elements consistent across iterations. Section 7.3 introduces Article 4 and situates it within the dissertation argument. Section 7.4 presents Article 4 verbatim in accordance with thesis by publication guidelines. Section 7.5 provides the post-article analysis of all five implementations, examining patterns of learner engagement, faculty perspectives, and the applicability of the proposed SEE model across disciplines and cultures.

7.2 GSIL as a Vehicle for SEE Knowledge Architecture Delivery

GSIL served as the vehicle through which the SEE model was tested across diverse educational settings. Between 2021 and 2025, five GSIL implementations were conducted. Four international Labs were conducted involving learners and SE practitioners from 10 universities across Europe, Asia, North America, and South America. In addition, one community-based implementation was conducted in Bolivia involving participants outside formal higher education structures. Each implementation retained the core curricular design and andragogical instruction, while introducing variation in learner composition, institutional setting, delivery format, and the degree to which the integrated interdisciplinary scholarship developed in Phase 1 had been incorporated into the resources package. The iterative structure enabled the research to observe patterns across repeated enactments and to trace the progressive integration of interdisciplinary scholarship into the resources package.

The social innovation lab format was selected as the delivery mechanism for the GSIL curricular design and SEE model evaluation, because social innovation labs constitute collaborative environments designed to address complex societal challenges through interdisciplinary experimentation, collective problem solving, and iterative learning processes (Westley et al., 2014; Hassan, 2014). Unlike conventional classroom formats, social innovation labs convene participants from diverse disciplinary and cultural backgrounds to jointly explore problems and test potential solutions in real-world contexts. Social innovation labs are particularly suited to educational initiatives that target broad knowledge integration because complex social problems rarely align with the boundaries of a single discipline and therefore require the combination of analytical, experiential, and contextual forms of knowledge (Brown & Wyatt, 2010; Westley et al., 2014).

Within educational practice, social innovation labs function as platforms for collaborative inquiry in which learners contribute disciplinary expertise while engaging in experimentation, reflection, and iterative learning cycles, enabling knowledge integration across fields and cultural perspectives that cannot be achieved through ex cathedra lecture formats (Schön, 1983; Kolb, 1984). The researcher's selection of the social innovation lab as the mode of knowledge exchange was further informed by prior professional experience in designing and conducting social innovation labs in both educational and civil society contexts, complemented by formal training in social innovation lab design and delivery received through Social Innovation Generation and delivered by the University of Waterloo, Canada.

The knowledge architecture proposed in this thesis specifies what must be known for globally applicable SEE, identifying the domains of knowledge, their relationships, and the logical structure connecting foundational concepts to applied practice (Schwab, 1964; Shulman, 1986). Curriculum design operationalises this knowledge within specific institutional contexts by determining sequence, scope, pacing, assessment, and delivery formats appropriate to particular programmes and learner populations (Tyler, 1949; Bernstein, 1975). The knowledge architecture developed through this research can therefore be implemented across different curricular applications.

The GSIL represents one mode of delivering this knowledge architecture. The social enterprise partnering in the Mitacs project delivers the same content through comparable instructional formats, including semester long courses, mentorship sessions, and workshops. Within this range of curricular options, the GSIL format was adopted in the evaluation phase of the doctoral research to determine whether the proposed content and instructional approach enable learners to rapidly develop a shared understanding of SE practice and recognise the patterns underpinning the core theoretical concepts that support the IRP integration of disciplinary knowledge in Chapter 4 and Chapter 5.

The need for an integrated, interdisciplinary SEE knowledge foundation is established by converging evidence across three phases of this research presented in previous chapters. The absence of a universally accepted definition, theory, or knowledge content in SEE, documented in Chapter 1 and Chapter 3, prevents the field from developing a coherent and integrated knowledge architecture. As shown in Chapter 6, each regional and institutional context constructs its own content foundations independently, reproducing fragmentation structurally rather than resolving it. The absence of a globally adopted textbook compounds this problem by removing the primary mechanism through which fields consolidate and transmit foundational knowledge across institutional and cultural boundaries (Young, 2008).

In response to this compounded gap, the researcher developed an SEE knowledge architecture and a resource package translating each component into materials that learners can engage with directly. The resource package comprises two components: practice-informed content, and reviewed scholarship summarising high-level theories within dominant, alternative, and cultural groupings, together with the applied knowledge clusters defined in Chapter 5 and Article 2 as a bridging component. Details of the resource package composition are presented in the discussion following the article.

Each Lab spanned a two-week period of intensive daily engagement, structured to balance theoretical input, applied experimentation, and reflective learning. Implementations opened with an introductory lecture establishing shared grounding in dual value creation through examples drawn from multiple sectors, demonstrating that dual value creation operates as a transferable mechanism rather than a sector-specific practice. Following the introductory lecture overviewing best practices, available resources, and the assignment structure, participants engaged in daily mentoring sessions between the Lab designer and each team. Mentoring was provided through exercises connecting lived experience to the theoretical concepts and operational knowledge included in the resources provided to learners. The evolution of content and accompanying exercises is examined in Section 7.5.

Team composition was determined by deliberate strategies prioritising diversity across culture, language, and disciplinary background while aligning participants through shared interests and values. Teams subsequently established a collective identity through a name and a creative artefact before engaging in the applied phases of the Lab. Two to three SE practitioners were engaged in each Lab to provide an experiential learning component, with learners encouraged to draw on practitioners' experience in building and refining their proposed solutions. Each Lab

concluded with the Dragonfly Den, a final presentation event in which teams shared proposed solutions before a jury comprising social entrepreneurs, academics, and peers from multiple regions, with jury members tasked with contributing constructive input rather than rendering competitive verdicts.

All participants, including learners, social entrepreneurs, and participating academics, engaged on a voluntary basis across implementations, and no academic credits or material incentives were attached to participation. Voluntary participation was a deliberate design principle grounded in self-determination theory, which holds that intrinsic motivation constitutes the most durable and authentic foundation for socially purposeful collaboration (Deci & Ryan, 2000; Ryan & Deci, 2017). The GSIL was designed on the premise that learners who engage without external compulsion are more likely to draw on genuine values, prior experience, and intrinsic commitment to social purpose when designing entrepreneurial solutions. The open design of the Lab, the absence of marking, and voluntary participation enabled observation of learners' behaviour, engagement with the task, and reactions to content and resources selection, reflecting learners' perception of the value of knowledge and instruction rather than the compliance dynamics associated with formally required and assessed coursework.

Facilitation arrangements changed across implementations. The first GSIL was facilitated by three graduate level education students from the University of Prince Edward Island who participated simultaneously as learners and facilitators. The facilitators' disciplinary background in education directed analytical attention to pedagogical challenges and the application of educational theories in cross-cultural virtual delivery, which constitutes the primary focus of Article 4. From the second GSIL implementation onward, facilitation and mentorship were provided by the researcher as Lab designer and by two SE practitioners engaged in each implementation. Social entrepreneurs were recruited from the researcher's former students who had successfully established and continue to operate social enterprises.

Deliverables required learners to develop and present an SE solution demonstrating simultaneous delivery of economic, social, and ecological values, supported by brief market research, a financial plan outlining the revenue and cost structure, and a prototype or demo of the proposed solution. The same deliverables design was applied consistently across all GSIL implementations. The outcome used to assess the SEE model was the SE solution presentation by each team at the Dragonfly Den, where the viability of the proposed solutions was assessed by the audience and by juries composed of practitioners, the public, and academics, as elaborated in Section 7.5.

Following the first GSIL, the analytical focus expanded from the application of educational theory examined in Article 4 to an integrated examination of SEE content and pedagogy, in line with Shulman's pedagogical content knowledge framework (Shulman, 1986, 1987), through online, on-site, and hybrid delivery mechanisms. Across the five iterations, the empirical examination tracked the conditions under which the convergence between scholarship and cultural philosophies on shared system configuration and systemic conditions, established through the IRP transformation performed in Chapter 4, became recognisable to learners arriving from different

cultural and disciplinary traditions. The construction of viable SE solutions across iterations is reported in Section 7.5 as the observable outcome through which this recognition is evidenced.

7.2.1 GSIL Implementations

The iterative implementations of GSILs enabled progressive enrichment of the SEE content compiled in the format of a resources package. The present section provides an overview of the sequence, design, delivery method, partnering institutions, and learner composition in each SEE delivery in the GSIL format.

The first GSIL implementation was a virtual international Lab conducted in November 2021, launched as a collaborative initiative under pandemic conditions. Participating institutions included South China Normal University in China, the University of Prince Edward Island in Canada, PAR University College in Croatia, and Universidad Tecnológica Metropolitana de Aguascalientes in Mexico. A total of 120 students from 11 countries participated, alongside five academics and three social entrepreneurs. Participants were motivated by the opportunity to develop solutions to health and wellness challenges intensified by the global pandemic. This initial implementation established the operational design and deliverables for the GSIL as the delivery vehicle for testing globally applicable SEE.

The design of the first Lab is detailed in Article 4, titled Global Social Innovation Lab: Theoretical Perspectives, published in the Canadian Journal for New Scholars in Education in 2022, and presented in Section 7.4. The article is co-authored by the Lab designer and author of this thesis as lead author, together with three Canadian postgraduate education students who participated as both learners and facilitators. The subsequent Labs' evolving structure, participant experience, facilitation structure, and outcomes are documented in Section 7.5.

The second GSIL implementation was a community-based Lab conducted in Bolivia in 2022 and delivered on site in La Paz with 12 participants. The Lab was organised in conjunction with the researcher's volunteer assignment with Global Affairs Canada through the Canadian Executive Services Organisation, which focused on marketing strategy development for small tourism enterprises led by women. The GSIL was introduced as an additional voluntary component involving participants from the local hospitality sector.

An on-site international Lab conducted in 2023 within an Erasmus programme facilitated by PAR University College in Rijeka, Croatia marked the third SEE delivery and evaluation. The Lab was delivered as a winter workshop for exchange students from South Korea, 11 European Union countries, and three African countries. A total of 45 students participated, drawn from undergraduate and graduate programmes in business, social work, and arts disciplines. The Lab was structured around a place-based challenge involving the restoration of the abandoned Preluk waterfront site near Rijeka, selected for its potential to integrate community revitalisation, environmental sustainability, and economic development within a single project context.

The fourth GSIL implementation was a hybrid transcontinental Lab delivered in 2024 from Saint Paul University (SPU) in Canada. The Lab engaged 25 participants from six institutions across four continents, including Middlesex University in the United Kingdom, the University of

Zagreb in Croatia, University Singidunum in Serbia, Universidad de San Andrés in Argentina, European University in Georgia, and SPU in Canada.

Another on-site Lab was conducted in 2025 at South China Normal University (SCNU) in Guangzhou, China, with 32 participants drawn from business and information technology programmes, marking the fifth GSIL implementation. In contrast to previous multi-regional formats, this iteration was conducted within a single institutional and national context, enabling closer examination of culturally specific learning dynamics and the transferability of SEE content outside comparative cross-regional settings.

The instructional approach maintained the andragogical principles refined through the researcher's professional practice (Knowles, 1984; Knowles et al., 2015) and was articulated through Shulman's pedagogical content knowledge framework (Shulman, 1986, 1987). The resources maintained the knowledge architecture defined in the Conceptual Framework, in which high-level theoretical domains are analytically distinguished from applied operational knowledge. A significant proportion of participants included learners from vulnerable demographics, including youth, immigrants, racialised and Indigenous communities, and women, contributing rich lived experience to the learning process. Careful ethical consideration was required, particularly in ensuring that engagement with SE was accompanied by a realistic assessment of the opportunities and challenges associated with establishing and sustaining a social enterprise.

The five GSIL implementations constituted a structured programme of iterative testing recommended by IRP Step 10 (Repko & Szostak, 2025), designed to evaluate the recognition of the SEE approach across cultural, institutional, and disciplinary contexts. Each Lab iteration introduced controlled variation in learner composition, delivery format, and problem context, while preserving the core knowledge architecture and andragogical principles, thereby enabling cumulative assessment of recognition across implementations rather than reliance on a single illustrative implementation (Yin, 2018). The andragogical orientation drew on adult learning theory (Knowles, 1984; Knowles et al., 2015), experience-based learning as a mechanism for connecting practice-based knowledge to theoretical content (Kolb, 1984), and project-based learning as a means of situating knowledge integration within authentic dual value challenges (Blumenfeld et al., 1991; Thomas, 2000).

Across all iterations, the instructional approach activated learners' tacit knowledge to engage with the integrated interdisciplinary content drawn from systems theory and complexity science, alongside scholarship from SE, IPE, and education that informed the knowledge architecture developed in Chapter 4 and Chapter 5. The iterative design assessed whether the full SEE model, combining interdisciplinary content with the andragogical instructional approach, sustained recognition of dual value creation as a structural pattern in SE practice across the diversity of cultural, disciplinary, and institutional conditions in which SEE operates.

7.2.2 Research Question, Objective, and Methodology

Chapter 7 addresses the research question guiding Phase 3 of the doctoral investigation: how can education as a discipline contribute to inclusive, global, and virtual SEE. The corresponding objective is to analyse learner and facilitator experiences in a cross-cultural SEE

programme and extract implications for curriculum development and pedagogy. This question and objective position Phase 3 within the epistemological framework established in Chapter 2, which adopts a pluralist epistemological position complemented by a pragmatist orientation (Dewey, 1916; Schön, 1983; Denzin, 1978; Creswell & Poth, 2018).

Phase 3 methodology comprises two analytically distinct components corresponding to two sequential research objectives. The first objective, addressed through Article 4, was to examine how education as a discipline can contribute to SEE. This objective is met in the article through the empirical evidence indicating that a single discipline is insufficient to integrate content and pedagogy in a field where content itself constitutes the principal challenge, directing the doctoral inquiry toward interdisciplinary integration. The methodology applied within Article 4 is described in the article itself in Section 7.4 and is bounded to evaluating the role of educational theories in pedagogical design across the first GSIL iteration, drawing on facilitator reflections generated through qualitative data collection and analysed through an education disciplinary case study approach.

The second objective, addressed through the extended analysis across the five GSIL iterations, broadens the initial inquiry to examine whether the SEE model constructed through Phases 1 and 2 provides a sufficient knowledge base for shared understanding of SE practice, and whether the convergences across disciplines and knowledge sources established in Chapter 4 and Chapter 5 are observable by learners and derivable from their lived experiences. The methodology applied in the post article discussion in Section 7.5 extends the analytical scope to the integrated SEE model across all five iterations, drawing on qualitative data obtained through participant observation, learner reflections, and faculty and practitioner feedback, and analysed using an interdisciplinary analytical framework consistent with the integrated methodology of Phase 3 to analyse insights obtained from learners, faculty, and SE practitioners.

The post-article research design employs a single case study methodology examined through five iterative implementations (Yin, 2018; Merriam, 2018). Within this design the GSIL constitutes the single case under investigation, while each implementation represents a bounded empirical instance through which recognition of the SEE model can be observed. Each implementation introduced controlled variation in learner composition, institutional setting, and delivery format while maintaining the core knowledge architecture and andragogical principles that structure the GSIL across all iterations. The case study approach enables systematic observation of how a phenomenon operates within its natural environment while preserving the contextual conditions under which it occurs (Merriam, 2018).

The evaluation approach and research design were supervised by Principal Investigators from SPU and UPEI under the Mitacs Accelerate Entrepreneur grant governing the academic-industry partnership. The grant instrument located the GSIL design and the practitioner-derived content within the industry partner's contribution and the interdisciplinary research producing the formal knowledge architecture and theoretical framework within the academic partners' contribution, defining the boundary within which the doctoral evaluation in Section 7.5 is

conducted. The researcher received no financial remuneration for Lab delivery, consistent with the voluntary participation model applied to all participants.

Phase 3 generated empirical data through three sources. Structured researcher observation of learner engagement and reactions to content was recorded through reflective notes during and following each mentoring session. Semi-structured interviews were conducted with 12 learners across the five implementations (Kvale & Brinkmann, 2009). Structured written input was collected from participating academics and SE practitioners addressing what functioned effectively, what required improvement, and the value generated for learners. An access log was maintained across all five iterations recording learner consultation of resources, supplemented by observational notes regarding the contexts in which materials were accessed. The Dragonfly Den served as the evaluation mechanism through which empirical observations on solution viability were generated, with teams presenting proposed SE solutions before juries of practitioners, academics, and community members. The empirical observations were assessed against the Kivunja (2018) criteria established in Chapter 4 and operationalised in Section 7.1.

Empirical observations were analysed through qualitative descriptive analysis applied to interview narratives, researcher observation notes, and structured written input from participating academics and SE practitioners, preserving participants' language and categories (Sandelowski, 2000). Convergence between descriptive accounts and the resource access patterns recorded in the access log was examined as a form of methodological triangulation across complementary data sources (Greene et al., 1989). Patterns identified within each implementation were compared across the five Labs through cross-case analysis (Stake, 2006), enabling cumulative insights regarding the recognition of the SEE model across cultural and disciplinary settings. The researcher adopted a practitioner-scholar position combining insider and outsider perspectives (Dwyer & Buckle, 2009), with procedural safeguards including reflexive journaling throughout the research process to examine positionality and potential bias (Finlay, 2002; Lincoln & Guba, 1985). Consistent with the pragmatist epistemological complement, analytical conclusions are presented as provisional and context-sensitive findings rather than as universal prescriptions.

7.3 Introduction to Article 4

Article 4 documents the initial GSIL implementation through the disciplinary lens of education. Titled Global Social Innovation Lab: Theoretical Perspectives and published in the Canadian Journal for New Scholars in Education in 2022, the article focuses on how educational theories were applied by graduate-level facilitators to navigate cross-cultural, interdisciplinary, and virtual collaboration challenges. The article is reproduced verbatim in Section 7.4 in accordance with thesis by publication guidelines and has not been modified for inclusion in this dissertation. The analytical scope of the article is intentionally bounded to the first iteration and to an education disciplinary perspective. The methodology applied within Article 4 is therefore an education-disciplinary case study analysis co-authored with three graduate education students, distinct from the integrated interdisciplinary methodology applied by the doctoral researcher in the post-article discussion across all five iterations. Broader patterns emerging across all five

implementations, including the evolution of the SEE model in response to findings from the initial Lab, are examined in the post-article discussion in Section 7.5.

7.4 Article 4: Global Social Innovation Lab: Theoretical Perspectives

Authors: Brkic Tatjana, Liu Yulin, Shah Tejal, Tong Liangyu

Introduction

This paper examines the role of educational theories in implementing innovative digital approaches to global social entrepreneurship education in practice. The study addresses the case of a Global Social Innovation Lab (SIL) implemented in November 2022. The Global SIL is designed to motivate and teach students from different regions how to collaboratively develop sustainable, socially innovative, entrepreneurial solutions to global problems.

The coauthors of the paper are advanced level education students in Canada. They focus on practical pedagogical issues that have emerged in the process and discuss theoretical concepts they drew upon while participating in Global SIL. The co-authors also describe their backgrounds and experiences, as well as the challenges they faced while working with a large group of diverse participants from four continents. The Lab developer draws on her multidisciplinary knowledge and educational practice in support of the design of the exercise.

The objective of this paper is to demonstrate how education as a discipline may contribute to global, virtual, and social entrepreneurship education. Drawing from this single case study, the authors aim to highlight how educational theories can be combined with lived experiences in the design and implementation of innovative learning strategies. This paper is the first in a series of studies that will be published in other regions, reflecting the SIL implementation experiences of students and faculty from different cultures and disciplines.

While co-authors share their subjective views only, the team analyses their experiences through a disciplinary lens and opens the door for further educational research related to the application of theory in a rapidly changing global learning community.

Social Entrepreneurship Education Landscape

Social Entrepreneurship Education (SEE) has recently emerged as a sub-discipline in post-secondary education (Abel & Maria, 2021). The rapid proliferation of SEE is driven by the successes of social entrepreneurs in practice and their ability to simultaneously create both social and economic wealth (Carol et al., 2012). Thus, SEE strategies are evolving to enable students to create entrepreneurial solutions that sustainably address social problems.

Social entrepreneurship aligns with the Sustainable Development Goals 2030 (Lael, et al., 2020). Moreover, it appeals to Missing Entrepreneurs (MEs), a demographic segment that includes women, immigrants, the disabled, the elderly, and youth who are close to the sources of social challenges (OECD & OCDE, 2021).

Although social entrepreneurs are driven by social goals, in practice, they implement economically viable solutions for persistent problems such as poverty and inequality. These innovators use business tools to generate revenue while serving community needs (Radjou et al., 2020). Many of them belong to MEs demographics and they aim to solve problems that directly

affect their lives. In recent history, social entrepreneurs created effective, profitable ventures in multiple sectors, from microfinancing to renewable energy solutions (Brkic, 2020).

Different from highly competitive business entrepreneurs, social entrepreneurs work collaboratively and support each other in achieving collective social and environmental goals (Groom, 2018). They draw on cross-cultural knowledge and transfer business ideas globally.

While new socially innovative entrepreneurial approaches evolve in practice, SEE remains largely based on Western perspectives and business concepts, failing to include values and ideas conceived in other cultures (Lundström et al, 2014). As a result, current SEE strategies often fail to attract MEs who experience social problems (Boysen, 2020).

A SIL model is an innovative problem-solving strategy used globally by community groups, businesses, educators, governments, and non-government organisations (NGOs), to engage diverse participants in collaborative efforts focused on addressing social problems (Kyriaki, 2017). The SIL model has been successfully used in a broad range of problem-solving situations where it is necessary to include perspectives of diverse groups to create innovative solutions (Westley et al., 2020). Most of the applications of the SIL model to this date have been implemented to address regional challenges in the public sector such as immigration, the refugee crisis, or health priorities (Westley et al., 2020).

The paper adopts a case study approach to examine the online application of the Global SIL. The method adopted in this paper treats co-authored contributions prepared autonomously by graduate education students Liu Yulin, Shah Tejal, and Tong Liangyu as a data set that is used to draw conclusions and make recommendations for further study. The paper presents a retrospective analysis of the SIL implementation through the lenses of foundational educational theories selected as pertinent, by participants. It is important to note that all co-authors agreed to make their contributions to this paper at the same time so that the opinion of one person would not influence others.

Global SIL Description

The Organisation for Economic Cooperation and Development (OECD)'s report Missing Entrepreneurs (MEs) (OECD & OCDE, 2019), and the UN Agenda 2030 (UN, 2021) have highlighted the importance of youth involvement in solving social problems. The education sector needed to respond to this request in virtual environment during the COVID pandemics.

Global SIL was developed as an innovative educational strategy aimed at engaging students in developing solutions to global challenges through virtual intercontinental collaboration in crisis conditions. A multicultural team of professors teaching the Innovation and Creativity Course at South China Normal University (SCNU) has launched the Global online SIL in pandemic conditions. The SCNU team opened their online classroom to colleagues from three universities located in North America, South America, and Europe. They invited students and professors to join the SIL. Academics and senior administrators from the University of Prince Edward Island in Canada, PAR University College (PUC) in Croatia, and Universidad Tecnológica Metropolitana de Aguascalientes (UTMA) in Mexico, responded with enthusiasm to this call.

Academics from all three universities rapidly found creative ways to enable their students to participate. All invited students volunteered to engage in SIL.

The team of academics, complemented by experienced social entrepreneurs, worked with a group of 120 students from 11 countries. The objective was to generate business ideas that can sustainably address global health and wellness problems that have emerged during the COVID-19 pandemic. The process was designed to challenge participants to rapidly come up with solutions while facing multiple challenges. In a short, two-week period, the participants attended an introductory lecture introducing the problem, the content of the exercise, the process, and the expected deliverables. Students were organised in multiregional teams of five to eight members. Teams were supported by daily mentorship sessions, and online access to the academic team and other students through a dedicated project LinkedIn site. Students were asked to engage in the problem-solution process, while experiencing language barriers, working in different time zones, and struggling with software compatibility issues. The requirement was to refine the problem, design solutions, and create demos, drawing on unique perspectives of each culture and students' social realities.

In the next sections, the co-authors introduce themselves and provide their unique insights into the Global SIL while outlining the foundational educational theories that they have used while engaging in this experience.

Global SIL Developer's Perspective

Background information. My name is Tatjana Brkic and I am a social entrepreneur, educator, and global citizen. I act as a social entrepreneurship mentor, a professor, and a volunteer at universities in Europe, Asia, and South and North America. I obtained undergraduate and graduate degrees in business, science, and engineering in Europe and Canada. My academic training is complemented by 40 years of professional experience in the industry, education, and sustainable development. Over the last seven years I have designed and implemented multiple innovative solutions in post-secondary education focused on social innovation, entrepreneurship and business applied research. Analysis and application of theory in practice. I have designed the SIL to mimic real-life experiences during a global crisis, drawing from educational practice, and professional work. Throughout my career, I have continuously performed literature reviews and engaged in applied research and consultations with academics and entrepreneurs who share similar interests.

The Global SIL was designed as a cross-cultural and robust educational approach to building problem-solving skills. The design left a lot of space for students to interpret the lab's objectives in a way that reflects their realities. The ultimate goal of this collaborative effort was to gain insight into how we can, as educators, best enable our students to learn what they need to know to collaborate at a global scale and use social entrepreneurship strategies to create innovative, sustainable solutions to social problems in crisis conditions.

My focus in the design of the exercise was on knowledge content and conceptual framework. I have facilitated the learning process through a dialogical approach, meeting with teams of participants daily to discuss their ideas, recommend strategies to create social and

economic wealth, and refine problem-solution models proposed by participants. While I was not driven by foundational educational theories in the initial design of the Lab or its implementation, I found that pedagogical approaches that foster dialog (Vygotsky, 1997), were well aligned with the mentorship strategies that were implemented.

Conclusion. Despite the challenges with technological compatibility, language, and time differences, all teams came up with viable ideas. The exercise was conducted in a non-competitive atmosphere, without financial reward. Students spent hours engaged in tasks, asking each other about their lives, families, personal problems, difficulties, and joys. Teams have also created unique artworks that represented the spirit of their group, showing symbols of each culture and main ideas. The collaborative approach taken by the academic team transferred to students and we all worked together toward the same goal. Shared values and a common purpose have driven participants to put significant effort into this Lab.

Global SIL Facilitators' Perspectives

Tong Liangy's Perspective

Background information. My name is Tong Liangyu. I am studying Education at the University of Prince Edward Island. Previously, I took social science at Ritsumeikan Asian Pacific University in Japan. I started to study far from my hometown at the age of 12, went to Japan to study at the age of 19, and then came to Canada to study English again at 24. During my college years, as a research assistant, I witnessed many international students struggling to adapt to the new environment. I felt that I could give students engaged in SIL the benefit of my experience and help them to adapt to other cultures.

When I joined the group, there was an inevitable question in front of us. What should be our topic? The Chinese and Mexican students had never met each other, and everyone looked so eager to jump into the main question and skipped team-building exercises.

Chinese students and Mexican students had very different concerns when talking about the topic. Chinese students preferred to discuss topics related to COVID-19, while the Mexican students were more concerned about community health and safety. The discussion between the two sides did not produce effective communication. Chinese students did not understand the dangers of theft and robbery in the Mexican community from the cultural and environmental perspective; Mexican students did not understand China's strict strategy for dealing with COVID-19. I interpreted this as a lack of cultural literacy.

Analysis and application of theory in practice. Cultural literacy is a term created by American educator Eric Donald Hirsch Jr. He described cultural literacy as a reading and writing ability that can grow only by experiencing cultural life, history, and art (Hirsch, 1987). This theory also means that if students are not exposed to other cultures, environments, and arts, they will not develop an international perspective and cultural literacy to deal with globalization. García, (2016) stated that destabilization is one of the essential conditions to grow cultural literacy. When students realise that the world is not the same as what they are familiar with, they will carry out new exploration and cognition.

In this project, I played the role of appeasing students and providing guidance. Due to time zones and different schedules, it was difficult for the Mexican and Chinese students to organise group discussions. I tried to be a bridge of communication. I contacted the Chinese students to discuss with them according to their time difference, and I would also meet with the Mexican students according to their schedules. For Chinese students, I was a person who shared the same culture. For Mexican students, I was a person with long-term study experience sharing the same time zone. Both sides frequently expressed their ideas and raised questions.

Moreover, I contacted the team members and had talks with them individually. I learned that some students' reluctance to express their ideas in group meetings stems from their lack of confidence in language ability and cultural understanding. I tried to reassure them and reinterpret the other students' ideas and views from another perspective. At the same time, I persuaded them not to be too attached to the outcome of the exercise.

Conclusion. As online education continues to become a formal and established educational model, many traditional education methods need to be altered. The cultural differences and ideological conflicts brought about by the globalization of education are more pronounced. Based on my lived experience, students who study from home are not exposed to other cultures as much as international students who take the initiative to go abroad. This project allowed students to develop global cultural literacy, but it cannot fully substitute for an immersive experience. After one to two hours of online meetings every week, they return to their daily life and forget the anxiety and uneasiness just caused by cultural collisions. It is hoped that after the end of the pandemic, global education will become a norm, and students will have the opportunity to communicate and learn face-to-face.

Yulin Liu's perspective

Background information. My name is Yulin Liu. As an international student from the University of Prince Edward Island completing my Master of Education degree, I was so honoured to be invited to collaborate in Global SIL. I completed my undergraduate studies at Kyoto University in Japan and the University of Fribourg in Switzerland. I worked in teams with Chinese, Japanese, and Swiss classmates and professors using both English and French. I was confident and excited to join the Global SIL and cooperate as a team leader. It turned out to be a fun and educational project for all participants.

Application of theory in practice. Through this exercise, I realised that the situation was different during the present pandemic. To accomplish our common goal in this lab, I applied my knowledge of Freire's critical pedagogy (2014) to the real situation. The combination of principles from textbooks and real-life problems could be regarded as an experiential learning process. I enjoyed implementing Freire's critical pedagogy in facilitating the work of a global team and eliminating barriers related to foreign language or backgrounds.

My group was comprised of four Chinese students, two Mexican students, and me as the sole Canadian student. Before this project, I believed in the stereotypes of my group members. My biggest mistake was planning conversations with different members based on their nationality instead of their true personalities.

The second most challenging thing was coordinating schedules. Although the internet supports communications across continents, the time difference remains a challenge. Mexican students also needed to do part-time jobs.

Implementation of Freire's Theory. I felt inspired by reading Freire's book Pedagogy of the Oppressed (1970). This lab aims to encourage students to collaborate to address the questions in real life, so we need to critically analyze and provide an ethical and unique answer. Freire's critical pedagogy theory and his concept of the dialogical relationship align with this goal. Love, equity, and respect are the most emphasised tenets in critical pedagogy, which means people access the feeling of love from each other's expression of caring, compassion, and passion (Freire, 1970). The first step is to accept and respect different people's ways of thinking by understanding and emphasising their backgrounds and growing up stories. We should never categorise and homogenise people solely by nationality and identity. For example, even though we are all Chinese, it was improper to assume other Chinese members' actions only because we share the so-called "same value and culture." And in turn, the other Chinese participants also unnecessarily judged me based on their mindset system of "what a person should or should not do as a Chinese person".

A cross-cultural situation happens every time in our life when we talk with different people. Each individual has unique "culture symbols" and personalities, just like fingerprints. I applied critical pedagogy theory in the lab and built the dialogical relationship among group members. Everyone's contribution to timetable designing was respected and equitable. For the student who failed to join the discussion in time, I communicated with them individually. It worked well, and we managed to finish the work on time.

Conclusion. As a cross-cultural project, this international lab was not designed to break stereotypes or give the participants intercultural experiences. The goal was to enable people to work together, to expose real issues in different contexts, and construct solutions. Even though people have the same level of education and have been given the same information, they interpret themselves differently according to different life experiences, mindsets, and cultural backgrounds. The dialogical approach I applied in the Project supported effective ideas exchange. By applying Freire's theory, I have improved my capacity to accept and respect diversity in collaborative work.

Tejal Shah's perspective

Background information. My name is Tejal Shah. I am a research scholar with a doctorate in Physics and a Master of Education. The SIL came as an option in my Master of Education course. The project was spread over four universities, including my university in Canada. It seemed very interesting as it included a global approach to innovative entrepreneurship and collaboration. My team included four Chinese and three Mexican undergraduate students with different backgrounds.

My education made me the most experienced person on the team, and I knew that my team would look to me for guidance. I took up the responsibility to bind the varied timelines and be their leading light. The major issue we faced was having a discussion at one fixed time. I decided to have two different meetings at two different times and to be the mediator between the talks.

The next challenge was to choose an appropriate name. As we were dealing with different cultures and places, it was very inappropriate to favour any one of them. Hence, keeping ancient Greek alive and the concept of proposing a new idea, we chose the name "The Neóterikos." The idea agreed upon was to build an application that dealt with the people who need help with mental illness.

As a team, we were able to develop an application that we named "KyUgether" in a short time, and we successfully presented it on the final presentation day. The journey throughout the process was very engaging and exciting.

Analysis and application of theory in practice. Although Bronfenbrenner ecological model (1979) was originally a theory of human development, it has been applied in a variety of other contexts due to its usability in positioning experience and individual identity as separate forms. It has an increasing use as a model to explore educational transition (Durden & Witt, 2010; Sanagavarapu, 2010 as cited in Tobbell & O'Donnell, 2013).

According to Bronfenbrenner, an individual must engage in an activity with sufficient frequency and increasing complexity for positive development. The ecological model positions the individual in the center of the overlapping systems, which range from the closest to the distant influences on their development (Golinkoff et al., 2017; Tobbell & O'Donnell, 2013). The patterns of the ecological systems helped me to understand that my team members have varied backgrounds and experiences. This information collected through interviews had a direct influence on the approaches I used. In this exercise, I also learned that there are different kinds of businesses. Social enterprises are driven by social goals, and their profit requirements are not the key factor.

The project was executed in a span of a few weeks; hence the time was not sufficient to fully explore the potential of such concepts; however, it helped to define the spontaneity of individuals to help their communities. Further research is needed to explore the experiences of individuals who experience life and learning in different regions.

Discussion

The Global SIL presented two sets of challenges for participants, faculty, and designers:

1. **Conceptual design challenges focused on knowledge content and strategies that students across cultures need to learn to create sustainable solutions to global problems; and**
2. **The implementation challenges associated with facilitating online collaboration among diverse, geographically dispersed individuals.**

The co-authors of this paper approach the challenges from a disciplinary perspective of education, focusing mainly on the implementation challenges.

Theoretical perspectives on implementation challenges

The co-authors who facilitated the exercise focused almost exclusively on implementation challenges and pedagogical theories that support global communications. The co-authors drew on three different theories to successfully navigate through the exercise. Each co-author has identified two sets of challenges including cross-cultural communications, and the coordination of online teamwork while facing time differences and language barriers.

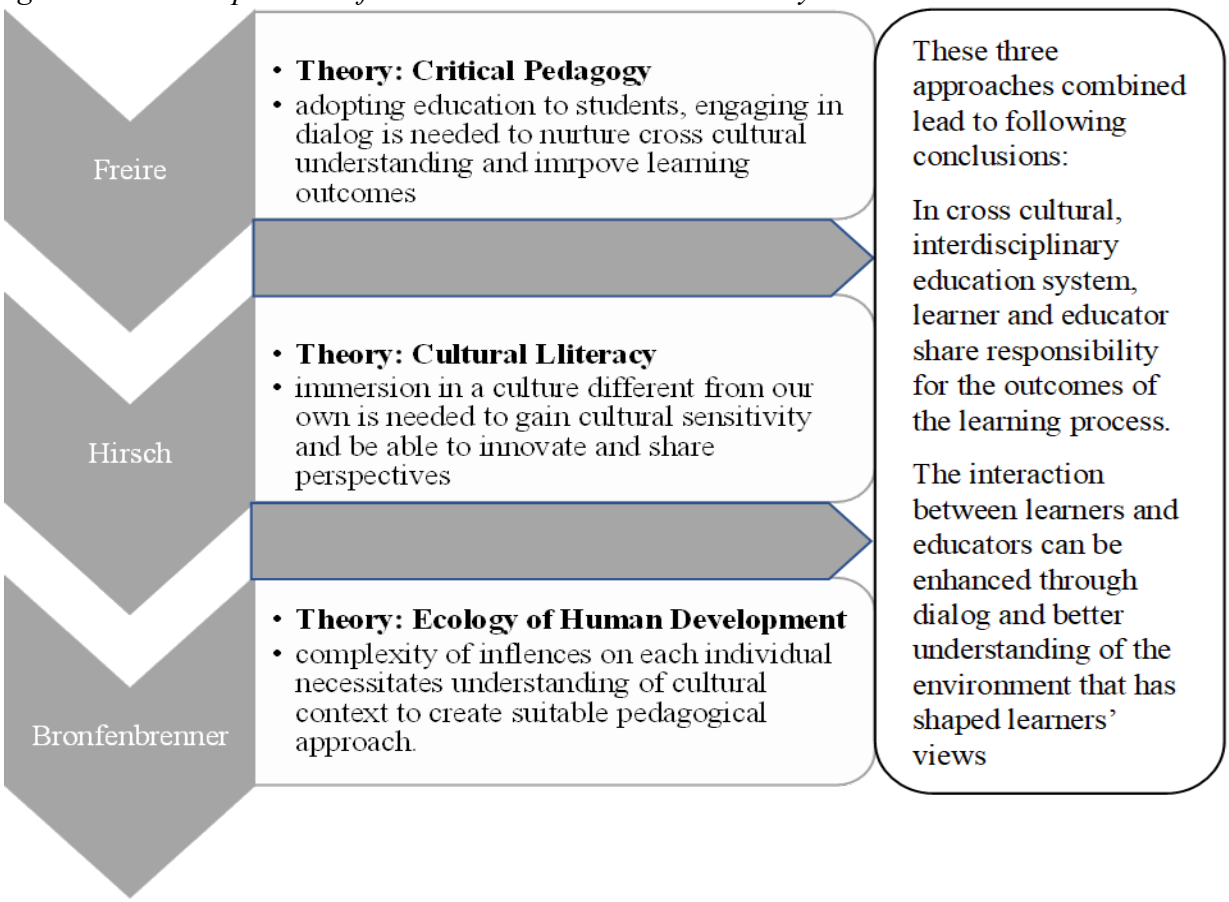
Each of the co-authors points to a different aspect of cross-cultural communication and highlights the theories that can be used to overcome the challenges that arise in such situations. While all co-authors point to similar obstacles, they propose different pedagogical paths. The differences in the way co-authors address the situation are aligned with educational theories that resonate with their lived experiences and appeal to their lived experiences as education professionals.

Cross-cultural collaboration has been addressed by several education theories. The co-author Liangy identifies a theorist, Hirsch, who contributed work on cultural literacy (Hirsch, 1987). In his work, Hirsch proposes that communication and interpersonal learning need to be complemented with consistency and keen observation, describing these skills as cultural literacy (Hirsch, 1993). He further outlines that the ability to understand and fully participate in any given culture depends on opportunities to observe society in close proximity (Hirsch, 1993). This theorist argues that it is important to incorporate the atmosphere of change into the team culture when creating entrepreneurial ideas (Hirsch, 1987). According to this theorist, problem-solving and innovation skills increase in response to cross-cultural challenges (Hirsch, 1993).

The co-author Shah points at the theorist Bronfenbrenner who made his mark in pedagogy by proposing Ecological Systems Theory. Bronfenbrenner also conducted cross-cultural research on character education (Bronfenbrenner, 1976). This theorist examined post-secondary education practices in several countries, comparing the praxis and challenges encountered by students (Bronfenbrenner, 1985). Bronfenbrenner's work can be used to draw conclusions about the strategies that can be implemented to adapt innovative educational approaches. Furthermore, this proliferous author developed a theory that offers so called bioecological perspectives on human development Bronfenbrenner proposes that humans create the environment that shapes their own development. In his bioecological theory of human development, the theorist claims that what makes us human is our ability to shape reality in intricate physical, social, and cultural ways. Bronfenbrenner sees humans as capable of acting in a way that nurtures positive social development (Bronfenbrenner, 1996).

The co-author Liu drew on Freire's work. Freire's ideas, associated with his critical pedagogy concept, focus on the use of dialog as a tool that may enhance practitioners' ability to respond to learners' needs in a flexible way (Freire, 1970). The theory proposed by this author calls on educators to adapt to their students and learn alongside with them (Freire, 1970). Through this process, society will achieve the democratization of knowledge and solidarity in learning, leading to a better understanding of problems and the emancipation of the oppressed (Freire & Oliviera, 2014). The Figure 1 below outlines the perspective of each theorist.

Figure 1: The Perspectives of Educational Theorists Selected by Facilitators



Both Hirsch (1993) and Bronfenbrenner propose high-level pedagogical guidelines. While Hirsch (1993) recommends cultural immersion to acquire cultural literacy and challenge personal views, Bronfenbrenner puts an onus on researchers and educators to adapt their approaches to learners. Freire proposes a dialogical approach to enhance learning outcomes for both the learner and the educator. When synthesised, the three theories combined regard the success of pedagogy as a variable that is dependent on both learners' and educators' efforts to understand each other.

It is interesting to note that none of the co-authors draws on the well-established cognitive theories proposed by Vygotsky (Vygotsky, 1997) and Piaget (Piaget, 2000). These theories highlight the importance of the practice of cooperative learning which has been one of the main characteristics of the design of the Global SIL. Vygotsky provided strong arguments in favour of peer learning and collaboration in problem solving (Vygotsky, 1997). In addition, Piaget proposed social interaction and collaboration as strategies that lead to better learning outcomes (Piaget, 2000).

While the theories offer different perspectives on education and pedagogy, they are complementary and can all be applied in the implementation of SEE. The co-authors have found value in each of the frameworks when facing practical problems. Although the philosophers who have developed different frameworks may not have intended their theory to be supportive of the

online, multi-time zone, cross-cultural education approach, their ideas have proven useful in practice.

Conclusion

In conclusion, educational theories offer a rich collection of brushes that can be used by practitioners to paint their own pedagogical vision and strategy. Pedagogical theories propose several strategies that can be used to enhance problem solving and innovative capacities.

Interdisciplinarity and effective cross-cultural communications leading to agreements about social priorities through a dialogical perspective have been built into the design and implementation of Global SIL. Educational theories were used to further enhance the proposed pedagogy. Global SIL design and implementation indicate that practice and theory can lead to similar conclusions.

In the absence of a theory that unites economic and social wealth creation through education, it remains important for SEE professionals to look for creative ways to develop curricula that cover business and economics concepts as well as ideas developed in other social sciences.

Although several theories described in this paper have found their place in the implementation of Global SIL, this study has several limitations. The theories reviewed in this paper do not include all disciplinary approaches. The facilitators are Canadian graduate education students, exposed primarily to literature written in English. The design and application of SILs in SEE is a very recent phenomenon in regional educational practice. The community of practitioners who have successfully implemented this approach is small.

A need to rapidly develop effective online education strategies as well as solutions to global problems has emerged in the COVID crisis. Global SIL has shown promise and initial success. All 120 students have been able to finish the task and develop creative and innovative solutions in only two weeks, despite the cross-cultural communications challenges and online delivery.

This complex global crisis may continue as we confront natural resource scarcity and increased costs of travel. Humanity needs new approaches to education to continue with the global knowledge exchange, rapid innovation, and generation of social and economic wealth.

While educational theories provide pedagogical support for SEE, they do not sufficiently address core issues: simultaneous social and economic wealth creation and knowledge needed to teach social entrepreneurship. Further interdisciplinary and transdisciplinary research in SEE is highly recommended, both applied and theoretical. It is important to look at SEE drawing on the best practices of successful social entrepreneurs across cultures.

7.5 Post Article Discussion and Subsequent GSIL Implementations

Article 4, reproduced in Section 7.4, presents the initial GSIL implementation from the perspectives of facilitators who participated as both learners and mentors. Although facilitators were asked to identify challenges and opportunities without distinguishing between content and pedagogy, they focused exclusively on pedagogical aspects and operational difficulties such as cross-cultural communication, time-zone coordination, and language barriers. Facilitators applied their selected educational theories through their existing teaching dispositions without integrating

those theories with the SEE content delivered in the Lab. The Lab therefore provided indicative evidence of the analytical division among disciplines discussed in Chapter 4, suggesting a separation between content and instructional approach associated with disciplinary theories, where educational theories are applied to shape pedagogy without being recognised as complementary to the content.

The first Lab pointed to the limitations of education as a single discipline in assessing both the content and the instructional approach as integrated elements of SEE design, which the Shulman's (1987) PCK approach adopted in this thesis establishes as one whole. Two further limitations of the first implementation became evident through the article's analysis. The facilitators were graduate students in education with no prior exposure to SE practice and could therefore not assess the viability of the SEE content as a foundation for SE practice or evaluate whether the integrated content and instructional approach supported the design of viable SE solutions. In addition, Article 4 documented only the first iteration and could not establish whether the patterns observed were specific to the virtual cross-cultural delivery format under pandemic conditions or whether they would persist across alternative formats and learner populations.

The outcomes of the first Lab iteration, together with the parallel doctoral research, indicated that SEE lacks coherent content while pedagogies are relatively well developed, refocusing the research on interdisciplinary exploration aimed at integrating content and pedagogy within the theoretical framework established in Chapter 4 as the guiding foundation for both the doctoral research and the SEE model development. The doctoral research recognises that SEE differs from subjects such as mathematics or economics, where knowledge is largely constructed within academia and transmitted to learners rather than co produced. As established in preceding chapters, SE has emerged from practice rather than academic research. SEE must therefore be designed and delivered in a way that enables knowledge co creation rather than transmission, requiring alignment between content and pedagogy that allows learners' lived experience to surface and ideas to be combined across educators, learners, and practitioners. Empirical observations across the five iterations are therefore reported as outcomes of the integrated SEE model rather than as separable evaluations of content and pedagogy.

The empirical testing across the five GSIL implementations included the entire SEE model, including the company's proprietary curricular design and its application through the GSIL, the instructional exercises, and the resources package. The discussion focuses primarily on the elements added through the doctoral research, guided by the evaluation processes outlined in the Mitacs Accelerate Entrepreneur grant. The discussion is organised around four interconnected dimensions including the integration of interdisciplinary scholarship into the SEE content, the operation of the integrated content within the andragogical instructional approach across cultural and disciplinary contexts, the observations contributed by learners, faculty, and social entrepreneurs, and the implications of these findings for the integrated SEE model presented in Chapter 5. Section 7.5.1 outlines the evaluation approach and the provenance of the SEE knowledge architecture. Section 7.5.2 examines the andragogical instructional approach and illustrates how mentoring sessions activated learners' tacit knowledge to support recognition of

the integrated content. Section 7.5.3 analyses insights from learners, faculty, and the cultural and resource engagement patterns observed across implementations. Section 7.5.4 synthesises findings and assesses them against the Kivunja (2018) criteria established in Chapter 4. The findings summarised in the conclusion section draw on empirical data generated through Phase 3 of the doctoral research, including faculty and learner observations, logs tracing access to resources, and feedback received from learners and faculty.

7.5.1 Iterative Refinements and Evaluation of SEE Model

The SEE knowledge architecture delivered across the five GSIL implementations originated from two complementary sources. The practitioner-derived foundation, developed through the researcher's three decades of professional practice, is described in Section 7.5.1.1. The interdisciplinary scholarship and theoretical integration produced through the doctoral research, which organised this content into a globally applicable architecture, are described in Section 7.5.1.2. Section 7.5.1.3 reports the integrated SEE content as it was delivered and evolved across the five iterations, together with the empirical observations associated with each implementation.

7.5.1.1 SEE Knowledge Derived from Practice

The researcher's professional practice prior to the doctoral programme provided the substantive foundation of the SEE content. Biographical references to the researcher's professional engagements at the International Institute for Sustainable Development, the UN SEED Initiative, and the Applied Business Research Initiative at Red River Polytechnic identify the documented sources from which the practitioner-derived content was compiled. The references serve methodological provenance and do not constitute autobiographical commentary. This SEE content derived from practice was created drawing primarily on three interconnected professional engagements, each contributing a distinct layer to the resources package supporting the first and all subsequent GSIL implementations.

The first layer drew on the researcher's engineering training and subsequent engagement with sustainability scholarship through work at the International Institute for Sustainable Development, where the researcher developed resources designed to guide businesses toward the sustainable development objectives articulated in UN Agenda 21 (UN, 1992; Roy & Grant, 2020). Engineering training provided the conceptual grounding in systems theory drawn from Vernadsky (1945), von Bertalanffy (1968), and Rockström et al. (2009), informing the systems-based approach to SE adopted across all five GSIL implementations.

The second layer emerged from the researcher's work with the UN SEED Initiative, through which entrepreneurs from Africa, Southeast Asia, and South America competed for funding by developing triple bottom line solutions informed by Elkington's framework (UN, 2001). This engagement provided sustained direct exposure to SE practice across multiple cultural and institutional contexts and revealed the common structural logic underlying the diversity of forms through which dual value creation is pursued.

The third layer was developed through the Applied Business Research Initiative at Red River Polytechnic, led by the researcher for over a decade (RRP, 2017). Within the Initiative,

students from over 26 countries identified organisations producing social and economic value simultaneously through their core activity. The term social enterprise and any specific definition were deliberately avoided to surface the practice rather than the terminology. Each student presented an identified example to a cohort drawn from diverse cultural and disciplinary backgrounds, and the cohort collectively evaluated whether the organisation genuinely addressed a social need through its core activity. Repeated peer validation across multiple cohorts produced a collection of cases from more than 20 countries. The cases collected through this process were subsequently expanded through the researcher's international teaching engagements and constituted the empirical foundation for the global case studies included in the GSIL resources package. The Initiative produced documented enterprise outcomes and was independently recognised through the Colleges and Institutes Canada Leadership Excellence Award for Faculty (CICan, 2020; Brkic, 2017).

Comparative examination of the cases collected through this process revealed recurring patterns in dual value creation across cultural and sectoral contexts. Social entrepreneurs across regions independently applied similar problem-solving mechanisms and addressed analogous social needs through similar products and services. Dual value creating mechanisms were subsequently identified as corresponding to jugaad innovation (Radjou, Prabhu, and Ahuja, 2012), biomimicry (Benyus, 1997), and analogous culturally embedded practices discussed in Chapter 5. The cases provided observable evidence that the educational approach refined through these years of practice enabled learners to design and launch viable SE solutions, and that mechanisms supporting dual value creation can be transferred across contexts.

The accumulated professional exposure to systems theory in engineering, the practical understanding of UN sustainability frameworks gained through the SEED Project, and the SE practice-based evidence obtained through the Initiative enabled the researcher to develop a systems-theory-informed approach to SEE that connected the UN 2030 Agenda for Sustainable Development (UN, 2015) with examples of SE practice. This SEE approach, was integrated in knowledge resources of the researcher's social enterprise and validated in professional practice, creating the knowledge foundation on which the first GSIL curricular design including Dragonfly Den and Lab implementations were conducted during the doctoral research.

7.5.1.2 Doctoral Research as the Interdisciplinary Contribution

The doctoral research contributed a missing and complementary layer of knowledge to the SEE content architecture. The doctoral research contributed four layers of integrated interdisciplinary scholarship to the practitioner-derived foundation. The first layer was the theoretical integration performed in Chapter 4 through transformation as a common-ground integration strategy within the IRP framework (Repko & Szostak, 2025). The integration drew on the comprehensive scholarship reviewed across Chapter 3 and Chapter 4, which examined political economy theories, SE theoretical and conceptual research, and education practice across regional and disciplinary contexts. Through five logically connected premises and a causal chain established through interdisciplinary integration, Chapter 4 derived dual value creation as a systemic condition governing enterprises operating within a nested hierarchy of open systems,

positioning SE as a necessary organisational response to viability constraints rather than as an ethical preference or policy choice. This transformation explained why patterns observed in practice over three decades were not culturally specific achievements but expressions of systemic conditions applicable across contexts.

The second layer was the integration-coordination typology derived in Chapter 4, which distinguished two pathways through which enterprises respond to systemic conditions. The typology defined a range of social enterprise that informed the analytical framework against which solutions developed in subsequent GSIL implementations were examined.

The third layer was the formal SEE knowledge architecture structured in Chapter 5, organising integrated interdisciplinary scholarship across three theoretical clusters and six applied knowledge domains. The architecture was developed through the IRP common-ground integration techniques of redefinition, extension, organisation, and transformation (Repko & Szostak, 2025), and enabled the analytical separation of globally applicable knowledge from context-specific knowledge within the SEE content.

The fourth layer was the empirical research presented in Chapter 6, which examined regional SEE provision across major regions and provided further evidence suggesting structural fragmentation of SEE knowledge across institutional and cultural contexts. This empirical analysis enabled the researcher to understand the substantively different knowledge bases that learners had acquired in different programmes and to construct an instructional approach through which learners could locate their prior knowledge within the comprehensive SEE knowledge architecture, rather than encountering the architecture as a body of content unrelated to what they had already learned.

Together, these four layers transformed the practitioner-curated resources package into a theoretically grounded knowledge architecture through which learners could understand not only what SE does, but why the practice emerges across historical periods and regions in the absence of a single formal organisational form. The integrated content was delivered progressively across the five GSIL implementations as the doctoral research advanced, while the practitioner-derived foundation remained constant.

7.5.1.3 SEE Content Evolution

The five GSIL implementations delivered the SEE model that emerged from the integration of the practitioner-derived knowledge foundation and the doctoral research and interdisciplinary integration. The practitioner-derived foundation contributed by SOS for Sustainable Future and the outcomes of the doctoral research complemented each other in creating a resources package supporting Lab delivery. Table 7.5.1.3 overviews the complementary contributions from practice and academic research.

Table 7.5.1.3: Partnership contributions to the SEE model evaluated across the five GSIL implementations.

GSIL Implementation	Social Enterprise Contribution	Doctoral Research Contribution
Lab One (2021, virtual international, four institutions, 120 learners)	GSIL curricular design, including the Dragonfly Den evaluation event; andragogical instructional approach refined through decades of professional practice; resource package derived from practice, including SE case studies across Asia, Europe, Africa, Australia, North and south America, mechanisms for dual value creation, systems orientation informed by engineering training and IISD work, and UN sustainability frameworks (Agenda 21, 2030 Agenda)	Application of educational theories to cross-cultural and virtual SEE delivery, examined through Article 4; first cycle of Phase 1 interdisciplinary scholarship review; empirical observation of the limits of education as a single discipline in producing globally applicable SEE, motivating the subsequent interdisciplinary integration
Labs Two through Five (Bolivia 2022, Croatia 2023, SPU 2024, SCNU 2025)	Same proprietary curricular design, instructional approach, and core resource package as Lab One; continuous expansion of the practitioner derived case base through international teaching and consulting practice that has continued throughout doctoral studies	Progressive integration of interdisciplinary scholarship reviewed across Chapter 3 and Chapter 4, including political economy, SE theory, and education scholarship; knowledge architecture in Chapter 5; theoretical derivation of nested hierarchy and systemic conditions and separation from socioeconomic variables (Chapter 4); empirical analysis of regional SEE provision (Chapter 6)

Table 7.5.1.3 makes the complementarity of the two contributions visible. The practitioner-derived component supplies operational knowledge about dual value creation mechanisms, regional case studies, and partnership and collaboration approaches that SE scholarship has only partially produced, as Chapter 3 documents through the systematic literature review and as the parallel Mitacs research independently supports. The doctoral research contributes what practice alone cannot identify, including the theoretical foundation, the knowledge integration, and the two-tier architecture that distinguishes globally applicable from context-specific knowledge. The SEE model evaluation reported in this Chapter is primarily focused on the doctoral contribution. The practitioner-derived knowledge component is evaluated independently through professional practice and ongoing implementation by SOS for Sustainable Future.

The resource package comprised three analytically distinct but complementary components. The practitioner derived component constituted the primary source of globally applicable and contextually grounded applied knowledge. The resources included more than 75 case studies of social enterprises operating across multiple regions, illustrating diverse approaches to dual value creation classified by dual value creation mechanism. The practice-informed component covered the applied domains of the knowledge architecture presented in Chapter 5, including strategic planning for dual value creation, regional approaches to value integration, leadership, collaboration, and partnership structures identified across case studies.

Context-specific practice-informed materials further included overviews of financing sources for social enterprises, organisational forms applicable to both domestic and foreign enterprises, and institutional arrangements through which social enterprises operate across jurisdictions in Europe, Asia and North America. Collectively, these materials provided learners with direct engagement with the mechanisms through which dual value creation is achieved in practice.

The second component of the resource package, derived from doctoral research, was grounded in the literature reviewed in Chapter 3 and organised in accordance with the knowledge architecture developed in Chapter 5. This bridging component comprised synthesised summaries of meso level theories and core theoretical concepts identified through interdisciplinary research and integration, including those drawn from systems theory and complexity science. The bridging component provided the conceptual structure necessary for navigating and interpreting both scholarly contributions and practice-based content.

The underrepresentation and limited exploration of dual value creation mechanisms in SE scholarship parallel a broader pattern observed in regional SEE practice in the Phase 2 empirical analysis presented in Chapter 6. SE scholarship and SEE provision in the regions examined concentrate on organisational forms, financing arrangements, governance configurations, and descriptive single-case studies of practice (Saebi et al., 2019; Klarin & Suseno, 2023). Comparative case analysis remains rare in SE research and, where present, continues to focus on the integration of social enterprises within specific institutional contexts rather than on the mechanisms through which dual value creation is achieved. In addition, divergent definitions of social entrepreneurship limit the comparability of findings, as studies do not examine the same phenomenon in a conceptually neutral manner (Saebi et al., 2019; Bartha & Bereczk, 2025).

Dual value creation mechanisms are therefore largely absent from both SE scholarship and the regional SEE provision examined in this thesis, despite their demonstrated effectiveness in practice and their direct alignment with the dual value creation requirement that the theoretical proposition derived in Chapter 4 establishes as a structural condition. This observation is supported by independent empirical evidence generated through parallel research conducted under the Mitacs Project alongside the doctoral studies and reported separately in a practitioner publication not included in this thesis (Brkic, forthcoming). Drawing on 20 semi-structured interviews and Likert-scale knowledge prioritisation with 10 social entrepreneurs across six regions in Europe, North America, and South America, the parallel research found that practitioners rank dual value creation mechanisms and partnership and collaboration approaches as the two most important knowledge segments they draw upon in SE practice. In contrast, impact measurement frameworks were ranked as the least useful, with practitioners reporting that funding sources tied to such frameworks are limited in scope and that the measurement process itself is complex and time-consuming, while the metrics required serve policy priorities rather than SE practice and provide limited guidance for enterprise design or strategic decisions.

Throughout the GSIL implementations, systematic effort was directed toward identifying academic counterparts to the practitioner-derived mechanisms for dual value creation accumulated through professional practice. Of approximately 25 mechanisms identified in professional practice

and included in resources package, six were traceable to existing scholarship. These six mechanisms are integrated into the knowledge architecture in Section 5.3.2 of Chapter 5 and include Jugaad and Smekalka (Singh & Awasthy, 2025; Sadigov, 2021), Aprovechamiento (Almeida et al., 2023), Design for Environment and substitution of products with services (Schaltegger et al., 2016), and Biomimicry (Benyus, 2002; Aguilar-Planet & Peralta, 2024). These mechanisms constitute globally transferable knowledge in which dual value creation operates as a single design process rather than as a balance between economic and social objectives. The literature documenting these techniques circulates predominantly within regional or UN studies, rather than within SE scholarship. This body of knowledge has therefore been only partially connected to examined SE scholarship despite its direct relevance to social enterprise practice. The remaining mechanisms that have been identified in practice did not yield identifiable academic counterparts in literature.

With each Lab iteration, the resource package was expanded to incorporate newly identified scholarly sources, with the practice-informed component continuously complemented by additional case studies generated through the parallel Mitacs research documented separately in Brkic (forthcoming), Learning from social entrepreneurs: What knowledge is needed to succeed in Europe, North and South America, (Academia Revista Latinoamericana de Administración) noted in Preface.

7.5.1.4 SEE Content evaluation across GSIL Implementations

Idea generation across iterations followed a consistent design. Each learner brought an initial SE idea drawn from their own observations, lived experience, and prior knowledge to their team. Teams reviewed the initial ideas and selected one for collective development through team voting. The selected idea evolved substantively through mentoring sessions, in which peer input, mentorship from participating social entrepreneurs, and exposure to examples of analogous SE practices from other regions shaped and improved the initially conceived dual value creation mechanism, and the refinement of the SE solution toward viability. The outcomes reported below are therefore the result of co-produced knowledge involving learners, social entrepreneurs serving as mentors, participating faculty, and the social enterprise that designed and facilitated the Labs, consistent with the literature on situated co-construction of knowledge in communities of practice (Wenger, 1998) and on knowledge co-production through university-industry partnerships (Carayannis & Campbell, 2009).

Facilitator observations and the lead author's analysis indicated that educational theories provide a solid foundation for pedagogical design in adult education, although originally developed for child education. The SEE content available in the resources package at this stage was drawn from the researcher's professional practice only and had not yet been integrated through the doctoral interdisciplinary work conducted in subsequent phases. This content was effective for students intending to establish practice in Canada but did not fully translate across different cultural contexts when learners were not focused on a single regional application (Brkic et al., 2022).

Empirical observations made during the first GSIL implementation showed that scholarship grounded primarily in North American and European traditions did not resonate equally across participant groups. Learners from China and Mexico relied predominantly on mentorship and researcher guidance, resulting in mentorship sessions lasting over four hours. The primary diagnostic finding of the first Lab was that learners demonstrated an immediate grasp of dual value creation across cultural and disciplinary boundaries through tacit knowledge and mentorship sessions but lacked a shared interdisciplinary reference point through which provided resources and prior knowledge could be interpreted. This finding directly motivated the interdisciplinary investigation and integration in Chapter 4, empirical research in Chapter 6 the organisation of knowledge in the architecture guided by the conceptual framework and structured in Chapter 5. With extensive mentorship support, learners developed seven SE solutions, two of which received financial support from partner universities in Mexico and China, and one of which proceeded to implementation.

The second Lab in Bolivia assessed whether the SEE approach could be delivered outside formal higher education with practitioners who already operated social enterprises. The Lab was adapted to introduce content through concrete organisational challenges practitioners encountered. Strategic planning for dual value creation generated sustained engagement, while applied knowledge clusters reflecting Western governance, financing, and impact measurement frameworks attracted limited interest. Systems theory concepts, particularly open systems dynamics, nestedness, and interactions across systems, resonated with participants, who identified alignment with Aymara worldviews and Buen Vivir philosophies. Participants drew primarily on culturally embedded philosophies rather than formal business or social science logics in interpreting content, demonstrating that tacit knowledge of dual value creation is present in community contexts independently of formal SEE exposure. Among the four participating enterprises, one developed and proceeded with a new services expansion, indicating that the GSIL approach is applicable in contexts where the objective is extending existing practice rather than launching new ventures.

The primary contribution of this iteration was empirical support and evidence that culturally grounded knowledge systems constitute a legitimate source of knowledge pertinent to SE practice. This finding directly informed further research on regional approaches and the integration of cultural philosophies into the knowledge architecture structured in Chapter 5. Participants identified common elements between Aymara approaches and philosophies from other cultural traditions including African Ubuntu and North American Indigenous paradigms, pointing toward convergences that were subsequently identified in later iterations.

The third Lab in Croatia evaluated the effectiveness of SEE model in a project-based learning environment, applying the fully developed knowledge architecture structured in Chapter 5 for the first time in a GSIL implementation. The theoretical framework served as the interpretive lens connecting high-level theoretical clusters to applied knowledge domains, with instruction emphasising tacit knowledge as a starting point and introducing open systems, nestedness, and entropy as analytical tools for addressing the place-based challenge. The findings indicated that

tacit recognition of dual value creation, identified in communities in Chapter 6, is also present among learners from diverse regions and academic backgrounds. Engagement with European partner universities and Erasmus students from 11 EU countries provided empirical observations on the institutional and policy dimensions specific to the European social economy tradition. Context-specific integration strategies were further explored in empirical research in EU presented in Chapter 6 and are reflected in the applied knowledge clusters of the architecture.

The simultaneous presence of students from African countries and South Korea enabled the researcher to observe the distinction between globally applicable knowledge and context-specific content empirically, a distinction reflected in the integrated design of the knowledge architecture in Chapter 5. African students' identification of Ubuntu philosophy as aligned with the theoretical framework provided the first inter-regional convergence across cultural philosophical traditions, connecting to the Aymara resonance observed in Bolivia. All learners developed SE solutions, and one of the three team solutions developed in this Lab received funding for implementation at the Preluk site from one of the adjudicators in the Dragonfly Den.

The fourth Lab, a hybrid transcontinental implementation hosted by SPU, delivered the SEE content to a multi-institutional, transcontinental context characterised by asynchronous collaboration and learners from diverse disciplinary traditions, including natural sciences and technical disciplines alongside social sciences. The natural science learners engaged with systems theory concepts through their disciplinary training and contributed to peer learning by relating systems reasoning across disciplinary frames. Social science learners reflected on how systems-based reasoning could inform their own fields. The findings indicated that the integrated content and dual value creation logic were recognisable to learners across the disciplinary range represented in the Lab. Four solutions were developed by multicultural, multidisciplinary teams in this Lab, and two SE ideas received funding and progressed toward implementation following the Dragonfly Den.

The fifth Lab at South China Normal University (SCNU) delivered the SEE model to learners trained in Chinese academic traditions characterised by inductive and empirically grounded engagement with systems logic. Participants engaged with the knowledge architecture, particularly its theoretical foundations, with interest and ease. The alignment between the theoretical framework and learners' prior exposure to complex open systems concepts across programmes facilitated rapid engagement with dual value creation logic. Learners identified structural alignment between dual value creation as conceptualised in the knowledge architecture, entrepreneurship principles embedded in Chinese Common Prosperity policy, and Daoist philosophical traditions. This observation is structural and refers to the institutional configuration in which the learners operate, in which dual value delivery is treated as an expected enterprise function. The observation does not extend to political evaluation of the institutional arrangements.

Chinese learners questioned the analytical distinction between SE and conventional entrepreneurship in their own institutional context, where this distinction is structurally less marked than in regions where SE is conceptualised as a separate organisational form or exceptional organisational practice. The observation is reported here as a learner-level reflection on the

relevance of the Western conceptual separation in Chinese context. The iteration further indicated that Daoist philosophy aligns with the dual value creation logic supporting the theoretical proposition, paralleling the alignment observed with Buen Vivir among Bolivian participants and Ubuntu among African students in the Croatian Lab. The convergence of three geographically and historically independent philosophical traditions on the same recognition of nested hierarchy and dual value creation provided cross-cultural empirical support for the application of transformation as IRP integration strategy in Chapter 5. Two of the five solutions developed in this Lab received institutional support from SCNU. The researcher's follow-up engagement in 2026 enabled observation of the early development of the student-led social enterprises ideated in the fifth Lab.

Across the five iterations, learners produced viable SE solutions through the integrated content and instructional approach. SE solutions developed in Labs Three, Four, and Five attracted independent funding from audience members, adjudicators, or institutional partners after presentations, without solicitation. Lab One solutions received financial support from partner universities, and the Bolivia iteration produced one expansion of an existing enterprise. The outcomes reported above reflect both the practice-derived and the academic contributions to the SEE model and represent co-produced knowledge involving learners, academia, the social enterprise, social entrepreneurs serving as mentors, and faculty participating in the exercise.

The approach demonstrated transferability and expandability across cultural, disciplinary, and institutional settings, as each participating institution integrated the GSIL into its own programming, thereby generating a cumulative body of knowledge grounded simultaneously in interdisciplinary research and in the lived experience of learners and practitioners across multiple regions. The integrated SEE model proposed in this thesis has emerged through both research and knowledge co creation, with insights from practice, learners, and international faculty contributing to content enrichment and to evaluation of its applicability across diverse cultural contexts.

7.5.2 Andragogical Design Evolution in Instructional Delivery

The pedagogical design of the GSIL is grounded in the andragogical principles established in Chapter 4, which position adult learners as knowledge contributors whose prior experience serves as the primary resource for learning rather than as a background condition (Knowles, 1984). This positioning shapes the GSIL instructional design at the level of exercises, sequencing, and facilitation. Within this design, Shulman's (1986) pedagogical content knowledge functioned as the integrating logic. Each exercise served simultaneously as instruction and as an experiential articulation of theory, with theory introduced after it was recognised within learners' lived experience. In the absence of a theory connecting sustainable development objectives at the macro- level with meso-level socioeconomic architectures and micro-level SE practice, the instructional approach drew on theoretical framework derived in Chapter 4.

Adult learners engage with concepts through perceived relevance rather than through external compliance (Knowles, 1984). Instructional exercises were therefore designed to activate tacit knowledge that learners already possess through participation in social, economic, and ecological exchanges. Voluntary participation without formal assessment, combined with flexible

use of the resources package, enabled learners to select materials based on need and allowed the researcher to observe which elements were proactively consulted.

The instructional challenge specific to SEE arises from the ontological character of the social enterprise as an open, complex, dynamic system whose viability depends on continuous exchanges of energy, matter, and information across the nested hierarchy in which it operates (von Bertalanffy, 1968; Meadows, 2008). Within such a hierarchy, multiple feedback loops operate simultaneously across levels and outcomes emerge from their combined influence. Causes cannot be linked to discrete effects in real time, and pre-programmed organisational responses cannot anticipate every interaction with the environment. Instruction must therefore enable learners to draw on their existing capacity to respond to overlapping feedback in everyday life and to transfer those response patterns to organisational design. Mentoring sessions were therefore designed to activate tacit knowledge that learners possess and to leverage their lived experience to support understanding of core concepts relevant to SE, including open systems dynamics, nestedness, and cross-system interactions, when these concepts are presented through scenarios grounded in their lived experience.

The two mentoring sessions described below are illustrative of the structured mentoring sequence conducted with each team during the first two days following the introductory lecture. They are presented as illustrations of the alignment between the andragogical instructional approach and the theoretical framework, and not as a comprehensive exposition of the GSIL pedagogical design. The introductory lecture provided global SE examples without defining SE or explaining the theory. The exercises in the mentoring sessions that followed were introduced to learners as icebreakers without revealing their theoretical purpose. Each session was designed to activate a specific dimension of tacit knowledge and to connect that knowledge to the theoretical and applied content learners need for SE solution design. The researcher observed learners' reactions and recorded what learners reported they understood from each exercise, to track how knowledge transfer occurred through the activation of lived experience.

7.5.2.1 Activating Tacit Knowledge and Recognising Dual Value Creation

Mentoring Session One opened with a reflective question asking what common patterns the team could identify across the SE examples presented in the introductory lecture. The examples were drawn from different sectors and regions, including biomimicry enterprises, Ubuntu-based cooperative models, renewable energy ventures, and enterprises built on recycling and waste repurposing. Learners were given time to reflect before sharing their observations.

The session continued with three exercises designed to surface different dimensions of the tacit knowledge underlying SE practice. The first exercise invited learners to represent themselves through dimensions they considered central to their identity, with anonymous submissions and no prescribed categories. The second exercise drew on a shared childhood game, musical chairs, played across cultures. The game was used to surface tacit knowledge about how individuals and groups respond to resource scarcity. The third exercise invited learners to articulate what they would change in the way the systems they live in distribute natural, human, and capital resources if they were "masters of the universe".

When the cumulative results of the exercises were shared with each team, two patterns emerged. First, in identifying common features across the SE examples, learners across all five GSIL iterations and all cultural and disciplinary contexts converged on the same observation. Each enterprise addresses a social need and generates economic value through its activity. The pattern that learners identified independently aligned with the redefinition of SE established in Chapter 1, without the educator imposing it. Second, the dimensions through which learners represented their own identities consistently combined social interactions with immediate circles, professional orientation or means of earning income, and modes of interaction with nature and broader society through interests and community roles.

The educator drew the connection between the two patterns. Learners' identities corresponded to the dimensions with which social enterprises engage. Learners recognised that, much like social enterprises, they combine social and economic roles within their personal identity. Participants were then asked to select the SE examples they found most resonant and connect them to social needs they meet or aspire to meet within their own identities. Within the first hour of the mentoring session, participants reported that they understood what SE is, what they already know about integrating social and economic values from everyday life, and what their assignment required.

The instructional intent in directing learners toward their own social needs was to activate tacit knowledge to its full potential. By grounding solution design in needs learners recognise within themselves, the approach assumes that the needs of one individual are likely shared by others and that needs agreed upon within a team reflect a collective social need. When learners understand how they address their own social needs in everyday life, they are better positioned to design enterprises that respond to the same needs in others. This shifts solution development from abstract problem-solving to the extension of already practised patterns of interaction, enabling learners to translate lived experience into intentional organisational design.

Pattern recognition in this design simultaneously activated experience richness and relevance orientation. Learners were not asked to accept a definition. They were asked to observe practice and identify patterns, a competence they exercise daily in their professional and personal lives. Individuals operate as integrated open systems in which social, economic, and ecological dimensions of identity coexist. The separation of social from economic value that characterises dominant SE scholarship is therefore not a feature of lived experience. Learners recognised this immediately because their own identities contradict analytical separation. This recognition, grounded in self-concept rather than in theory, addressed Knowles's characteristic of internal motivation. The relevance of dual value creation was not explained to learners but discovered by them in the evidence of their own lives. At the end of the first session, each team member developed an SE solution idea independently, without the educator specifying the social problem to be addressed.

7.5.2.2 Nested Systems, Resource Allocation, and the Nature of Social Enterprise

The second session opened with learners sharing their SE ideas and voting anonymously for the two strongest, with voting for one's own idea permitted. Teams selected the idea they aimed

to develop collectively based on the maximum votes. The three exercises that followed were introduced in the same icebreaker format.

The first exercise presented a community scenario in which a series of disruptions affected a neighbourhood's sense of safety. Learners described their patterns of life in their communities and articulated how they would respond to such disruptions. Responses ranged across cultural contexts from individual protective responses to collective community organising and reliance on external authorities. The facilitator guided the discussion toward a recognition that emerged without being stated. The way people live reflects their embeddedness in broader society. Disruptions originating in one part of the system propagate outward unless contained within the system that generates them. External coordination, whether by formal authorities, regulation, or policy, is mobilised after disruption has spread rather than preventing it. Community responses that addressed the conditions generating disruption were observed to be more effective than reliance on external coordination after disruption had propagated.

The exercise was then mapped onto open systems dynamics. Households, neighbourhoods, and communities became a nested hierarchy of open systems, with enterprise, society, and the planet interacting through feedback loops and entropy exchange. The disruption became a non-linear feedback effect propagating across the nested hierarchy. The way communities responded determined whether the entropy could be contained. Through this mapping, learners encountered the distinction between socioeconomic architectures, which are subject to human design and therefore negotiable, and systemic conditions, which apply across all neighbourhood configurations regardless of the response chosen. The desire to restore social order connected directly to the economic value of homes and property, reflecting that social and economic values are interdependent and that their balance is required to preserve the viability of the nested systems in which people live. Learners reasoned through nestedness, entropy dynamics, and the distinction between socioeconomic variables and systemic conditions before the educator named these concepts. Theoretical vocabulary was introduced after recognition, giving structured language to what learners had reasoned through independently.

The second exercise introduced an apparently unrelated scenario in which learners were asked to allocate places on a four-member crew responsible for preserving humanity in a survival mission. Across all cultural and disciplinary contexts, learners consistently selected a doctor, a scientist, and an engineer, with the fourth choice varying across iterations. The educator then drew the connection to the earlier exercise. As masters of the universe designing an ideal system, learners had allocated resources according to equity and social contribution. As captains of a survival mission, learners had allocated places according to professional expertise, in close alignment with how the global economy distributes compensation, without considering whether the doctor, the engineer, or the scientist was also a productive community member, a person of social intelligence, or an ecologically responsible actor.

The exercise surfaced the tension between economic and social value creation and explained its underlying causes. Learners reported that they could now recognise that dominant economic theories describe how societies allocate scarce resources under conflicting demands, and

that the values logic of who they are as social beings and the economic logic guiding resource allocation under institutional constraints could be reconciled through deliberate design in which these values are mutually reinforcing. Learners observed that selecting professionals motivated solely by self-interest to participate in a mission intended to preserve the wider community might undermine the survival of the entire crew. SE therefore emerged in learners' understanding as a practice of designing enterprises that reconcile different logics, much as a person constructs an integrated identity.

By the end of the second session, learners typically recognised three relationships. Alternative theories describe nested hierarchies and non-linear feedback loops without prescribing how communities respond to crisis. Dominant economic theories explain how societies allocate scarce resources under conflicting demands. Cultural philosophies shape the ways identities are formed. The educator did not deliver these conclusions. Learners reached them, and the educator pointed to the theories and concepts in the resources package corresponding to the insights learners had independently gained.

In the remaining days of the two-week Lab, each team focused on building solutions drawing on the concepts they had understood, the mentoring support, and further exercises. The educator and SE mentors introduced comparable SE solutions from practice and provided contextual advice. After the first week, when ideas had taken shape, the experiential learning component was introduced. Teams were connected with social entrepreneurs who had developed similar solutions, extending the mentorship into real-world applications.

7.5.2.3 Alignment of Instructional Design with Pedagogical Content Knowledge

The instructional sequence applied in the testing phase aligns precisely with Shulman's (1986) pedagogical content knowledge framework. Each exercise corresponds to a specific theoretical concept and conveys its analytical meaning through lived experience, rendering the complexity of the problem that SE addresses visible through the prism of learners' own lives. The identity exercise activated open systems ontology and the integration of social, economic, and ecological dimensions of identity. The pattern recognition exercise across case studies identified dual value creation as a structural property of practice. The neighbourhood exercise rendered concepts of nestedness and entropy accessible, while clarifying the relationship between systemic conditions and socioeconomic variables. The musical chairs and survival mission exercises revealed the structural tension in resource allocation between social and economic value creation.

Theory was not imposed on learners, and the complexity of interactions across systems was not introduced through prior explanation. Consistent with adult learning theory, learners engaged first with experience, allowing patterns to be recognised before being formally articulated. Tacit knowledge thus generated the foundation from which theoretical constructs became recognisable, nameable, and subsequently applicable to SE solution design. Cross exercise insights emerged through peer-to-peer dialogue and mentorship rather than through direct instruction, reflecting a learner centred process of meaning making in which experience functions as the primary resource for learning (Knowles, 1980).

The exercises also surfaced the cross-cultural resonance that subsequently informed the interdisciplinary integration of cultural philosophies and their inclusion into the knowledge architecture in Chapter 5. Learners across iterations recognised that, regardless of where they lived, they inhabited homes within neighbourhoods within cities, forming a nested hierarchy of open systems. Differences in how communities responded to disruption reflected differences in socioeconomic architectures, while the underlying drive to restore social cohesion and preserve property values reflected systemic conditions that apply across configurations. Cross-exercise analytical resonance was observed across cultural philosophies. Learners drew on Ubuntu's recognition that the individual exists through community, the Daoist understanding of balance and social obligation, and Buen Vivir's affirmation that individuals, organisations, and societies invariably balance economic, social, and ecological goals as a condition of their survival. These cultural philosophies emerged in learner reflection as expressions of how distinct human traditions understand nestedness and interactions across open systems. The observed convergences in learners' perceptions provide cross cultural empirical support for the application of transformation as an IRP integration strategy and offer independent assessment of the shared recognition of nested hierarchy and dual value creation across both cultural philosophies and scholarly frameworks, as articulated in Chapter 5 (Repko & Szostak, 2025).

7.5.3 Analysis of Insights from GSIL Participants

The andragogical design operationalised in the first two mentoring sessions was tested across GSIL implementations in on-site, hybrid, and virtual formats. Learners responded positively to the non-hierarchical approach, sustained dialogical exchange, and being positioned as knowledge contributors rather than recipients of instruction. The connection between participants' lived experiences and SE theories and concepts proved consistently generative. Learners returned to the resources package asking for theories explaining what they had recognised through exercises and applied knowledge that could strengthen the solution they were developing. Learner-centricity fostered through the activation of tacit knowledge led to a recognition that developing a viable SE solution requires not only identifying a social need that can be sustainably financed through revenue generation but also building the SE idea in a way that positions team members' identities, experience, and disciplinary background as assets contributing to the collective design.

The absence of formal evaluation and the voluntary participation structure created conditions in which engagement reflected genuine interest rather than compliance with programme requirements. Open discussions and debates about the alignment between existing knowledge and the requirement to create dual value emerged spontaneously during mentorship sessions. Learners intuitively used the theoretical framework and the dual value imperative as lenses to assess the pertinence of resources. Participants gravitated toward content that connected directly to their proposed solutions and engaged less with material that remained abstract or disconnected from practice. The structured knowledge base was consistently described by participants as useful for locating their prior disciplinary training and SEE courses within a larger whole, with the two-tier architecture providing an orienting map rather than a prescriptive pathway. This self-directed engagement with the resources package aligned with Knowles's (1984) characteristic of adult

learner autonomy. Learners determined which materials to consult based on the questions their own design process generated rather than following a sequence imposed by the educator.

The dialogical approach proved more effective than directive instruction and lectures across all implementations. Reciprocal knowledge exchange in which the researcher, social entrepreneurs, and learners contributed distinct but complementary forms of expertise toward shared problem solving resulted in higher engagement than hierarchical scaffolding toward predetermined outcomes (Mezirow, 1991; Brookfield, 1986). Mezirow's (1991) transformative learning theory contributed the analytical lens through which learners examined and revised assumptions embedded in their prior disciplinary training, particularly assumptions about the separability of social and economic value that formal education had reinforced. Where learners entered the Lab assuming that social objectives and economic sustainability operate according to competing logics, engagement with the exercises and mentorship sessions produced a transformation in that assumption, enabling learners to reframe SE design as the intentional alignment of two dimensions they already learned to integrate in their own identities. Brookfield's (1986) framework of critical reflection contributed the facilitation logic through which learners were encouraged to surface and examine the premises underlying their proposed solutions rather than accepting them as given, asking who benefits, whose needs are centred, and what assumptions about social value the proposed solution reproduces or challenges.

Freire's critical pedagogy (Freire, 1970) provided a normative dialogical orientation enabling learners to interrogate implicit value hierarchies, question who benefits from proposed solutions, and situate their entrepreneurial ideas within broader social and institutional contexts. This orientation was observed through learners' increasing tendency during mentorship sessions to challenge assumptions about intended beneficiaries and to reframe solutions in ways that addressed root causes of complex problems rather than symptoms.

The dual value imperative within the theoretical framework functioned across all implementations as both a catalyst and a compass. As a catalyst, it motivated engagement. Learners consistently reported that their academic pursuits were driven by a desire to generate meaningful social impact and that prior training had left them without clear pathways for integrating social and economic value in practice. As a compass, this systemic condition-oriented learners' knowledge selection, with participants gravitating toward resources that clarified how dual value creation could be operationalised in their proposed solutions and engaging less with content that remained at the level of normative claims about SE as an ethical choice. This evaluative stance toward the literature emerged organically rather than through facilitator direction, reinforcing the interpretation that dual value creation resonates with learners' lived experiences.

The inclusion of social entrepreneurs as mentors, recruited from among the researcher's former students who operate social enterprises, strengthened the learning environment in a distinctive way. The practitioners' presence, combined with relaxed and collaborative interaction with the researcher and participants, signalled to learners that the educational process in which they were engaged could lead to concrete outcomes in practice. It also allowed learners to observe the collaborative nature of the community of practice directly rather than encountering it as a

scholarly description. The experiential learning component introduced after the first week, through which teams were connected with social entrepreneurs whose practice aligned with their proposed solutions, extended the mentorship beyond the Lab setting and generated recognition of a global community of practice. Learners encountered not only the theoretical possibility of SE but living examples of SE practice, creating conditions in which the transition from ideation to implementation appeared not as an abstract future aspiration but as a reachable next step.

The Dragonfly Den was designed as a low-pressure presentation format for proposed ideas and their social, ecological, and economic benefits, in contrast to pitch competitions that require teams to project confidence and persuade investors. This design was deliberate, reflecting an ethics of care that acknowledges enthusiastic investor-facing pitches as a culturally specific expression that can intimidate participants from cultures where this is not a norm and from vulnerable groups for whom such performative formats are often intimidating. Despite the low emphasis on communication style, close to 50% of teams across the implementations obtained funding without soliciting it, which can be interpreted as indication that community members and invited guests recognised the value of the proposed solutions. This finding carries one acknowledged limitation. The GSIL attracted learners who already held an interest in SE practice, raising a question for further research about whether equivalent engagement and outcomes would be observable in other curricular configurations. The question lies beyond the scope of this thesis.

The consistency of the patterns across five continents, multiple disciplines, and diverse institutional contexts indicates that the andragogical approach travels well, provided that facilitation sustains dialogical exchange, draws on common experiences, and positions learners as the primary source of knowledge about the social problems their solutions address.

7.5.3.1 Cultural Expression and Technology as Knowledge Transfer Vehicles

The GSIL implementations provided consistent evidence that artistic expression and cultural narrative function as pedagogical vehicles rather than decorative additions to the learning process. Each team was asked to select or create a piece of artwork representing their collective identity and to choose a team name reflecting the meaning of their cross-cultural and cross-disciplinary collaboration. The rationale for this requirement was to build team identity and to give shared expression to what collaboration across cultural and disciplinary boundaries produces. Across all implementations, every team chose to create original artwork rather than selecting an existing piece. One of the artwork examples is reproduced in Figure 7.5.3.1, provided with participants' consent.

Figure 7.5.3.1: Team Tacoda Artwork

Figure 7.5.3.1 presents an example from a team participants named Tacoda (taco and panda), comprising students from SCNU China and UTMA Mexico, whose artwork integrates cultural symbols from both traditions within a unified visual narrative oriented toward collaborative problem solving. Teams across all implementations incorporated cultural symbols, local enterprise practices, and social traditions into their problem framing and solution development. The integration of cultural elements in solution design functioned as a means of making implicit regional knowledge explicit within the collaborative process, allowing learners to contribute to their teams what they carried from their own contexts in a form that peers from other regions could engage with directly.

Observational data indicated that when participants drew upon cultural symbols, metaphors, and narratives from their own environments, intercultural understanding deepened and entrepreneurial ideas became more creative. Regional perspectives proved complementary rather than competing, with cultural difference functioning as a creative resource for solution design rather than a barrier to collaboration (Brkic et al., 2022). The Tacoda artefact constitutes observable evidence of how learners operationalised dialogical pedagogy and dual value creation through creative media with symbolic emphasis on interconnectedness and interactions across cultures.

This finding aligns with the SEE architecture established in Chapter 5, which positions cultural philosophies alongside dominant and alternative theories as equally valid knowledge rather than as peripheral additions to academic frameworks. The emergence of artistic expression as a vehicle for knowledge integration supports the validity of andragogical approach empirically. Learners did not require formal academic framing to draw on cultural knowledge productively,

identify the nature of cross-systems interactions, and recognise the interconnectedness of values that symbols represent.

The instructional approach applied in GSIL further demonstrated epistemic plurality in SEE design, paralleling Mignolo's (2009) concept of epistemic disobedience, whereby knowledge from the Global South and non-Western paradigms was actively integrated into the SEE content structure and delivery rather than appended to content found in EU or Canadian programmes. By creating space for culturally grounded approaches to inform entrepreneurial design and decision-making, the GSIL provided a practical demonstration of the value of including diverse sources of knowledge in an educational setting.

Engagement patterns across implementations provided further evidence of the andragogical design's effectiveness. Learners who completed the first two mentoring sessions remained engaged through to the Dragonfly Den in all subsequent sessions. Approximately 10 percent of volunteers who participated in the introductory lecture but did not complete the first mentoring sessions remained loosely connected with their teams and did not fully engage with the applied phases of the Lab, suggesting that the experiential activation of tacit knowledge in the first two sessions generated sufficient personal investment to sustain engagement through the more demanding solution development phases.

Technology functioned across implementations as an enabler of human interaction rather than as a solution in itself. Simple platforms supplemented by asynchronous tools and real-time mentoring proved sufficient to deliver the SEE experience, with the pedagogical architecture in which technology was embedded mattering more than the sophistication of the tools themselves. Inequities in digital infrastructure were visible across contexts, indicating that globally applicable SEE models require technological flexibility grounded in pedagogical principles attentive to persistent infrastructural inequality (Brkic et al., 2022).

7.5.3.2 Participant Feedback: Resource Engagement and Cultural Resonance

Analysis of resource access patterns and observed material selection during GSIL activities revealed consistent preferences across implementations. Cultural philosophies and materials related to dominant theories were accessed more frequently than resources depicting alternative theories. Learners demonstrated sustained interest in comparing cultural approaches to dual value creation across regions, whereas alternative theoretical frameworks generated lower engagement unless explicitly connected to concrete practice examples. Within applied knowledge domains, participants emphasised the importance of SE practice examples in clarifying dual value creation mechanisms in real-world contexts. Applied knowledge clusters such as financing, governance, and impact measurement exhibited limited cross-regional transferability in learners' assessment, with material related to impact measurement accessed least frequently across all implementations, suggesting that learners prioritised actionable design logic over socioeconomic instrumentation.

Across all five implementations, the resources participants engaged with were limited to those compiled within the SEE resources package provided through the GSIL. Within the resources package, learners drew predominantly on practitioner derived case studies, dual value creation mechanisms, and cultural philosophies. Engagement with scholarship sources identified

in Phase 1 of the doctoral research remained limited and was directed primarily toward situating prior education and disciplinary training within the integrated knowledge architecture, rather than serving as a primary source guiding solution design.

This pattern of engagement aligns with scholarship in SE that identifies persistent fragmentation and limited consolidation of knowledge, with the field lacking a coherent and operational framework capable of informing practice and education (Klarin & Suseno, 2022; Keim et al., 2025). More broadly, research in entrepreneurship education continues to face challenges in translating theory into practice, requiring pedagogical approaches that more effectively connect scholarly insight with experiential learning and application (Kickul & Winkler, 2025; Wang & Cheok, 2023). The observed reliance on tacit, experience grounded knowledge in learner solution development therefore reflects not a rejection of theory, but the current structural condition of SE research, in which scholarship remains insufficiently integrated and translated into forms that are directly actionable within practice or education.

The strong resonance of cultural philosophies among participants constituted a particularly significant finding. Although participants did not report prior exposure to traditional or regional logics within formal academic training, many recognised similar perspectives within their own communities. Learners actively compared cultural logics and discovered that despite geographic and institutional differences they shared common approaches to understanding social challenges and imagining solutions. The recognition of similarities across cultural traditions generated shared experiences and interpersonal bonds that strengthened the collaborative ethos of the GSIL. The pattern recognition reinforced the finding from implementations in Bolivia, Croatia, and China that Buen Vivir, Ubuntu, and Daoist thought independently converge on the same recognition of integrated value creation that the theoretical proposition in Chapter 4 derives from systems logic. Learners did not need to be introduced to these philosophies as academic content. They arrived carrying them and recognised their relevance when the resources package named them within the knowledge architecture.

Participant feedback across academic implementations consistently indicated that two weeks were insufficient for the full SEE model and that the content would be more effectively delivered as a semester-long course, allowing adequate time to move from ideation through applied knowledge engagement to implementation-ready solution design. Practitioners in the Bolivia community-based implementation expressed a different preference, favouring a shorter and more condensed format with an explicit focus on a specific solution challenge rather than broad knowledge architecture engagement. This divergence in feedback reflects the distinction established in Section 7.2 between the knowledge architecture, which is universal, and its curricular application, which must be adapted to the context, duration, and purpose of the specific programme or setting in which it is delivered.

7.5.3.3 Faculty Perspectives: Search for Common Ground

Faculty feedback was obtained from eight of the 12 faculty members whose students participated in the four academic GSIL iterations, with participants exhibiting varied patterns of engagement with the Lab. Differential regional engagement constituted the first observable theme

in faculty interaction across the five Labs. Faculty from South America and Asia remained actively engaged throughout implementations, interpreting content to participants in real time, posing questions during mentorship sessions, and explicitly raising the need to identify common knowledge capable of uniting diverse regional perspectives on SE. Faculty from Europe and North America primarily fulfilled coordination and logistical roles, contributing less frequently to substantive content discussion. Both European and Canadian faculty collected their students' feedback, expressing a shared opinion that the Lab should have lasted longer. This pattern suggests that the dialogical and relational orientation of the GSIL design resonated more readily with faculty from educational traditions where collective and contextually embedded learning is culturally normative.

The transferability limits of the knowledge architecture were discussed in faculty feedback. Neither the high-level theoretical clusters nor the applied knowledge domains identified in Chapter 5 were deemed sufficient on their own to support meaningful knowledge transfer across regional and institutional contexts. Alternative theories generated interest but were not recognised as sufficiently operationalised within any regional policy or institutional framework. Dominant economic theories were acknowledged as valid descriptions of market-oriented contexts while their universal application was challenged. Applied knowledge domains including financing mechanisms, governance arrangements, and impact measurement practices were consistently identified as highly context-dependent, with faculty emphasising that this content could not be meaningfully taught in isolation from the political and economic systems in which it is embedded. European faculty noted that divergences in SEE content reflect regional diversity that may be difficult to reconcile, referring in their reflections to long-standing efforts within European SE research networks to establish common ground. Culturally grounded theoretical perspectives, by contrast, attracted significant interest and were noted for their value in facilitating sustained engagement across all regions, as they remain embedded in entrepreneurial practice.

Substantive regional differences in how SE is understood as a dual value-creating practice emerged across faculty perspectives. Chinese faculty observed that within their regional institutional context dual value creation is treated as an expectation embedded within entrepreneurial activity, reflecting structural features of the policy environment rather than constituting a distinct organisational form. South American faculty articulated a contrasting position, noting that in Argentina SE is strongly associated with not-for-profit organisational forms, which shapes dominant assumptions about the scope of SE practice and frequently excludes socially oriented for-profit ventures from recognition as SE. European faculty observed that consensus on a unified SEE architecture has not been reached within the EU.

Across the four academic implementations, faculty discussions converged on a question that emerged consistently from the dialogue. If neither high-level theoretical frameworks nor applied knowledge domains can readily provide shared knowledge across diverse societal and institutional contexts, what form of knowledge can provide common ground for globally inclusive SEE without erasing regional specificity? This question, raised in faculty feedback across iterations, directly informed the introduction of systems theory and complexity science as the

shared starting point that produced the theoretical proposition formulated in Chapter 4. In contrast with the high-level theories and applied knowledge clusters included in the resources package, a complex dynamic systems perspective drawn from systems theory and complexity science was assessed as a promising direction, with faculty from Asia, Europe, and South America actively engaging by providing the researcher with literature from these domains available in regional libraries.

7.5.4 Overview of Key Findings Across GSIL Implementations

The empirical evaluation proceeded through two analytical phases. Article 4, presented in Section 7.4, evaluated the role of educational theories in pedagogical design within cross-cultural and virtual SEE delivery and finds that educational theories provide strong support for cross-cultural pedagogical approaches, while their single-discipline application reveals the limits of education in producing globally applicable SEE content and motivates the interdisciplinary integration developed in subsequent doctoral phases.

The extended analysis across the five GSIL iterations evaluated whether the SEE model, comprising the integrated content and the andragogical instructional approach, leads to shared understanding of SE practice supported by the theoretical framing developed in Chapter 4. Findings reported across Sections 7.5.1.4, 7.5.2, and 7.5.3, summarised in Table 7.5.4, indicate that the model produced shared understanding across cultural and disciplinary traditions, that the theoretical framing functioned as the explanatory foundation through which learners interpreted that practice, and that the andragogical instructional approach connected the integrated content to learners' lived experience and produced coherent SE solutions. Convergence between the redefinition of SE established in Chapter 1 and learners' independent identification of dual value creation through inductive observation in mentoring sessions, as described in Section 7.5.2, constitutes early evidence for the robustness of the redefinition as a foundational concept for globally applicable SEE.

Table 7.5.4: Summary of empirical findings across the five GSIL implementations.

Finding	Empirical Observation	Iterations Supporting
Recognition of dual value creation based on tacit knowledge	Learners across all iterations independently identified dual value creation as the common pattern across SE, aligning with the redefinition of SE	Labs One through Five
Recognition of nested hierarchy of open systems	Learners reasoned through nestedness, entropy dynamics, and the distinction between socioeconomic variables and systemic conditions before the educator named these concepts	Labs One through Five
Cross-cultural convergence of philosophical traditions	Buen Vivir, Ubuntu, and Daoist philosophy independently converged on the same recognition of integrated value creation that the theoretical proposition derives from systems logic	Labs Two (Bolivia), Three (Croatia), Five (SCNU)

Finding	Empirical Observation	Iterations Supporting
Two-tier knowledge architecture evaluated	Globally applicable knowledge transferred across contexts; applied knowledge domains relating to financing, governance, and impact measurement remained context-specific	Labs One through Five; faculty perspectives
Mechanisms for dual value creation as globally transferable applied knowledge	Mechanisms including Jugaad, Smekalka, Aprovechamiento, Design for Environment, substitution of products with services, and Biomimicry generated sustained learner engagement and informed solution design	Labs One through Five
Systems theory and complexity science as common ground across epistemic traditions	Western abstract theoretical synthesis, Chinese inductive empirical analysis, and Russian and Eastern European structural-organisational approaches converged on shared recognition of system constraints and the necessity of value integration	Labs Four (SPU) and Five (SCNU); faculty consultations
Viable SE solution development through the integrated SEE model	Across the five iterations, learners produced viable SE solutions, with several attracting independent funding from audience members, adjudicators, or institutional partners after presentations	Lab One (two solutions); Labs Three, Four, Five (multiple solutions attracted independent funding); Lab Two (one enterprise expansion)
Andragogical instructional approach transferable across formats	The integrated content-pedagogy approach sustained learner engagement and recognition across virtual, on-site, hybrid, community-based, and single-institution formats	Labs One through Five
Cultural expression as knowledge transfer vehicle	Original artwork and team naming functioned pedagogically by making implicit regional knowledge explicit within collaborative solution design	Labs One through Five

The Table 7.5.4 summarises the evaluation outcomes against the stated objective. The findings collectively indicate that the integrated SEE model produced shared understanding of SE practice across cultural and disciplinary traditions and that the theoretical framing developed in Chapter 4 functioned as the explanatory foundation through which learners interpreted that practice.

The most consequential finding across the five iterations is that establishing the social enterprise as an open, complex, dynamic system, and defining systemic conditions as conditions of viability, enabled a direct connection between learners' lived experience and SE practice. This connection allowed key systems concepts, including nestedness, entropy, and nonlinear feedback loops, to be intuitively recognised by learners and understood through the supporting materials provided in the resource package. While complex cross-system interactions cannot be fully analysed or predicted with certainty, individuals are nevertheless capable of processing these interactions through pattern recognition grounded in lived experience, enabling learners to identify solutions that can gain traction in both markets and communities despite the inherent uncertainty and nonlinearity of the systems within which social enterprises operate. The Kivunja (2018)

criteria are supported within this evaluation. Learners distinguished globally applicable from context-specific knowledge, drew on both the SEE content and the instructional approach to develop viable SE ideas, and engaged in the pattern recognition through which scholarship and cultural philosophies converged on shared system configuration and systemic conditions established through the IRP transformation performed in Chapter 4.

Article 4 examined the application of five educational theories selected by participating facilitators and found that the role of educational theories in pedagogical design depends substantially on facilitators' interpretation and pedagogical disposition. The first iteration pointed at the limitation of education as a single discipline in producing both content and instructional approach for globally applicable SEE, motivating the interdisciplinary integration developed in subsequent doctoral phases. The extended analysis across the five iterations provides strong but partial evidence of the SEE model's effectiveness. The model was evaluated through one curricular application in the GSIL format and not through its translation into entrepreneurial practice or its operation under alternative curricular adaptations. While the same knowledge architecture and instructional design are drawn upon by SOS for Sustainable Future in delivering semester-length university courses, executive mentorship, and consulting practice, implementation outcomes from these formats are documented within the social enterprise and lie outside the assessment scope of this thesis.

Limited engagement with SE scholarship was observed within this evaluation scope, consistent with the field's documented fragmentation. This observation reflects learner engagement within the GSIL format and cannot be generalised to learners in other educational settings, where SE scholarship may be received differently. The PCK approach adopted in this thesis (Shulman, 1986, 1987) treats content and instructional approach as integrated, in contrast with educational practice approaches that separate them. Further evaluation of the model under alternative curricular adaptations and in entrepreneurial practice constitutes a direction for subsequent research.

In further text, Chapter 8 synthesises the doctoral contributions and addresses the implications of the theoretical contributions produced by this thesis, as well as the practical implications of a multi level SEE model designed to address the central research question: what does one need to know to be a social entrepreneur anywhere in the world.

Chapter 8 Conclusion

8.1 Conclusion Overview

This practice-informed dissertation integrates interdisciplinary research across three relevant disciplines, SE, IPE, and education, as well as complexity science, systems theory, and pertinent social and natural sciences. The resulting SEE model integrates insights from scholarship, comparative empirical analysis of SEE ecosystems across four regions, the researcher's SE practice, and iterative evaluation of the SEE model through five GSIL implementations to propose a multilevel, interdisciplinary educational approach that can support the incubation and operation of social enterprises across diverse regional and institutional contexts. The concluding chapter completes step 10 of the IRP approach through reflection on the research, consolidates insights from the three research phases, and traces how each phase contributed to the development of a coherent SEE model oriented toward globally applicable practice. The chapter also addresses research challenges, responses to those challenges, implications for future research, and the core contributions of the thesis.

The investigation proceeded through three interconnected phases following the IRP framework (Repko & Szostak, 2025) described in Chapter 2. Phase 1 comprised interdisciplinary research involving literature review, critical analysis, and integration of scholarship from the relevant disciplines, supported by systems theory and complexity science, presented in Chapters 1 through 5 and producing Article 1 and Article 2. Phase 2 examined SEE ecosystems across European and Canadian regions, presented in Chapter 6 and Article 3. Phase 3 evaluated and tested the SEE model through five GSIL implementations, presented in Chapter 7 and Article 4. Discussion of each article is included within Chapter 5, Chapter 6, and Chapter 7. Article 1 is integrated into the introductory chapters and provided in Appendix 1 as Article 1.

The research aimed to identify the knowledge and educational approach needed to enable learners to design and operate enterprises that create dual value globally. At the outset, it was assumed that the research in SE can reveal a defined practice with a transferable knowledge base, and that integrating insights from SE and education would be sufficient to propose a globally applicable SEE model. However, the analysis presented in this thesis revealed significant fragmentation of SEE content across both research and educational practice, necessitating expansion of the disciplinary scope. By the conclusion of the research, as many as 11 disciplines had been engaged to connect dispersed insights into a coherent, globally applicable SEE knowledge base.

To transform fragmented knowledge into a cohesive, SEE model, the thesis required the development of a shared theoretical foundation that brings together diverse disciplinary insights into content that is legible across cultural contexts. To advance the main theoretical contributions the research applied four IRP strategies for creating common ground including redefinition, extension, organisation, and transformation (Repko & Szostak, 2025). The IRP strategies produced a globally applicable definition of SE, a theoretical framework for both the SEE model and the doctoral research, a theoretical proposition for SE, and an innovative approach to SEE.

The research proposes that SE constitutes a complex phenomenon and that the social enterprise operates as a complex open dynamic system whose properties emerge from interactions across nested systems that no single discipline captures in its entirety. The thesis proposes that SE emerges as a process of dual value creation in response to systemic conditions governing the viability of subsystems embedded in a nested hierarchy of open systems. The argument advanced is structural rather than normative or metaphorical.

The concluding chapter moves from analytical development to consolidation of findings and their implications. The SEE model proposed in this research responds to the absence of a universally accepted and institutionally supported pathway for establishing social enterprises and offers an approach to scaling SE practice through education grounded in empirical evidence, systems reasoning, and pedagogical coherence. This chapter explains how the proposed SEE model was constructed to arrive at a shared understanding of SE that enables collaborative solution development across regions.

The research was conducted between 2021 and 2026. The absence of theoretical and conceptual convergence in SE scholarship persists despite more than three decades of research and empirical evidence indicating that SE practice exists across regions (Bhardwaj et al., 2023) and historical periods (Teasdale et al., 2023; Goldstein et al., 2010). The persistence of this explanatory gap, despite sustained scholarly effort, directed the concluding reflection toward a distinction established in complexity science between complicated and complex problems, a distinction the research encountered independently through the IRP process itself. Complexity science establishes that complicated systems can be studied by examining their components and integrating insights to develop a more comprehensive understanding. Complex phenomena require a different analytical approach, focused on interactions across systems and their environments (Mitchell, 2009; Holland, 1995; Simon, 1962). In reflection, the thesis explored both analytical pathways and identified the point at which the integration of knowledge drawn from the most relevant disciplines reached its limits, directing the research toward complexity science and systems theory as disciplines that examine complex phenomena and complex open systems directly.

The pursuit of the analytical pathway suited to examining complex systems expanded the inquiry beyond the disciplines associated with SEE toward natural and social sciences that examine complex open systems and their interactions. The requirement for a different analytical approach emerged through iterative integration of disciplinary insights within the IRP rather than from an initial assumption. The IRP process therefore demonstrated the capacity to diagnose whether a phenomenon is complicated or complex without prior engagement with complexity science. This finding has implications for interdisciplinary research in fields that encounter phenomena at the boundary between complicated and complex, which are examined in the concluding sections of this chapter.

The thesis presents the research as a linear trajectory following the IRP sequence established in Chapter 2. The concluding chapter reconstructs the research process as it was conducted, following a recursive pattern consistent with the IRP framework, which requires revisiting analytical steps as new insights emerge (Repko & Szostak, 2025). The progression traced

moves from identifying fragmentation in existing scholarship to developing a more comprehensive explanation of SE practice through transformation as an IRP strategy for integration. The chapter is structured to reflect the research progression.

Section 8.1 introduces the research and traces the research journey across four iterative cycles, identifying the analytical turning point at which the investigation shifted from treating SE as a complicated problem to examining it as a complex phenomenon. Section 8.2 presents the cumulative contributions of the three research phases, including the theoretical outputs produced through interdisciplinary integration in Phase 1, the empirical evaluation of the knowledge architecture across four regional SEE ecosystems in Phase 2, and the assessment of the knowledge architecture and instructional design through five GSIL implementations in Phase 3. Section 8.3 examines the analytical trajectory the research followed in investigating SE as a complex phenomenon, establishing the pathway from disciplinary limits to the identification of systemic conditions. Section 8.4 examines the methodological implications for complex systems investigation and interdisciplinary research methodology. Section 8.7 addresses research limitations and directions for future development.

8.1.1 Research Journey

The investigation across research phases advanced cyclically, and in some IRP steps simultaneously, with each phase generating findings that informed the other two. GSIL-based testing in Phase 3, empirical SEE research in Phase 2, and scholarly investigation in Phase 1 proceeded in parallel or in proximity over four research cycles. The knowledge architecture presented in Chapter 5 and the instructional model tested in Chapter 7 represent the final consolidated outcomes of research, implementation, and refinement conducted over four years. Chapter 8 presents the research as it was conducted rather than as it is structured in the thesis, making the iterative logic through which the thesis outcomes were produced visible to the reader.

The progression of articles reflects the evolution of the doctoral research across three interconnected phases. Article 4, Global Social Innovation Lab: Theoretical Perspectives (Brkic et al., 2022), marks the initial research step. The first GSIL implementation constituted a diagnostic outcome, establishing that education as a single discipline cannot provide the knowledge needed to address the research question. The initial implementation revealed that, while pedagogical approaches are well supported by multiple educational theories, SEE lacks a coherent and transferable knowledge base implementable across educational contexts. The empirical diagnosis, therefore, preceded and motivated the interdisciplinary inquiry, leading to Phase 1, which involved interdisciplinary identification, analysis, and integration of global scholarship and the adoption of the IRP as a guiding approach.

Within the initial two research cycles, the inquiry moved across phases, progressing from empirical evidence identifying a gap in SEE content to interdisciplinary scholarly research confirming that the gap had been recognised in the examined literature. Comparative analysis of regional SEE practices revealed significant differences in SEE content even in regions with similar characteristics. Fragmentation identified in interdisciplinary scholarship was reproduced in SEE practice across regions, where similar knowledge clusters were present but remained unstructured

and inconsistently delivered. The first cycle identified knowledge clusters that can be integrated in SEE, and the second refined and expanded the content by drawing on scholarship and on SEE content identified in regional practice. Empirical research on cross-regional SEE practices, together with the second GSIL iteration, demonstrated that SEE knowledge is transferred through multiple actors, including universities, incubators, community organisations, and social entrepreneur peer networks, with each context conveying different content. The GSIL conducted in Bolivia further revealed that social entrepreneurs in South America draw their knowledge from cultural philosophies rather than from research or formal education in SE.

The second cycle therefore led back to Phase 1 to explore cultural philosophies and their alignment with research and content taught in regional educational practices. Despite the content becoming more comprehensive, knowledge integration remained at the level of organisation as an IRP strategy rather than transformation, which would offer explanatory coherence.

High-level theory clusters identified in the first two cycles provided fragmented insights into the SE phenomenon and lacked alignment. Theories grouped in the alternative cluster, including Polanyi's (1944) concept of embeddedness, Raworth's (2017) Doughnut Economics, and Rockström et al.'s (2009) work on planetary boundaries, pointed to a nested hierarchy of systems in which society is embedded. The alternative theories, however, did not explain the implications of the nested hierarchy for institutional design within society or within enterprises, failing to explain the emergence of dual value creation as an organisational practice.

Dominant theories, including Keynesian (Keynes, 1936), Friedmannian (Friedman, 1970), and Schumpeterian (Schumpeter, 1934) traditions, addressed institutional design and socioeconomic structures while treating economic and social value creation as analytically separate processes. Dominant theories do not explain how value creation processes at the level of human society align with the boundaries imposed by ecological and planetary systems, nor why dual value creating enterprises appear historically across regions. Cultural philosophies recognised nested relationships among social, ecological, and planetary systems, from individuals and communities to the environment, offering guidance for organisations creating dual value. These regional philosophies converged on the same recognition of nested hierarchy that alternative theories identify, though neither tradition explains how dual value creation at the enterprise level can be integrated within modern socioeconomic systems.

Across all three theory clusters, none of the approaches provided an explanation connecting the structural properties of the nested hierarchy with SE practice at the enterprise level or with socioeconomic integration in modern societies. The first two cycles resulted in Article 2, From Theory to Praxis: Building a Globally Inclusive SEE Framework (Brkic, 2024, under review), which applied the IRP organisation strategy to structure SEE knowledge into high-level theoretical domains and applied operational knowledge (Repko & Szostak, 2025). At that point the research had progressed toward structuring SEE knowledge without identifying a unified theoretical foundation from the most relevant disciplines.

In parallel, empirical investigation of SEE ecosystems, presented in Article 3, Social Entrepreneurship Education Across Cultures: Toward Inclusive Models (Brkic, 2025), revealed

that all identified knowledge clusters were present in SEE regional practices but delivered in an unstructured and fragmented form, with greater fragmentation across regions than suggested by the literature. The absence of a unifying theoretical framework necessitated the inclusion of systems theory (von Bertalanffy, 1968) and complexity science (Meadows, 2008) to determine whether these domains could provide a common, globally legible explanation of the SE phenomenon. A theoretical foundation was required to account for divergence in research and SEE practice and the empirical evidence indicating that SE emerges across regions and persists historically in entrepreneurial practice.

The researcher proceeded from the assumption that the cross-regional and historical recurrence of SE practice reflects behaviour arising from cross-system interactions within a nested hierarchy of open systems rather than random occurrence across contexts. The inclusion of complexity science and systems theory resulted in Article 1, Scaling Dual Value Creation through Education (Brkic, forthcoming), which defines the systemic conditions that shape interactions across the nested hierarchy of open systems within which social enterprises operate.

A turning point in the analytical framing of SE marked the most significant moment in the research process, shifting from exploration of contributions from SE, IPE, and education to extension of the inquiry into systems theory and complexity science. In retrospect, the researcher concluded that the initial approach treated SE as a complicated problem, understood as a problem that can be decomposed into constituent parts, analysed separately, and subsequently recombined to produce an explanation of the whole (Simon, 1962). Within this framing, the research proceeded by identifying relevant disciplines, extracting pertinent insights, and attempting integration through IRP strategies (Repko & Szostak, 2025). The treatment of SE as a complicated problem produced the first attempt at an integrated SEE knowledge architecture, documented in Article 2, which structured and organised the relevant knowledge across disciplines.

The disciplinary insights, although systematically identified and organised, continued to generate paradoxes rather than a unified understanding. The profitability paradox, reflecting tensions between financial sustainability and social mission (Doherty et al., 2014), the social value paradox, and the hybridity challenge, expressed as risks of mission drift and barriers to SE integration in modern societies (Ebrahim et al., 2014), persisted across disciplinary perspectives. The persistence of paradoxes across disciplinary perspectives reflects an underlying analytical premise that SE can be treated as a decomposable phenomenon that each discipline can examine separately and then reintegrate. This premise limited integration to organisation as an IRP strategy and prevented convergence toward an explanatory understanding of the phenomenon. By including systems theory and complexity science, the researcher adopted an alternative analytical logic, positioning SE as a complex phenomenon shaped by dynamic interactions across the nested hierarchy of open systems in which SE occurs as an emergent outcome (Goldstein et al., 2010).

The research therefore turned to explaining SE as a complex phenomenon (Goldstein et al., 2010; Swanson & Zhang, 2011), recognising in reflection, that analytical approaches designed for complicated problems systematically misrepresent complex phenomena (Simon, 1962). Further exploration of complexity science toward the end of the research revealed that analytical tools

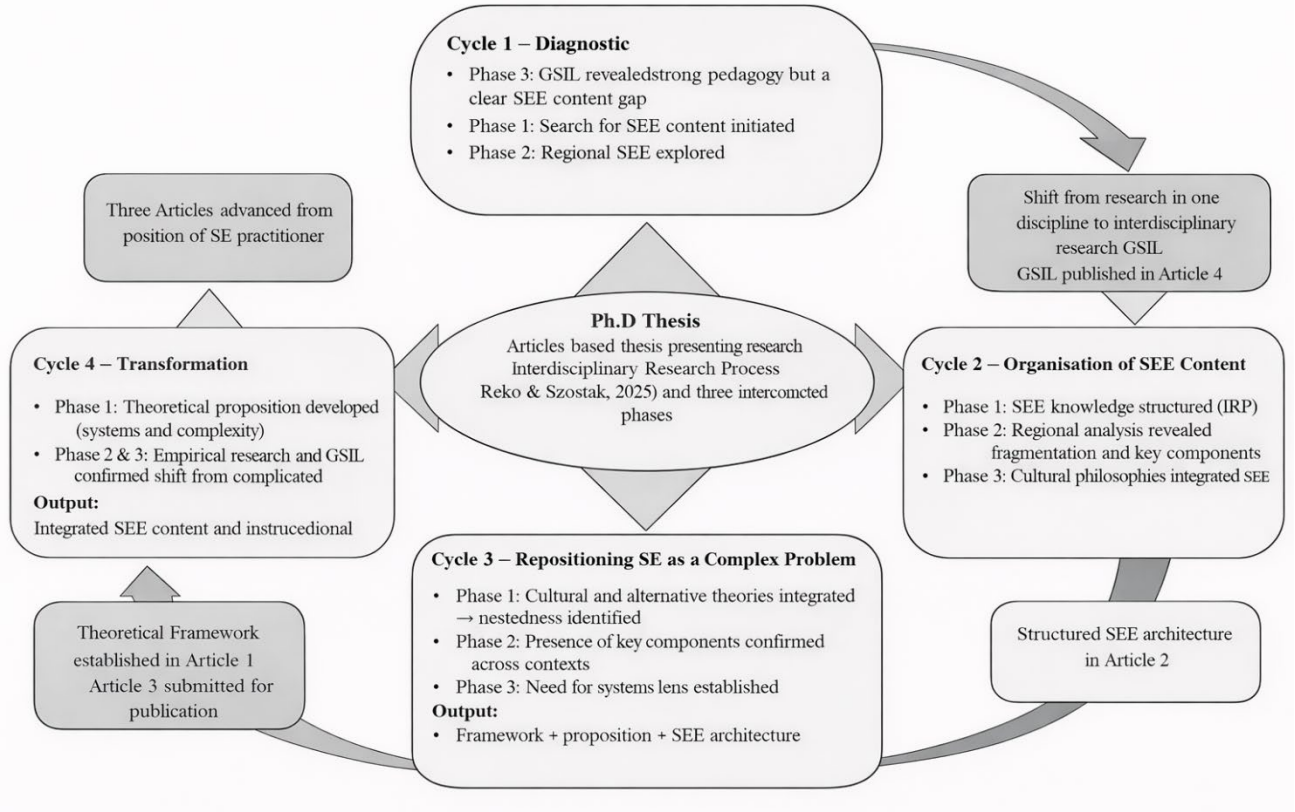
designed for complicated systems produce accurate accounts of individual components but fail to capture the interactions that generate system-level behaviour when applied to complex phenomena (Meadows, 2008).

Throughout the doctoral research, parallel investigation conducted under the Mitacs Project examined SE practice and the knowledge that social entrepreneurs draw upon in establishing and operating their enterprises. The Mitacs research, reported separately as a practitioner publication and not included in this thesis (Brkic, forthcoming), served as an external triangulation point against which the doctoral findings could be checked for analytical errors arising from the doctoral sampling frame, disciplinary lens, or analytical assumptions. The convergence of the Mitacs findings with the doctoral observations on the centrality of dual value creation mechanisms, as practitioner-prioritised knowledge supported the methodological integrity of the doctoral conclusions across an independent sampling frame and an independent research instrument (Denzin, 1978).

The pattern of outcomes produced when SE was treated as a complicated problem corresponds precisely to the dominant strand of SE scholarship, where social and economic value are analysed separately while hybrid frameworks, and interdisciplinary efforts attempt to recombine these analytically separated processes. The recombination of analytically separated processes produces tensions between financial sustainability and social mission, tensions between economic and social value creation, and risks of mission drift in hybrid organisational forms (Doherty et al., 2014; Ebrahim et al., 2014). The researcher was unaware of insights from complexity science regarding differences in analytical approaches at the onset of the inquiry, since the research did not presuppose SE as a complex phenomenon. The research arrived at this conclusion through IRP implementation (Repko & Szostak, 2025). Recognising the distinction between studying complicated and complex systems and identifying its implications for how SE must be studied and taught, emerged through reflection on the completed research process and constitutes a contribution of this thesis to both SE scholarship and interdisciplinary research methodology.

Figure 8.1 presents the research journey as an iterative and cyclical process structured across four interconnected cycles and three parallel research phases. The diagram reflects the application of the IRP approach, in which empirical testing, interdisciplinary integration, and comparative regional SEE investigation were conducted in parallel and revisited across cycles (Repko & Szostak, 2025). Rather than progressing linearly, the research advanced through successive refinements driven by empirical findings, theoretical limitations, and emerging contradictions.

Figure 8.1: Cycles of Interdisciplinary Research



The Figure 8.1 highlights the interdependence of the three research phases and shows how empirical testing, interdisciplinary analysis, and comparative regional SEE investigation continuously informed one another across cycles. The diagram makes visible that progress was not achieved through linear accumulation of knowledge, but through iterative movement between phases driven by constraints encountered in each cycle. The connections between cycles demonstrate how unresolved fragmentation and lack of explanatory coherence redirected the inquiry, culminating in a shift in analytical logic. The Figure 8.1 therefore emphasises that the central contribution of the research emerged from its transformation through the integration of disciplinary insights rooted in IRP strategies across SE, IPE, education, systems theory and complexity science. The concluding chapter highlights the core contributions and the interdisciplinary integration of insights across relevant disciplines achieved through the application of the IRP approach (Repko & Szostak, 2025), as described through the outcomes of the research phases in Section 8.2.

8.2 Cumulative Contributions across Three Research Phases

The three research phases contributed distinct and cumulative outputs that together answered the research question and objective of the thesis. The research question asked what kinds of knowledge, education, and skills are needed to empower individuals to successfully launch and sustain social enterprises globally. The overall objective was to develop an inclusive globally applicable SEE approach, informed by research and educational practice, that addresses the needs

of learners worldwide, with particular attention to at-risk demographics included in marginalised and excluded categories (OECD, 2024).

The research question was answered through the knowledge architecture described in Chapter 5 and the andragogically grounded instructional approach described in Chapter 7. Both the knowledge and instructional design were empirically tested across five GSIL implementations delivered on-site, online, and asynchronously with learners ranging from students to practitioners. This section identifies the outputs produced in each research phase and explains how successive phases built on findings of preceding phases.

8.2.1 Phase 1: Theoretical Foundation and SEE Knowledge Architecture

Phase 1 contributed to the thesis by establishing the theoretical foundation and interdisciplinary SEE knowledge architecture that provided the analytical basis for the subsequent empirical phases of the dissertation. The research conducted in this phase resulted in the advancement of the globally applicable SE redefinition, the theoretical foundation for both the research and the resulting SEE approach, including the theoretical proposition for SE, and the interdisciplinary integrated two tier SEE knowledge architecture supporting the globally applicable and context sensitive SEE approach proposed in this thesis.

Phase 1 identified, analysed, structured and integrated the content and knowledge architecture for a globally applicable SEE model. The primary theoretical contribution of the thesis was produced in this phase through interdisciplinary research, analysis, and integration of scholarship across IPE, SE, education, complexity science, systems theory, and relevant natural and social science disciplines. The research applied four IRP strategies for creating common ground including redefinition, extension, organisation, and transformation (Repko & Szostak, 2025). Redefinition redefines concepts in different texts and contexts to bring out a common meaning. Extension increases the scope of a concept by addressing differences or oppositions in disciplinary concepts and assumptions, extending their meaning beyond the domain of the discipline that originated them into the domains of other relevant disciplines. Organisation structures complementary disciplinary insights in relation to one another to produce a more coherent account without requiring theoretical integration. Transformation produces new understanding by revealing that apparently conflicting insights describe the same phenomenon through different disciplinary lenses, replacing opposition with a more comprehensive explanatory framework (Repko & Szostak, 2025).

These four IRP strategies were applied to produce eight interconnected outputs across the three research phases. The outputs are described in the following sections and they include the globally applicable SE definition, the environment of social enterprise and systemic conditions governing cross-system interactions within the nested hierarchy, the analytical framework, the theoretical proposition for SE, the typology of social enterprises, the theoretical framework for SEE and the doctoral research, the integration of cultural philosophies with the theoretical proposition, and the two-tier conceptual framework for SEE.

8.2.1.1 Globally Applicable Social Entrepreneurship Definition

The redefinition and extension strategies, applied in Chapter 1, produced the first output through systematic comparison of existing SE definitions across disciplinary and regional traditions. The analysis examined 15 definitions drawn from academic research and policy frameworks, including contributions from business and entrepreneurship (Dees, 1998; Zahra et al., 2009; Bacq & Janssen, 2011), sociology (Seelos & Mair, 2005; Mair & Martí, 2006; Battilana & Lee, 2014), economics (Yunus, 2010; Santos, 2012), political economy (Kerlin, 2006, 2013; Defourny & Nyssens, 2014), and public policy (European Commission, 2021; OECD, 2017, 2023). Dual value creation emerged as the only invariant property of SE across all 15 definitions.

The research concluded that definitional plurality arises from the inclusion of socioeconomic factors as defining criteria, including financing requirements, organisational form, governance arrangements, legal status, and normative framing of social mission. The extension strategy broadened social value to include ecological value, on the grounds that ecological value is required to sustain human life and that human survival depends on maintaining environmental conditions within specific biophysical limits (Odum, 1989; Rockström et al., 2009; Steffen et al., 2015). The resulting redefinition is as follows:

Social entrepreneurship is an entrepreneurial activity that simultaneously generates social and economic values, where social value includes environmental value needed to sustain human life. This process is defined as dual value creation, and it can be achieved through different organisational designs and institutional forms.

In addition to IRP redefinition and extension strategies for integration, the transformation strategy applied in Chapter 4 produced five further outputs derived from a five-premise causal chain. The causal chain established the environment in which SE emerges as practice and identified the systemic conditions that determine the viability of social systems and organisations, including social enterprises, based on convergent disciplinary insights.

8.2.1.2 Analytical Framework and Theoretical Proposition

Developing the analytical framework and theoretical proposition required identifying the environment in which the social enterprise operates as a complex dynamic system and determining the systemic conditions governing cross-system interactions within a nested hierarchy of open systems. The analysis distinguished between systemic conditions that apply across the entire hierarchy and context-dependent arrangements designed by human actors that vary across societies. The five-premise causal chain established the systems configuration and systemic conditions that give rise to SE formulated as follows:

The environment of social enterprise consists of hierarchically nested open complex systems, including individual, social enterprise, economic, social, and ecological systems, embedded within the planetary system and interacting through exchanges of entropy characterised by nonlinear feedback dynamics.

Systemic conditions are the non-negotiable constraints that define the viability of systems within this nested hierarchy. The systemic conditions consist of planetary boundaries, which establish the biophysical limits within which human activity must operate to sustain life, and the

dual value imperative, which requires that value creation simultaneously maintains social and ecological system functioning and economic viability. Systemic conditions define the range of viable system states within which interactions across systems occur while maintaining the integrity of the nested hierarchy as a whole.

The theoretical integration of insights from natural and social sciences was achieved through five premises. The first premise established planetary boundaries as the biophysical limits within which all human activity must remain to sustain life, with human society conceptualised as an open system. Building on this premise, organisations, including social enterprises and individuals, were established as open dynamic systems requiring continuous exchanges with their environment to maintain viability. The third premise identified nestedness as the systems configuration within which social enterprises and entrepreneurs operate, extending from the individual through the enterprise, society, and ecological systems to the planetary system. Cross-system interactions across the nested hierarchy were then shown to occur through entropy exchange and nonlinear feedback loops. Based on these premises, planetary boundaries and the dual value imperative were derived as systemic conditions within the nested hierarchy of open systems in which social enterprises are embedded**.** The integration of complementary insights drew on systems theory, complexity science, biology, thermodynamics and physical chemistry, earth system and environmental science, geochemistry, ecological economics, evolutionary economics, political economy, institutional sociology, organisational theory, management, network science, geography, policy research, and SE and IPE complexity scholarship.

Building on the derived systems configuration and systemic conditions, transformation as an IRP integration strategy (Repko & Szostak, 2025) produced the analytical framework, formulated as follows:

The analytical framework establishes that knowledge relevant to SE can be examined by distinguishing between systemic conditions and socioeconomic variables. Systemic conditions are non-negotiable constraints arising from the structural properties of nested open systems, including planetary boundaries and the dual value imperative. Socioeconomic variables are context-dependent institutional arrangements through which societies organise economic, social, and ecological value creation, including governance and institutional structures, legal forms, financing mechanisms, and policy frameworks. The distinction between systemic conditions and socioeconomic variables positions SE as a system-level phenomenon emerging through interactions between the enterprise and its environment under shared systemic conditions, rather than as a combination of organisational attributes.

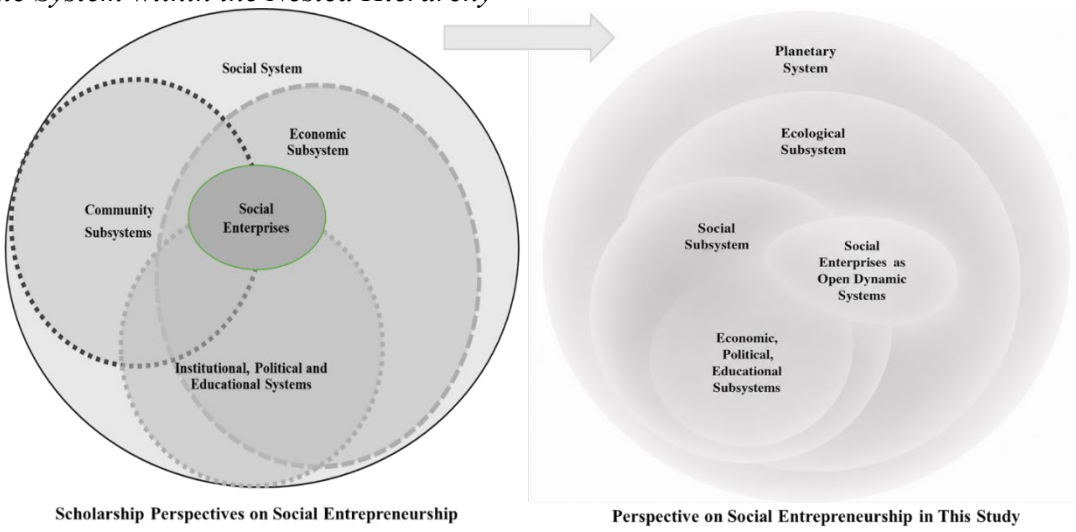
The analytical framework, the systems configuration, and the systemic conditions together provide the foundation for the theoretical proposition for SE, formulated as follows:

Social entrepreneurship is an entrepreneurial activity resulting in dual value creation, defined as the simultaneous creation of social and economic value, regardless of organisational structure, with social value understood as outcomes that sustain human life and wellbeing and therefore include ecological responsibility as a condition of human system continuity. Social enterprise is conceptualised as a complex open dynamic system embedded in a hierarchy of nested

open systems characterised by entropy exchange and nonlinear feedback loops. SE is therefore a theoretically possible and structurally necessary organisational response to the systemic conditions of planetary boundaries and dual value imperative governing the nested hierarchy of open systems in which social enterprise is embedded.

The environment of social enterprise, the systemic conditions, the analytical framework, and the theoretical proposition together constitute the theoretical cluster produced through transformation in Phase 1. The theoretical formulations operate as an integrated explanatory account of SE. The systems configuration identifies the environment within which social enterprises operate, the systemic conditions specify the non-negotiable constraints governing interactions across that environment, the analytical framework distinguishes systemic conditions from socioeconomic variables, and the theoretical proposition establishes SE as the organisational response to systemic conditions. Figure 8.2.1.2 contrasts the analytical view of SE in examined scholarship with the analytical view proposed through the theoretical cluster advanced in this thesis.

Figure 8.2.1.2: Social Enterprise Transformation from Social System Component to Open Dynamic System within the Nested Hierarchy



As shown in Figure 8.2.1.2 examined scholarship investigates SE within the boundaries of the social system, with different disciplinary perspectives describing its relationships with community, economic, and institutional, political, and educational subsystems. The theoretical cluster repositions the social enterprise as an open dynamic system interacting with its environment across the entire nested hierarchy, embedded within social, ecological, and planetary systems.

The analysis in Chapter 3, Chapter 4 and Chapter 5 suggests that disciplinary scholarship typically analyses SE through analytically separated social subsystems such as community, economic, institutional, political, or educational systems. The theoretical cluster developed in this thesis proposes that social enterprises and societies are more accurately understood as simultaneously interacting with social, ecological, and planetary systems regardless of how the phenomenon is analytically divided within disciplinary scholarship. Analytical separation within research therefore does not alter the broader system configuration within which social and

economic activity occurs or the systemic conditions governing cross-system interactions and system viability.

The proposed theoretical cluster provides the foundation for the interdisciplinary integration and multilevel SEE design absent from the examined SE scholarship. The advanced SEE approach explains dual value creation processes across micro enterprise, meso societal, and macro- global levels by positioning enterprises, societies, economies, ecological systems, and planetary systems within a continuously interacting nested hierarchy of open systems. The theoretical cluster further supplies the foundation from which the typology of social enterprises and the integration of cultural philosophies with the theoretical proposition are subsequently derived.

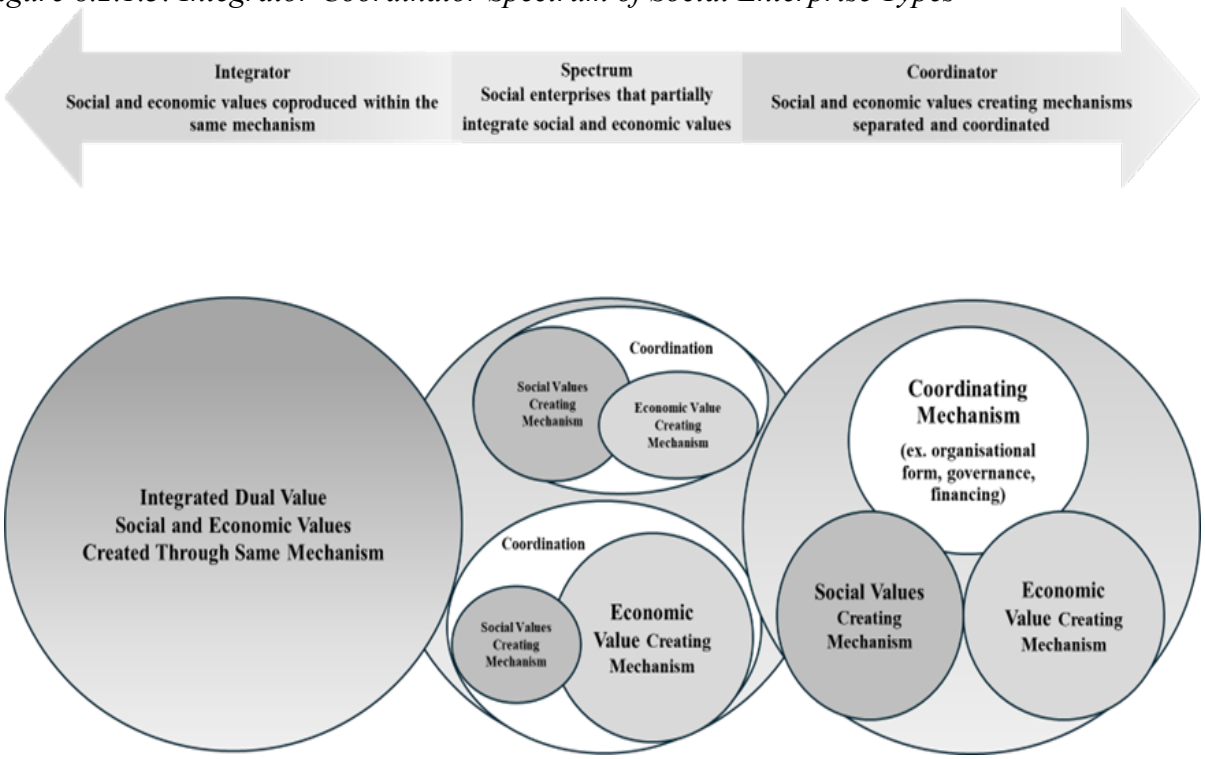
8.2.1.3 Typology of Social Enterprise and Dual value Creation Mechanisms

Transformation as a strategy for creating common ground (Repko & Szostak, 2025) was further applied to derive the typology of social enterprises deductively through five claims drawing on convergent disciplinary insights across North America, Europe, Africa, and South America, each building on what the previous established. The integration of disciplinary insights established that existing typologies cannot achieve universal applicability because they anchor classification in socioeconomic variables that vary across contexts, and that universal classification must instead be anchored in systemic conditions. The typology is formulated as follows:

Social enterprises generate dual value through processes distributed along a spectrum bounded by two mechanisms, namely the integration of social and economic values within the same process, and coordination, where social and economic values are produced separately and their dual production is coordinated at the enterprise level. Social enterprise types, integrator and coordinator, represent the two ends of the spectrum, while different mechanisms for dual value creation occupy positions along the spectrum between integration and coordination mechanisms of dual value creation.

The Figure 8.2.1.3 below illustrates the typologies of social enterprises on the spectrum between integrator and coordinator types at the end of the spectrum of possible continuous mechanisms for dual value creation.

Figure 8.2.1.3: Integrator Coordinator Spectrum of Social Enterprise Types



As shown in figure 8.2.1.3, the typology represents social enterprises types along a spectrum defined by the degree to which social and economic value creation is integrated within enterprise processes, including configurations where one dimension is more developed than the other, with coordination dynamically balancing these differences in response to continuous feedback from interacting systems, while the integrator type eliminates the need for such coordination and is therefore structurally less costly. The dual value imperative as a systemic condition constrains the range of possible organisational responses to two logically exhaustive mechanisms: integration, defined as the production of social and economic value within the same process, and coordination, defined as the production of social and economic value through distinct processes requiring alignment across organisational units. Integration is structurally more efficient than coordination, given its potential to reduce of coordination costs at the level of design. The derivation drew on cybernetics and philosophy of science, systems theory, thermodynamics, ecological economics, transaction cost economics, comparative political economy, and SE scholarship.

The integration of disciplinary insights further demonstrated that the typology provides an analytical tool applicable across levels of the nested hierarchy rather than solely at the enterprise level. At the enterprise level, integration remains structurally feasible within a single organisational boundary. As scale increases to the meso and macro- levels, coordination becomes the structurally dominant mechanism, with specialised units producing social and economic value separately and institutional arrangements aligning these with systemic conditions. The structural significance of social enterprises within this analysis lies in their operation at the scale where

integration remains feasible, with their collective effect being a reduction of the coordination burden that higher-level systems would otherwise need to absorb (Daly, 1996; Meadows, 2008).

8.2.1.3.1 Alignment of Doctoral Research Findings with Existing Scholarship

Reflecting on the research from the perspective of how complicated and complex systems are analysed, the typology proposed in this thesis illustrates how analytical frameworks designed for complicated systems produce accurate accounts of observable enterprise types without identifying the cross-system interactions that explain why a specific type emerges.

Complexity science establishes that the behaviour of complex systems cannot be recovered through decomposition into components because defining properties emerge from interactions across system levels rather than from the components themselves (Mitchell, 2009). Social enterprises operating through the integration mechanism correspond to several types identified in SE scholarship in Chapter 3. Alter (2007) identifies the embedded social enterprise as the type where business activities directly accomplish the social mission, deriving the type from direct observation of organisational practice. Santos et al. (2015) identify the Market Hybrid type where clients and beneficiaries are the same population and commercial activity directly generates social impact, deriving the type from transaction cost economics. Both authors produce accurate accounts of the integration type through distinct analytical pathways without explaining the underlying structural reason for its emergence.

This thesis arrives at the same social enterprise type through theoretical rationalisation derived by applying systems logic to integrate interdisciplinary scholarship across social and natural sciences through the five-premise logical chain, proposing integration as one of only two mechanisms logically possible given the dual value imperative as a systemic condition within the nested hierarchy of open systems. What neither the observational nor the disciplinary analytical framework was designed to establish is why this type and its coordination counterpart emerge and why they are the only two structurally possible responses. That determination requires tracing interactions across system levels, which becomes possible only once the system configuration is known and the systemic conditions governing dual value creation across the nested hierarchy have been derived.

The typologies proposed in SE research reviewed in Chapter 3 collectively describe social enterprises through coordination mechanisms corresponding to the coordination end of the integration-coordination spectrum, while each typology in the examined literature focuses on different aspects of coordination mechanisms anchored in the socioeconomic variables and in the perspective through which a particular discipline examines SE. Alter's (2007) external and integrated social enterprise types coordinate through revenue transfer and operational linkage respectively. Santos et al.'s (2015) Coupling, Blending, and Bridging Hybrids describe coordination mechanisms through increasing complexity, where the authors note how separation between commercial and social value production becomes progressively more pronounced in the proposed hybrid types. Dees (1998) proposes enterprise types where coordination between social and economic value production is achieved through a governance structure combining nonprofit and for-profit characteristics. Battilana and Lee (2014) describe coordination through a hybrid

organisational form, with organisational separation of social and commercial activities into distinct units. Kerlin (2013) classifies social enterprises based on the coordination of values conducted within institutional arrangements specific to welfare state traditions. Defourny & Nyssens (2017) describe coordination through legal and institutional forms, including cooperatives and nonprofit trajectories.

Each typology proposed in SE scholarship accurately describes a real coordination mechanism observable within its corresponding disciplinary context. Collectively, they describe the same coordination end of the typology spectrum identified in this thesis while anchoring classification in socioeconomic factors that vary across regional and institutional contexts. Anchoring the typology in systemic conditions resolves the limitation of the proposed discrete typologies, as systemic conditions represent invariant constraints governing dual value creation across the nested hierarchy.

The proposed typology offers a way to interpret the analytical challenge posed by differences between mixed economies, which combine market mechanisms, state coordination, and social enterprise activity within the same societal subsystems, and command economies, where state coordination regulates value production across micro and meso levels. Mixed and command economies represent societal configurations in which integration and coordination mechanisms of value creation coexist as complementary mechanisms across different scales and organisational forms, each responding to the same systemic conditions through different institutional pathways aligned with cultural norms, social preferences, and political economy theories. The integration-coordination spectrum accommodates different socioeconomic designs since Chapter 4 proposes that the coordination mechanism becomes dominant with an increase in scale without specifying how each society needs to achieve efficient alignment with systemic conditions or organise social, economic, or ecological value creation through institutional design.

The alignment between this analysis and existing IPE research is observable in specific findings. Hall and Soskice's (2001) liberal market economies correspond to societal configurations dominated by market coordination of value production, while coordinated market economies combine market and institutional coordination through social structures. Command economies similarly occupy the coordination end of the spectrum, with value production coordinated primarily through state planning and administrative structures (Balaam & Dillman, 2019). Kerlin's (2013) regional SE models map similarly, with welfare state traditions, market-driven philanthropy, and state-supported SE development representing different combinations of enterprise-level integration and societal coordination. These configurations differ not in the necessity to align value production with systemic conditions within the nested hierarchy, but in the institutional pathways through which coordination is achieved.

The typology proposed in this thesis does not displace existing IPE accounts but proposes the structural principle that makes their findings interpretable as variations along a shared spectrum. The retrospective analysis of the research process from the perspective of approaches to complex and complicated systems further highlights the role of interdisciplinary research in

developing a more comprehensive theoretical understanding of the fragmented knowledge examined in this thesis, as shown in Figure 8.2.1.3.1.

Figure 8.2.1.3.1: Interdisciplinary Research in Exploring Fragmented Knowledge

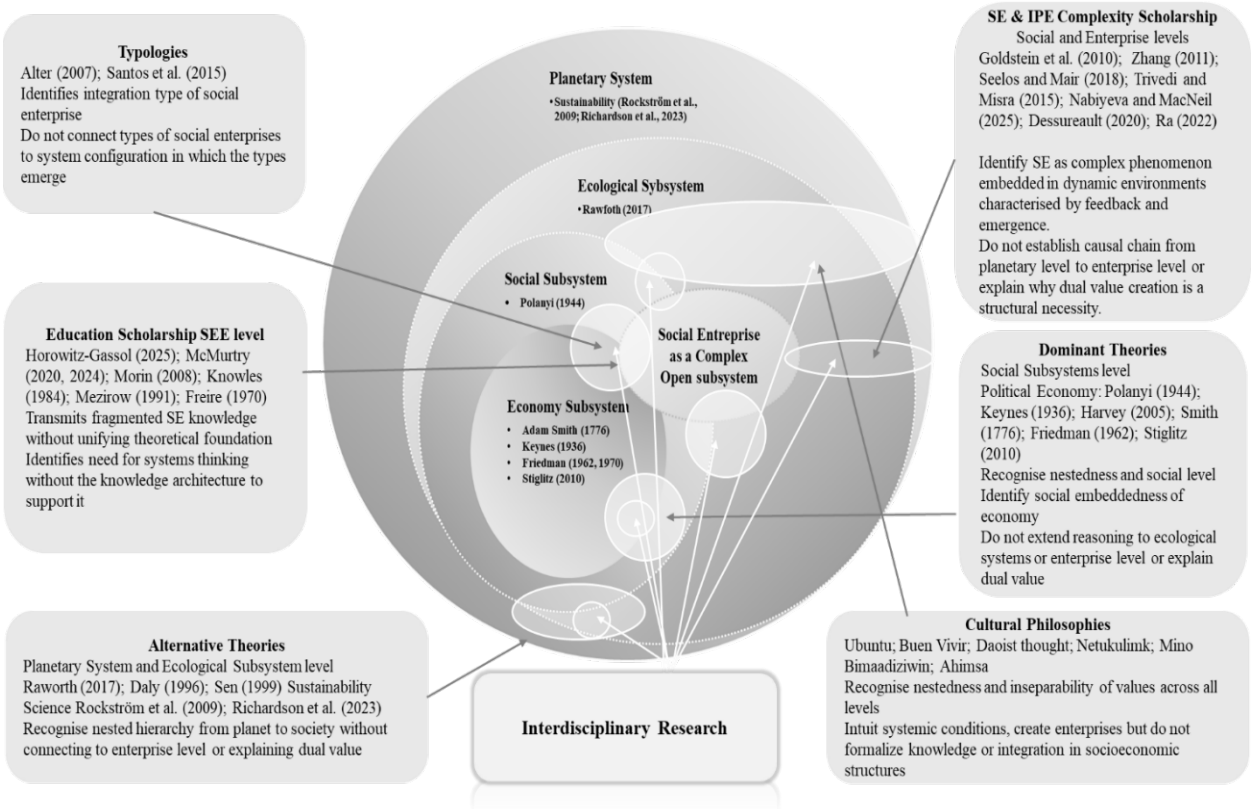


Figure 8.2.1.3.1 illustrates the partial and convergent insights that independent bodies of scholarship produce when analytical frameworks designed for complicated systems are applied to SE as a complex phenomenon. Each box represents a scholarly tradition that accurately identifies one dimension of the nested hierarchy of open systems within which social enterprise operates, or aspects of cross-system interactions pertinent to a particular scholarship tradition. The arrows indicate the level of the hierarchy each tradition reaches. The gaps between boxes represent the cross-system interactions that remain invisible within each disciplinary framework.

Dominant theories in IPE describe the social and economy subsystems and the institutional arrangements through which they interact in societies to organise value creation, without extending their reasoning to the ecological systems containing both or to the enterprise level. Alternative theories in sustainability science recognise the nested relationship between planetary, ecological, and social systems without completing the reasoning to the enterprise level or explaining dual value creation as an organisational imperative.

SE typologies identify observable enterprise types, including the integration type corresponding to the integration end of the typology spectrum derived in this thesis, without connecting those types to the system configuration in which they emerge. SE and IPE complexity scholarship established social enterprise as a complex open system embedded in environments

characterised by feedback and emergence, without deriving the causal chain from planetary boundaries to enterprise-level systemic conditions.

Cultural philosophical traditions across seven regions recognise nestedness and the inseparability of social, economic, and ecological value through independent epistemological pathways accumulated through community engagement with the systems configuration. These traditions do not formalise this knowledge within academia or socioeconomic structures. Education scholarship transmits these fragmented partial insights without a unifying theoretical foundation, reproducing and compounding the fragmentation documented in SE and IPE scholarship across regional ecosystems, institutions, and incubators as summarised in the next section.

Interdisciplinary research, positioned at the base of the figure, provides the analytical pathway through which the entire nested hierarchy and the interactions among its constituent systems become visible simultaneously. Rather than examining one level through the lens of a single discipline, interdisciplinary research in this thesis traces cross-system interactions across the full hierarchy, connecting insights that each tradition partially identifies without being able to integrate. The reflection reveals that disciplinary research produced accurate interpretations of social enterprise as an open system and SE as a complex phenomenon emerging from interactions across the systems surrounding social enterprise. Disciplinary divides, however, resulted in research on SE remaining largely confined to the social system. The importance of systems configuration and systemic conditions was partially recognised through social sciences, most notably through alternative theories and SE and IPE complexity scholarship. Engagement with natural sciences, including biology, physics, and ecology, made it possible to identify the limits and constraints shaping interactions across the nested hierarchy, as elaborated in Section 8.3.

8.2.1.4 Theoretical Framework

The theoretical framework for both the doctoral research and SEE integrates two outputs produced through different IRP integration strategies. The first is the theoretical proposition for SE, established through transformation as the fourth application of that strategy in this thesis (Section 8.2.1.2). The second is the educational dimension, produced through organisation as a strategy for creating common ground among educational approaches pertinent to SEE (Repko & Szostak, 2025). The theoretical framework integrated four dimensions, namely the nested hierarchy of open systems and systemic conditions as non-negotiable constraints, socioeconomic variables as context-dependent arrangements, and pedagogical dimensions grounded in adult education principles (Knowles, 1984) and Dewey's (1938) pragmatist epistemology.

Organisation was applied to integrate scholarship across three education subdomains that had not previously been connected within SEE. Dewey's (1938) pragmatist epistemology provided the criterion for knowledge validation, proposing that knowledge is warranted when it enables effective action within complex environments. Knowles's (1984) andragogical theory provided the learner-centred pedagogical foundation, establishing that adult learners bring accumulated experience as their primary learning resource and require self-directed engagement with problems they recognise as relevant. Professional education contributed Shulman's (1986) pedagogical

content knowledge framework as the basis for activating the tacit knowledge that learners bring to SEE and the structural model for organising knowledge across high-level theories and applied domains within the conceptual framework. The integration of the ethics of care and a multilevel interdisciplinary orientation in education complemented the instructional approach as an inherent feature of the open systems ontology on which the theoretical framework rests, because the recognition that all subsystems within the nested hierarchy depend on balanced exchanges across social systems for viability carries the implication that care about individual entrepreneurs and their multilevel awareness represent a requirement of system integrity. The application of the IRP organisation strategy produced a proposed SEE architecture distinguishing between globally applicable and context-specific knowledge within the conceptual framework.

8.2.1.5 Integrated Interdisciplinary SEE Approach

The SEE approach advanced in this thesis proposes a multilevel knowledge architecture enabling SE to be examined simultaneously at macro- global, meso societal, and micro enterprise levels to support a globally applicable SEE framework complemented by an instructional design suitable for professional education and training related to solutions to global problems that have emerged from practice.

To complete content integration, transformation as a strategy for creating common ground (Repko & Szostak, 2025) was applied a fifth time in Phase 1 to integrate regional cultural philosophies and establish convergence with the theoretical proposition. The transformation is demonstrated across two integrative moves. The first move identified convergent recognition of the nested hierarchy and the dual value imperative across cultural philosophies, while the second move established common ground with systems informed alternative theories and the theoretical proposition through convergent perspectives on the same dynamics within the nested open systems hierarchy arrived at through independent epistemological pathways. The application of transformation as an IRP strategy for integration revealed that systems theory informed alternative theories, the theoretical proposition, and culturally embedded practical wisdom describe the same structural reality of the social enterprise environment and SE as a process emerging from the structural properties of the nested hierarchy in which these enterprises are embedded.

The discussion in Chapter 5 advanced from organisation as a strategy for integration structuring SEE knowledge in Article 2 to transformation producing coherence across macro, meso, and micro levels, with each theory group and knowledge component positioned in relation to the theoretical proposition as common ground through which previously disconnected insights achieve a more comprehensive understanding than any single contributing source offered independently. The convergence across insights, both community created and scholarship generated, sharing no common intellectual genealogy, strengthens the claim that the systemic conditions identified through interdisciplinary derivation in Chapter 4 reflect structural properties of the nested open systems hierarchy rather than culturally specific analytical constructs. In addition, the theoretical cluster developed in this thesis repositions dominant theories from competing perspectives in political economy to case studies demonstrating how different societies respond to the same systemic conditions through distinct social and institutional designs, with each

society representing a different approach to institutional and socioeconomic design for aligning value production with the dual value imperative.

The organisation strategy for creating common ground (Repko & Szostak, 2025), applied initially in Chapter 4 and extended in Chapter 5, produced the eighth output, namely the conceptual framework. The conceptual framework operationalises the theoretical framework through a two-tier knowledge architecture. Tier One organises high-level theoretical knowledge across macro- and meso levels. The macro- level contains the theoretical proposition for SE as a shared lens applicable globally. The meso level organises theories across three clusters, namely dominant theories explaining how current socioeconomic architectures operate and must be navigated, alternative theories challenging dominant discourses and expanding what is feasible, and culturally grounded philosophical traditions demonstrating dual value creation as lived practice across regions.

Tier Two organises applied operational knowledge into four globally applicable domains, namely Strategic Dual Value Creation and Entrepreneurial Logic, Regional Applied Knowledge in Dual Value Creation, Social Marketing and Stakeholder Engagement, and Leadership, Ethics, and Inclusive Governance, alongside two context-specific domains, namely Organisational Models and Legal Structures, and Financial Sustainability and Impact Capital. The framework distinguishes between globally applicable knowledge and context-sensitive knowledge, ensuring that the knowledge base informs learners about existing structures without inhibiting the creativity required for contextually adaptive enterprise design. The discussion in Chapter 5 further achieved synthesis across the globally applicable knowledge components, producing an integrated knowledge architecture at macro, meso, and micro levels that none of the contributing sources generated independently (Repko & Szostak, 2025).

The theoretical proposition and the SEE theoretical framework were assessed against Whetten's (1989) criteria for theoretical contribution and Kivunja's (2018) evaluation standards respectively. The assessment against Whetten's (1989) criteria in Chapter 6 indicated that the theoretical proposition for SE meets the criteria for a theoretical contribution at the stage of analytical derivation, with empirical examination of specific elements identified for further research.

8.2.2 Phase 2: Empirical Study of Regional SEE Ecosystems

Phase 2 contributed to the thesis outcome by providing the empirical comparative base required to examine the SEE approach derived from interdisciplinary scholarship against regional SEE practices. The empirical research conducted in this phase indicates that the focus on dual value creation and the interdisciplinary knowledge architecture developed in Phase 2 are present across institutionally and culturally diverse SEE ecosystems, while also identifying the contextual factors limiting transferability of existing SEE models and supporting the need for an integrated globally applicable SEE framework.

Phase 2 established how the knowledge architecture identified in Phase 1 operated in practice across four regional SEE ecosystems: Manitoba, Prince Edward Island, Slovenia, and Croatia, providing an empirical extension of the problem beyond the scope initially anticipated in

Phase 1. The high-level theoretical clusters integrated within the proposed SEE approach and the applied knowledge domains derived through interdisciplinary synthesis were identifiable across all four regions, although their coverage remained uneven and partial. The empirical research conducted in this phase enabled further expansion of the knowledge architecture through the identification of regional traditions, concepts, and organisational forms not captured in the initial global synthesis, including Indigenous relational ontology and land based accountability frameworks from Manitoba, the cooperative zadruga form and the community generated vocabulary of "good economy" from Croatia, and applied approaches such as story based impact assessment, collective well being indicators, and kinship based organisational forms. Educational practice was shown to exhibit fragmentation exceeding that documented in the scholarly literature, with neighbouring programmes operating from incompatible disciplinary starting points and producing knowledge that did not transfer beyond the institutional settings in which it was acquired.

The empirical investigation also identified possible explanations for the limited expansion of SE practice despite the increased number of SEE offerings noted in Chapter 1. Findings indicate that the observed regional divergence could be explained by socioeconomic variables shaping distinct SEE ecosystems, as universities, incubators, government agencies, community networks, and social entrepreneurs intersected with regional policies, financing instruments, and legal recognition of enterprise forms to determine what was taught, by whom, and within which institutional logics. Manitoba integrated cultural philosophy within SEE content, Croatia and Slovenia combined alternative and dominant theoretical traditions with regionally implemented applied knowledge, and Prince Edward Island provided accessible practical guidance for launching enterprises with social objectives within local funding structures.

The findings further suggest that none of the regional models could transfer intact across institutional or regional boundaries. A further pattern emerging from the community data was that denser SEE provision did not appear to translate into a higher concentration of operating dual value enterprises within the same ecosystem, indicating that ecosystem design may carry as much weight in the visibility of SE practice as the volume of education delivered. Given the limits of the present study, the pattern is interpreted as a direction for further inquiry rather than as a substantive claim, since enterprise-level evidence falls outside the empirical scope of the research. The empirical analysis therefore suggests that increasing the number of SEE programmes alone may not substantially expand SE practice globally if the underlying knowledge base remains fragmented, context dependent, and institutionally bounded, limiting the transferability of dual value creation mechanisms across regions and educational settings.

The community findings suggest that definitional and terminological debates within SE scholarship may contribute to limited community identification with the formal academic category despite widespread recognition of the underlying practice. Community participants across all four regions demonstrated tacit knowledge of dual value creation enacted in practice without formal theoretical framing, and when SE was reframed through the redefinition advanced in Chapter 1, respondents identified examples within their own contexts and articulated their contribution to

community wellbeing. Recognition of SE as a formal term was generally low, falling below 15 percent in some contexts, while recognition of dual value creation as a familiar practice remained consistently high, exceeding 70% across the four regions. Communities were also found to develop their own vocabulary, such as the Croatian expression for a good economy, to identify practices recognised by communities that institutional terminology does not clearly capture. The community findings therefore provided empirical support for the redefinition of SE as a viable integration strategy within the IRP, indicating that the redefinition remained applicable across diverse regional contexts because it aligned more closely with tacit community recognition of dual value creation practice than existing formal academic terminology.

The theoretical proposition and knowledge architecture received empirical support against the evaluative criteria derived from Kivunja (2018) within the limits of comparative case study design. Dual value creation remained the orienting commitment of SEE across all four regions despite differences in theoretical framing, legal recognition, and institutional support. Observed fragmentation across regional SEE models supported the case for an integrated interdisciplinary explanation, while alignment between the proposed knowledge architecture and regional SEE practice provided preliminary empirical support for the relevance of the proposed SEE architecture across institutionally diverse contexts, despite no region containing the complete architecture. Socioeconomic variables accounted for regional divergence in SEE design, whereas the persistence of SE practice itself suggested the need for analytical approaches examining the broader systems configuration extending from the planetary system to the individual, rather than relying on interpretations examining the social system in isolation.

Phase 2 findings defined the knowledge required for social enterprise creation across contexts, requiring a globally applicable foundation identifying systemic conditions, relevant theoretical traditions, and mechanisms of dual value creation in operating enterprises, alongside the capacity to distinguish globally transferable elements from those requiring contextual adaptation. The integrated SEE model proposed in this dissertation met this requirement by combining globally applicable and contextual knowledge components, establishing the empirical basis for a knowledge framework supporting global expansion of social enterprise practice while preserving contextual responsiveness.

8.2.3 Phase 3: Empirical Evaluation of SEE Approach

Phase 3 contributes to the thesis by providing an empirical examination of whether the theoretical proposition, interdisciplinary knowledge architecture, and andragogical instructional approach developed across the preceding phases can operate as a globally applicable integrated SEE model capable of bridging disciplinary scholarship, regional educational practice, and tacit practitioner knowledge across cultural, disciplinary, and institutional contexts.

Phase 3 examined whether the knowledge architecture and theoretical proposition developed in Phase 1 are transferable across cultural, disciplinary, and institutional contexts, and whether the complementary instructional design can support learners in developing viable SE solutions. The five GSIL implementations conducted between 2022 and 2025 provided empirical

support for the transferability of the knowledge architecture and the instructional viability of the andragogical design.

Dragonfly Den outcomes across all Labs indicate that the knowledge architecture functions as an operational framework rather than an abstract proposition. Learners developed viable SE solutions under the Jugaad constraint, and in Labs Three, Four, and Five audience members independently contributed financial support without solicitation. The capacity of learners from different disciplines and regions to engage with the two-tier architecture as a navigational framework provides empirical support for the criterion of logical analytical structure identified by Kivunja (2018).

Phase 3 further identified four convergences in which independent analytical, experiential, and cultural pathways arrived at similar structural conclusions regarding dual value creation and systemic conditions. The convergences provide cumulative empirical support for the cross-cultural transferability of the theoretical proposition. Scholarly analysis in Chapter 1 identified dual value creation as the only invariant property across existing SE definitions. GSIL learners independently arrived at the same definitional conclusion through engagement with 12 case studies drawn from different regions and sectors without being directed toward any predetermined outcome, suggesting that the defining characteristics identified through scholarship were similarly observable in practice.

A parallel convergence emerged in relation to the distinction between systemic conditions and socioeconomic variables. Chapter 4 derived this distinction through interdisciplinary theoretical integration across 11 disciplines, while GSIL learners recognised the same structural distinction through the neighbourhood and musical chairs exercises. The convergence suggested that the analytical foundation of the theoretical framework reflected patterns accessible through multiple epistemological pathways rather than disciplinary integration alone.

The correspondence between Buen Vivir, Ubuntu, and Daoist thought and the nestedness and dual value creation dimensions established in Chapter 5 through systematic comparison with interdisciplinary scholarship was similarly supported through peer exchange and dialogue among learners and faculty. The findings suggest that the SEE knowledge architecture integrated rather than imposed a unified perspective and provided a framework within which learners from different cultural traditions could position their own knowledge as a legitimate contribution.

The broadest convergence emerged from recognition that living within nested hierarchies of open systems carries implications for how individuals and organisations organise value creation across social, ecological, and economic dimensions. Dual value creation appeared as a mechanism already present in lived experience rather than as a concept introduced exclusively through SEE, supporting the pedagogical orientation of knowledge co-creation rather than one-directional transmission.

The four convergences collectively support a form of corroboration appropriate to a theoretical proposition derived through interdisciplinary integration. The corroboration rests not on replication of a single method but on convergence across independent methods, cultural traditions, and lived experience around a similar structural account of dual value creation within

open systems. The consistent pattern across all four convergences supports the transferability of the nested hierarchy, systemic conditions, and the distinction between socioeconomic variables and system-level characteristics across cultural and institutional contexts, while dominant theories and applied knowledge focused on socioeconomic integration remain context-specific, consistent with the theoretical framework.

The identified convergences further indicate that the theoretical proposition derived in Chapter 4, the knowledge architecture structured in Chapter 5 integrating practitioner-derived and research-derived content as complementary streams, and the andragogical instructional approach refined across the GSIL iterations operate as an integrated SEE model rather than as separable components. The SEE implementations, while limited to a single curriculum and ideation process, indicate that the theoretical proposition provides the shared analytical foundation, the knowledge architecture organises complementary knowledge streams, and the andragogical instructional approach enables curricular application within educational practice.

8.2.4 Interdisciplinary Integration and Development of the Resulting SEE Approach

The three research phases collectively contributed to the thesis outcome, the proposed globally applicable SEE approach. Phase 1 contributed by developing the theoretical foundation for SE and SEE through interdisciplinary integration, Phase 2 by empirically examining the proposed SEE approach across regional ecosystems, and Phase 3 by evaluating whether the resulting knowledge architecture and instructional design operated as a transferable integrated SEE model across cultural, disciplinary, and institutional contexts. Across all three phases, the IRP approach (Repko & Szostak, 2025) functioned as the methodological framework consistently guiding the identification of common ground across knowledge sources, the integration of disciplinary insights, and the development of a comprehensive explanatory account of SE practice supporting the proposed globally applicable SEE approach.

This section summarises how interdisciplinary integration was achieved across the research phases to produce the final theoretical and educational outcomes of the thesis. The three research phases produced cumulative outputs through the successive application of four IRP integration strategies across 11 disciplines. The sequence of integrations bridged a series of opposing perspectives in SE and IPE scholarship that disciplinary analysis alone could not resolve.

The integration process applied throughout this dissertation reflects the recursive application of the IRP integration strategies identified by Repko and Szostak (2021, 2025). Each strategy addressed a particular form of fragmentation or apparent contradiction within the literature, identified complementarity between previously disconnected perspectives, and established the analytical foundation necessary for subsequent levels of interdisciplinary integration. Transformation subsequently reorganised previously discrete or opposing perspectives into continua within shared analytical structures. The application of transformation as an IRP strategy for integration produced the continua that emerged recursively through progressive integration of disciplinary and cultural insights across converging findings, transforming fragmented disciplinary, regional, historical, and cultural insights into an increasingly coherent explanatory SEE framework supporting SE practice. Each continuum built directly upon the

previous integrative operation until the dissertation arrived at a final transformed framework capable of interpreting dual value creation mechanisms coherently across micro, meso, macro, and global levels.

The first major integrative operation involved redefinition. Repko and Szostak (2021, 2025) define redefinition as the modification or restatement of concepts drawn from different disciplinary or contextual usages so that a common meaning becomes visible across them. SE scholarship remains fragmented by divergent definitions grounded in legal structures, governance arrangements, financing mechanisms, organisational forms, institutional traditions, and regional histories. Under fragmented definitions, enterprises and practices that simultaneously produced social and economic value frequently appear analytically unrelated because they emerged under different terminology, knowledge sources, institutional conditions, or historical contexts. Cooperatives, Indigenous economic practices, social SMEs, nonprofit enterprises generating revenue, state coordinated developmental enterprises, and contemporary social enterprises are treated in the examined literature as distinct phenomena rather than as manifestations of a shared operational practice organised around the mechanism of dual value creation.

The initial opposition therefore existed between apparently separate organisational categories tied to different socioeconomic variables. The integrative operation of redefinition resolved this fragmentation by isolating simultaneous social and economic value creation as the invariant analytical mechanism underlying these otherwise divergent expressions. This redefinition established common ground at the level of function rather than institutional form. Governance structures, financing arrangements, and other socioeconomic factors were not eliminated analytically, but repositioned as context-specific interpretations rather than as defining characteristics of the phenomenon itself. Practices appearing under different terminology and organisational arrangements could therefore be interpreted through a shared analytical lens.

Importantly, the establishment of dual value creation as the invariant analytical mechanism opened the possibility for recursive integration across subsequent stages of the dissertation. Once dual value creation became analytically stabilised as the invariant mechanism, further integrations no longer required preserving rigid organisational boundaries between practices. Therefore, subsequent integrations could proceed by identifying how the same mechanism manifested differently across scales, institutional systems, and knowledge traditions.

The second major integrative operation involved extension. Repko and Szostak (2021, 2025) describe extension as the carrying of a concept's meaning beyond the domain of the discipline that originated it into the domains of other relevant disciplines, addressing differences and oppositions in disciplinary concepts and assumptions in the process. Although redefinition established dual value creation as the invariant mechanism, the analytical boundary initially remained confined to social systems. Extension occurred when ecological value necessary for sustaining human life was incorporated into the analytical framework. This extension addressed the apparent opposition between social scientific and natural scientific perspectives. Social science scholarship reviewed in this thesis examines institutions, enterprises, governance systems, and political economy structures, while ecological and environmental sciences focus on biophysical

constraints, systems limits, entropy exchange, ecological embeddedness, and planetary viability. These domains appear analytically separate because they operate through different assumptions, disciplinary traditions, and units of analysis.

The common ground emerged through recognition that ecological value necessary for sustaining human life constitutes social value within nested open systems. Human societies do not exist independently from ecological systems but remain structurally embedded within them. Once this embeddedness was recognised, environmental degradation, ecological regeneration, economic production, and social wellbeing no longer appeared as isolated or competing categories, but as interconnected manifestations of value creation processes operating within the same nested systems configuration. The extension therefore created the analytical conditions necessary for expansion of the system boundary beyond purely social systems into ecological and planetary systems.

This application of extension enabled broader interdisciplinary integration linking the natural sciences, systems theory, complexity science, and the social sciences. These fields no longer appeared to describe separate realities, but rather different perspectives on the same nested system configuration viewed from different disciplinary positions. The extension therefore created the analytical conditions necessary for bridging natural and social sciences through a shared systems framework and for expanding the system boundary beyond purely social systems into ecological and planetary systems.

The establishment of redefinition and extension laid the foundation for subsequent integrations. The investigation shifted from resolving isolated disciplinary contradictions toward identifying complementarity among fragmented explanations describing the same underlying system configuration and the processes operating within it. The application of the IRP integration strategies of redefinition and extension enabled the subsequent interdisciplinary integrative operations of transformation and organisation. The deepest integrative operation involved transformation, which produced the unified theoretical structure that organisation then translated into the SEE model. Repko and Szostak (2021, 2025) characterise transformation as the integrative operation engaged when disciplinary concepts or assumptions stand in opposition rather than in mere difference. The operation resolves such opposition through the construction of a continuum along which the opposing positions can be expressed as values on a continuous variable, producing a coherent explanatory framework. Within the IRP approach, perspectives initially treated as incompatible may become interpretable as related positions within broader analytical continua once shared relationships and underlying connections are identified through interdisciplinary integration.

This principle became foundational to the integrative logic of the dissertation. Transformation occurred when previously opposing perspectives were reorganised as complementary responses operating within the same nested systems architecture. The opposition between market and state coordination, integration and specialisation, enterprise and societal coordination, local and global governance, and economic versus social priorities became progressively transformed into continua generated by scale, entropy burden, coordination

requirements, and systemic conditions. The transformed explanatory structure ultimately created a common analytical foundation through which insights from natural sciences, social sciences, systems theory, political economy, cultural philosophies, practice-based knowledge and SEE scholarship could be interpreted coherently as complementary perspectives on the same nested hierarchy of systems and systemic conditions.

The distinction between human designed and naturally occurring systems enabled separation between context-dependent socioeconomic variables shaped through human institutional arrangements and the relatively invariable system configuration, properties, and systemic conditions necessary to maintain subsystem viability across enterprise, societal, and global levels.

At the micro enterprise level, integration of social and economic value within a single organisational process remained structurally feasible because coordination requirements and interaction density remained manageable within the organisation itself. However, as scale increased toward meso and macro- societal levels, increasing complexity, interaction density, and entropy burden progressively required differentiation across specialised units coordinated through institutional architectures. The resulting typology, anchored in the dual value imperative as a systemic condition, emerged as a continuum of responses to shared systemic conditions shaped by scale-dependent dual value creation mechanisms.

Transformation therefore produced a multilevel theoretical continuum explaining dual value creation across micro enterprise, meso societal, and macro- levels through different coordination structures operating within the same nested systems configuration. This transformed understanding established the analytical foundation for subsequent organisation of SEE knowledge through application of organisation as an IRP integration strategy, addressing the key opposition between globally applicable structural conditions and context-specific socioeconomic variation across micro, meso, and macro- levels.

Repko and Szostak (2025) characterise organisation as the integrative operation that traces underlying causal connections among phenomena by recognising latent commonalities across disciplinary concepts and arranging them to make those connections analytically visible. Within this dissertation, organisation structured fragmented SEE knowledge by identifying systems of causal relationships connecting nested system configuration, systemic conditions, scale, dual value creation mechanisms, and socioeconomic variation within coherent multilevel relational architectures. Research and practice appeared fragmented because theories developed within particular institutional or regional contexts were often treated as either universally applicable or entirely context dependent, while enterprise level integration and larger scale societal specialisation appeared contradictory within both SE scholarship and political economy traditions.

The common ground emerged through distinction between unchanging system configuration and variable socioeconomic arrangements through transformation. The knowledge architectures at meso and micro levels were organised around the theoretical proposition and analytical framework explaining dual value creation mechanisms, supporting a multilevel model that connects dual value creating mechanisms across enterprise, societal, and global levels.

Globally transferable knowledge components were paired with context-specific content necessary for integrating social enterprises within modern societies.

Beyond structuring SEE content into a relational architecture, organisation unified the instructional approach so that the pedagogical method complements the content. Organisation as an IRP strategy was therefore applied recursively within the pedagogical dimension itself. Organisation in this dissertation accordingly produced not only the SEE knowledge architecture but the pedagogical approach designed to deliver it without fragmenting the structural coherence the theoretical work had established.

Organisation connected dual value creation through identification of causal relationships operating across scales. Organisation therefore structured the transformed theoretical insights into coherent multilevel relational architectures linking micro enterprise, meso societal, macro- societal, and global levels within the same theoretical proposition encompassing nested system configuration and systemic conditions. The differentiation of knowledge applicability into globally pertinent and context-specific dimensions emerged through distinction between globally transferable knowledge focused on dual value creation mechanisms across levels and context-specific socioeconomic variation shaping regional implementation pathways.

The application of transformation and organisation as IRP strategies for integration also enabled recursive integration across knowledge sources by establishing common ground among academic conceptualisations, policy interpretations, and cultural philosophies. Ubuntu, Buen Vivir, Indigenous relational systems, Confucian traditions, ecological economics, systems theory, SE scholarship, and political economy traditions no longer appeared as isolated descriptions of unrelated phenomena. Instead, they became interpretable as different knowledge sources describing recurring responses to the same nested system configuration and dual value imperative.

The final SEE framework therefore did not eliminate differences in perspectives or replace existing scholarship and traditions. Rather, the integration of insights from pertinent knowledge sources and disciplines reorganised perspectives that initially appeared oppositional and transformed them into relational knowledge structures operating across scales and contexts. Competing political economy traditions became interpretable not as mutually exclusive universal models, but as differentiated adaptive responses to the same nested hierarchy and systemic conditions. Similarly, social enterprises, SMEs, state coordinated systems, mixed economies, community-based systems, and global governance architectures became interpretable as differentiated manifestations of the same underlying dual value creation mechanism operating through different coordination structures and scales.

Table 8.2.4a summarises the application of IRP integration strategies within the thesis, the oppositions identified across perspectives, the common ground established through integration, and the transformed continua that emerged through interdisciplinary integration of convergent perspectives on SE dual value creation, its manifestations, and systemic causes.

Table 8.2.4a: Application of IRP Strategies for Integration (Repko & Szostak, 2025)

IRP Integration Strategy	Initial Opposition or Fragmentation	Common Ground or Complementarity Established	Integrative Outcome
Redefinition	Regional and historical traditions analytically disconnected from modern SE scholarship	Dual value creation identified as the shared characteristic of SE	Common analytical meaning established across dual value creating practices emerging through different regional, institutional, and historical contexts
Extension	Social sciences and natural sciences appeared analytically separated. Economic, social, and ecological value were treated as competing domains	Ecological value necessary for sustaining human life was recognised as part of social value within nested open systems	Analytical boundary expanded beyond purely social systems through integration of economic, social, and ecological value within nested open systems
Organisation	Knowledge remained fragmented across research, policy, and practice, global and regional perspectives, and micro, meso, and macro- levels	SE universality centred on dual value creation and regional interpretations became interpretable as complementary responses within the same system configuration and systemic conditions	Systems of causal relationships linking SE practice, nested system configuration, systemic conditions, scale, and socioeconomic variation became identifiable across micro enterprise, meso societal, macro- societal, and global levels
Transformation	Oppositional categories persisted across levels and disciplines and political economy traditions appeared mutually exclusive while SE typologies appeared discrete	Different perspectives became recognizable as differentiated responses to the same nested hierarchy and systemic conditions across scales	A transformed continuum emerged across micro, meso, macro, and global levels through a multilevel relationship between value coproduction and value coordination

As the Table 8.2.4a shows, redefinition established analytical continuity across regions and time, enabling study across disciplinary boundaries. Once dual value creation became the invariant analytical anchor through redefinition, subsequent integrations could proceed recursively by tracing how the same value creation mechanism manifested differently across scales, institutional architectures, and cultural traditions. Across all four strategies, the integration applied in this thesis identifies convergent insights without replacing or altering the perspectives from which those insights are drawn. Disciplinary and cultural traditions retain their original language and conceptual framing, because that language reflects how the underlying phenomena are understood within academic disciplines and regional communities. The integration therefore operates as a recognition of shared structural ground rather than a substitution of disciplinary knowledge. The continua produced through interdisciplinary integration in this thesis describe how the same systemic configuration manifests across these traditions, while leaving each tradition's terminology, history, and interpretive authority in place. Repeated application of transformation

as an IRP strategy for integration produced the final integrative architecture of the thesis. Previously fragmented disciplinary insights became recursively interpretable within a shared theoretical and analytical framework.

Beyond the integrative logic summarised in Table 8.2.4a, the recursive application of the four IRP strategies generated a sequence of cumulative outputs across the three research phases. Each output corresponds to a specific strategy and chapter location and contributes to the overall theoretical and educational architecture of the thesis. Table 8.2.4b outlines these outputs by output, IRP strategy, and location in the thesis.

Table 8.2.4b: Outputs of IRP Integration Across the Three Research Phases

Output	IRP Strategy	Chapter and Article
Globally applicable SE definition	Redefinition and Extension	Chapter 1, Article 1
Environment of SE and systemic conditions	Transformation	Chapter 4, Article 1
Analytical framework	Transformation	Chapter 4, Article 1
Typology of social enterprises	Transformation	Chapter 4, Article 1
Theoretical proposition establishing SE	Transformation	Chapter 4, Article 1
Educational dimension	Organisation	Chapter 4, Article 2
Theoretical framework for doctoral investigation and SEE	Transformation and Organisation	Chapter 4, Article 2
Integration of cultural philosophies with theoretical proposition	Transformation	Chapter 5, Article 2
Two-tier conceptual framework organising SEE knowledge	Organisation	Chapter 4 and Chapter 5, Article 2
Integrated knowledge architecture across macro, meso, and micro levels	Synthesis	Chapter 5

The Table 8.2.4b shows integration sequence and outlines the IRP logic applied to advance from identifying common ground across insights from different sources of knowledge to achieving integration at the level of the analytical and theoretical framework unification supporting SEE design. The synthesis achieved across the globally applicable knowledge components in Chapter 5 produced an integrated SEE model whose explanatory coherence none of the contributing sources could generate independently (Repko & Szostak, 2025).

8.3 Reflections on Research Findings from a Complexity Perspective

Reflection on the IRP process, undertaken as Step 10 of the IRP (Repko & Szostak, 2025), revealed that the analytical trajectory the research had followed corresponds to a distinction established in complexity science between approaches suited to complicated and complex phenomena (Meadows, 2008). This section traces the analytical trajectory the research followed to investigate SE as a complex phenomenon, highlighting the point at which it became necessary to expand the range of disciplines considered in the investigation beyond the most relevant ones identified in Chapter 3. While the present doctoral research does not examine in detail these disciplinary transitions, the concluding chapter explains the reasons why the research draws on

systems theory, life sciences, and research on complex dynamic systems in the natural sciences to inform the analytical approach adopted for examining complex open systems.

The investigation began from the assumption that a more comprehensive understanding of SE can be derived by identifying and integrating relevant insights across IPE, SE, and education. As shown in Chapter 3, dominant SE scholarship typically explores dual value creation by drawing on economics to explain economic value generation (Santos, 2012), sociology to account for social value creation (Defourny & Nyssens, 2014), and institutional theory to examine organisational and governance arrangements supporting SE (Meyer & Rowan, 1977). Cross-disciplinary efforts to integrate knowledge from the contributing fields, presented in Chapter 1, exposed tensions and paradoxes that researchers attempted to resolve through typologies and normative claims about the exceptional traits of social entrepreneurs.

The research presented in this thesis encountered the same challenge. When insights from the most relevant disciplines were identified and integration was attempted through IRP strategies, the only analytically defensible strategy for integration was organisation (Repko & Szostak, 2025). Organisation as a strategy produced structured SEE content and a complementary andragogical instructional approach but could not resolve the persistent paradoxes that conflicting disciplinary perspectives generated. Article 2 was produced at this stage, motivated by the empirical findings of Phase 2, which indicated that SEE content across regions is severely fragmented and that knowledge learners acquire within one institution does not transfer even to neighbouring programmes. The structured knowledge architecture developed through organisation offered a more coherent alternative to the fragmented and inconsistently delivered content observed in regional practice, while a unifying theoretical foundation remained under development.

In attempting more comprehensive interdisciplinary integration the researcher drew on professional experience applying systems theory to connect frameworks adopted by the UN and other international organisations, derived from sustainability science to SE practice (Rockström et al., 2009; Steffen et al., 2015). Drawing on the lived experience described in Chapter 7, the researcher sought scholarly contributions connecting systems theory and SE directly. Several contributions describe social enterprise as a complex open system and SE as a process emerging from interactions across systems in its environment (Goldstein et al., 2010; Swanson & Zhang, 2011). These contributions supported the analytical direction but did not establish a pathway from recognising SE as a complex phenomenon to explaining why dual value creation appears consistently as an organisational practice across regions and historical periods.

The practical objective of the research, namely the development of a SEE model applicable across diverse contexts, directed the inquiry toward examining how different disciplines combine knowledge to produce concrete practical outputs. The three examples that follow illustrate attempts to uncover analytical approaches suited to the study of complex systems across disciplines.

The first example illustrates the analysis and integration of knowledge in the creation of what is in retrospect, a complicated system. In the analysis of complicated systems, knowledge is generated within distinct disciplines and subsequently integrated into a coherent artefact. The aeroplane provides a clear example. Physics establishes the fundamental principles governing lift,

drag, thrust, and energy transfer, defining the conditions under which flight is possible (Anderson, 2010; Prandtl & Tietjens, 1934). Engineering translates these principles into material structures, propulsion systems, and control mechanisms (Vincenti, 1990). Medicine contributes knowledge of human physiology, ergonomics, and environmental tolerances, informing cabin pressure systems and interior environments that support human functioning under flight conditions (DeHart & Davis, 2002). The aeroplane is constructed through the integration of complementary disciplinary knowledge, and the behaviour of the entire aerodynamic system can be explained through decomposition into these contributing domains (Simon, 1962; Vincenti, 1990).

Artificial intelligence (AI) illustrates the analysis and integration of knowledge in the transition from complicated to complex systems. Computer science provides the formal architectures, algorithms, and computational procedures that enable data processing and model execution (Russell & Norvig, 2021; Goodfellow et al., 2016). Psychology contributes models of cognition, learning, and decision-making, informing systems designed to replicate aspects of human intelligence (Newell & Simon, 1972; Kahneman, 2011). Engineering provides the physical infrastructure that enables computational models to operate at scale (Hennessy & Patterson, 2019).

Through the integration of these complementary disciplinary insights, AI systems are constructed as practical outputs whose internal functioning can be analysed and optimised. However, once deployed in real-world contexts, AI systems interact with human users and social systems, generating feedback, adaptation, and unintended consequences that extend beyond their original design parameters. At this point, complexity enters the analysis. Disciplinary integration is no longer sufficient to explain system behaviour, as insights from individual disciplines do not account for how sociotechnical systems co-evolve with society (Mitchell, 2009; Helbing, 2013). AI thus reaches a frontier at which it transitions from a complicated artefact to a complex system whose outcomes depend on interactions across multiple domains, and the integration of disciplinary insights analysed separately cannot provide a comprehensive explanation of its emergent properties. This line of inquiry resulted in an invited contribution titled Transversal Knowledge in Social Entrepreneurship: Integrating AIs as a Third Voice, presented at the 10th EMES International Research Conference on Social Enterprise, as noted in the Preface.

The third case illustrates the same transition in conventional business before positioning SE as fundamentally different in origin. When examined within the boundaries of economic theory, the firm can be treated as a complicated system whose behaviour can be modelled through well-defined variables such as cost structures, pricing, and production functions (Coase, 1937; Varian, 2019). Management and organisational science translate these principles into organisational design, strategy, and operational processes (Chandler, 1962; Porter, 1985). Sociology contributes understanding of how firms are embedded in social structures and networks (Granovetter, 1985; DiMaggio & Powell, 1983). However, when business activity is examined in its interaction with society, it becomes embedded in a broader socioeconomic system characterised by social expectations, political dynamics, and environmental limits (Polanyi, 1944; North, 1990; Meadows, 2008). Business encounters complexity when moving from an abstract economic

construct to a real-world socioeconomic system, where optimisation within one domain generates unintended consequences in others (Arthur, 2015; Meadows, 2008).

Social enterprise differs fundamentally in both origin and analytical requirements. SE emerged as a complex phenomenon from practice within dynamic social, economic, and ecological environments and not from the deliberate integration of disciplinary knowledge into a designed solution. The emergence and evolution of social enterprise can be traced across regions and periods through organisational history and contemporary research (Teasdale et al., 2023; Prouchet, 2025), including developments in the Global South and diverse institutional contexts (Appiah & Grimm, 2026; Contreras & Dornberger, 2022). The research indicates that SE emerges in response to dynamic socioeconomic and ecological conditions rather than from disciplinary foundations. Therefore, academic disciplines that approach analysis by decomposing systems and analysing its components, cannot provide a coherent analytical framework for explaining SE as a complex phenomenon with dual value creation at its core.

These characteristics of SE help explain why researchers across disciplines have been unable to arrive at a conclusive explanation of SE despite sustained scholarly attention. As shown in Chapter 1, economics examines SE in relation to the economic system, focusing on revenue generation and cost recovery while treating the social dimension as external (Santos, 2012; Dees, 1998). Sociology centres on the social system, emphasising social embeddedness and community dynamics while interpreting economic pressures through mission drift and treating the economic dimension as external (Defourny & Nyssens, 2014; Mair & Martí, 2006). Each perspective captures aspects of system behaviour but cannot explain the core feature of SE practice, as the explanation lies in interactions across systems.

Complexity science contributes to this understanding by diagnosing systems as complex and by describing their properties, including emergence and nonlinearity. However, the field of study remains largely descriptive and does not provide an articulated analytical approach for examining cross-system interactions that generate specific outcomes (Mitchell, 2009; Byrne & Callaghan, 2022). The research question therefore becomes how to analyse the behaviour of social enterprise as a complex open system in a way that explains dual value creation as a specific outcome that emerges in real-world contexts.

8.3.1 Establishing an Analytical Pathway for Complex Open Systems

This section overviews the analytical pathway taken in examining SE as a complex phenomenon, presented retrospectively to explain the role of multiple disciplines in interdisciplinary integration. While SE, IPE, and education recognise social enterprise as an open system and SE as a process emerging through interactions across systems, as shown in Chapter 3 and Chapter 4 (Goldstein et al., 2010; Swanson & Zhang, 2011; Trivedi & Misra, 2015), the relevant disciplines identified in this research did not provide sufficient guidance on how to analyse complex open systems. This limitation necessitated a shift beyond the boundaries of the most relevant disciplines toward a deeper exploration of disciplines that examine complex open dynamic systems.

The research proceeded through a lateral search focused on complex open systems and ways in which their behaviour can be explained. This line of reasoning led to exploring systems theory, life and natural sciences, seeking fields of study that examine complex open systems and explain their behaviour. The insights generated through the shift from the narrow focus on SE and SEE within social systems, to a broader investigation of complex open systems and analytical approaches used to describe them are integrated in the derivation of systemic conditions in Chapter 4. The analysis across the broader set of disciplines identified two essential concepts for examining complex open systems, namely the environment in which the system operates and interacts with other systems, and boundary conditions that define the limits within which the system can viably operate (Katz & Kahn, 1966; von Bertalanffy, 1968; Meadows, 2008).

8.3.1.1 From Disciplinary Limits to System Configuration

To identify the relevant environment of social enterprises, the researcher initially drew on social sciences literature situating social enterprises within ecosystems composed of institutional actors (Nelson et al., 2025; Spanuth & Urbano, 2024). SE scholars established a connection between SE and complexity, conceptualising SE as a complex process and social enterprises as complex open systems. Despite differences in analytical orientation, both systems informed and dominant strands of the reviewed scholarship examined SE primarily within socially constructed institutional environments composed of institutional actors, governance arrangements, and policy structures shaped through human design.

The research therefore first examined SE as emerging from interactions across systems within human designed institutional environments to determine whether the social system perspective could explain the emergence and persistence of SE practice across regions and historical periods. Comparative investigation of regional SEE ecosystems presented in Chapter 6, together with the parallel Mitacs ecosystem research (Brkic, forthcoming), provided insight into contextual variation in institutional arrangements, actor roles, and SEE configurations, but did not produce a more comprehensive explanation of SE as an emergent phenomenon. The findings aligned with broader observations in SE ecosystem scholarship examined in Chapter 3, where ecosystem approaches have advanced understanding of contextual variation within institutional settings but have not produced conclusive explanations for the broader emergence and persistence of SE practice across institutionally diverse contexts.

In examining further ecosystem-based approaches within SE scholarship, the research identified that the ecosystem concept originates in biology, where it was developed to analyse naturally occurring systems (Tansley, 1935). Re-engagement with Simon's (1962) work on complex systems further highlighted that complex systems characteristically operate as nested hierarchies. Deeper engagement with natural sciences literature subsequently revealed that ecosystems are not analysed in isolation but in relation to the broader ecological and planetary systems within which they are embedded. By contrast, ecosystem approaches adapted within entrepreneurship and SE scholarship were found to examine ecosystems primarily within the boundaries of socially constructed institutional systems. As established in Chapter 5, this distinction carries analytical significance because human social systems are heterarchically

designed and institutionally coordinated, with actor roles, governance arrangements, political economies, and socioeconomic architectures varying across regions and historical periods.

Institutional structures and socioeconomic architectures therefore reflect human designed coordination arrangements constructed to organise social systems and manage complexity, functioning more as complicated configurations than naturally occurring complex systems. The analytical pathway consequently shifted toward distinguishing between context dependent socioeconomic architectures shaped through human design and the nested hierarchy of open systems within which societies, communities, and institutional systems remain embedded.

Since social sciences literature did not provide sufficient analytical guidance for exploring open systems, identifying nested hierarchies, or investigating processes emerging through cross-system interactions, the research undertook a lateral shift from examining SE and SEE within social system boundaries toward investigating complex open systems across disciplines, including natural sciences, while also examining how human knowledge has been shaped to analyse and interpret different forms of system behaviour. In response to the limitations of institutional ecosystem-based analysis in providing a more comprehensive understanding of SE, the research pursued an alternative approach by conceptualising the environment of social enterprise at a more fundamental level, drawing on sustainability science and alternative theories. This shift led to the identification of a nested hierarchy of open systems in Chapter 4, defined as a cross-system interaction space constituted by the social enterprise, the society, the economy, the ecological system, and the planetary system.

The conceptualisation of social enterprise environment through nature designed systems, enabled the analysis to move beyond context-specific institutional arrangements, identify conditions that operate globally across systems and explain the emergence of SE practice. The derivation of system configuration across premises one to three in Chapter 4 integrated complementary insights from multiple disciplines explored in this line of inquiry, establishing a coherent understanding of the nested hierarchy of open systems from the individual level to the planetary level.

8.3.1.2 Explaining Complex System Behaviour and Cross-Systems Interactions

Insights from complexity science and systems theory further showed that defining the environment of social enterprise as a nested hierarchy of open systems, while critical, is insufficient to explain the emergence of SE through interactions across system levels (von Bertalanffy, 1968; Meadows, 2008). While complexity science provides robust descriptions of system behaviour, it offers limited guidance for identifying the conditions under which complex phenomena emerge and persist within particular subsystems (Holland, 1995; Mitchell, 2009). The analysis therefore shifted from identifying system configuration toward investigating the mechanisms through which interactions across nested system levels are regulated and sustained.

Although the researcher explored multiple social and natural sciences, biology provided the most relevant analytical guidance because it applies systems theory and complexity science to explain organisms as nested hierarchies of open systems, where subsystem behaviour is governed by conditions required for viability across levels, from cells to the organism as a whole (von

Bertalanffy, 1968; Noble, 2012). This analytical pathway demonstrated that explaining interactions across system levels requires identification of the conditions necessary for subsystem viability within the broader hierarchy, conceptualised in this study as systemic conditions (Cannon, 1932; Kitano, 2004).

Across disciplines, equivalent concepts describe the same underlying requirement for maintaining system viability. Biology refers to these as viability conditions regulating system stability (Cannon, 1932; Kitano, 2004). Systems theory conceptualises them as boundary conditions and constraints defining permissible system states (von Bertalanffy, 1968; Meadows, 2008). Complexity science describes them through attractor states and stability conditions governing system behaviour (Holland, 1995; Mitchell, 2009). The convergence across disciplines indicated that interactions within nested open systems are not unrestricted but occur within conditions that regulate system viability across levels of the hierarchy.

Investigation of naturally occurring open systems further clarified the relationship between systemic conditions, entropy, and nonlinear feedback processes. In biology, living systems are organised as nested hierarchies of open systems, from cells to tissues, organs, and the organism as a whole (von Bertalanffy, 1968; Noble, 2012). The viability conditions operating across these levels include pH balance (Henderson, 1908), temperature regulation (Cannon, 1932), osmotic balance (van't Hoff, 1887), ionic balance (Hodgkin & Huxley, 1952), and energy balance through metabolic regulation (Schrödinger, 1944/2012; Atkinson, 1968). These conditions define the ranges within which subsystem processes and cross-level interactions can function without loss of viability.

Moreover, the relationship between viability conditions and entropy is explicit in biological systems. Organisms exist as open systems continuously exchanging energy and matter with their environment (Schrödinger, 1944/2012; Prigogine & Stengers, 1984). Entropy describes the tendency toward disorder within these exchanges, while viability conditions define the limits within which this tendency can be absorbed and regulated through feedback processes across system levels. Maintaining pH balance, temperature, osmotic balance, ionic balance, and energy balance requires continuous regulation and coordinated interaction across subsystems, preventing movement toward disorganisation (Schneider & Kay, 1994; Kondepudi & Prigogine, 2015). Entropy therefore represents pressure acting upon the system, while systemic conditions define the boundaries within which the system can regulate that pressure and maintain viability through nonlinear feedback interactions across levels of the hierarchy.

This relationship between entropy, systemic conditions, and cross-system regulation established the analytical foundation for examining whether analogous processes could be identified within social and economic systems. The research therefore engaged with scholarship examining entropy in social and economic systems to explore whether comparable patterns of disorder, regulation, and constraint could be observed (Georgescu-Roegen, 1971; Prigogine & Stengers, 1984; Zingg et al., 2019; Ra, 2022). The analytical logic used in biology to examine nested open systems was subsequently transferred to the analysis of SE and social enterprise,

enabling identification of systemic conditions governing cross-system interactions within the broader nested hierarchy presented in Chapter 4.

While the concept of entropy has been explored in social and economic systems, linking disorder, resource dissipation, and system sustainability (Georgescu-Roegen, 1971; Prigogine & Stengers, 1984; Zingg et al., 2019; Ra, 2022), existing research has not derived systemic conditions governing the viability of nested open systems across levels of the hierarchy. Existing contributions recognise the relevance of entropy in shaping system behaviour but do not articulate the conditions under which complex social systems remain viable through cross-system interactions. The derivation of systemic conditions and the nested hierarchy of open systems therefore addressed a gap in systems informed SE scholarship, where existing research had recognised SE as a complex phenomenon but had not specified the broader system configuration or the systemic conditions governing viability of social systems and cross-system interactions.

8.4 Implications for Complex Systems and Interdisciplinary Research

This section examines the methodological implications of the research findings for disciplines transitioning from the analysis of complicated to complex problems, and the role of interdisciplinary research and the IRP approach in navigating this transition. Insights from cognitive science and the philosophy of complex systems establish that human knowledge has largely been constructed to design and analyse complicated systems through decomposition into constituent parts and their subsequent reintegration (Simon, 1962), whereas natural systems operate as complex systems characterised by interdependence and emergence that are not reducible to such analytical decomposition (Cilliers, 1998). Human knowledge has therefore historically been organised into disciplines examining different dimensions and categories of phenomena through increasingly specialised analytical approaches. However, natural systems remain indifferent to how human societies choose to analyse them, and the behaviour of complex open systems in which society is embedded does not change based on the analytical frameworks applied.

From the perspective of systems theory, complexity science, and system dynamics, phenomena are instead analysed as open dynamic systems embedded within interacting heterarchical or hierarchical configurations. Within such configurations, social enterprises, communities, ecosystems, and cells within the human body each represent subsystems operating within broader nested hierarchies of complex open systems governed by conditions necessary for system viability. Just as the behaviour of a single cell cannot be fully explained without understanding the organism within which it is embedded and the viability conditions regulating interactions across levels, the behaviour of social enterprises cannot be fully understood without identifying the broader nested hierarchy of open systems and the systemic conditions constraining interactions across social, ecological, economic, and planetary systems.

Across multiple domains, significant advances have occurred when phenomena are analysed as complex systems rather than as complicated systems. Complicated systems rely on decomposition into discrete components and optimisation of isolated functions. The thesis shows that when analytical approaches developed for complicated systems are applied to complex phenomena such as SE, they limit explanatory power and constrain the integration of insights

across disciplines and sources of knowledge. In contrast, analysing systems as complex redirects attention toward interaction structures, feedback mechanisms, and systemic conditions, enabling the identification of intervention points that generate multiple simultaneous effects across systems.

This analytical transition is observable across multiple disciplines. What these phenomena share with SE is that they emerge through cross-system interactions within naturally occurring nested system configurations rather than as products of intentional human design. The reconceptualisation of type 2 diabetes from a glucose regulation disorder to a complex metabolic system problem (DeFronzo, 2009; Drucker, 2018), the analysis of HIV infection as a dynamic system requiring combination antiretroviral therapy (De Clercq, 2009), and the reconceptualisation of weather systems through Lorenz's (1963) demonstration of nonlinear dynamics enabling probabilistic forecasting (Palmer, 2019) illustrate this transition. In each case, the shift to complex systems analysis required the involvement of multiple disciplines and interdisciplines integrated through interdisciplinary research, with outcomes manifesting as multiple simultaneous benefits distributed across systems rather than as isolated optimisations within a single domain.

A similar trajectory is therefore observed in this thesis. The analysis required engagement with IPE and SE as interdisciplinary fields and extended to 11 disciplines and over 20 subfields, including theoretical domains such as environmental economics (Daly, 1996), systems theory, and socioecology (Dompere, 2017), as well as applied fields including medicine, engineering, and business practice. The identification of the system configuration in which SE occurs proved analytically decisive. Rather than examining SE solely through human designed institutional arrangements, the analysis identified a nested hierarchy of open systems extending from the individual to the planetary level, generating complementary insights across disciplines that explain SE as a process of dual value creation emerging through cross-system interactions within naturally occurring system configurations. This perspective may also help explain why social enterprises have historically emerged across regions and periods without a single designated organisational form and prior to the formal development of SE scholarship, as dual value creation appears to arise through responses to systemic conditions operating across interacting social systems rather than through adherence to specific institutional templates.

The findings of this thesis indicate that research investigating complex phenomena may require lateral exploration across disciplines in search of knowledge regarding complex system behaviour, nested system configurations, and cross-system interactions, extending beyond the disciplines initially identified as most relevant to the phenomenon under investigation. At the boundary between complicated and complex systems, analytical frameworks from adjacent disciplines become necessary, generating conditions for the emergence of new interdisciplines and more integrated forms of knowledge production. This research indicates that the transition toward complexity analysis occurs when the phenomenon under investigation can no longer be adequately explained through analytical approaches developed for complicated systems. At that point, analysis shifts toward examination of interacting systems and cross-system dynamics, as discussed in Section 8.4.1.

8.4.1 Implications for Interdisciplinary Research

As scholarship across disciplines increasingly encounters phenomena that are complex rather than complicated, interdisciplinary research emerges not as a preference but as a structural necessity, serving two distinct functions simultaneously. The first function is the integration of knowledge about the complicated aspects of complex phenomena. The second is the diagnosis of complexity where disciplinary analysis has been misapplied. The IRP approach provides the methodological framework through which both functions can be carried out within a single analytical approach (Repko & Szostak, 2025). The transition from the analysis of complicated to complex systems does not occur through deliberate methodological choice. The shift to analytical pathways for exploring complex systems occurs when disciplinary research accumulates paradoxes it cannot resolve. Biology and medicine encountered this transition earlier than the social sciences, which are currently undergoing an equivalent shift, and the emergence of interdisciplinary fields is the observable research response.

Ecological economics emerged from the recognition that economic phenomena cannot be explained through economic frameworks alone, because economic activity is embedded within physical and ecological systems governed by thermodynamic laws (Georgescu-Roegen, 1971; Daly, 1996). Ostrom (2005, 2009) developed the Social-Ecological Systems framework, demonstrating that governing complex common-pool resources requires complexity-aware interdisciplinary analysis that neither economics nor political science can provide independently (Dompere, 2017). Sociotechnical systems theory emerged at the intersection of engineering, systems theory, organisational studies, and social science to explain how technological systems function within human and institutional environments that transform their behaviour in ways their original disciplinary design could not anticipate (Baxter and Sommerville, 2011). Qian, Yu, and Dai (1990) developed the open complex giant systems methodology in the Chinese context, combining qualitative systems thinking with quantitative analysis to address large scale societal problems that reductionist methods could not manage (Qian et al., 1990; Gu and Tang, 2005; Stone, 2024). Across these examples, the same pattern is visible, namely that interdisciplinary fields emerge because complex systems require analytical integration across domains, and that advances become possible when theoretical and applied knowledge are integrated within a systems framework.

The application of the IRP approach demonstrated in this thesis shows that the methodology can serve a bifold function in the transition to complex systems analysis. The approach enabled the integration of knowledge from relevant disciplines about the complicated aspects of SE as a complex phenomenon, facilitating the structured organisation of disciplinary insights into a coherent SEE knowledge architecture. Simultaneously, the approach diagnosed the need for an analytical shift toward the exploration of complex systems, where interdisciplinary integration could not progress beyond organisation as an IRP strategy (Repko & Szostak, 2025). The necessity to alter the analytical approach represents a clear signal that the phenomenon examined in this thesis requires complex systems analysis rather than further disciplinary decomposition.

The transition from complicated to complex systems thinking is not unique to SE scholarship. As research increasingly uncovers complex systems, multiple social science disciplines approach this methodological frontier simultaneously. As disciplines recognise that the phenomena they study are complex rather than complicated, and as the accumulation of unresolved paradoxes makes this recognition inevitable, the demand for interdisciplinary research grounded in complexity science will grow accordingly. The research pathway followed in this thesis demonstrates that the need for interdisciplinary research is driven by the nature of the systems under investigation, while also showing how the IRP can be operationalised to navigate the transition to complex systems research.

8.5 Contributions

The thesis advances a practice-informed multilevel interdisciplinary SEE approach alongside interconnected theoretical contributions and methodological observations emerging from the research process.

The practical contribution of the SEE model lies in its integration of practitioner derived and research derived knowledge within a shared educational architecture, addressing fragmentation between scholarship and practice identified across the field and providing a potentially transferable theoretical foundation and knowledge architecture for SEE across institutional, disciplinary and regional contexts. The proposed SEE approach integrates a two-tier knowledge architecture with an andragogically grounded instructional design operationalised through the Global Social Innovation Lab model. The architecture brings practitioner derived and research derived content into a unified educational system organised by function rather than disciplinary origin, positioning high-level theoretical knowledge at the meso level and applied operational knowledge at the micro level. Globally applicable knowledge is distinguished from context-specific knowledge to support transfer across institutional and cultural settings without prescribing a single regional template. The instructional design aligns with the practice-based nature of the phenomenon by positioning learners as carriers of tacit knowledge to be activated, articulated, and integrated through experiential and interdisciplinary learning processes grounded in andragogy, pragmatism, and pedagogical content knowledge**.**

The resulting SEE approach is grounded in a shared theoretical foundation integrating insights from social and natural sciences. The integrated, interdisciplinary theoretical foundation proposes an explanation for the emergence, persistence, and cross-regional proliferation of SE practice beyond context-specific accounts. The theoretical contributions position SE as a complex phenomenon within a systems informed analytical framework. Social enterprise is conceptualised as operating within a nested hierarchy of open systems extending from the individual through organisational and societal levels to ecological and planetary systems. Within this configuration, planetary boundaries and the dual value imperative define systemic conditions that establish the parameters within which SE practice occurs, providing a structural explanation for dual value creation as an organisational response.

This systems configuration is complemented by an analytical distinction between systemic conditions and context dependent socioeconomic variables, enabling disciplinary theories,

dominant and alternative perspectives, and cultural philosophies to be interpreted as complementary observations of the same phenomenon across levels of analysis rather than as competing accounts. On this basis, SE is theorised as a structurally necessary organisational response to systemic conditions governing subsystem viability, offering an explanation for its cross-regional persistence independent of institutional or normative accounts.

The contributions of this thesis are organised by register in Table 8.5, mapping each IRP integration strategy to the common ground it established and the new whole it produced, and locating each resulting contribution in its epistemic register: the interdisciplinary research contribution, which is the creative integrative process itself (Repko & Szostak, 2025).

Table 8.5: Contributions by Register

IRP Strategy	Interdisciplinary Research Contribution	Social Sciences Contribution: Proposed Integrative Outcomes
Redefinition	Common ground: dual value creation shared across definitions. The new whole is one shared definition of SE across disciplines and regions	
Extension	Common ground: viability of human society depends on ecological value; the new whole extends social value to include ecological value	Proposes SE definition
Transformation	Common ground across social and natural sciences and cultural philosophies on systems configuration and systemic conditions	Theoretical Proposition: SE as a dual value creation practice that is a structurally necessary response within the nested hierarchy configuration governed by systemic conditions
Transformation	Common ground across hierarchical and heterarchical systems configurations. Continuum: systems configuration of social enterprise	Proposes the analytical framework: separating nested hierarchy and systemic conditions from heterarchy characterised by socioeconomic variables
Transformation	Common ground across discrete typologies; the new whole is a continuum between value coproduction and value coordination (typology)	Typology proposes SE types located on a continuum between value coproduction and value coordination
Transformation	Common ground across content and pedagogy; the new whole is the theoretical framework.	Proposes a theoretical framework complementing the theoretical proposition with instructional design
Organisation	Common ground across complementary knowledge related to nested hierarchy and social system heterarchy. New whole: the SEE knowledge architecture.	Proposes the SEE knowledge architecture: globally shared knowledge reflecting the nested hierarchy, and context-specific knowledge reflecting the social system heterarchy
Practical	Proposes knowledge segments to be populated in the SEE knowledge architecture, connecting research and educational practice	

As shown in Table 8.5, The social sciences contribution, the outcomes advanced as propositions for testing (Popper, 1959). The natural sciences contribution, focused on the derivation process leading to the systems configuration and systemic conditions (Hempel & Oppenheim, 1948), together with the methodological and practical contributions.

The societal significance of this contribution lies in the possibility that dual value creation mechanisms operating at the micro enterprise level may become more transferable across contexts through a shared SEE foundation. The integration coordination typology extends this reasoning by positioning dual value creation mechanisms along a continuous spectrum, accommodating diverse economic configurations and providing a structural interpretation of variations documented in IPE without displacing existing explanations. The possibility of globally applicable SEE is particularly significant given the global prevalence of SMEs, which represent approximately 90 percent of businesses worldwide and account for more than 5) percent of global employment and economic activity (World Bank, 2025), as well as the increasing importance of organisational responses to interconnected social, economic, and ecological crises.

8.6 Findings

The findings are presented separately from the broader implications proposed for further examination. The empirical study of four regional SEE ecosystems shows that dual value creation functions as the common commitment across all examined regions, despite differences in theoretical framing, legal recognition, and institutional support for SE practice. Fragmentation of SEE content is more pronounced than indicated in the literature, with neighbouring programmes operating from incompatible disciplinary starting points and producing knowledge that does not transfer beyond the institutional setting in which it is acquired. Regional divergence in SEE design was associated primarily with socioeconomic variables, whereas the persistence of SE practice requires explanation at a deeper structural level than institutional ecosystems can offer.

The five GSIL implementations provide limited evidence of the transferability of the knowledge architecture and instructional design across cultural, disciplinary, and institutional contexts within the limited scope of the curricular application. Learners across implementations consistently identify dual value creation as the invariant property of SE through engagement with case studies, distinguish globally applicable from context-specific knowledge through structured exercises, and recognise the correspondence between cultural philosophies and the systemic configuration derived in Chapter 4 through peer exchange. Independent corroboration is provided by parallel Mitacs research, which finds that practitioners across six regions rank dual value creation mechanisms and partnership and collaboration approaches as the most useful knowledge domains in practice, while ranking impact measurement frameworks as least useful. The findings therefore suggest that SEE approaches grounded in dual value creation mechanisms may offer stronger practical alignment with SE practice than approaches organised primarily around institutional terminology or context-specific organisational forms.

The implications of theoretical and practical findings proposed by the thesis extend beyond what the empirical work demonstrates. The thesis proposes that SE constitutes a complex phenomenon and that social enterprise operates as a complex open dynamic system whose

behaviour emerges from interactions across nested systems. The theoretical proposition further suggests that examination of SE through a systems configuration integrating insights from social and natural sciences may provide a more comprehensive explanation of SE emergence and persistence across contexts than approaches examining social systems in isolation. The theoretical proposition is supported through deductive reasoning and limited cross contextual evidence and requires further empirical testing at meso and macro- levels.

8.7 Limitations and Future Directions

Theoretical limitations arise from the frontier position of this research, which extends a still limited body of scholarship examining SE as a complex phenomenon and social enterprises as complex systems. While the framework derives systemic conditions from the structural properties of nested open systems deductively, it remains confined to the analysis of system configurations observed in nature and does not extend to the full range of interactions within and among social systems, as the analysis remains intentionally apolitical and focused on system structure and systemic conditions.

A further theoretical limitation concerns entropy measurement. While the framework derives systemic conditions deductively from the structural properties of nested open systems, complexity science has not yet developed sufficiently precise tools for quantifying entropy accumulation across social systems and levels of the nested hierarchy. Existing approaches, including information theoretic, simulation, and systems modelling approaches, provide partial analytical insight but do not yet enable comprehensive empirical measurement of system level entropy dynamics. The framework therefore remains analytically and theoretically oriented rather than fully quantifiable in empirical terms.

Methodological limitations relate to the application of the IRP, which in this research demonstrated a bifold function by integrating disciplinary knowledge while also functioning as a diagnostic pathway indicating the need for a shift from complicated toward complex systems analysis. While this dual function proved analytically useful in the present study, further research is required to examine its applicability across different domains and its robustness as a methodological approach for analysing complex systems.

Practical limitations arise from the stage of development of the SEE model. The GSIL implementations indicate operational viability across five iterations and diverse contexts, but the model has not yet been tested longitudinally or at scale to evaluate its effectiveness in leading to the implementation of social enterprises in practice.

The five implementations involved a limited number of learners per cohort, were conducted within a single curricular format, and did not include control conditions or comparative assessment against alternative SEE models. The GSIL implementations provide evidence that the framework's core claims are recognisable across cultural, disciplinary, and institutional contexts and that the knowledge architecture supports learners in designing SE solutions, which constitutes evidence of practical feasibility appropriate at this stage of development in a field where measurement tools for quantitative validation are not yet available. The findings therefore should not be interpreted as demonstrating scalability or universal applicability of the SEE model, but rather as providing

preliminary empirical support for a transferable educational foundation integrating practitioner knowledge, interdisciplinary scholarship, and dual value creation mechanisms.

Empirical limitations relate to Phase 2. The empirical study of regional SEE ecosystems was conducted in four regions, namely Manitoba, Prince Edward Island, Slovenia, and Croatia. The findings indicate fragmentation across these regions and identify regional traditions and organisational forms not captured in the global synthesis, but generalisation to regions not included in the study, particularly in Africa, Asia, and South America beyond the Mitacs sample, requires further empirical research.

These limitations are not unique to this research but reflect a frontier condition at the intersection of complexity science and SE scholarship. The transition from complicated to complex systems analysis across disciplines indicates that theoretical development currently exceeds the availability of measurement tools. Under these conditions, development of a shared SEE foundation integrating insights from social and natural sciences may provide a pathway for strengthening transferability of dual value creation mechanisms across contexts while further theoretical and empirical tools continue to develop.

Appendix 1: Article 1 - Scaling Dual Value Creation Through Education

Scaling Dual Value Creation Through Education: A Transdisciplinary Approach

Abstract

This study addresses the critical challenge of scaling social entrepreneurship (SE) beyond isolated successes to achieve meaningful global impact. Through transdisciplinary research integrating a systematic literature review with practitioner insights, the analysis suggests that the fundamental barrier is epistemological: disciplinary approaches remain insufficient for addressing problems governed by dynamic systems beyond human control. The research points at education as a space where knowledge focused on dual value creation, social and economic, can be shared across regions to establish SE as a sustainable, scalable practice across cultures. The primary academic contribution is in proposing a transdisciplinary research pathway toward constructing a common, globally applicable knowledge base that can support SEE, articulated through an educational design that distinguishes systemic conditions, namely planetary boundaries and dual value imperatives, from socioeconomic variables shaped by human design. The proposed framework aims to support knowledge integration that transcends fragmented scholarship by providing a coherent ontological foundation for aligning research with SE practice. The integrative educational framework was operationalised through the Global Social Innovation Lab (GSIL) model, a learning approach that bridges theoretical and operational knowledge through knowledge co-creation by learners, entrepreneurs, and academics. Tested through four iterations with 12 universities and community groups worldwide, the GSIL model demonstrated the capacity to facilitate social enterprise ideation and planning for global implementation. As a practical contribution, the research offers a learning architecture that can support both formal and informal educational pathways, as viable mechanisms for scaling SE practice across cultures.

1. Introduction

Social entrepreneurship (SE) is increasingly recognised as a critical mechanism for addressing systemic, multidimensional global challenges across sectors such as healthcare, education, climate adaptation, and financial inclusion. Empirical evidence indicates that social enterprises have contributed to poverty reduction [1], expanded employment opportunities for structurally marginalised groups [2], and delivered measurable contributions to gross domestic product in multiple regions, particularly in Europe and Asia [3][4]. The capacity to deliver both social impact and sustained revenue, described in the literature as dual value creation, positions SE as a driver of inclusive and resilient development capable of addressing complex challenges such as poverty and climate change [5].

Scaling dual value creation through SE presents a major challenge across research and practice. Analysis of existing literature suggests that the persistent absence of foundational knowledge describing mechanisms that sustain dual value creation across regions constitutes a research gap that prevents the emergence of coherent and institutionally supported communities of practice [6]. Conceptual divergence in SE research also constrains policymaking and hinders the development of legal and financial frameworks capable of recognising and supporting SE at

the scale required to achieve meaningful impact [7]. As a result, the expansion of SE remains limited, with enterprises facing significant barriers to transferring and adapting successful models across diverse contexts [8]. The urgency of scaling SE practice is intensified by the worsening effects of climate instability, inequality, and exclusion, where fragmented and localised responses have proven insufficient to deliver the systemic impact necessary to address planetary crises in a durable way [4][9]. Insufficient transdisciplinary knowledge co creation has further diverted research away from the defining characteristics of SE, namely the integration of social and economic value, resulting in fragmented evidence that lacks both coherence and transferability [10][11]. Cross sector analysis suggests that social entrepreneurship education (SEE) offers a promising pathway for enabling knowledge transfer, replication, and scaling across borders. However, the absence of a robust knowledge base supporting dual value creation remains a critical barrier to advancing global solutions [12][13][14].

To address the challenges in both scholarship and educational practice, the research investigates the question: "What kind of research is needed to scale SE globally through education?" The study adopts a transdisciplinary research design grounded in the Interdisciplinary Research Process (IRP) [10] and enriched by lived experience in SEE and SE practice. Beyond the academic dimension, the approach integrates practitioner perspectives with a systematic review of scholarly contributions across disciplines and regions. By combining insights from the most relevant disciplines identified through a systematic literature review (SLR) encompassing education [3], SE [8], and international political economy [13], the synthesis ensures that conceptual depth is balanced with operational relevance, positioning the analysis at the intersection of theory and practice.

Interdisciplinary literature analysis suggests that fragmentation in SE research originates from disciplinary silos that fail to differentiate between systemic conditions associated with natural and social processes and socioeconomic variables shaped by deliberate human design [10][3]. Complexity science indicates that natural systems evolve in ways that exceed human control [15], while environmental research establishes that planetary boundaries set ecological limits that cannot be transgressed [14]. Planetary limits and human interdependence together reinforce the imperative of dual value creation. Scarcity of resources generates economic pressures to allocate effectively, while social value is essential for sustaining human interaction, rendering dual value creation a second systemic condition [12]. Institutional structures such as governance, finance, and law constitute socioeconomic variables produced through human design, and their adaptive reconfiguration within ecological and social limits determines the capacity of SE to achieve scalable impact [10][13].

The research presented in the paper further suggests that SEE, when developed through transdisciplinary knowledge integration and delivered through global collaboration, can serve as a mechanism for navigating the complexity of natural and social systems, producing scalable SE solutions that advance social objectives while respecting planetary limits.

Transdisciplinary integration of research and lived experiences informed the creation of an innovative SEE model, delivered through the GSIL model and tested through four iterations in

partnership with 12 universities across Asia, Europe, North America, and South America. Initial evidence suggests that a knowledge base derived from transdisciplinary research, combined with dialogical pedagogy fostering the exchange of culturally diverse perspectives, can support learners in applying dual value logic to complex social and ecological problems [7]. Participants from over 20 regions across five continents, cocreated enterprises that integrated social and financial objectives, producing innovative solutions adaptable across contexts through collaboration and localised adjustment [11]. GSILs implementation findings also revealed persistent barriers associated with the coexistence of competing frameworks of dual value creation [9], divergent regional definitions of SE [13], and a scarcity of applied knowledge detailing mechanisms of dual value creation and operational practices [8]. These constraints made it difficult for learners and educators to translate fragmented insights into universally applicable solutions.

Despite the challenges, initial outcomes appear promising. With targeted mentoring and dialogical pedagogy, participants enhanced their ability to analyse interconnected social challenges such as poverty and environmental degradation [5], and they reported greater confidence in combining theories of dual value creation with culturally embedded innovation logics [11]. Initial findings from SEE testing indicate that a structured, practice-informed SEE framework has the potential to be transferable across institutional and cultural contexts, thereby fostering global connections and producing enterprises capable of scaling impact across diverse settings [7].

The paper is structured to reflect the progression of findings. Section 3 provides a historical overview of SE and SEE research, demonstrating how disciplinary approaches produced fragmentation by remaining unintegrated. The subsequent literature review, enriched by practitioner insights, analyses systemic conditions and socioeconomic variables. SEE is then presented as a bridging mechanism, with the design and testing of a transdisciplinary framework described through the GSILs. Section 5 situates the findings across research, policy, and practice, while the conclusion underscores the role of education as a potentially viable pathway for overcoming fragmentation and enabling the global scaling of SE.

Academic significance lies in suggesting that transdisciplinary knowledge integration centred on dual value creation may be indispensable for consolidating fragmented bodies of scholarship and insights from practice into a coherent knowledge base supporting SE practice at the intersection of complex systems involving society and nature and socioeconomic constructs. The theoretical contribution rests in proposing the distinction between systemic conditions including ecological boundaries and the imperative of dual value creation, and socioeconomic variables such as governance systems and institutional structures that are shaped by human design [12][13]. The proposed pathway integrates long-standing insights from complexity science and political economy that emphasise the limits of human control over natural and social systems. Building on the proposed distinction, the analysis identifies education as a viable pathway for scaling SE globally, since educational systems provide spaces for the free exchange of knowledge across borders, enabling both theoretical integration and practical application that can support social and economic development.

Broader implications lie in practical applications. Small and medium sized enterprises (SMEs) employ nearly half of the global workforce [3], with community-based SMEs displaying high responsiveness to local needs [2]. Without the explicit recognition of SE as dual value creation, however, the contribution of SMEs that generate both social and economic value remains significantly underestimated. Embedding transdisciplinary research in SEE within educational systems offers the foundation for a global, inclusive response to humanity's most complex challenges through dual value creation. Transdisciplinary integration of interdisciplinary scholarship and practice may strengthen alignment between research and SE practice [13] and potentially expand opportunities for learners to build global connections and design innovative entrepreneurial approaches to dual value creation [19].

2. Methodology

The study adopted a transdisciplinary approach grounded in the Interdisciplinary Research Process (IRP) [10] and enriched by the researcher's 30 years of lived experience in SEE across four continents. A systematic literature review (SLR) served as the primary method, selected for its capacity to ensure transparency, analytical rigour, and replicability in mapping diverse contributions to the field [12]. This lived experience served both as a relevance filter and as a generative source of insights, particularly for identifying culturally embedded innovation logics and practitioner informed knowledge not commonly captured in formal academic literature. The integration of academic research with practitioner insight aligns with transdisciplinary principles and ensures the applicability of the findings to practical SEE contexts. The combined approach supports the development of a transferable SEE framework grounded in both theoretical and operational knowledge [10].

Parallel to the transdisciplinary research process, the study incorporated action based testing through the implementation of the GSIL model, conducted as an industry and academia partnership under Mitacs funding [7]. The educational implementation through GSILs constituted systematic testing of identified theoretical frameworks, enabling real-world validation of transdisciplinary integration principles while providing empirical evidence for SEE approaches grounded in both systemic conditions and socioeconomic variables. The parallel approach served dual purposes: testing theoretical coherence through practical application and generating insights that informed the ongoing literature analysis and framework development [10][7].

3. Transdisciplinary Integration of Interdisciplinary Literature Review and Analysis

The literature review established the interdisciplinary foundations of knowledge by collecting and analysing scholarship across several academic domains relevant to SEE. Guided by the IRP, the process of identifying relevant disciplines and analysing disciplinary contributions delineated conceptually and practically salient perspectives, as well as areas of convergence and disjuncture [10]. The exploration of SEE related research, informed by lived experience, supported the creation of a pathway toward an integrated transdisciplinary framework for SEE that engages both global challenges and regional specificities. The source identification process involved a

systematic review of 76 scholarly works, drawing from education, business, economics, management studies, sociology, development studies, international political economy (IPE), innovation studies, and sustainability research. Keyword based searches were conducted through Google Scholar, ProQuest, and Scopus, using Boolean combinations such as "social entrepreneurship education," "dual value creation," "entrepreneurship and pedagogy," and "policy frameworks for social enterprise." The review prioritised peer reviewed sources published since 2010, supplemented by foundational texts and policy reports, with selections filtered for relevance to educational content, SE practice, and institutional alignment. All sources were manually reviewed, as research focused explicitly on SEE remains rare, although scholarship from multiple disciplines explores the broader knowledge base relevant to educational approaches to dual value creation. To provide clarity and progression, the findings are organised into a historical overview of SE and SEE scholarship that highlights the roots of research fragmentation, an overview of research from the most relevant disciplines enriched by insights from practice, and a transdisciplinary analysis of knowledge applied in constructing an integrated SEE approach.

3.1 Historical Development of SE and SEE Knowledge Domains

The initial literature review of SE and SEE related scholarship indicated a layered accumulation of disciplinary perspectives without systematic integration. Political economy provided early insights by situating markets within society. Polanyi framed economic life as embedded in social relations, emphasising the double movement between market expansion and social protection [16]. The critique of market liberalism positioned SE as a corrective to structural failures, a theme later elaborated by Roy and Grant in their reassessment of Polanyi's contemporary relevance [13]. Management and business studies subsequently introduced definitional debates. Dacin et al. argued that SE did not require a new theory but acknowledged the centrality of dual value creation [9], while Defourny and Nyssens developed typologies that categorised diverse organisational forms [12]. Santos advanced the distinction between SE and conventional business, contending that social enterprises address needs neglected by markets by emphasising social over economic value creation [8].

Subsequent research on SE became dispersed across organisational studies, institutional theory, and international political economy. Organisational analyses emphasised business model innovation and hybrid logics [17], while institutional theorists examined legitimacy, governance, and the role of regulatory frameworks in enabling SE [11]. International political economy highlighted socioeconomic structures shaping opportunities for SE but rarely integrated findings with educational or practice-oriented concerns [13]. Parallel developments in sustainability studies introduced systemic frameworks such as Doughnut Economics, which highlight ecological limits for enterprise activity but remain peripheral to SE research and application [18]. Interdisciplinary analysis indicates that disciplinary research streams illuminated particular aspects of SE while reinforcing knowledge fragmentation and failing to connect disciplinary insights to the mechanisms of dual value creation in practice.

In contrast, SE practice consistently demonstrates the inseparability of social and economic outcomes and the need for flexible, adaptive mechanisms in creating dual value. Social enterprises

across contexts address inequality, environmental degradation, and exclusion by embedding their economic activity within existing socioeconomic systems, thereby enacting dual value creation as a dynamic and adaptive process [7][17]. The literature review suggests that divergence between SE scholarship and practice has widened over recent decades, with research concentrated on definitional disputes, organisational forms, or individual traits of social entrepreneurs, while neglecting the systemic interplay between social and economic value creation [19].

Interdisciplinary examination of historical evolution in SE and SEE research indicates that fragmentation in SE research originates from two interrelated dynamics. Disciplinary traditions in economics, sociology, management, political economy, and education have produced distinct bodies of knowledge that remain insufficiently integrated into a coherent interdisciplinary framework [8][12]. The gap between theory and practice has further limited the incorporation of practitioner knowledge into scholarly debate, leaving the mechanisms of dual value creation under theorised and inadequately transferable across contexts [11][17]. These dual sources of fragmentation have produced a body of research that lacks both conceptual coherence and operational applicability, limiting the capacity of scholarship to support the resilience and scaling of SE practice.

SEE is increasingly recognised in recent research and policy as a domain with potential to address limited knowledge integration. Unlike policy and institutional arenas, which are constrained by nationally bounded frameworks, education provides a platform for transdisciplinary integration and the circulation of knowledge across borders [4]. Embedding dual value logic within structured learning processes and aligning the SEE knowledge base with both theoretical contributions and practice-based insights may enable the consolidation of fragmented scholarship. Learning environments may function as institutional spaces capable of advancing interdisciplinary integration, fostering transdisciplinary knowledge creation, and supporting the global scaling of SE [7].

3.2 Knowledge from Relevant Disciplines and Practice

Closer examination of the literature narrowed the pertinent scholarly sources to 32 texts that directly focus on either the SE knowledge base or SEE, enabling the identification of relevant disciplines. Three central domains emerged as the most pertinent, namely education, SE, and IPE.

Based on the reviewed texts, educational research in the SEE field predominantly adopts an internalist lens, focusing on comparative curricular analysis and pedagogy while insufficiently engaging with SE research, the broader SEE knowledge base, empirical insights from SE practice, or theoretical contributions to dual value creation. Conversely, SE literature and wealth creation discourses in IPE rarely address educational implications, resulting in a disconnect between disciplinary knowledge, real-world SE models of dual value creation, and the educational approaches required to teach SE. Educational literature contributes meaningfully to the analysis of pedagogical strategies and instructional approaches in SEE, particularly experiential, transformative, and problem-based learning. Scholars such as Kolb and Mezirow offer foundational pedagogical models associated with transformative and project-based learning [15][16]. The theoretical frameworks in education literature inform SEE programs seeking to

cultivate global awareness, entrepreneurial intention, and social responsibility among learners [6]. Researchers frequently emphasise service based engagement, experiential learning, and field interactions with social entrepreneurs as pedagogical elements central to developing the desired competencies [7]. However, findings suggest that pedagogies in educational research may fail to address coherent content scaffolding and an explicit body of knowledge grounded in operational SE practice. Moreover, SEE curricula often remain derivative of conventional entrepreneurship education, privileging business logic at the expense of the social objectives and systemic change integral to SE [12][13].

The reviewed SE literature contributed a diverse, although fragmented, conceptual vocabulary centred on dual value creation, including terms such as blended value, shared value, and triple bottom line outcomes to describe social and economic value creation, including environmental impacts. Foundational approaches to operational knowledge include stakeholder theory, which frames value creation for multiple stakeholders rather than only shareholders, and effectuation theory, which explains entrepreneurial action as means driven, partnership-oriented decision-making under uncertainty, underpinning the design of mission-oriented enterprise models presented in scholarly work [8][9]. A wide range of SE organisational models, spanning solidarity based and circular economies to hybrid legal structures described in the literature, illustrates the richness of dual value creation models in practice while posing challenges for curricular standardisation [11]. Nevertheless, definitional ambiguity, regional divergence in research focus, and disciplinary siloing impede the development of an integrated, globally applicable theory of dual value creation [19]. Interdisciplinary examination suggests that practitioner derived strategies and decision-making heuristics remain under theorised and under documented, despite their centrality to both social enterprise design and SE proliferation [17].

The examined IPE scholarship offers insight into the mechanisms of social and economic value creation in the socioeconomic and institutional contexts in which SE emerges and evolves. Contributions from the field inform analysis of capital flows, regulatory regimes, and the evolving role of the state in enabling or constraining social and economic value creation. However, prevailing paradigms such as Friedman's economic model or Keynesianism do not account for the role of actors pursuing both public benefit and market-based strategies [20]. Several theoretical strands that transcend economic logics, including Doughnut Economics [18] and Polanyi's theory of the embeddedness of economic activity within social systems [16], offer promising alternatives, though they remain marginal to dominant socioeconomic frameworks that centre on economic value creation. The implications for social enterprises arising from the lack of theoretical and institutional support within dominant socioeconomic systems remain underexplored in IPE research. Limited attention has been given to the positioning of SE within current socioeconomic structures. Moreover, areas such as economic governance, social justice, and institutional design have yet to be examined in depth in relation to SE.

Alongside academic literature, the pertinent knowledge review incorporates insights obtained through lived experience, indicating that culturally embedded models of dual value creation often shape SE practice while being excluded from scholarly texts. Cultural concepts are

found in regional academic and non academic texts and include Ubuntu and Harambee from sub Saharan Africa, which emphasise relationality and mutual aid; Jugaad, a South Asian concept denoting frugal, adaptive innovation focused on utilising resources efficiently and fostering community wellbeing; Smekalka, a Central European philosophy of resourcefulness and improvisation; and North American Indigenous cultural philosophies such as Ojibwe Minobimaadiziwin (the good life) and Cree Wahkohtowin (kinship and relational accountability). Analysis indicates that dominant literature from relevant disciplines rarely incorporates cultural frameworks, despite their demonstrated effectiveness in supporting the formation of social enterprises in practice. Cultural approaches illustrate diverse ontologies of dual value creation, reciprocity, and innovation, highlighting the need to expand the SEE knowledge base beyond dominant academic paradigms [18][19].

The review of knowledge pertinent to SE and SEE, combined with evidence from historical evolution, disciplinary analyses, and practitioner insights, suggests that transdisciplinary research approaches capable of integrating fragmented research with lived practice may generate the coherent knowledge base required to support dual value creation and the scaling of SE across cultures.

3.3 Analysis and Integration of Transdisciplinary Research

The analysis of scholarly literature suggests that SE scholarship fragmentation stems from a fundamental epistemological mismatch between disciplinary methodologies and complex adaptive systems governing SE practice. Dacin, Dacin, and Matear identify definitional disputes as fragmentation sources [9], while Al Issa, Thai, and Nguyen demonstrate that disciplinary isolation prevents knowledge integration [4], yet neither explains why decades of integration attempts have failed. Holland establishes that complex adaptive systems exhibit emergent properties and non linear dynamics that exceed the explanatory capacity of reductionist approaches [15]. Rockström et al. demonstrate that planetary boundaries constitute interconnected biophysical thresholds defining a safe operating space for humanity, representing system level constraints that no single discipline can adequately address [14]. Polanyi establishes that economic activity remains embedded within social relations as historical patterns of market expansion provoke social protection movements [16]. Santos extends these insights by demonstrating that SE addresses market failures through prioritising social value creation [8], while Weerawardena et al. provide empirical evidence that dual value creation constitutes the defining characteristic of sustainable socioeconomic systems [17]. The convergence reveals that SE problems involve complex adaptive systems requiring transdisciplinary approaches because disciplinary methodologies cannot capture system level dynamics governing dual value creation.

Human societies approach systemic conditions (planetary boundaries and dual value imperatives, as system level conditions we must work within) through binary, segmented solutions that fundamentally misalign with system complexity. Conventional approaches construct institutional frameworks that assign economic value creation to market actors and social value creation to civil society organisations, failing to recognise that dual value creation operates as an integrated phenomenon within socioeconomic systems [8][13][16]. Similarly, planetary

challenges receive segmented responses through disciplinary specialisation in climate science, biology, and geology, despite planetary boundaries operating as interconnected systems requiring integrated understanding [14]. Complex adaptive systems exhibit interconnected components that respond collectively rather than through isolated interventions, making segmented knowledge approaches structurally inadequate for addressing system level phenomena [15].

Analysis enables the identification of systemic conditions (planetary boundaries and dual value imperatives, which are system level conditions we must work within) and socioeconomic variables (governance models, financial instruments, cultural logics, and legal frameworks, as human designed systems subject to modification). Systemic conditions encompass planetary boundaries [14] and the imperative for dual value creation grounded in socioeconomic embeddedness [13][16]. Roy and Grant demonstrate that Polanyi's embeddedness theory reveals that the artificial separation of economic and social domains undermines system stability [13]. Attempts to violate these constants through prioritising narrow economic objectives or exceeding ecological limits provoke counter movements that undermine long term sustainability [8][17]. Socioeconomic variables encompass governance models, legal structures, financial instruments, and culturally specific logics as demonstrated by Defourny and Nyssens [12], Gazeley, Bennett, and Dupain [2], and Phillips, Luo, and Wendland-Liu [19]. Culturally embedded models of value creation such as Ubuntu and Jugaad illustrate that effective implementation constitutes contextually negotiated principles rather than universal formulas [7]. Both sets are framed here as dynamic systems that co evolve and interact across scales [14][15][16][18].

The distinction explains fragmentation: disciplinary methodologies excel at analysing socioeconomic variables within bounded domains but are ill suited to addressing system level interactions between systemic conditions and socioeconomic solutions [4][10]. Repko and Szostak establish that disciplines excel within their bounded domains but cannot address system level interactions between different knowledge domains [10]. For example, economics reductively frames planetary boundary crises as optimal resource allocation problems under scarcity constraints, neglecting social cohesion and equity prerequisites for collaborative solutions. Conversely, sociological analyses of social capital fail to integrate economic mechanisms required for sustainable resource distribution, overlooking material foundations of social stability. Raworth demonstrates that these dimensions constitute inextricably intertwined aspects of a single, complex socioecological system [18]. Regional fragmentation compounds the problem when disciplinary analyses mistake surface level, socioeconomic institutional expressions for core dual value creation phenomena, producing parochial definitions that impede knowledge transfer across contexts [12][19].

Dynamic systems complexity necessitates transdisciplinary integration because segmented knowledge cannot address the interconnectedness of social and economic values or planetary phenomena. Gibbons, Limoges, Nowotny, Schwartzman, Scott, and Trow establish that modified Mode 2 knowledge production integrates academic research with practical insight through heterogeneous, cross sector collaboration to address complex problems requiring cross domain synthesis [20]. Repko and Szostak demonstrate that transdisciplinary research integrates

knowledge across disciplinary boundaries through systematic methodology while maintaining theoretical rigour [10]. Traditional institutional mechanisms prove inadequate because policy remains constrained by territorial sovereignty and short term political cycles [2], while market mechanisms homogenise practice and undervalue social outcomes [3]. Research institutes and international organisations, despite enabling some transdisciplinary collaboration, remain constrained by institutional boundaries, funding dependencies, and formal structures that limit sustained practitioner researcher collaboration. Among available institutional mechanisms, education emerges as uniquely positioned to enable transdisciplinary integration because educational learning processes enable knowledge acquisition across contexts while educational environments support sustained collaboration between diverse actors.

SEE emerges as the viable pathway because educational systems possess fundamental institutional advantages for transdisciplinary integration that transcend limitations of policy and research mechanisms. Al Issa, Thai, and Nguyen establish that education enables sustained knowledge synthesis across disciplinary and geographical boundaries through collaborative frameworks that facilitate cross-regional learning and knowledge exchange [4]. Educational institutions operate through three specific mechanisms that enable modified Mode 2 knowledge production within academic contexts. First, education provides a conceptual apparatus to synthesise fragmented disciplinary insights into coherent frameworks organised around systemic conditions [4][10]. Second, education operates as a translational platform, generating common grammar, enabling diverse, culturally embedded models to gain recognition as legitimate expressions of universal principles [7]. Third, education fosters dialogical learning processes that integrate theoretical knowledge with practical insights across cultural contexts while aligning with globally connected generations demonstrating convergent sustainability norms [6]. Brkić and Shah demonstrate that educational approaches synthesising theoretical rigour with applied knowledge enable practitioners to navigate systemic conditions through creative redesign of socioeconomic variables across diverse cultural and institutional settings [7], leveraging cross sector experience as a methodological asset consistent with Mode 2 [20]. SEE, rooted in transdisciplinary research and knowledge co creation, provides the mechanism for generating integrated knowledge and cultivating globally aligned practitioners necessary for scaling dual value creation through collective social innovation [1], collaborative educational frameworks [4], and practical implementation across diverse cultural settings [7].

4. Designing a Transdisciplinary Social Entrepreneurship Education Model

The following subsection operationalises insights from the transdisciplinary investigation by providing an overview of the emerging educational architecture and pedagogical approaches for SEE, reporting iterative testing through the GSIL format, and evaluating the model in terms of the validity of anchoring learning and social enterprise design in systemic conditions and the contextual negotiation of socioeconomic variables.

4.1 Educational Design Architecture and Pedagogy

Building upon the analytical framework established in Section 3.3, which demonstrates that transdisciplinary integration constitutes the necessary approach for addressing complex systems affecting SE practice, an innovative SEE model was designed to operationalise these theoretical insights and enable global scaling of dual value creation. The educational architecture was implemented through the GSIL format, designed as an intensive two-week program convening multicultural and multidisciplinary teams to develop entrepreneurial solutions to complex global challenges that are both globally transferable and suitable for regional implementation Social innovation labs are structured, time bound initiatives that convene diverse cross sector participants to map system dynamics, co create and prototype interventions, and iterate toward scalable solutions, and are used across government, academia, philanthropy, and civil society to enable broad participation and experimentation [7]. The SEE model was constructed upon three foundational principles derived from transdisciplinary research and modified Mode 2 knowledge production [10][20].

First, the GSIL based SEE model anchors learning in systemic conditions (system level conditions we must work within) identified through the analytical framework. The curricular core structures high-level theoretical learning around two systemic conditions established in the analysis: planetary boundaries, which define ecological limits of enterprise activity [14], and the imperative of dual value creation, which reflects the embedded nature of economic activity within social relations [8][13][16]. The foundational focus provides learners with a universally relevant and immutable framework, shifting educational emphasis from debating disciplinary and regional definitions of SE to understanding mechanisms of dual value creation and designing entrepreneurial operational logic within limits imposed by dynamic systems beyond human control. Both systemic conditions and the socioeconomic variables are framed here as dynamic systems that co evolve and interact across scales [14][15].

Second, the model enables contextual negotiation of SE solutions through dialogical co-creation processes. While the ultimate objective of creating dual value within ecological limits remains fixed, the pathways for achieving practical results consist entirely of socioeconomic variables. The socioeconomic variables were communicated through mentorship structured by applied knowledge present in research describing operational logics, including organisational structures, financing mechanisms, and governance models that are both context and culture dependent. Consistent with transdisciplinary design guidance [4][10], the adopted pedagogy operates fundamentally through dialogical processes [7], facilitating collaborative learning processes wherein learners, mentors, and practising social entrepreneurs from diverse regions co-create venture concepts. The approach explicitly acknowledges that effective operational models must achieve global transferability while maintaining context-specific implementation, shaped by localised cultural logics such as Ubuntu or Jugaad, institutional frameworks, and resource availability [2][12].

Third, the model decentralises knowledge through adaptive facilitation mechanisms. Rejecting static, prescribed curricula, the SEE design offers structured processes and curated

knowledge bases comprising clusters of theoretical perspectives, from dominant economic paradigms to alternative and culturally grounded frameworks. Facilitators and mentors are empowered to adapt instructional strategies in real time, drawing flexibly upon educational theories from Vygotsky's dialogical learning to Freire's critical pedagogy that best respond to learners' unique cultural and disciplinary composition [7]. The approach creates dynamic, practice-informed learning environments where knowledge undergoes co-creation rather than transmission.

4.2 Iterative Testing through Global Implementations

The SEE model underwent testing and refinement through four sequential GSIL implementations conducted between 2021 and 2025, engaging over 200 learners who participated voluntarily without academic credit or financial reward, in collaboration with 12 partner universities across Asia, Europe, North America, and South America. The GSIL implementations were conducted through the researcher's social enterprise under Mitacs funding, operating as an action-based investigation. The objective was to test the model's viability for adoption by educators and practitioners in the SE field by leveraging cross sector experience as an advantage consistent with modified Mode 2 [20]. GSIL design deliberately constrains outcomes to concept development, leaving subsequent implementation to local SEE ecosystems, thereby representing only the initial step in viability assessment rather than comprehensive entrepreneurial validation.

Across four GSIL iterations, the model was evaluated at the concept development stage using a standardised timeframe and structured feedback. Iterations ranged from a fully online lab hosted in China with more than 100 participants to on site implementations in Croatia with forty Erasmus students and a community lab in Bolivia with 12 participants, with a final iteration delivered from Canada in hybrid format with 25 participants. All academics, social entrepreneurs, and participants engaged voluntarily, without academic credit or financial reward. Evidence comprised facilitators' accounts, mentors' assessments, participant feedback, and post program interviews that captured feasibility ratings and perceived transferability [7]. Core outputs included social enterprise models, demos, and implementation roadmaps. The focus remained at concept development rather than enterprise launch, which aligned with the testing focus on early-stage design and knowledge integration [4][7][10][20].

The inaugural laboratory in 2021 operated virtually during the COVID 19 pandemic, engaging over 100 participants from Canada, Mexico, and China, organised in cross continental teams. Focusing on global health and wellness challenges, the iteration served as a critical proof of concept, demonstrating that virtual, cross-cultural collaboration focused on dual value creation proved not only feasible but effective under highly constrained conditions. Primary findings revealed the critical constraint posed by the absence of a coherent, universally accepted SEE knowledge base, which limited learners' capacity to implement robust SE concepts as practical solutions across contexts [7].

A second iteration occurred on site in Croatia in 2023, focusing on restoration of the Preluk waterfront. The lab engaged Erasmus students from Europe, South Korea, and North Africa to test the model's efficacy within specific place-based contexts. The experience confirmed the model's

capacity for integrating community revitalisation, environmental sustainability, and economic development within localised settings, demonstrating GSIL applicability beyond virtual formats.

A supplementary community-based laboratory was conducted to assess the model's applicability for non academic learners. While the educational design effectively fostered collaboration, the context highlighted logistical limitations. The duration of the lab did not permit sufficient time to communicate a structured, transdisciplinary knowledge base to community learners with varied availability for participation, forcing the focus to shift toward generating scalable concepts for regional implementation rather than constructing global solutions.

The last lab operated in hybrid format from Canada in 2024, creating transcontinental learning environments that connected participants from North and South America, Europe, and Asia. The iteration successfully demonstrated the model's scalability and adaptability across complex delivery modalities, further validating the core design principle that systemic conditions provide stable foundations for highly variable, flexible implementations of SE solutions in practice.

Testing of the GSIL model underscored the necessity for further transdisciplinary research, knowledge integration, and cross-cultural collaboration to facilitate enterprise incubation across regions. Project outcomes demonstrate that GSIL effectively facilitates initial concept development within transdisciplinary frameworks, while empirical validation of enterprise implementation requires long term longitudinal studies beyond the scope of the current research. The final SEE model provides a tested foundation for further development of transdisciplinary knowledge focused on dual value creation, with implementation success dependent upon local SE ecosystem capacities to support incubation and institutional support mechanisms.

4.3 Model Efficacy and Design Implications

Iterative testing of the SEE model through GSIL implementations generates several key findings regarding the model's design and capacity to facilitate transdisciplinary knowledge integration. The implementations provide evidence that educational frameworks anchoring learning in systemic conditions while enabling contextual negotiation of socioeconomic variables can effectively engage learners across diverse cultural and disciplinary backgrounds [4][7]. The model architecture, combining conceptual coherence around planetary boundaries and dual value creation with practical flexibility for regional adaptation, demonstrates viability for cross-cultural implementation, evidenced by voluntary participation and enthusiasm of learners, facilitators, and educators across four GSIL implementations, with sustained time commitment and positive post implementation feedback confirming intrinsic motivation to engage in collaborative global solution development.

GSIL implementations successfully created structured environments for dialogical knowledge co creation across disciplinary and regional boundaries. Participants consistently employed dual value creation logic to navigate and integrate diverse disciplinary perspectives and cultural frameworks, moving beyond isolated disciplinary approaches [7]. Cultural philosophies such as Ubuntu and Jugaad emerged as facilitating rather than constraining factors, providing

shared conceptual bridges that enhanced personal connections and offered non-Western paradigms for understanding dual value creation [7].

Testing iterations converged on a critical finding: while pedagogical processes effectively facilitated collaboration and concept development, the absence of a coherent, transdisciplinary SEE knowledge base constituted the primary constraint limiting participants' capacity to develop robust, implementable solutions. Participants demonstrated consistent ability to understand fundamental principles embedded in systemic conditions but encountered difficulties translating these principles into practical operational frameworks due to fragmented, under theorised applied knowledge base. The finding validates the research argument that transdisciplinary knowledge integration constitutes the essential prerequisite for effective SEE capable of supporting systematic dual value creation in practice [4][7][10].

Transferability of global solutions into regional contexts was achieved through flexible adaptation. For example, one cross continental team addressed mental illness and depression by designing an internet based pathway to regional experts in traditional medicine, leveraging local networks that team members in Mexico, China, and Canada possessed to connect those in need with appropriate practitioners, while adapting democratic team governance, referral protocols, cultural framing, and financing instruments across the three contexts [4][7][12].

The GSIL model provides an educational architecture for facilitating initial stages of transdisciplinary SE concept development. Testing demonstrates that processes anchored in systemic conditions and facilitated through dialogical knowledge co creation can unite diverse learners across disciplines and contexts for conceptual work. However, the model's capacity to support comprehensive enterprise development remains contingent upon availability of an integrated, transdisciplinary knowledge base that the current research framework addresses. Future development requires systematic knowledge integration rather than further pedagogical innovation to create coherent, globally applicable content that supports both SE education and practice.

5. Conclusion and Research Implications

The following subsection synthesises the study's results by articulating the principal research findings and theoretical contributions, clarifying how systemic conditions and socioeconomic variables together justify a transdisciplinary pathway for scaling SE through education.

5.1 Research Findings and Theoretical Contributions

The study addressed the research question by demonstrating that the transdisciplinary research pathway constitutes the necessary approach for developing educational frameworks capable of supporting dual value creation across diverse institutional and geographical contexts. The presented investigation establishes that persistent fragmentation in SE scholarship stems from a fundamental epistemological mismatch between disciplinary methodologies and complex systemic conditions that guide SE practice [4][15].

The primary theoretical contribution involves developing an analytical framework distinguishing systemic conditions, planetary boundaries and dual value imperatives, that act as

constraints from socioeconomic variables including governance models, financial instruments, cultural logics, and legal frameworks that are human designed systems subject to modification. The distinction provides an ontological foundation for understanding why disciplinary approaches fragment SE knowledge and why transdisciplinary integration becomes necessary for effective knowledge synthesis [4][14][16]. The framework reframes the central challenge from defining SE through both systemic conditions and socioeconomic variables to operationalising dual value creation principles across diverse global contexts through educational mechanisms.

The practical contribution involves designing and testing the GSIL model as an educational architecture rooted in transdisciplinary knowledge integration as the SEE foundation. Testing conducted through four implementations engaging close to 200 participants across formal and informal educational contexts demonstrates the model's viability for facilitating cross-cultural, cross disciplinary collaboration centered on dual value creation through entrepreneurial action [7]. Testing revealed that education, understood in a broader context of both formal and informal learning, provides operational mechanisms for sustained knowledge synthesis across geographical and disciplinary boundaries while remaining less constrained by territorial and temporal limitations affecting policy and market mechanisms [4][6].

The research identifies education as a viable pathway for scaling SE practice and generating human responses to social and environmental challenges by enabling synthesis of fragmented disciplinary insights with practical wisdom required for navigating systemic conditions through institutional redesign. The study establishes that SEE rooted in transdisciplinary research and dialogical pedagogy involving knowledge co-creation provides mechanisms for generating integrated knowledge and cultivating globally aligned practitioners necessary for supporting dual value creation as a systemic approach to complex social challenges [1][4][7].

5.2 Limitations and Future Research Directions

This study has several limitations that delineate the scope of the findings. The proposed educational strategy was limited to ideation and prototype development rather than full enterprise launch and market validation, so outcomes related to implementation, scaling, financing, and governance remain undetermined and warrant further testing. Participation was voluntary, which may introduce self selection toward highly motivated learners and mentors and limit generalisability to mandated programs. Moreover, the proposed framework, although grounded in a systematic literature review and practice insights, requires broader validation and testing. The distinction between systemic conditions and socioeconomic variables requires further research to operationalise dual value creation mechanisms across contexts.

Future research should examine adaptation of the model in corporate innovation programs, as well as community and incubator settings. Finally, collaborative efforts to build open repositories of concepts, cases, tools, and decision rules would advance a consolidated transdisciplinary knowledge base for SEE and SE practice [7][13][20].

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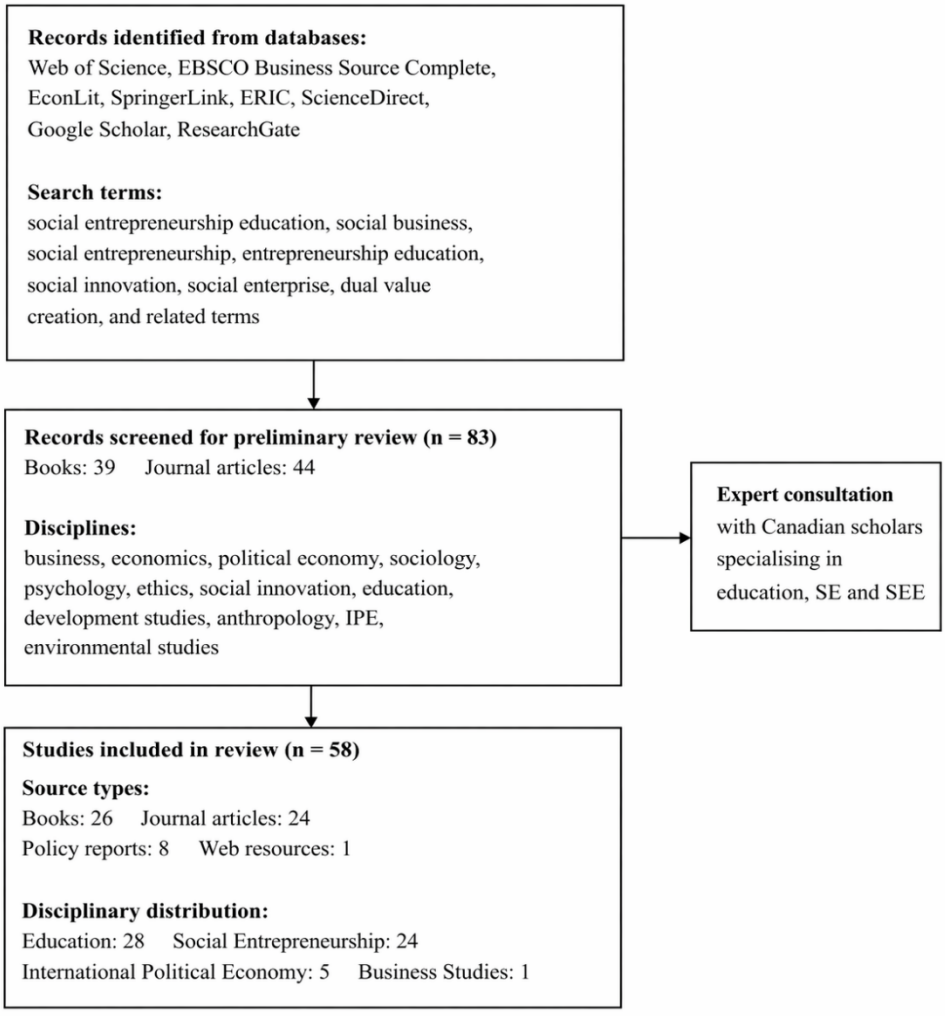
Appendix 2: PRISMA Literature Review for Chapter 3

The PRISMA chart below illustrates the SLR in the initial literature review presented in Chapter 3. To ensure transparency in the identification and selection of relevant literature, the systematic literature review process described in Sections 3.2.2–3.2.2.2 is summarised visually using a PRISMA flow diagram. The diagram illustrates the sequential stages through which the initial body of literature was identified, screened, refined through expert consultation, and narrowed to the final set of sources used in the structured literature review.

The visualisation complements the textual explanation of the literature search procedures by showing how the broad interdisciplinary search across multiple databases and keywords was progressively refined to identify the most relevant disciplinary contributions to SE and SEE. The PRISMA framework therefore provides a transparent representation of the methodological steps used to construct the interdisciplinary knowledge base supporting the analysis.

Figure Literature Review: PRISMA Chart



As illustrated in the diagram, the initial database search produced a broad pool of literature across multiple academic repositories and open access platforms. Following the keyword search

strategy described in Section 3.2.2 83 scholarly sources were selected for preliminary screening, consisting of 39 books and 44 journal articles spanning several disciplines including business, economics, sociology, political economy, education, development studies, anthropology, and environmental studies.

After the preliminary screening stage, the literature set was refined through expert consultation with scholars specialising in education, SE, and SEE, which helped establish the relevance of key theoretical works and identify gaps in the emerging literature set. This step corresponds to the narrowing procedure described in Section 3.2.2.1.

The expert-informed refinement resulted in a final corpus of 58 sources, consisting of 26 books, 24 journal articles, eight policy reports, and one web-based resource, which were subsequently subjected to full-text review and thematic analysis. The disciplinary distribution of this narrowed set reflects the interdisciplinary nature of the research problem, with the majority of sources originating from education (28 publications), SE scholarship (24 publications), and international political economy (five publications), alongside one contribution from business studies.

While the PRISMA diagram visualises the initial selection and narrowing of the literature to 58 sources, the literature review continued to evolve during the subsequent analytical phases of the research. As described in Chapter 3, the iterative logic of the IRP required revisiting the literature with refined search parameters, resulting in a total of 116 sources formally examined within the systematic review corpus, with additional references consulted to support conceptual clarification and theoretical integration.

Expert consultations were conducted to assess the adequacy, relevance, and contextual breadth of the emerging knowledge synthesis. Consultations included thesis advisors Dr. Wiebe, Dr. Stambouli, Dr. Wilson, Dr. Szostak, and Dr. Pauley; scholars from the European Latin-American Network in Support of Social Entrepreneurs (ELANET); Dr. Mair, Dr. Bacq, and Dr. Day; scholars providing feedback at ISIRC 2024 and the Social Entrepreneurship Summits in 2024 and 2025; and regional experts Dr. Baturina and Dr. Slavec in Croatia and Slovenia, Dr. Zuccolo and Dr. Farooque in Prince Edward Island, and Dr. Coelho and Dr. Magnus-Johnson in Manitoba. Academic expert consultations were further expanded in thesis to include SCNU scholars Dr. Ma and Dr. Yun, whose expertise in complexity science and systems theory informed the assessment of the theoretical synthesis. Consultations also drew on scholars within the EMES International Research Network, of which the researcher is a member, providing additional interdisciplinary perspectives on SE research.

Appendix 3: Systematic Literature Review and PRISMA Chart for Article 2

In order to deepen the analysis, the literature base examined in Chapter 3 underwent systematic expansion from narrowed body of 58 scholarly sources to ultimately incorporating 116 sources in the synthesis presented in Article 2 (Brkic, 2025) that integrates, structures and synthetises pertinent insights into an SEE knowledge base.

As the researcher developed adequacy within education, SE, and IPE disciplines, the critical analysis phase revealed conceptual gaps and theoretical tensions that necessitated returning to the literature with refined search parameters and expanded analytical frameworks. The iterative process did not represent a methodological inconsistency but rather demonstrated the IRP's adaptive integration principle, wherein provisional insights generated at each analytical stage are systematically revisited and refined through cross-disciplinary comparison (Repko & Szostak, 2025).

The literature expansion occurred through three primary mechanisms, each responding to specific analytical needs identified during the critical analysis and integration phases. Expanded expert consultations in North and South America, Europe and Asia contributed additional sources to the knowledge base. As the researcher engaged with scholars specialising in SE, IPE, and education in different regions, during the adequacy development phase, these experts identified seminal works and recent contributions that addressed emerging theoretical questions.

This consultative process proved particularly valuable for identifying scholarship at disciplinary intersections, where conventional database searches using predetermined keywords failed to capture relevant contributions. Expert recommendations ensured the inclusion of foundational theoretical frameworks and methodological innovations that informed the interdisciplinary synthesis (Pittaway & Cope, 2007).

In addition, the researcher's participatory engagement through academic conferences, practitioner networks, and cross-continental teaching experiences yielded additional sources. These channels provided access to emerging research, regional case studies, and practice-informed scholarship not yet indexed in major academic databases.

The researcher drew on input from scholars whose academic career focuses on SE at conferences such as the International Social Innovation Research Conference (ISIRC) as well as SE practitioners as well as scholars networks within EMES and ELANET that include universities and social enterprises from Asian, Europe, Africa and South America. This participatory dimension proved essential for incorporating Global South and global East perspectives and culturally grounded frameworks that mainstream literature often marginalises (Defourny & Nyssens, 2017; Banerjee et al., 2020).

Finally, the analysis generated additional literature requirements as the process of interdisciplinary integration advanced, necessitating the inclusion of pertinent sources that connect systems theory and complexity science to dual value creation processes.

Similarly, the identification of culturally embedded approaches to value creation presented in Chapter 5 necessitated incorporating scholarship on Ubuntu philosophy (Nabudere, 2005), Islamic economics (Anisa, 2024), Buddhist economics (Herman, 2024), and Gandhian thought

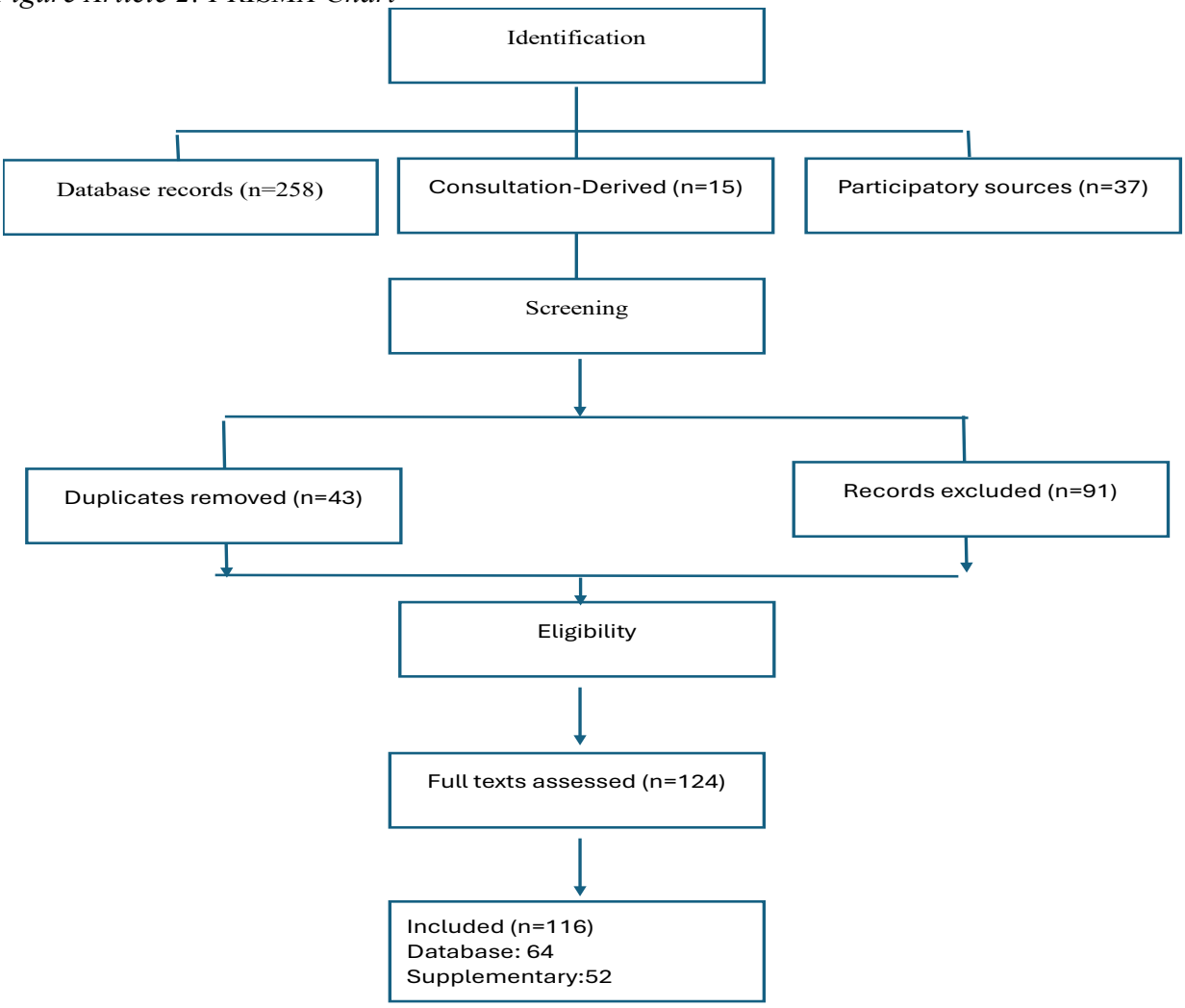
(Chakrabarti & Roy, 2024). These additions emerged not from the initial search protocol but from analytical insights obtained through researcher's activities as a social entrepreneur over five years, revealing that Western-centric frameworks provided insufficient theoretical pluralism for globally inclusive SEE.

The expansion also incorporated six bibliometric studies examining SE and SEE publication trends, international collaboration patterns, and disciplinary evolution. Sources by Saebi et al. (2019) and Shahid and Alarifi (2021), provided meta-analytical perspectives on the field's development, revealing structural patterns in knowledge production that informed the interdisciplinary synthesis.

Bibliometric and Thematic Overview

This appendix presents a bibliometric and thematic analysis of the 116 references cited in the Chapter 4 and Chapter 5, The PRISMA chart below shows the literature selection process.

Figure Article 2: PRISMA Chart



The analysis of literature used in the Chapter 4 and Chapter 5 examines regional origin, disciplinary domain, publication language, and authorship background to assess the knowledge

base's global inclusivity, interdisciplinary coherence, and practitioner relevance. The final selection of literature was sourced from peer-reviewed journals and major academic databases to ensure scholarly rigour.

The literature selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework; Figure A illustrates the stages of sources identification, screening, eligibility, and final inclusion.

This appendix presents a concise overview of the literature review supporting this paper. References were sourced from academic databases (Scopus, Web of Science, EBSCO) and expert recommendations. Two traditional methodology texts were cited but excluded from formal analysis. Fifteen peer-reviewed sources were suggested by scholars during doctoral research at Saint Paul University (SPU), contributing key methodological insights. Another 37 were identified through participatory channels, including academic conferences and practitioner networks. All sources underwent consistent screening for scholarly rigour, relevance to SEE, and conceptual or methodological coherence. Works lacking educational applicability or transferable insights were excluded. This mixed-source approach broadened scope while maintaining analytical integrity.

To assess geographic inclusion, references were categorised by institutional affiliation (Global North as high-income OECD; Global South as low/middle-income) and content orientation prioritising Global South epistemologies regardless of venue. Of 116 references, 58 (50%) originated from Global North institutions, 30 (25.9%) from the Global South, and 28 (24.1%) were mixed. Most were published in globally circulated journals with authors spanning regions, reflecting growing collaboration. While Global North dominance persists, the inclusion of Global South and mixed-origin sources marks progress toward epistemic inclusion. The classification approach aligns with established bibliometric methods and is replicable.

Disciplinary analysis based on keywords, journal scope, and content revealed a pluralistic knowledge base. Twenty-four sources (21%) addressed SE, nine (8%) focused on education, and 24 (21%) on political economy. Fifteen (13%) integrated SE and education, while 44 (38%) adopted interdisciplinary or multidisciplinary approaches. Classification distinguished between integrated (interdisciplinary) and parallel (multidisciplinary) engagement. These findings confirm SEE as an interdisciplinary domain of study rather than a standalone one discipline field.

In response to calls for research–practice integration, references were analysed by authorship. All 116 were peer-reviewed or published by scholarly presses. Although Muhammad Yunus bridges academic and practitioner domains, over 99% of sources were authored by academics. Only one originated from a non-academic practitioner, highlighting a persistent gap in co-created knowledge. Despite targeted efforts, the field remains dominated by academic voices. As a practising social entrepreneur, the author contributes a rare, applied perspective, addressing a core omission in SEE research (Kickul & Lyons, 2012).

Eleven references (9%) explicitly address pedagogy, curriculum, or SE in education. This proportion is modest but indicates that the paper engages with SEE alongside its broader interdisciplinary scope. The review's global, interdisciplinary, and applied orientation supports the paper's conceptual synthesis and practical contribution. The bibliometric analysis allowed the

paper to identify which theoretical frameworks achieved institutional uptake, which geographic regions dominated scholarship, and which conceptual tensions persisted across disciplinary boundaries. Throughout this iterative expansion, the dual value creation criterion established in Chapter 1's SE redefinition functioned as the primary evaluative lens, ensuring that newly incorporated sources contributed substantively to understanding how enterprises simultaneously generate economic and social value.

Sources addressing only economic value creation, only social impact, or peripheral dimensions of strictly business entrepreneurship education were excluded from the expanded literature base, maintaining analytical coherence despite the broadening scope. The iterative literature expansion also responded to the transdisciplinary imperative identified during the critical analysis phase. The initial narrowed selection of 58 sources, while establishing disciplinary adequacy, proved insufficient for addressing the knowledge implementation gap between academic research and practitioner experience.

The expanded literature base incorporated practitioner-oriented publications, policy reports from organizations including the OECD (2019, 2021), and regionally specific case studies documenting SE practice across diverse institutional contexts. This transdisciplinary turn acknowledged that SE originated in practice before academic theorization (Dees, 1998; Mair & Martí, 2006) and that educational frameworks must integrate experiential knowledge alongside scholarly contributions (Nowotny et al., 2013).

The expanded literature base maintained the geographic and disciplinary diversity established in the initial selection while broadening representation of Global South scholarship, alternative economic frameworks, and culturally embedded innovation logics. Of the 116 sources analyzed in Article 2, 58 originated from Global North institutions, 30 from the Global South, and 28 reflected mixed-origin collaboration (Brkic, 2025).

The interdisciplinary analysis, integration and final synthesis, presented in Article 2, Chapter 4 and Chapter 5 draw on the complete set of 116 sources. The PRISMA chart provides a detailed visual summary of the SLR process supporting the analysis. The interdisciplinary analysis, integration, and final synthesis presented in Article 2 and in Chapter 4 Chapter 5 draw on the complete set of 116 sources identified through the systematic literature review. The PRISMA chart provides a visual summary of the core sources that informed both the article and the analytical and integrative components of the thesis.

The introduction and discussion surrounding Article 2 required engagement with additional scholarship that addressed conceptual, methodological, and contextual issues that were not fully represented in the initial systematic literature review. These sources were incorporated to respond to specific advisor commentary, clarify conceptual boundaries, and strengthen the interpretive and methodological framing of the research. Although these additional sources are not depicted in the PRISMA chart, they have been included in the comprehensive reference list for this thesis, ensuring transparency and completeness of scholarly documentation across all chapters.

Appendix 4: Literature Review - Systems Theory and Complexity Science

The analytical foundations of systems theory originate in the natural sciences, where von Bertalanffy (1968) developed general systems theory as a framework applicable across disciplinary boundaries. Central to this framework is the distinction between closed and open systems. Closed systems are internally bounded entities that tend toward equilibrium through dissipation of internal energy, whereas open systems maintain structure through continuous exchange of resources, information, and energy with their environments. Von Bertalanffy (1968) argued that living organisms, and by extension social organisations, function as open systems whose viability depends on sustained environmental exchange rather than internal self-sufficiency.

Building on these foundations, Katz and Kahn (1966) explicitly applied open systems reasoning to organisations. Their contribution introduced entropy as a central analytical concept for understanding organisational sustainability. Within general systems theory, entropy denotes the tendency of organised systems toward disorder and structural decay unless counteracted through adaptive exchange processes and feedback regulation. Katz and Kahn (1966) argued that sustained organisational structure requires the continuous importation and transformation of inputs to counter entropic decay, grounding organisational viability not in managerial efficiency alone but in the systemic requirement to maintain order within open, dynamic environments. This application of entropy to organisations established a direct theoretical lineage connecting general systems theory to the analysis of social institutions, demonstrating that the tendency toward disorder is a structural condition of all open systems rather than a contingent organisational failure.

Meadows (2008) subsequently synthesised key principles of systems thinking for a broader analytical audience, elaborating on how feedback loops, stocks, flows, and system boundaries operate across physical, biological, and social systems. Her work reinforced the foundational proposition that systems maintain viability through adaptive feedback and reorganisation, and that failures of adaptation produce systemic disorder consistent with entropic processes. Together, these foundational contributions established open systems theory as a legitimate and generalisable framework for analysing organisational behaviour within dynamic environments.

Complexity science developed as a distinct but related tradition, building on systems theory while extending its explanatory range to account for nonlinear dynamics, emergence, and irreversible system transitions. Prigogine (1984) demonstrated that far-from-equilibrium conditions in physical and chemical systems produce self-organising structures through dissipative processes, establishing a theoretical basis for understanding how order arises from disorder in open systems. This insight challenged linear equilibrium models and positioned emergence as a systemic property rather than an anomaly.

The formal modelling of emergent phenomena in complex systems draws on bifurcation theory and dynamical systems constructs, treating system behaviour as sensitive to initial conditions and capable of undergoing qualitative transitions at critical thresholds. Within complexity science, an attractor refers to the state or set of states toward which a dynamical system tends to evolve over time. When a system undergoes a bifurcation, it transitions between attractors, producing qualitatively new configurations that cannot be predicted from the prior state alone.

These concepts provide precision to the otherwise general claim that complex systems exhibit emergent properties, enabling formal analysis of the conditions under which systems reorganise rather than merely adapt.

Complex adaptive systems theory further extended complexity science by foregrounding the role of agents, interaction networks, and adaptive mechanisms in producing emergent system-level patterns. Within this framework, macro-level regularities are understood as arising from micro-level interactions rather than being imposed by central design. Feedback between system levels, interdependence among agents, and sensitivity to environmental perturbation collectively account for the adaptive behaviour and structural resilience observed in complex social and biological systems.

The transfer of systems theory and complexity science frameworks into social science disciplines has historically encountered epistemological hesitation and extended adoption timelines (Katz & Kahn, 1966; Meadows, 2008). Systems theory and complexity science originated in the natural sciences and have been widely adopted in applied fields such as engineering and medicine, where they have informed core theoretical developments (von Bertalanffy, 1968; Prigogine, 1984). Social science engagement with these frameworks has been more gradual, reflecting concerns about the validity of importing natural science ontologies into the analysis of historically contingent and institutionally diverse human systems. Nevertheless, scholars across disciplines have increasingly argued that human societies function as subsystems of natural processes and are therefore subject to the same systemic conditions governing other open dynamic systems.

Within SE scholarship, a limited but identifiable strand of contributions positions the phenomenon within systems-oriented frameworks. The conceptual meaning of system, the level of analysis, and the theoretical depth of engagement vary substantially across these contributions. The most analytically consequential works are those that treat systems dynamics not merely as contextual background but as an explanatory foundation for emergence, adaptation, and structural characteristics of social enterprise.

The most formal integration of SE with complexity science is provided by Goldstein et al., (2010). Their model conceptualises social innovation in social enterprise as the emergence of a new attractor within a nonlinear dynamical system. Drawing on bifurcation theory and dynamical systems constructs, they frame social entrepreneurship as a process of criticalisation and systemic recombination, examining the conditions under which social innovation emerges or is inhibited in enterprise practices. SE is positioned as collective novelty generation arising from nonlinear interaction effects rather than incremental managerial improvement. This contribution is theoretically significant because it introduces formal explanatory mechanisms from complexity science rather than relying on metaphorical invocations of complexity, treating social innovation as a system transition grounded in nonlinear dynamics.

Complementing this contribution, Dessureault (2020) advances an explicit open systems interpretation of social entrepreneurship, arguing that the phenomenon is frequently treated as a closed system in the literature and proposing open systems theory as an ontological corrective.

Social entrepreneurship is conceptualised as an active adaptive system embedded in and co-evolving with its environment. Although methodologically grounded in heuristic inquiry, this work represents one of the few explicit attempts to anchor social entrepreneurship within open systems theory at an ontological level. Its central contribution lies in asserting that environmental exchange, adaptation, and contextual embeddedness are defining properties of social enterprise rather than peripheral contingencies.

Ra (2022) further extends this systems engagement by proposing a conceptual framework for social entrepreneurship grounded in entropy theory, arguing that social ventures reorganise dispersed resources into structured configurations that reduce systemic disorder. Within general systems theory, entropy refers to the systemic tendency toward disorder under conditions of constraint, which systems counter through adaptive feedback and reorganisation (Meadows, 2008). Ra's work represents a direct attempt to interpret social entrepreneurship through systems theory supplemented by an entropy lens, connecting organisational viability to the entropic dynamics first identified in open systems theory by von Bertalanffy (1968) and Katz and Kahn (1966). Parallel developments in network science extend entropy reasoning to social organisations more broadly: Zingg, Casiraghi, Vaccario, and Schweitzer (2019) demonstrate how entropy may serve as an analytical measure of configurational flexibility and structural constraint within complex social systems. Within management and strategy literature, entropy has also been operationalised as uncertainty or environmental turbulence, with Ceptureanu, Ceptureanu, and Popescu (2017) examining entropy as informational and environmental uncertainty that conditions corporate entrepreneurship through organisational capabilities.

Other contributions engage systems language in more operational or multilevel terms. De Ruysscher, Claeys, and Vanheule (2016) propose a systems approach structured through a program logic model linking inputs, throughputs, and outcomes across micro, meso, and macro- levels. Social entrepreneurship is positioned at the intersection of system levels and attributed a mediating function between individual enterprise requirements and macro-level constraints. Their model clarifies multilevel elements and causal sequences, though it does not advance general systems theory or complexity science explanations of why social enterprise emerges as a recurrent organisational response. At a macro-structural level, Nabiyeva and MacNeil (2025) situate social entrepreneurship within sociotechnical transition theory through the Multi-Level Perspective, arguing that existing approaches frequently overlook the macro-systems within which social ventures operate and which they seek to transform. Their framework conceptualises social entrepreneurship as a multi-actor, multi-level system change process in which alignment of forces across niche, regime, and landscape levels shapes transformation outcomes. Social needs are characterised as systemic and interconnected, persisting through interactions among actors and institutional contexts.

Recent scholarship further extends systems engagement through ecosystem and complex adaptive systems perspectives. Bhardwaj, Srivastava, Bindra, and Sangwan (2023) conceptualise social entrepreneurship through an ecosystem lens informed by systems thinking, foregrounding interdependence, feedback, holism, and relational dynamics. Akinboade et al. (2023) analyse

social enterprise business model design within complex local government service environments framed as complex adaptive systems, identifying adaptive mechanisms such as stakeholder trust networks and iterative design processes as responses to contextual complexity. These contributions advance systems terminology beyond metaphorical usage, though they function primarily as analytical lenses for interpreting adaptive organisational behaviour rather than as formal ontological accounts of dual value creation across nested system levels.

Importantly, this systems-oriented strand is not geographically confined. Trivedi and Misra (2015) explicitly ground social entrepreneurship in general systems theory and scientific holism, arguing that effective practice requires understanding social problems as interdependent systems characterised by feedback and emergence. Ramírez (2022) directly links *emprendimiento social* with *teoría de sistemas* in proposing system-theoretically guided intervention strategies. Within broader *Economía Social y Solidaria* debates in Latin America, complex systems and *pensamiento complejo* are mobilised to conceptualise alternative economic organisation and territorial development as embedded within dynamic socioeconomic systems. Colombian scholarship on i*nnovación social* similarly situates related practices within frameworks of systemic interdependence and multilevel interaction. In the Chinese context, Cheng and Tang (2026) frame entrepreneurship research from a dynamic complex systems perspective, employing systems thinking as a theoretical foundation in empirical modelling and reflecting a scholarly orientation that treats entrepreneurial activity as embedded within evolving complex systems rather than as atomised firm-level behaviour.

Elements consistent with systems and complexity reasoning can also be identified implicitly in segments of mainstream social entrepreneurship scholarship that does not explicitly invoke these theoretical traditions. Santos (2012) frames social entrepreneurship as a response to positive externalities and value creation failures embedded within interconnected social and economic structures, a formulation consistent with viewing the socioeconomic environment as an interdependent system characterised by cross-boundary effects and the need for adaptive organisational forms. Pache and Santos (2013) conceptualise hybrid organisations as navigating competing institutional logics through dynamic interaction and structural adaptation, processes that parallel the management of interdependent tensions and feedback-driven reconfiguration essential to maintaining viability in complex systems (Meadows, 2008; Katz & Kahn, 1966). Smith, Gonin, and Besharov (2013) analyse the persistent paradoxes in hybrid organisations as requiring continuous balancing, a formulation that aligns with the concept of maintaining dynamic equilibrium through iterative adjustment and feedback, which is a cornerstone of both open and complex adaptive systems theory (Meadows, 2008).

These reviewed contributions demonstrate that engagement with systems theory and complexity science in relation to social entrepreneurship, although not dominant, appears across diverse scholarly and regional contexts. Governance and financing arrangements appear as contextual configurations, while the core analytical concern increasingly centres on interaction, adaptation, and systemic constraint rather than on categorical classification. However, the proposed approaches remain conceptually differentiated. Complexity science models emphasise

emergence without integrating institutional variation. Transition theory highlights structural change without specifying organisational viability conditions. Open systems interpretations stress environmental exchange without clearly distinguishing systemic requirements from socioeconomic design variables. Ecosystem and business model approaches document adaptive practices without generalising them into explanatory principles.

Consequently, while the literature increasingly acknowledges system dynamics, it does not converge on a consolidated account of why dual value creation recurs across contexts or what conditions make it sustainable within open dynamic social systems. Contemporary social entrepreneurship scholarship continues to struggle with a deeper explanatory question: why dual value creation emerged as a persistent organisational form, how it operates across varied institutional contexts, and how such enterprises sustain viability within socioeconomic systems where most organisations optimise exclusively for economic value generation (Santos, 2012; Bacq & Janssen, 2011). This limitation has direct implications for social entrepreneurship education, as learners require a coherent explanatory logic capable of distinguishing systemic requirements from context-specific institutional arrangements. Addressing this gap requires moving beyond describing system interaction to clarifying the relationship between systemic conditions, institutional architectures, and organisational viability, a relationship that is essential for explaining the persistence of dual value creation across diverse socioeconomic settings.

Appendix 5: Glossary of Key Terms

Andragogy - Adult learning theory emphasising problem-centered, experiential education oriented toward immediate relevance and application (Knowles, 1984; Mezirow, 1991). Provides the foundational pedagogical lens for SEE because social entrepreneurship requires learners to apply knowledge in authentic socioeconomic environments.

Community Embeddedness - Legitimacy derived from responsiveness to local needs, informal knowledge exchange, place-based relationships, and adaptive capacity rather than from official recognition or policy alignment. Enables sustained SEE provision where formal institutional structures are absent but may limit systemic scalability and cross-regional transferability of knowledge (Lave & Wenger, 1991; Lionais, 2015).

Complexity Science - Study of systems characterised by nonlinear interaction, feedback loops, and interdependence that cannot be understood through isolated analytical approaches (Holland, 1995). Identifies dual value creation as operating within the intermediate zone where innovation and adaptive learning occur most effectively.

Conceptual Framework - Two-tier knowledge organization structure adapted from professional education, linking high-level theories explaining dual value mechanisms with operational tools for implementation (Shulman, 2005; Biggs & Tang, 2011).

Dual Value Creation - The simultaneous generation of social impact and financial sustainability, identified as the defining characteristic of social entrepreneurship (Santos, 2012; Bacq et al., 2022; Dees, 2007). Operates simultaneously across ecological, social, and economic systems.

Dual Value Imperative - The fundamental requirement that sustainable systems generate reciprocal exchange between individual extraction and collective contribution. Reflects what Polanyi (1944/2001) identified as the embeddedness of economic activity within social relations.

Economic Value - Throughput efficiency in systems terms, reflecting the necessity of operating within resource constraints and generating sufficient exchange to maintain system functions.

EMES Framework - European research network framework identifying ideal-type social enterprises through empirically grounded indicators including democratic governance, limited profit distribution, and participatory stakeholder engagement. Occupies a hybrid position mediating between dominant economic paradigms and normative alternatives, translating value-driven aims into operational models compatible with coordinated market economies (Defourny & Nyssens, 2017; Borzaga & Defourny, 2001).

Experiential Learning - Pedagogical approach based on Kolb's (1984) learning cycle integrating concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Widely implemented in SEE through simulations, project-based assignments, and practitioner engagement, though rarely enacted through a complete cycle across regional curricula.

Fragmentation - The persistent disconnection of knowledge about dual value creation across disciplines, regions, and knowledge traditions, stemming from attempting to study complex phenomena using analytical frameworks designed for stable, bounded phenomena.

Global Social Innovation Lab (GSIL) - Innovative educational strategy engaging students in developing solutions to global challenges through virtual intercontinental collaboration. Implemented across Europe, Asia, Africa, North America, and South America between 2021-2025.

Hybrid Organisation - Organisational form combining characteristics traditionally associated with different institutional sectors, particularly the simultaneous pursuit of social mission and commercial activity. Requires governance structures capable of managing potentially conflicting logics and stakeholder expectations (Battilana & Lee, 2014).

Indigenous Epistemology - Knowledge systems grounded in relational worldviews emphasising reciprocity, land stewardship, collective well-being, and intergenerational responsibility. In Manitoba's SEE context, provides ontological foundations for enterprise design that do not separate economic activity from social and ecological responsibility, offering alternatives to both EU technocratic models and North American market-oriented approaches (Oloke, 2021).

Institutional Legitimacy - Recognition and validation derived from alignment with formal policy frameworks, legal structures, and regulatory requirements. Enables access to resources, curricular integration, and sustained partnerships with academic institutions but may narrow innovation to state-sanctioned objectives and exclude ventures without official status (OECD, 2022).

Interdisciplinary Research Process (IRP) - Systematic framework developed by Repko and Szostak (2025) enabling knowledge integration across disciplinary boundaries while maintaining epistemic rigor. Recognises that disciplines generate valid but incomplete insights about complex phenomena.

Knowledge Flows - Circulation of expertise, practices, and understanding among SEE ecosystem actors including universities, incubators, community organisations, social entrepreneurs, and government. The direction, accessibility, and institutionalisation of knowledge flows determine whether SEE remains locally contained or achieves cross-regional transferability.

Land-based Learning - Pedagogical approach grounding education in ecological and cultural relationships with place, employed in Manitoba's Indigenous SEE to embed land-based accountability, ceremonial protocols, and collective stewardship into entrepreneurship training. Represents epistemologically distinct alternative to classroom-based instruction (Oloke, 2021).

Missing Entrepreneurs (MEs) - Demographic segment including women, immigrants, persons with disabilities, elderly, and youth who are close to sources of social challenges and underrepresented in entrepreneurship (OECD & OCDE, 2021).

Organisational Form - Social entrepreneurship constitutes the organisational form that operationalises dual value creation in practice at the enterprise level, distinguishing it from conventional enterprises (economic focus) and public/community organizations (social focus).

Peer Mentoring - Learning modality developing through practitioner networks, community events, and informal collaboration where established social entrepreneurs transmit tacit knowledge to emerging practitioners. Particularly prominent in PEI and Manitoba where formal academic SEE pathways are limited, reflecting principles of situated learning and communities of practice (Lave & Wenger, 1991).

Planetary Boundaries - Biophysical thresholds defining Earth's safe operating space for humanity (Rockström et al., 2009; Steffen et al., 2015; Richardson et al., 2023). Constitute fundamental constraints arising from biophysical feedback mechanisms regulating Earth system stability.

Policy Alignment - Degree of coherence between SEE provision and governmental policy frameworks, legal structures, and funding mechanisms. High policy alignment, as observed in Slovenia, enables systematic curricular integration and institutional coordination but may constrain theoretical plurality and sectoral diversity.

Pragmatism - Philosophical approach emphasising usefulness of knowledge for addressing complex real-world problems, as elaborated through Dewey (1916), Schön (1983), and Garrison (1994). Establishes that educational validity derives not from theoretical correspondence to ideal conditions but from capacity to navigate fragmented institutional landscapes.

Quadruple Helix Model - Extension of the Triple Helix framework incorporating civil society and community-driven knowledge production as a fourth dimension alongside university, industry, and government (Carayannis & Campbell, 2009). Applied in this research through community-based observations assessing public familiarity with SEE, motivation to participate, and awareness of local dual value initiatives.

SEE Ecosystem - Dynamic arrangement of interconnected actors, academic institutions, incubators, community networks, social entrepreneurs, and government, whose interactions shape the design, delivery, and evolution of social entrepreneurship education within a regional context. Ecosystem maturity reflects the degree of coordination, knowledge flow, and institutional alignment among actors.

Separability Premise - Analytical assumption embedded in disciplinary scholarship that social and economic value can be studied as independent phenomena, despite evidence from practice that they emerge as integrated properties of entrepreneurial action.

Social Economy - Broad sector encompassing cooperatives, mutual organisations, associations, foundations, and social enterprises that prioritise social objectives over profit maximisation. Provides the policy and institutional context for SEE in EU member states, particularly Slovenia and Croatia, where legal recognition and EU frameworks structure educational provision (Borzaga et al., 2020).

Social Entrepreneurship (SE) - Ventures that simultaneously generate social and economic value, operationalising the dual value imperative through enterprises that integrate both value

dimensions from inception. Distinguished from conventional entrepreneurship that maintain economic focus only.

Social Innovation - Phills, Deiglmeier, and Miller (2008), writing from Stanford's Center for Social Innovation, define social innovation as a novel solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions and that creates value primarily for society rather than for private individuals. Their formulation was deliberately broader than either social entrepreneurship or social enterprise. Stanford's account of the development of the concept similarly positions social innovation around public value and cross-sector social change at the intersection of business, government, and civil society, rather than around a particular entrepreneur, enterprise, or organisational form. Parallel work by the Young Foundation likewise conceptualises social innovation as new ideas and solutions addressing social needs across NGOs, governments, social movements, markets, and networks, further demonstrating that the concept extends well beyond entrepreneurial organisations..

Social Return on Investment (SROI) - Impact measurement methodology quantifying social value in monetary terms by comparing the value of outcomes to the investment required to achieve them. Employed in Slovenia's EU-aligned SEE curricula as a standardised metric, though contested in contexts such as Manitoba where quantification may conflict with Indigenous approaches to collective well-being.

Social Value - System maintenance functions in systems theory terms, inherently integrating ecological constraints. Climate disruption, biodiversity collapse, and resource depletion constitute social problems because they undermine biophysical conditions necessary for sustaining human life and social organization.

Socioeconomic Variables - Human-designed institutional arrangements subject to deliberate modification, cultural variation, and adaptive reconfiguration (governance structures, financing mechanisms, policy frameworks, cultural norms). Contrast with systemic conditions that function as non-negotiable parameters.

Solidarity Economy - Economic framework emphasising cooperation, reciprocity, democratic governance, and social purpose over profit maximisation. Informs Croatian SEE curricula where solidarity economy principles enable critique of dominant market logics and exploration of alternative models rooted in post-socialist institutional legacy (Vidović & Baturina, 2021).

Sustainability - The capacity to persist over time by living within the limits of available physical, natural, social, and cultural resources in ways that maintain the conditions necessary for living systems to thrive (Vasseur & Baker, 2022). Sustainability therefore describes a condition and capacity for continuity within biophysical and societal limits, rather than a particular development strategy. Sustainability is grounded in research from the natural and systems sciences concerning the conditions that enable human societies to persist within ecological and planetary systems. Its scientific foundations include the biosphere and humanity's dependence on living planetary systems (Vernadsky, 1926/1998), open-system dynamics and exchanges between systems and their environments (von Bertalanffy, 1968), thermodynamic limits and ecological constraints on

economic activity (Georgescu-Roegen, 1971; Daly, 1996), and Earth-system thresholds and planetary boundaries that define conditions for continued human development (Rockström et al., 2009; Steffen et al., 2015). Sustainability translates this body of scientific knowledge into a broader framework for understanding the conditions within which human activity can endure.

Sustainable development. "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development [WCED], 1987, p. 43). Sustainable development describes an approach to development intended to reconcile present human needs and development aspirations with the environmental and societal conditions required by future generations**.**

Systemic Conditions - Universal constraints comprising two interconnected dimensions: planetary boundaries and the dual value imperative. Establish fundamental parameters within which all social entrepreneurship practice must function, regardless of regional context.

Systems Theory - Framework examining how systems maintain stability through feedback mechanisms and interconnections (Meadows, 2008). Demonstrates that viable systems require both throughput efficiency (economic value) and system maintenance functions (social value) as organising principles.

Theoretical Framework - Integration of systems theory and complexity science (explaining why dual value creation functions as systemic condition) with andragogy (providing pedagogical approach for transmitting integrated knowledge to adult learners).

Transformative Learning - Pedagogical theory developed by Mezirow (1991) emphasising critical reflection and fundamental shifts in learners' frames of reference. Partially aligned with Manitoba's narrative, land-based, and community-led instruction, though rarely formalised into structured curricular outcomes across regional SEE ecosystems.

Triangulation - Methodological strategy employing multiple data sources, methods, or perspectives to enhance validity and reliability of research findings. Applied in this research through integration of interviews, observations, and document analysis across four regional contexts (Creswell & Poth, 2018; Flick, 2018).

Triple Helix Model - Analytical framework examining interactions among university, industry, and government in innovation systems (Etzkowitz & Leydesdorff, 2000). Adapted in this research to analyse SEE ecosystems through three dimensions: institutional provision of programmes, production of scholarly research, and curricular design, with community perspectives serving as proxy for industry engagement.

Two-Tier Knowledge Structure - Educational framework organising content into: (1) Tier One: high-level theories explaining dual value creation (economic, sociological, political economy frameworks); (2) Tier Two: applied operational knowledge for implementation (business model design, impact measurement, resource mobilization). Structure common to professional education across medicine, law, and engineering.

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