Empowering Journeys: Navigating Air Travel Experiences of Consumers Living with Dementia

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'Diversity is being invited to the party; inclusion is being asked to dance'

- Vernā Myers

PREFACE

This dissertation's work constitutes the original intellectual property of Valentina Primossi. It is composed of three articles. Article 1, “Consumers living with dementia: a scoping review of overlooked marketplace experiences” is Valentina Primossi, Linda Garcia & Michael S. Mulvey (11 Aug 2025): Consumers living with dementia: a scoping review of overlooked marketplace experiences is published in the *Journal of Marketing Management*, DOI: 10.1080/0267257X.2025.2545538. I served as the first author responsible for collecting and analyzing the data and drafting the initial manuscript. Subsequent iterations of the article involved collaboration with my supervisors as co-authors, and I led the three revisions prior to the article's acceptance.

Regarding Article 2, as the first author, I led a two-year netnography, overseeing the collection and analysis of online observations with approval from the University of Ottawa, Office of Research Ethics and Integrity [Ethics File Number S-07-23-9306]. I was the primary coder and transcribed, analyzed and interpreted the online observations (including text, images, and other media), which were then discussed on a bi-weekly basis with my co-supervisors, who are also co-authors. I also conceptualized and authored the first complete manuscript, which has been invited for a second round of review at the peer-reviewed *Journal of Service Research*. I continued collaboration with my supervisors on subsequent revisions and will resubmit for publication in the coming months. This research was supported by the National Research Council of Canada (NRCC) [grant number AiP-021-2].

Article 3 is planned to be submitted to the *Journal of Marketing*, special issue: Analyzing Trade-Offs and Advancing Solutions to Society's Challenges Using an Integrated Multiple Stakeholders Perspective. In this final study, I conducted semi-structured interviews with 22 aviation stakeholders under the approval of the University of Ottawa, Office of Research Ethics and Integrity [Ethics File Number S-06-25-10650]. As the principal investigator and student researcher, I managed the research project, including coordinating applications and renewals to the University of Ottawa ethics board. I conducted the interviews, collected the data, and analyzed them. I was responsible for conducting initial data analysis, and conceptualizing and drafting the full first manuscript, working with my co-authors, my supervisors, and a student researcher on subsequent revisions. This project was supported by the National Research Council of Canada (NRCC) [grant number AiP-021-2].

ABSTRACT

The global population is aging rapidly, reshaping consumer profiles. Among this growing group, over 57 million people worldwide live with dementia. Yet despite facing significant marketplace barriers, they remain largely overlooked in marketing research. This dissertation examines their service experiences in air travel, a complex, high-stakes, and multi-touchpoint environment. The central question guiding this work is: *How can we create empowering journeys for consumers living with dementia (CLWD)?* Using a multi-method qualitative approach across three articles:

Article 1 maps how marketing scholarship has historically framed CLWD through a scoping review of 77 publications, revealing persistent gaps in marketplace inclusion and culminating in a multi-level framework for more inclusive research and practice.

Article 2 investigates how CLWD navigate air travel through a two-year netnographic analysis. The Service Turbulence Model (STM) is introduced as a possible explanation for the results. Rather than focusing on static barriers, the STM frames accessibility as emerging through coordinated, adaptive support between CLWD, companions, and service ecosystem.

Article 3 extends the STM by examining the provider side, drawing on interviews with 22 aviation stakeholders. Four stakeholder trade-offs are identified that can result in spiraling disruption (i.e. turbulence) throughout the travel journey. Through this interpretation, it is argued that vulnerability stems from ecosystem design choices rather than consumer characteristics alone.

Though rooted in air travel, this work aims to lay the groundwork for broader change across service sectors, especially for people living with non-visible disabilities whose needs have long been present but rarely seen.

Keywords: accessible air travel, consumers living with dementia, marketplace inclusion, netnography, semi-structured interviews, service turbulence

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CHAPTER 1

General Introduction

Context and Motivation

We are all consumers, engaging daily with a global marketplace—buying products, traveling, and experiencing services. Consumption is how we participate in society, access opportunities, and sustain the routines that define daily life. Marketing scholarship has extensively researched how people access, make decisions, and derive value from these interactions. And yet, as Anaïs Nin once observed, "we do not see things as they are, we see them as we are" (Nin, 1961, p. 124). The field has long relied on the figure of the 'average consumer' (Patrick & Hollenbeck, 2021), assuming consumers are stable and can navigate services independently, which ignores the experiences of those who do not fit this narrow perspective.

One of the most consequential trends in reshaping who consumers are is the demographic transformation of the global population. The number of people aged 60 and over is projected to double by 2050 (United Nations, 2024). Older adults are experienced, purposeful, and often highly motivated, continuing to travel, manage finances, shop, seek social connection, and maintain independence (Mulvey et al., 2022). But they also face challenges that existing models do not adequately address. For instance, they may experience environmental sensitivity, slower processing under time pressure, reduced mobility, and reliance on others (Tomazelli et al., 2017). Marketing scholarship has not fully integrated this shift. The discipline's core assumptions about who the consumer is have not kept pace with who the consumer is becoming.

Within this broader transformation, a meaningful and growing proportion of older consumers are managing some degree of cognitive change. Over 57 million people worldwide are currently living with dementia, with approximately 10 million new cases diagnosed each year (World Health Organization, 2025). In Canada alone, over 750,000 people are currently affected, a figure projected to approach 1 million by 2030 (Alzheimer Society (Canada), 2026). These people have not withdrawn from the marketplace. They continue to travel, maintain family connections, and seek independence. But they do so through service systems that were not designed with their needs in mind, and through a discipline that has not yet asked what their experience requires.

Statement of the Problem

Marketing scholarship has developed several frameworks with genuine relevance to consumer diversity—vulnerability theory (Baker et al., 2005; Hill & Sharma, 2020; Pavia & Mason, 2014), customer journey frameworks (Lemon & Verhoef, 2016; Voorhees et al., 2017), mediated consumption research (Barnhart & Peñaloza, 2013; Epp & Price, 2011; Hamilton et al., 2021), and transformative service research (Anderson et al., 2013; Fisk et al., 2018; Rosenbaum et al., 2020)—each contributing important insight. But each rests on a shared assumption: that the consumer arrives at each service touchpoint as a stable, independent agent, able to process, decide, and carry experience forward. When cognitive capability varies significantly from the norm, that assumption breaks down. Dementia uncovers these limitations. It is not a single condition but a range of progressive neurological diseases, all characterized by variable changes in memory, language, spatial navigation, and executive functioning that shift with fatigue, sensory overload, and disease progression in ways that are real but invisible to service systems (World Health Organization, 2025). Pavia and Mason (2014) classify it as 'Complex, Dynamic, and Unresolvable,' meaning a condition that is chronic, progressively worsening, and incurable. Whether marketing scholarship has recognized this gap is what this dissertation sets out to investigate.

This gap is especially visible in the context of travel, where the consumer experience is both complex and highly demanding. Air travel, in particular, is pivotal, especially in Canada's vast geography, where it connects communities and facilitates social interactions, serving as a crucial link across long distances. The significance of air travel is underscored by passenger volumes. Over 71 million passengers travelled domestically within Canada in 2022, and over 117 million passengers were enplaned and deplaned overall (Statistics Canada, 2024). The landscape of air travel is constantly evolving due to macro-trends such as globalization, the post-COVID-19 response, consumer preferences, technological advancements, and social and demographic shifts (IATA, 2022, 2023b, 2023c). Yet, despite its importance, air travel still presents unique challenges for the significant portion of the global population that is older and managing sensory, physical and cognitive changes.

The industry has made genuine progress in physical accessibility. While efforts to improve air travel accessibility have been undertaken globally (IATA, 2022, 2023a, 2023c; ICAO, 2021, 2022; The Assembly, 2019), progress towards dementia-inclusive societies has been slow (Arthurton et al., 2022). Wheelchair assistance, priority boarding, and accessible design have become standard features at most major airports and airlines, shaped by regulatory requirements and disability advocacy.

In Canada, the Accessible Canada Act (Government of Canada, 2019a) and A Dementia Strategy for Canada (Public Health Agency Canada, 2022) reflect a shift towards inclusivity and accessibility (Canadian Human Rights Commission, 2021; Government of Canada, 2019a; Jacobs et al., 2021; Public Health Agency Canada, 2022). Page and Connell (2024) emphasize the importance of acknowledging the growing number of travelers living with dementia, noting that addressing the needs of this demographic requires rethinking current practices in the tourism industry.

Prior research highlights the lack of awareness, education, and training necessary to support people living with dementia throughout the air travel experience, particularly within airport environments (Garcia et al., 2022). These requirements should focus on challenges such as navigation difficulties, separation from travel companions during various stages of the journey, and the absence of quiet spaces, highlighting the need for a more inclusive approach (Peterson et al., 2020; Peterson et al., 2024).

Additionally, Turner (2022) highlights the importance of fostering positive social environments for enjoyable journeys and the crucial role of travel companions as key facilitators for people living with dementia (Dougherty, 2019). Moreover, while acknowledging the crucial impact of travel companions, it is essential to recognize that airline staff also play a fundamental role in promoting inclusive air travel experiences (Turner, 2022). However, there remains a critical oversight in accessibility efforts, which predominantly focus on ‘physical’ disabilities, neglecting the unique needs of those who travel with invisible disabilities such as cognitive impairments (O’Reilly & Shepherd, 2016; O’Reilly et al., 2017).

Other promising initiatives, such as the Hidden Disabilities Sunflower program (Hidden Disabilities, 2023), represent meaningful attempts to bridge the gap through voluntary disclosure. But wearing a lanyard only helps if people who see it know how to respond, and whether they do depends entirely on what the organization has prepared them to offer. The foundation that would make those responses consistent and reliable across the journey (e.g., shared training standards, coordinated protocols across organizational boundaries, service design that builds in flexibility by default) remains largely undeveloped.

Air travel demands the most from the consumer experience. It is not a single transaction but a sequential, multi-organizational, multi-touchpoint experience that unfolds over hours or days, involves regulatory procedures, requires navigation through physically complex environments, and demands a level of cognitive readiness that is rarely made explicit. Unlike most service encounters, which involve a single provider in a relatively controlled setting, air travel layers airlines, airports, security agencies, ground handling companies, and retail concessions into a continuous experience. The industry has yet to develop inclusive practices that address non-visible cognitive disabilities in any systematic way.

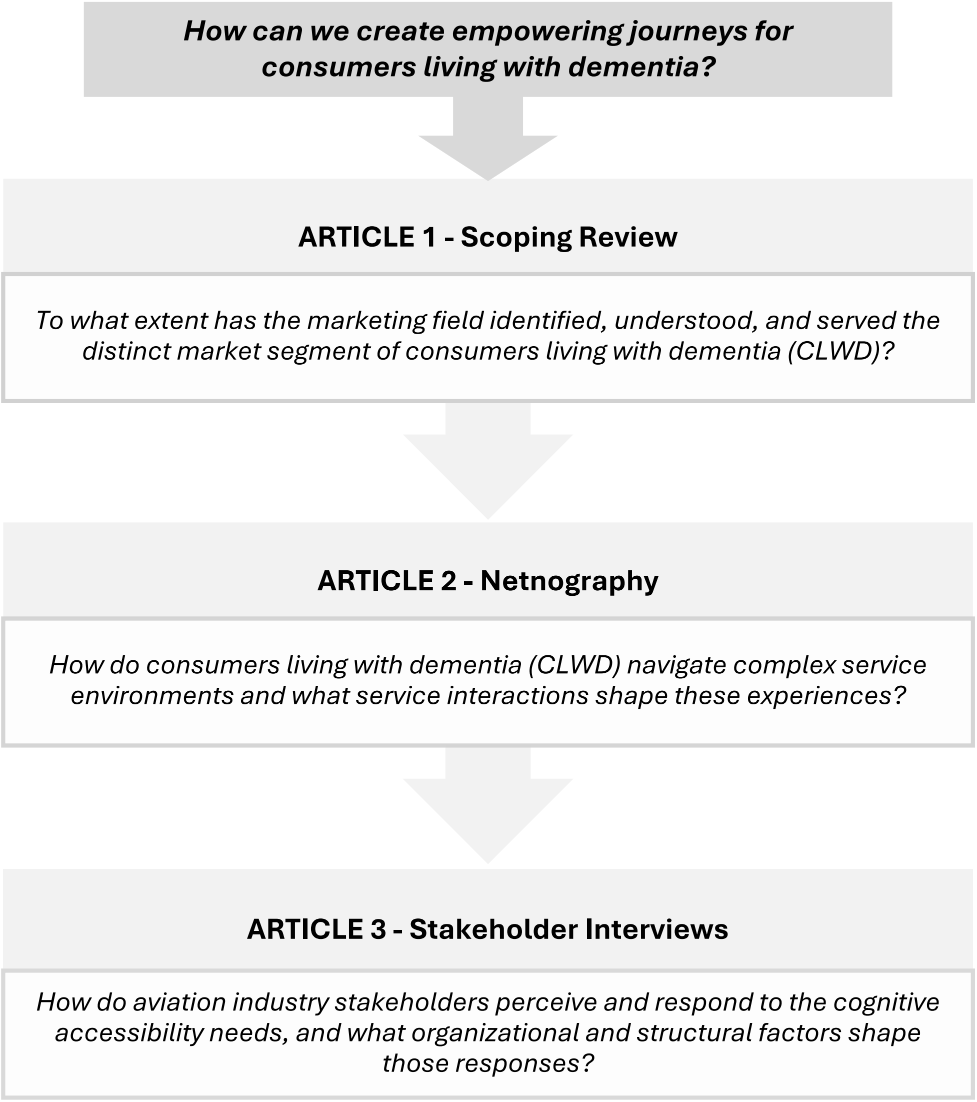
People living with dementia should be able to aspire to travel not only for leisure but also to evade social isolation and maintain connections with loved ones. Yet, in their journey, they encounter many obstacles, ranging from navigating complex airport environments to comprehending travel procedures (Peterson et al., 2024; Turner, 2022). This imperative has inspired this dissertation.

The questions of what people living with dementia experience as consumers, how they and their companions navigate service environments such as air travel, and what service systems would need to look like to support rather than obstruct them are marketing questions that have not been central concerns of marketing scholarship. Whether that is in fact the case and what it reveals about the discipline's assumptions are what this dissertation begins by asking.

Research Question

How can we create empowering journeys for consumers living with dementia?

The overarching research question guiding this dissertation is based on the focal phenomenon introduced above, which has not yet been addressed in marketing research (Jaakkola, 2020). The three sub-questions that structure the empirical work are descriptive and exploratory: they ask what the literature shows, what consumers experience, and what service providers perceive and do, each corresponding to one of the three articles that form the empirical core of this dissertation (Figure 1).



How can we create empowering journeys for consumers living with dementia?

ARTICLE 1 - Scoping Review

To what extent has the marketing field identified, understood, and served the distinct market segment of consumers living with dementia (CLWD)?

ARTICLE 2 - Netnography

How do consumers living with dementia (CLWD) navigate complex service environments and what service interactions shape these experiences?

ARTICLE 3 - Stakeholder Interviews

How do aviation industry stakeholders perceive and respond to the cognitive accessibility needs, and what organizational and structural factors shape those responses?

Figure 1. Overview of the Three-Article Dissertation

Article 1 asks: *To what extent has the marketing field identified, understood, and served the distinct market segment of consumers living with dementia (CLWD)?* Before investigating what empowering journeys might look like, it is necessary to find out what the field already knows about this population.

Article 2 asks: *How do consumers living with dementia (CLWD) navigate complex service environments, and what service interactions shape these* *experiences?* This question moves from academic discourse to lived experience. I pursue this question through an understanding of how navigation unfolds, what breaks down, what holds, and what travel companions carry.

Lastly, Article 3 asks: *How do aviation industry stakeholders perceive and respond to the cognitive accessibility needs, and what organizational and structural factors shape those responses?* This question shifts the focus from consumers to providers. I examine how organizational priorities, organizational coordination challenges, and structural constraints determine whether well-meaning commitments to accessibility lead to meaningful changes in service delivery for consumers living with dementia.

Together, the three sub-questions trace a transition from academic discourse to lived consumer experience to the organizational systems within which services are delivered. Each is necessary; none is sufficient on its own.

Literature Review

The following review positions this dissertation within two academic fields: research on older consumers and cognitive variability, and marketing frameworks that elucidate consumer and service experiences.

Older Consumers and Cognitive Variability

Marketing scholarship has made significant progress in understanding consumer diversity. Vulnerability theory has reframed disadvantage as contextual and relational rather than as inherent to the individual (Baker et al., 2005; Hill & Sharma, 2020). Transformative service research is committed to designing services that enhance well-being for underserved populations (Anderson & Ostrom, 2015; Anderson et al., 2013; Fisk et al., 2018; Rosenbaum et al., 2011; Rosenbaum, 2015; Rosenbaum et al., 2020). Nonetheless, the discipline's core frameworks were built around the 'average consumer' (Patrick & Hollenbeck, 2021), an assumption that does not fully represent the diverse range of consumers.

Despite representing one of the fastest-growing trends, the ageing population has received limited attention in marketing scholarship. Older adults often appear in the literature as a group characterized by decreasing ability rather than as consumers with complex, diverse, and proactive marketplace lives. They routinely encounter age-based stereotype threats in service contexts—systematic practices that assume physical or cognitive deficiencies, undermine self-efficacy, and constitute a form of marketplace exclusion that the field has barely begun to theorize (Westberg et al., 2021).

Dementia: a Non-Visible Disability

The World Health Organization (2024b) estimates that approximately 1.3 billion people worldwide face significant disabilities and live with functional limitations, representing roughly one in six people globally. Among people living with disabilities, about 80% have a non-visible disability, counting over 1 billion individuals (Hidden Disabilities Sunflower, 2023). Within the realm of non-visible disabilities, dementia stands out as a pressing concern, and one that has received remarkably little attention in marketing scholarship.

The predominant framing of dementia in academic research has been medical and confined to the health and science fields. Traditionally, researchers profiled them as patients, often overlooking their role as consumers within the marketplace (Swaffer, 2015). This medical emphasis has hidden the wider needs and aspirations of people living with dementia, contributing to their marginalization in marketing literature by focusing on impairments and neglecting broader contextual factors. Indeed, this approach has been criticized for its narrow focus on individuals and for failing to address social and environmental factors that contribute to disability (Beudaert et al., 2024).

The prominent model in marketing and disability research is the social model (Andrews, 2017). This model recognizes disabilities as socially constructed rather than a result of individual limitations, emphasizing societal barriers to full participation for consumers with disabilities and advocating for individual empowerment toward social justice and inclusion (Beudaert et al., 2024; Oliver, 2018; Shakespeare & Watson, 2001). In the interest of creating the best environments for people living with dementia to travel, it makes sense to adopt such an approach because it redirects attention from individual deficits to the structural and environmental conditions that produce exclusion, which is precisely where the opportunity for service redesign lies. This approach is coherent with dementia-friendly communities initiatives, which seek to redesign local, familiar spaces that promote inclusion (Alzheimer's Disease International, n.d.). More broadly, the concept of dementia-inclusive societies envisions full participation in all aspects of social life (World Health Organization, 2021), an ambition that tourism and travel have yet to meaningfully embrace (Page & Connell, 2024).

However, critics note that physical accessibility alone is inadequate and can restrain the range of lived and embodied experiences, including cognitive and social aspects that are not simply resolved by removing environmental barriers (Barnes, 2019; Beudaert, 2020, 2025; Salomonson & Echeverri, 2024). Since dementia's manifestations are varied, inconsistent, and non-visible, understanding this population as consumers requires holding both levels together: the structural conditions that produce exclusion and the lived experience of navigating them.

While some research exists, the experiences of people living with dementia have mostly been studied in medical (Barclay et al., 2006), tourism (Page & Connell, 2024), disability studies (Mathews et al., 2022), and social work journals (Walsh et al., 2020), focusing on description rather than explanation. The studies overwhelmingly describe what happens but do not explore why service systems lead to these outcomes or how they might be redesigned. Research on dementia and travel mostly considers safety—focusing on medical advice and physiological risks (Aquilina & Matthews, 2006; McCabe, 2017; Sadlon et al., 2021). Practical guides treat standardized service systems as fixed, placing adjustment burdens on consumers rather than system designers (Solis-Lopez et al., 2025; Tomej et al., 2024; Turner, 2022).

Studies on lived experience show that consumers living with dementia often feel overwhelmed by sensory environments, confused by procedures, and unsupported by systems that cannot recognize or respond to their needs (Giebel et al., 2025; Peterson et al., 2024). Yet, research indicates travel can promote well-being for consumers living with dementia (Page et al., 2015; Wen et al., 2022), suggesting issues stem from system design, not the activity itself. In hospitality and tourism, similar issues appear, resulting in a lack of accommodations and gaps between accessibility rhetoric and practice (Hansen et al., 2021; Sweeney & Helkkula, 2025; Wen et al., 2024). Beyond travel contexts, financial services research highlights how cognitive decline increases vulnerability to exploitation, with institutions starting to develop empathetic responses (Karp, 2012; Uchida, 2011).

Given the demographic shift towards an aging population and the rising prevalence of dementia, considering this group of individuals as consumers effectively integrated into the marketplace becomes imperative to ensure inclusive and equitable societies (Barnhart & Peñaloza, 2013; Barton, 2021; Beudaert et al., 2024; Patrick & Hollenbeck, 2021). Neglecting these demographics' unique needs and experiences perpetuates inequality and overlooks valuable insights that could enhance service delivery and marketplace inclusivity (Fisk et al., 2018; Martín-Domingo et al., 2024).

Conventional Marketing Frameworks

Conventional service systems are usually designed with the typical consumer in mind, often prioritizing their needs and neglecting the diverse requirements of other consumer groups (Patrick & Hollenbeck, 2021). There is still a gap in developing and providing inclusive service models tailored to underserved and underrepresented consumers (Fisk et al., 2018; Landry & Furrer, 2023). This gap is particularly evident in mainstream travel research and standard travel profiles (Wen et al., 2022), including air travel service models (Martín-Domingo et al., 2024).

Contemporary marketing literature reveals a significant gap in understanding the perceptions and experiences of underrepresented consumer groups. Arsel et al. (2022) mapped the development of marketplace diversity, equity, and inclusion, identifying age and disability as remaining gaps and acknowledging that a large and growing population of consumers has been rendered invisible by prevailing research assumptions. Scholars have since started to explore the service design barriers and accessibility gaps that consumers with disabilities encounter (Tuli et al., 2023).

These inequalities result from multiple factors. From a market system theory perspective, markets are seen as complex, embedded networks rather than just sites of transaction (Mittelstaedt et al., 2009). Market access (structural or systemic barriers that limit participation), market assortment (tangible and intangible offerings), and market intermediaries (which can either facilitate or hinder engagement) are the structural foundations of marketplace participation (Mittelstaedt et al., 2009). For consumers with disabilities, all three are restricted; they face limited access to goods, services, and social acceptance, along with increased reliance on others. These gaps are especially pronounced for consumers with cognitive impairments, who remain among the least studied within this population (Beudaert et al., 2024).

Vulnerability theory offers the most structural entry point for understanding how people living with dementia navigate marketplaces. Baker et al. (2005)

reconceptualize vulnerability not as a stable individual trait but as a contextual state produced by the interaction between individual characteristics and marketplace structures, a state that can intensify or diminish depending on what a service environment demands. Pavia and Mason (2014) extend it through a typology that classifies dementia as chronic, progressive, and non-remediable. Hill and Sharma (2020) further develop this tradition by directing attention to how market systems themselves, not merely individual encounters, produce and reproduce conditions of vulnerability. Together, these contributions establish that vulnerability is neither inevitable nor uniform: it depends on how systems are designed, for whom they are designed, and on the assumptions they embed.

What vulnerability theory has not fully developed, however, is an account of the adaptive strategies that consumers and their social networks develop in response to variable conditions. Barnhart and Peñaloza (2013) demonstrate that consumption in advanced age is a group phenomenon rather than an individual one—family members and paid providers forming an improvisational ensemble that performs active interpretive, coordinative, and advocacy work, making continued consumption possible. This ensemble continually rearranges as capabilities shift and new revelations of ability or inability emerge through consumption practices themselves. They explicitly identify consumers with cognitive impairments as a significant gap in their framework—one that has not been filled in the years since. The ensemble framework exists and provides a useful foundation for understanding the challenges that consumers living with cognitive impairments face; however, its extension to this population does not.

From Consumer Networks to Service System Structure

Bast et al. (2021; 2024) stand out in service research by highlighting cognitive and social factors as key themes in engaging people living with dementia and examining how frontline workers mediate transformative service processes. Yet even these frameworks assume that participants engaged in the marketplace seamlessly. For consumers living with dementia, cognitive variability might challenge this assumption, and current frameworks provide limited guidance regarding the course of action when such a breakdown occurs.

This assumption of role consistency runs across service research more broadly. Service blueprinting assumes that consumers maintain consistent role performance (Bitner et al., 1990; Bitner et al., 2008). Service recovery frameworks extend this logic further, assuming a stable capacity to recognize failures, assign responsibility, and evaluate recovery efforts (Tax et al., 1998). Customer experience frameworks, while attentive to temporal dynamics and affective shifts, nonetheless presume sufficient cognitive consistency to sustain coherent experience narratives and relatively stable evaluative judgments (Becker & Jaakkola, 2020). When capacity varies within encounters rather than between them, the notion of a unified customer experience becomes theoretically unstable. Customer journey frameworks treat temporal progression as linear and cumulative (Lemon & Verhoef, 2016; Voorhees et al., 2017), with consumers expected to carry forward information, credentials, and understanding across touchpoints.

Mediated consumption frameworks come closest to capturing the relational complexity of service navigation for consumers living with dementia. Research on family consumption networks (Epp & Price, 2011), consumption ensembles (Barnhart & Peñaloza, 2013), and companion involvement (Hamilton et al., 2021) demonstrates how interdependence shapes decision-making and how collective navigation unfolds across experiences. However, even these frameworks assume that participants maintain sufficient consistency to sustain their roles. Disruptions are treated as discrete events rather than as continuous conditions, and the frameworks cannot account for situations in which coordination work itself becomes the primary service challenge.

What remains underexplored is why service environments consistently generate these difficulties not as isolated incidents, but as a pattern. Addressing this requires moving from the level of individual encounters to the broader system level. One relevant theoretical framework is the Service Delivery Network (SDN) theory, which suggests that network structure significantly impacts service outcomes (Tax et al., 2013). A service delivery network is defined as "two or more entities that, in the eyes of the customer, are responsible for the provision of a connected, overall service" (Tax et al., 2013, p. 4). Tax et al. (2013) recognize loose and tight coupling as a key structural dimension of service delivery networks. Tightly coupled networks have centralized governance, shared information systems, and formal agreements for coordinated service delivery across organizations. Loosely coupled networks, like aviation, consist of organizations, each with different priorities, measurement systems, and operational logics, and no formal responsibility for the full journey. While most passengers do not notice this fragmentation, it has profound implications for consumers experiencing cognitive variability, who require continuity across organizational boundaries to experience seamless service.

Furthermore, a process that Simon (1955) terms "satisficing," helps explain why loose coupling consistently produces accessibility failures. Rather than optimizing across all goals simultaneously, organizations facing competing demands and limited resources tackle goals one at a time, accepting solutions that are good enough before moving on. The sequence in which goals are addressed is what organizations can measure, and when these goals meet at the boundaries between organizations, the tensions they generate are navigated through trade-offs (McColl-Kennedy et al., 2020) that rarely resolve in favour of the consumer whose needs cross those boundaries. Accessibility is difficult to measure; on-time departure, throughput, and compliance rates are not.

This literature establishes that coordination failure in loosely coupled networks is structural rather than incidental. However, it stops short of specifying the generative process by which well-intentioned organizational decisions systematically produce exclusion. Identifying that mechanism requires empirical investigation into how organizations actually perceive, prioritize, and respond to consumers’ cognitive accessibility needs in practice. That is a question the existing marketing literature has not answered.

Synthesizing the Gap

Three connected gaps emerge from this review. The first pertains to the way the consumer is understood—specifically, how people living with dementia have been studied, or not studied, in marketing scholarship. The second gap exists at the service encounter level. The frameworks that dominate service research—such as customer journey models, service blueprinting, experience frameworks, and inclusion frameworks—are built around a consumer who processes information, makes decisions, and progresses, but they do not account for situations where cognitive capacity fluctuates during an encounter. The third gap exists at the system level. Even where SDN theory has identified the structural conditions leading to coordination failure in loosely coupled service networks, the underlying generative process by which well-intentioned organizational investments consistently fail to create accessible service experiences remains poorly understood. Without understanding that process, interventions tend to be reactive rather than transformative, addressing symptoms instead of the structural conditions that cause them. Together, these gaps point to what is missing in our understanding of how service systems consistently fail this population, and what this dissertation sets out to address.

Together, the three articles that form the body of this dissertation enable a form of comparative analysis across three vantage points—academic assumptions, lived consumer experience, and service provider perceptions—that no single study could achieve. These comparisons are where the most significant insights emerge: in the gaps between academic representation and lived reality, and between service intentions and service outcomes. Across the three studies, the integrated argument is that meaningful inclusion for consumers living with dementia requires not incremental adjustments to existing service systems, but a fundamental reconceptualization.

Methodology Overview

I employ a three-phase qualitative design that carefully sequences methods to progressively deepen understanding and facilitate triangulation across data sources. Each method addresses specific limitations of the others. The combination of qualitative methodologies across the three articles enables triangulation and integration that strengthen overall research findings while maintaining methodological coherence. Literature analysis provides understanding of academic discourse, netnographic analysis provides understanding of lived consumer experiences, and interview analysis provides understanding of organizational perspectives. The integrated qualitative findings enable the development of practical theoretical frameworks that are grounded in empirical evidence. A summary of all the data sources used in the dissertation is provided in Table 1.

The epistemological foundation across all three studies is interpretivist: rather than seeking objective truths about service experiences, the research examines how meaning is constructed differently by stakeholders—the academic community, consumers, and service providers—and treats those differences not as contradictions to resolve but as complementary windows into complex phenomena (Creswell & Creswell, 2018; Creswell & Poth, 2023).

In Article 1, I employed a scoping review methodology following Arksey and O'Malley's (2005) framework. Scoping reviews are suited to questions about the state of the literature. By systematically mapping 77 publications using consumer-centric search terminology, the study traces how marketing scholarship has—and has not—engaged with consumers living with dementia as a subject of inquiry.

In Article 2, I conducted netnographic research following Kozinets' (2020) evolving framework. Netnography is a method for examining how people create meaning and develop practices in networked digital environments. This method was well-suited to sensitive topics (Langer & Beckman, 2005) and particularly appropriate for this vulnerable population, as it minimizes intrusion, reduces cognitive burden through self-paced participation, offers geographic reach without requiring travel, protects anonymity, and enables a longitudinal perspective through forum threads spanning multiple days, weeks, months, and even years. The dataset comprises 64 direct engagement observations from private Reddit forums and 38 archival threads spanning FlyerTalk and five Reddit communities, totaling 688 comments (approximately 335,236 words or 1,006 single-spaced pages). The extended two-year immersion enables longitudinal tracking of how community knowledge and navigation strategies develop over time and how individual experiences fit into collective patterns among diverse travelers.

In Article 3, I conducted 20 semi-structured interviews with 22 aviation industry stakeholders selected to represent the breadth of the Canadian aviation ecosystem. Semi-structured interviews are well-suited to exploring complex, contextual organizational perspectives that are not readily accessible through documentary or observational methods (Creswell & Creswell, 2018; Creswell & Poth, 2023). The study focuses on the logic, priorities, and constraints that shape how organizations respond—or fail to respond—to the cognitive accessibility needs of their passengers.

While each article employs distinct methods, they share epistemological coherence through their interpretivist foundation and commitment to understanding meaning-making processes. The integration occurs at three levels. First, each subsequent study is informed by findings from previous studies—the scoping review identifies gaps that motivate the netnographic study; the netnographic study develops frameworks that structure the analysis of interviews. Second, triangulation occurs through systematic comparison—I explicitly examine where findings converge and diverge across methods, treating divergence as theoretically meaningful rather than problematic. Third, the three studies address different facets of the same overarching question (what scholars assume, what consumers experience, and what providers perceive), creating a multidimensional understanding that respects the complexity of the phenomenon.

The scoping review (Article 1) reveals that marketing scholarship has marginalized CLWD, but literature gaps alone cannot describe how CLWD actually experience services or what practical solutions might work.

The netnographic study (Article 2) provides complementary empirical grounding that the literature lacks. By accessing authentic online consumer discussions over two years, it was possible to capture how CLWD and travel companions navigate air travel—their strategies, breakdowns, adaptations, and expertise. These insights ground the research in lived experience rather than the researcher's assumptions.

Finally, stakeholder interviews (Article 3) complete the picture by revealing the organizational logic that shapes service delivery. Understanding industry perspectives on training, regulatory compliance, and competing priorities helps explain why well-intentioned accessibility efforts sometimes fall short.

Table 1. Summary of the Dissertation Data Sources

Data Type	Sources	Purpose
Scoping Literature Review	77 publications including peer-reviewed articles and grey literature (four PhD dissertations, two reports, and two conference proceedings)	To shed light on the theoretical and practical gaps that impede market inclusion for CLWD
Netnography	The entire dataset comprised 335,236 words or approximately 1,006 single-spaced pages • 64 direct engagement observations from a private Reddit forum • 38 threads with 688 comments from archival research across FlyerTalk and five Reddit communities	To understand air travel experiences of CLWD and their travel companions
Interviews	• 20 semi-structured interviews with 22 participants (video and audio recorded)	To examine how stakeholders coordinate or fail to coordinate service delivery for CLWD and their travel companions

A Note on Positionality and Reflexivity

I approach this dissertation as a consumer experience researcher rather than a dementia specialist. My background is in marketing and qualitative methods, not in clinical or health sciences, and this influences both what I observe and what I need to be cautious about. It means I bring real expertise in designing service systems, how consumers interpret their experiences, and how organizations respond to consumer needs. Over the four years of this research, I kept a reflective journal tracking my evolving understanding, moments of surprise during data collection and analysis, instances where my assumptions were challenged, and notes from supervisory meetings and nearly twenty conference presentations. Qualitative research is inherently interpretive, and the findings in this dissertation reflect one theoretically informed, methodologically rigorous interpretation of complex phenomena rather than an objective account. Alternative interpretations are possible, and I have made an effort to be honest about my own limitations.

In this dissertation, the term 'consumers living with dementia' is used throughout in accordance with person-first language conventions (Alzheimer's Society (UK), 2018). The choice reflects a deliberate theoretical commitment: framing people living with dementia as consumers—rather than patients, care recipients, or dependents—affirms their ongoing agency and their marketplace participation.

Dissertation Organization

This dissertation is organized into five chapters. The current chapter outlines the research problem, articulates the research question, reviews relevant literature, and describes the methodological framework. The subsequent three chapters correspond to the core articles constituting the primary content of the dissertation. Chapter 2 offers a scoping review (Article 1), which delineates the extent of engagement—largely absent—of marketing scholarship with consumers living with dementia. Chapter 3 details a netnographic study (Article 2) that explores how consumers living with dementia and their travel companions navigate complex service ecosystems such as air travel. Chapter 4 (Article 3) analyzes how stakeholders within the aviation industry perceive and address the cognitive accessibility requirements of their passengers. Lastly, Chapter 5 provides the overarching conclusions and comprehensive insights from the three articles.

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CHAPTER 2

Consumers living with dementia: a scoping review of overlooked marketplace experiences

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Consumers living with dementia: a scoping review of overlooked marketplace experiences

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ABSTRACT

Consumers living with dementia (CLWD) represent an emerging segment with distinct needs, yet they remain underrepresented in marketing research. Through a scoping review, 77 publications from 1990 to 2024 met our selection criteria which included being related to older adults living with disabilities, including dementia and focusing on consumer-centric terminology. Our analysis reveals four factors that influence the reporting of the experiences of CLWD: publication date, interdisciplinary engagement, consumption patterns, and consumption types. We examine these findings using vulnerability and marketing system theories, culminating in a multi-level framework for marketplace inclusion and research. Despite the growing recognition of this consumer segment, support remains inadequate and significant gaps persist in the marketplace, underscoring the need for more inclusive marketing strategies targeting the unique needs of CLWD.

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Introduction

Marketing scholarship has advanced significantly in theorising marketplace inclusion for diverse consumer populations. Yet, despite these theoretical advances, consumers living with dementia (CLWD)[1] remain conspicuously absent from marketing discourse, even as the field increasingly acknowledges other dimensions of cognitive diversity (Beudaert et al., 2023; Pavia & Mason, 2014). Similarly, existing marketing frameworks remain inadequate for understanding the marketplace experiences of the 57 million people worldwide living with dementia (World Health Organization, 2025).

First, traditional consumer choice models assume cognitive uniformity and rational decision-making capabilities, which do not account for the complex, changing, and permanent nature of cognitive changes in dementia (Beudaert et al., 2017; Pavia & Mason, 2014). Second, age-based segmentation approaches treat older adults as a homogeneous group (Westberg et al., 2021), overlooking the distinct marketplace barriers and enablers experienced by those living with dementia. These theoretical shortcomings prevent a nuanced understanding of how cognitive impairments fundamentally transform marketplace engagement (Beudaert, 2020). While vulnerability theory has provided frameworks for understanding other forms of consumer disadvantage, marketing scholars have yet to fully theorise how the intersection of cognitive impairment and market structures creates unique patterns of exclusion. This theoretical blind spot limits our understanding of how market systems either facilitate or impede participation for CLWD and misses potential innovations that could enhance service delivery for all consumers.

This paper examines how CLWD are positioned within marketing theory and practice as a first step for developing a multi-level theoretical framework for enhancing their marketplace inclusion. Through a scoping review of interdisciplinary literature, we identify critical individual-level factors and system-level structures that shape their marketplace experiences. Our analysis reveals a significant evolution in how academic literature portrays these consumers, from medical patients to active market participants, while exposing persistent gaps between theoretical recognition and practical implementation. By integrating vulnerability and market systems perspectives, our framework advances marketing theory beyond existing models of consumer diversity and proposes actionable pathways for designing inclusive commercial environments that support cognitive accessibility and consumer autonomy.

The marketplace and dementia

Dementia is characterised by cognitive decline in memory, planning, and judgement (World Health Organization, 2025), affecting more than just health; it fundamentally reshapes how individuals engage with marketplaces, transforming everyday consumer activities from purchasing products to accessing services, including economic transactions, navigating environments, and maintaining social engagement. With 10 million new cases annually (World Health Organization, 2024), and no cure, the urgency for market adaptation goes beyond medical interventions to encompass a broader societal transformation towards inclusive marketplaces.

People living with dementia are considered a vulnerable group (Pavia & Mason, 2014) who frequently encounter systemic marketplace barriers – from limited product accessibility to dependence on intermediaries and social prejudices that constrain full participation (Beudaert et al., 2024). While marketing scholars have begun documenting the challenges of consumers with disabilities (Tuli et al., 2023), significant questions persist regarding the extent to which people living with dementia are recognised as consumers and substantial gaps remain in the academic literature addressing their marketplace experiences.

This inclusion challenge represents both an ethical imperative and a significant market opportunity. Barclay et al. (2006) underscore the importance of involving people living with dementia in decision-making processes and recognising their perspectives as valuable, even when cognitive impairments are present. However, as Whitfield (2005) observes, these inclusion efforts frequently encounter barriers stemming from the progressive nature of dementia, persistent stigma, and fragmented service systems that fail to provide consistent support. Creating markets that truly serve this population demands more than superficial adaptations. It requires their direct involvement in designing solutions (e.g. Barclay et al., 2006; Freeman et al., 2005; Gitlin, 2002; LoPresti et al., 2008; Whitfield, 2005). This understanding of marketplace barriers reveals a fundamental disconnect between traditional marketing approaches and the realities of CLWD. To fully appreciate this gap in market responsiveness, we must examine the historical context of dementia research.

Historically, dementia research emphasised medical care over consumer experience, inadvertently reinforcing passive rather than active marketplace roles (Page & Connell, 2024). This medical focus has obscured the broader needs and aspirations of CLWD, contributing to their marginalisation in marketing literature (Beudaert et al., 2023) by emphasising impairments and overlooking broader contextual factors. The social model of disability (Andrews, 2017) offers important insights by reframing disability as primarily constructed through societal barriers, catalysing advocacy for removing obstacles to promote social justice and inclusion. However, critics emphasise that physical accessibility alone is insufficient; researchers must consider multifaceted lived experiences, including cognitive and social dimensions (Barnes, 2019; Beudaert et al., 2023; Salomonson & Echeverri, 2024). Furthermore, the nature of this health condition is that its varied manifestations are neither consistent, homogenous, visible, nor stable. It is not surprising, therefore, that existing marketing approaches often fail to capture the progressive nature of dementia and its multifaceted impact on marketplace engagement. To systematically assess how CLWD are positioned within and across marketplace contexts in the extant literature, we selected two complementary *theoretical perspectives* – *vulnerability theory* (Baker et al., 2005; Pavia & Mason, 2014) and *market systems theory* (Mittelstaedt et al., 2009).

Theoretical foundations: vulnerability and market systems

Before examining these theoretical perspectives, we reinforce our commitment to the importance of engaging with CLWD as individuals by discussing them as having needs that can be addressed at any given time, pending their interaction with the environment, rather than limiting ourselves to the manifestations of disease. While the umbrella term ‘dementia’ refers to variations of symptoms resulting from different disease processes (e.g. Alzheimer’s disease, vascular changes) (World Health Organization, 2025), symptom expression is influenced not only by the specific brain areas affected but also by contextual factors. In other words, an environment that creates great cognitive demands on travellers may result in behaviours that may not always be ‘characteristic’ of a certain disease process. Likewise, a condition that ‘normally’ is associated with disruptive behaviours may not manifest as such in a facilitatory environment. For this reason, our analysis focuses on shared marketplace experiences rather than diagnostic differences. Rather than segmenting by type of dementia and assuming that there is an adaptation for each underlying condition, we focus on the experiences and consumer needs. This approach aligns with emerging marketing research that highlights how ‘disabling marketplaces’ need not create rigid barriers that are designed to address specific population groups and rather fosters a more ‘universal design’ approach (Salomonson & Echeverri, 2024). By focusing on systemic marketplace factors instead of medical classification, we avoid unintended effects such as stereotype reinforcement. This systems-focused perspective supports our integration of vulnerability and market systems theories.

Partly as a result of the advent of social models of disability, marketing research has fostered some recognition and consideration of people living with disabilities as active agents in the marketplace rather than passive recipients of care (Beudaert et al., 2023; Oliver, 2018; Shakespeare & Watson, 2001). Vulnerability theory acknowledges both individual and structural dimensions of marketplace challenges, highlighting how vulnerability emerges at the intersection of individual characteristics and market structures (Baker et al., 2005; Hill & Sharma, 2020; Pavia & Mason, 2014). Baker et al. (2005, p. 134) assert that ‘multiple and simultaneous internal and external factors contribute to consumer experiences of vulnerability’, reframing vulnerability as contextual and systemic rather than an inherent individual trait. Building on this foundation, Pavia and Mason (2014) propose three key dimensions to conceptualise consumer vulnerability: remediation potential (whether the situation can be remediated), duration (whether it has a clear endpoint), and stability (whether it is static or dynamic over time). By examining these dimensions, their analysis resulted in the identification of four categories, one of which is classified as ‘Complex, Dynamic, and Unresolvable’, which is characteristic of dementia. This category indicates a situation that cannot be cured, is long-term, and typically progresses. This categorisation highlights a significant yet overlooked aspect of vulnerability in marketing literature and provides a fresh lens to understand the unique marketplace challenges faced by CLWD beyond traditional disability models.

Market systems theory is also relevant to understanding the experiences of CLWD. Market structures often create barriers beyond individual challenges, failing to accommodate evolving needs (Fisk et al., 2018). While vulnerability theory provides insights into these interactions, market systems theory allows us to examine these systemic barriers in greater depth. This perspective views markets as complex embedded networks rather than simple transactions (Mittelstaedt et al., 2009). We adapted three marketing systems' key elements: market access (structural or systemic barriers that limit marketplace engagement), market assortment (tangible and intangible products and services offerings), and market intermediaries (entities that can either facilitate or hinder marketplace participation). This macro-level analysis might offer an explanation as to why conventional marketing approaches often fail CLWD – current approaches presume that consumers can operate independently within cognitively demanding environments, overlooking how systemic design choices themselves can become sources of vulnerability.

By integrating these theoretical perspectives, we developed an analytical framework comprising six key constructs organised at individual and system levels, as detailed in Table 1. At the individual level, we focused on capturing personal experiences and capabilities, emphasising agency, active consumer identity, and vulnerability. At the system level, we aimed to examine structural and institutional factors through the lens of market access, market assortment, and market intermediaries. Our goal was to identify patterns, gaps, and emerging themes across a diverse body of research that spans multiple disciplines and time periods. This approach enables us to identify not only what is known about CLWD marketplace experiences but, more importantly, what remains unexplored. Our investigation was guided by a primary research question: *To what extent has the marketing field identified, understood, and served the distinct market segment of consumers living with dementia (CLWD)?* With this study, we aim to shed light on the theoretical and practical gaps that impede market inclusion for CLWD.

Table 1. Analytical framework constructs for examining people living with dementia as consumers.

Construct	Definition from literature	Source	Application in this study
Individual-Level Constructs			
Agency	Capacity to act intentionally and make choices, even when supported or assisted.	Baker et al. (2005); Pavia and Mason (2014)	We examined how the literature addresses capacity for intentional action and choice-making among CLWD, including when supported or assisted.
Active Consumer Identity	Individual's sense of self that is actively constructed and expressed through consumption practices and discourses.	Barnhart and Peñaloza (2013)	We assessed whether and how research portrays CLWD as contributors to shaping their consumption experiences.
Vulnerability	A dynamic state arising from the interaction between individual characteristics and systemic, social, or environmental conditions.	Baker et al. (2005); Pavia and Mason (2014)	We analysed how studies conceptualize vulnerability—as inherent to dementia or treated as contextual and relational arising from the interaction between individual characteristics and systemic conditions.
System-Level Constructs			
Market Access	The opportunity or capacity to engage with market offerings, shaped by economic, geographic, regulatory, and technological constraints. Defined in terms of 'access for whom' and 'access to what'.	Mittelstaedt et al. (2009)	We investigated how literature addresses barriers and facilitators to market engagement for CLWD.
Market Assortment	The breadth and type of products and services offered in the market, influenced by supply-side decisions, demand patterns, and institutional forces.	Mittelstaedt et al. (2009)	We explored which consumption domains are prioritised or overlooked in the literature in dementia-related offerings.
Market Intermediaries	Actors who facilitate or control access to marketplace participation, including institutions, care partners, and service providers.	Mittelstaedt et al. (2009)	We examined how research positions actors as key shapers of consumption modality. Care partners, service providers, and regulators function as enablers or gatekeepers of agency and access, who facilitate or control market participation for CLWD.

Methods

Scoping review approach

Scoping reviews offer a well-established framework for identifying and synthesising existing research around phenomena that are interdisciplinary in nature (Munn et al., 2018; Verdejo et al., 2021). Our research team consisting of experts in customer experience, marketing, and dementia, brought diverse perspectives that enabled us to examine the topic beyond traditional medical boundaries.

Arksey and O'Malley's (2005) five-stage scoping review framework was used to examine how people living with dementia are represented as consumers. Following the JBI Reviewers' Manual (M. Peters et al., 2015), we developed our protocol, employing the PCC (Population, Concept, Context) framework to establish inclusion and exclusion criteria. To ensure methodological transparency and replicability (M. D. J. Peters et al., 2020), we documented each phase of the study selection process in accordance with the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco et al., 2018).

Database selection and search strategy

After formulating our research questions, we conducted a systematic search across five strategic databases: AgeLine (EBSCO), APA PsycInfo (ProQuest), Medline (Ovid), ProQuest One Business, and SCOPUS. These databases were selected to capture interdisciplinary research spanning marketing, tourism, psychology, engineering, science, and related disciplines. Our search strategy centred on four concepts – *consumer*, *dementia*, *disabilities*, and *elderly* – using comprehensive keyword combinations (see Table 2) to encompass the diverse terminology within these fields. A university librarian provided expert consultation to optimise our search strategy, ensuring both precision and comprehensiveness.

Eligibility criteria and selection of studies

Inclusion and exclusion criteria aligned with our research objectives, guided by the PCC framework (see Table 3). Our review encompassed both peer-reviewed publications and grey literature – including reports, conference proceedings, and theses – to capture the broadest range of evidence. Studies were first selected by the lead author (VP) by screening titles and abstracts against the PCC framework and using Covidence software as a collaborative tool (Covidence, 2024). Next, all three authors (VP, LG, MSM) independently assessed the full texts of potentially relevant studies, resolving discrepancies through consensus-based discussion. Finally, data from eligible studies were extracted and collated. The database was then supplemented through handsearching of key journals and reference lists to ensure comprehensive coverage. This systematic, iterative approach ensured transparency throughout the screening process.

Data extraction and charting

We systematically extracted data using Covidence (2024), transferring it to Microsoft Excel for organisation and NVivo for thematic analysis. For each study, the authors, publication year, study location, source, objectives, methodology, consumption type, contextual factors, consumer roles, key findings, and identified research gaps were documented. This comprehensive information was systematically recorded in a data-charting form to ensure analytical consistency and methodological transparency.

Table 2. Main concepts and terms for the search strategy.

Main concepts			
AND			
consumer	dementia	disabilities	elderly
OR	OR	OR	OR
customer passenger traveler traveller guest flyer marketing marketplace	Alzheimer’s cognitive impairment senility	accessibility inclusion	older

Table 3. The PCC framework with the inclusion and exclusion criteria.

	Population	Concept	Context
INCLUSION	Studies explicitly involving **people living with dementia** and focusing on their **role or behaviour as consumers** in any marketplace.	How individuals living with dementia **interact with the marketplace**, including studies on their purchasing behaviour, decision-making, consumer preferences, marketing strategies aimed at them, and the design of products or services to meet their needs.	**Experiences** of individuals living with dementia in terms of empowerment and autonomy in purchasing decisions, market participation or exclusion, inclusive or exclusive marketing strategies, product designs considerations.
EXCLUSION	*Adult Population Focus*: Studies focused solely on **older adults** without referencing dementia. *Irrelevant Populations*: Studies focused on populations other than people living with dementia (e.g. caregivers, health care professionals), individuals living with cognitive impairments unrelated to dementia, or people living with dementia **primarily framed as patients**, with no explanation of consumer roles.	*Dementia Care Focus*: Studies **exclusively focused** on dementia care, clinical care, or health services **without** consumer or marketplace context. *Lack of Consumer/Market Relevance*: Studies that **do not address consumer behaviour** or purchasing decisions of people living with dementia.	*Irrelevant Setting*: Settings **unrelated to market interactions** (e.g. hospitals, clinical trials) with **no consumer engagement**. *Medical or Clinical Focus*: **Medical or clinical** focus only (cognitive decline, medication, etc.) without any market or consumer-related elements.

Other Criteria.

Language: Only articles written in English were selected.

Timeframe: No time restrictions were applied, allowing for the inclusion of studies from the earliest research to the most recent developments.

Publication Types: The included publications encompass peer-reviewed articles, conference papers, proceedings, book chapters, theses, and reports.

Data analysis

We conducted a thematic analysis using NVivo to address our research question. Our analytical approach was guided by Jaakkola's (2020, p. 19) conceptualisation process, which emphasises identifying 'a focal phenomenon that is observable but not adequately addressed in the existing research'. In our case, this focal phenomenon revolves around understanding the conceptualisations and empowerment of CLWD in the marketplace. Given the emergent nature of this research area, we employed an inductive approach, allowing themes to emerge organically from the data rather than imposing predetermined frameworks. The authors engaged in iterative discussions, refining the themes before interpreting them through the established theoretical perspectives of vulnerability and market systems. This methodological choice enabled us to challenge traditional perceptions and stereotypes surrounding dementia and consumption while working towards a framework that promotes marketplace inclusion. The analysis yielded four key themes: temporal trends in research output, the interdisciplinary nature of the literature, independent versus mediated consumption, and types of consumption. These themes emphasise how individuals living with dementia are viewed and targeted as consumers, while also highlighting both effective marketing strategies and missed opportunities within this demographic.

Results

Our systematic search initially yielded 2,523 records from the selected databases. After removing duplicates and screening titles and abstracts in Covidence (Covidence, 2024), 606 sources proceeded to full-text review. The final sample consisted of 77 publications that met all eligibility criteria, including peer-reviewed articles and grey literature (four PhD dissertations, two reports, and two conference proceedings). A PRISMA-ScR flow diagram (Figure 1) illustrates the systematic screening process from initial identification to final inclusion (M. D. J. Peters et al., 2020).

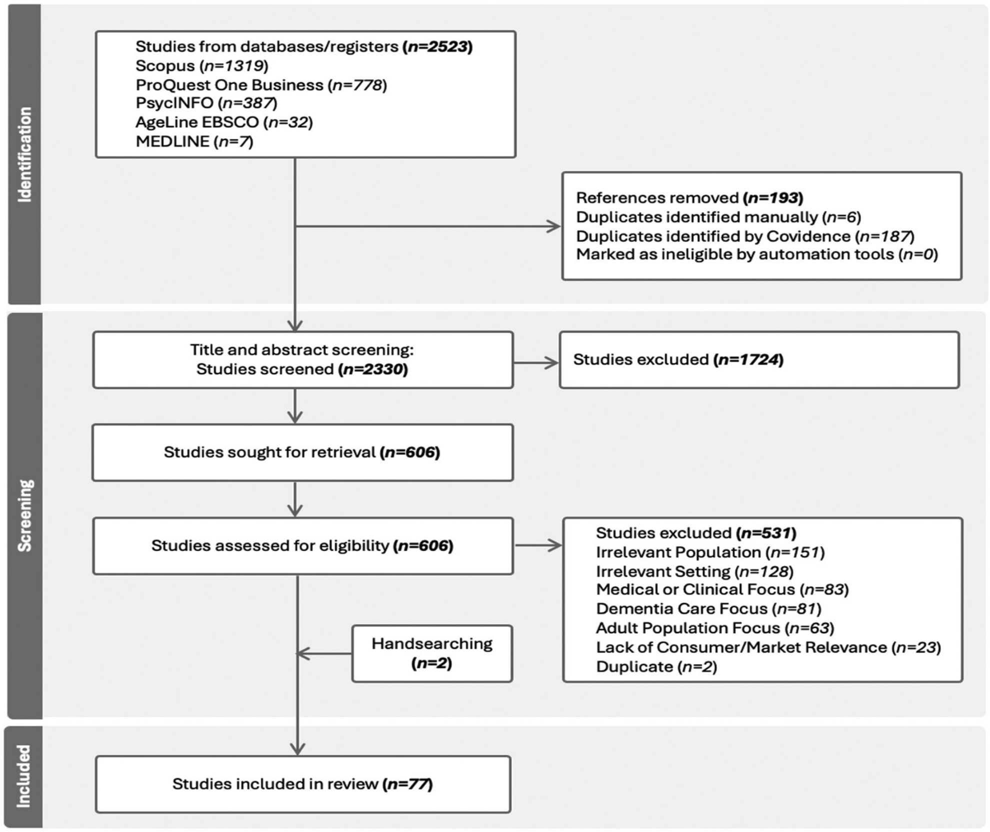

Figure 1. PRISMA-ScR flow diagram.

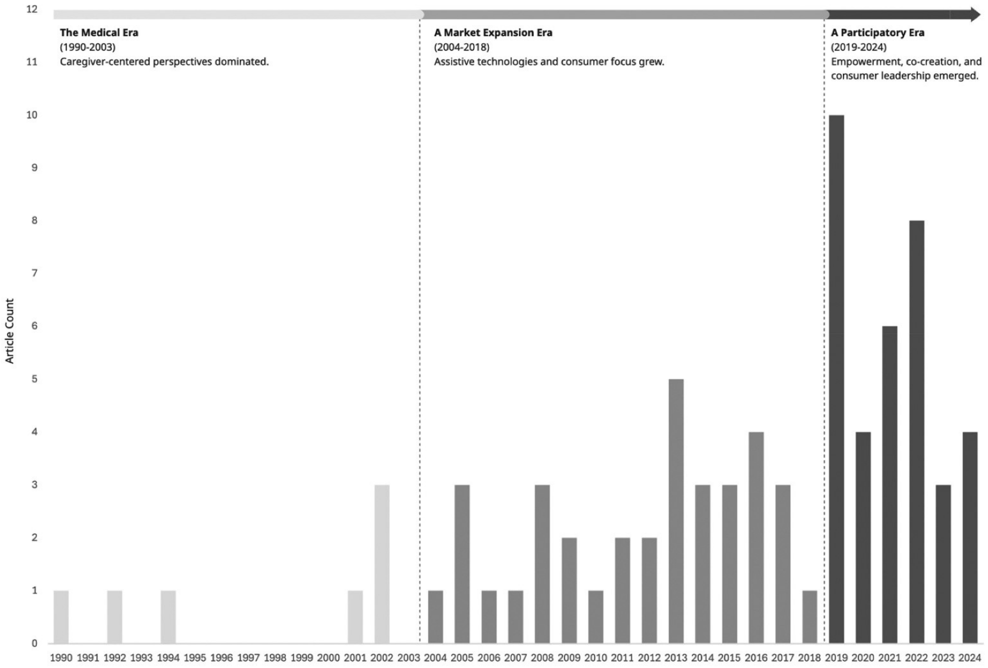

Figure 2. Evolving perspectives on people living with dementia as consumers, 1990–2024.

Temporal trends in research output

Our analysis reveals a narrative across three distinct temporal phases from medical to participatory engagement (Figure 2). While this chronological framework offers analytical clarity for understanding the evolution of the field, we recognise that these eras are not strictly sequential or mutually exclusive. Medical model approaches continue to coexist with participatory paradigms in current research and practice, and papers reflecting earlier paradigmatic assumptions are still published today. The boundaries between eras are more permeable than this framework implies, with various logics often overlapping or re-emerging in different contexts. We present this temporal organisation as a useful way to analyse developments in the field, rather than as strict chronological periods.

The medical era (1990–2003)

In the early years, research revealed a pronounced awareness gap concerning cognitive disabilities, particularly in providing effective consumption experiences (Carpenter, 1994). The disproportionate focus on physical disabilities in marketplace accommodations resulted in diminished dignity for individuals living with cognitive impairments, with marketing strategies frequently criticised for emphasising limitations rather than capabilities (Fernie & Fernie, 1990; Mann et al., 1992). Only seven articles were identified as referring or inferring that persons living with dementia were regarded as consumers.

The medical model historically dominated early scholarship, framing dementia primarily as a health issue rather than a consumer concern and positioning caregivers and healthcare providers as the primary sources of information. Consequently, product design often prioritised caregiver convenience over consumers' dignity, as seen in adult incontinence products predominantly marketed to alleviate caregiving responsibilities rather than to preserve dignity (Fernie & Fernie, 1990) or address the impact of driving cessation resulting in reliance on support networks (Taylor & Tripodes, 2001).

As decision-making dynamics started to gain attention, gerontology research began investigating independence and consumer choice in assisted living decisions. This shift moved away from placements dictated by physicians, social workers, and families towards greater consideration of residents' preferences (Carder, 2002). Discussions increasingly centred on balancing autonomy and protection (Taylor & Tripodes, 2001), though the prioritisation of caregiver perspectives frequently guided consumer input, creating tensions in consumption decisions (Feinberg & Whitlatch, 2002).

Lastly, there was an early emphasis on technological solutions, with assistive technologies such as reminder systems and task guidance becoming a priority (Fernie &

Fernie, 1990; Gitlin, 2002; Mann et al., 1992). Researchers began to consider individuals living with cognitive disabilities as potential consumers of services like public transit, highlighting the need for informational accommodations (Carpenter, 1994). These foundational considerations laid the groundwork for the more consumer-centric approaches that would later emerge, though they simultaneously established a problematic precedent of prioritising functional accommodation over consumer agency. By focusing primarily on assistive technologies rather than marketplace participation, this early research inadvertently reinforced a medicalised identity that subsequent work has struggled to overcome. The limited recognition of consumer identity during this period reflects how deeply entrenched the patient-centred paradigm was, creating conceptual barriers that continue to influence market responses even as more inclusive frameworks have gained prominence.

A market expansion era (2004–2018)

The narrative shifts significantly between 2004 and 2018, with a surge in research activity suggesting a more widespread recognition of individuals living with dementia as active participants in various consumer landscapes. Research during this time expanded beyond the initial focus on technology and specific services to encompass a much broader range of their experiences as consumers. Thirty-five articles meeting our criteria were identified as relevant to this publication period. We established 2003 as the phase boundary because academic production stabilised afterwards, with publications appearing consistently each year.

During this period, a significant shift occurred across multiple contexts – in assisted living facilities (Carder & Hernandez, 2004), adult day services (Carroll et al., 2005), health service planning (Whitfield, 2005), online environments (Freeman et al., 2005), and healthcare systems (Barclay et al., 2006). Growing awareness prompted industries such as financial services (Karp, 2012; Uchida, 2011), tourism (Smith et al., 2013), and retail to develop initiatives to improve accessibility for CLWD (Igarashi & Okada, 2015). However, this recognition simultaneously raised ethical concerns about potential exploitation, financial abuse and fraud, and manipulative marketing tactics targeting these consumers that reflect broader societal barriers limiting their autonomy (Cohen, 2008; Gooblar & Carpenter, 2013; Gregory, 2014; Karp, 2012; Palmour et al., 2013; Perry & Beyer, 2012; Stone & Gould, 2016; Swaffer, 2016).

Efforts can be found to translate research into practice, from providing accessible health information (Draper et al., 2009), involving people living with dementia in developing community-based healthcare (Chaston, 2010), and recognising this population as a viable market segment for innovative assistive technologies (Gabriel et al., 2014; Igarashi & Okada, 2015; Meiland et al., 2014).

This period marks a crucial shift from invisibility to recognition, although primarily in utilitarian rather than experiential terms. Despite increased market attention, the persistent focus on functional rather than aspirational needs indicates that marketplace offerings continued to reflect limited expectations about quality of life and consumer agency – a conceptual constraint that would only begin to be systematically challenged in the following era.

A participatory era (2019–2024)

The most recent era demonstrates a continued high level of research activity, with 2019 marking a significant inflection point – recording 35 publications in just six years, the highest number of publications in the entire timespan. Research reflects a more nuanced understanding, building upon the groundwork laid in previous phases and explicitly recognising people living with dementia as a market segment. There is a growing recognition of the need for supported decision-making (Sinclair et al., 2019; Stewart et al., 2022) and ongoing participation in shaping services, products, and policies (Fitzgerald et al., 2019; D. P. Goeman et al., 2019; Sheth, 2019) to bridge autonomy with protection by respecting consumer preferences and needs. People living with dementia, who were traditionally viewed as passive subjects in research, are now recognised as active contributors (Flavin & Sinclair, 2019). Consumer journey models were employed to understand their lived experiences within the healthcare system (Fitzgerald et al., 2019; Flavin & Sinclair, 2019), incorporating their direct involvement in research processes.

The research landscape expanded significantly to encompass diverse consumer contexts. Investigations into assistive technology supported travel and tourism (Asghar et al., 2020) and the role of Memory Cafés and dementia-friendly libraries highlighted their needs as consumers of community resources (Charbonneau & Rathnam, 2020). Studies examined the contractual consequences of living with dementia as a consumer (Barton, 2021), the development of dementia-friendly destinations (Hansen et al., 2021), and the importance of accessible public facilities (Mathews et al., 2022).

The literature reveals consistent patterns that focus on participatory approaches for refining services, mainly emphasising co-creation (Bast et al., 2021; Stewart et al., 2022), consumer feedback (Koh et al., 2022; While et al., 2020), co-design (Chelberg et al., 2022; D. P. Goeman et al., 2017; Goh et al., 2022), and participatory action research (D. Goeman et al., 2016; D. P. Goeman et al., 2017), which play an instrumental role in enhancing the journey of CLWD in complex marketplaces. This era is marked by a growing acknowledgement of the ‘dementia pound’ as a significant economic force (Barton, 2021). It is characterised by diversity, technology-driven solutions, and collaborative global partnerships that prioritise the voices and lived experiences of people living with dementia (Ong et al., 2023), recognising them as essential sources of expertise. This approach is transforming the way products and services are conceived and delivered.

In summary, the narrative of research on individuals living with dementia as consumers reveals a clear progression from initial recognition and technological focus (1990–2003) to a period of significant expansion and broadening of consumer contexts (2004–2018), culminating in a sustained and increasingly nuanced engagement with their diverse experiences and needs in the most recent years (2019–2024). Despite these advancements, our analysis of temporal trends shows that understanding CLWD remains an underdeveloped field requiring substantial scholarly attention. The observed temporal progression suggests that we are at an inflection point where theoretical recognition could finally translate into practical marketplace transformation, though this will require more deliberate cross- disciplinary engagement than has characterised research to date. Building upon the temporal trends identified in the previous section, our second theme revealed a significant interdisciplinary nature in research addressing people living with dementia as consumers. Table 4 presents a comprehensive overview of the literature on CLWD and marketplace participation, categorising 77 publications across the three distinct eras previously identified and organising publications according to interdisciplinary focus, consumption patterns and consumption types explored in the following sections.

Interdisciplinary nature of the literature

Starting with the interdisciplinarity of the literature, our analysis reveals that Health & Science represents the dominant field (50 publications), focusing on non-clinical consumer services and ageing-related marketplace interactions while excluding direct healthcare delivery as per our study criteria. Social Science constitutes the second largest contribution (9 publications), examining societal challenges and practices while spotlighting individuals living with dementia as active participants within community contexts. Business & Economics (9 publications) exemplifies the transition to market expansion and consumer recognition, addressing marketing strategies and financial considerations for this population. Smaller yet significant contributions come from Transportation and Accessibility (5 publications) investigating mobility needs and accessibility solutions, and other disciplines such as Law and Ethics exploring consumer protection frameworks (2 publications), and Engineering and Computer Information Technology developing innovative solutions (2 publications). Despite this disciplinary diversification, the relatively modest contribution from Business and Economics suggests that mainstream marketing and consumer research have yet to fully engage with dementia as a significant consumer phenomenon, even during the market expansion phase.

Independent vs mediated consumption

The third theme that emerged from coding the papers centres on the nature of marketplace engagement and how CLWD are perceived. Consumption occurs both independently, through direct interaction with goods and services, and in a mediated manner, through relationships with care partners or other intermediaries. This distinction underscores an important aspect of how CLWD are conceptualised as participants in the market.

Table 4. Comprehensive classification of literature on consumers living with dementia (1990–2024).

	Interdisciplinarity					Consumption Patterns		Consumption Types			
	Health & Science	Social Science	Business & Economics	Travel & Accessibility	Other	Independent	Mediated	Care & Support	Tech	Financial & Legal	Travel & Leisure
Authors and Year	(=50)	(=9)	(=9)	(=5)	(=4)	(=41)	(=36)	(=41)	(=20)	(=8)	(=8)
Medical Era											
Fernie and Fernie (1990)	✓					✓			✓		
Mann et al. (1992)	✓					✓			✓		
Carpenter (1994)				✓		✓					✓
Taylor and Tripodes (2001)				✓			✓				✓
Carder (2002)	✓						✓	✓			
Gitlin (2002)	✓					✓			✓		
Feinberg and Whitlatch (2002)	✓						✓	✓			
Marketplace Expansion											
Carder and Hernandez (2004)	✓					✓		✓			
Whitfield (2005)	✓					✓		✓			
Freeman et al. (2005)	✓					✓			✓		
Carroll et al. (2005)	✓					✓		✓			
Barclay et al. (2006)	✓						✓	✓			
Devlin et al. (2007)			✓				✓	✓			
Manji (2008)		✓				✓		✓			
Cohen (2008)	✓					✓				✓	
LoPresti et al. (2008)					✓	✓			✓		
Costa and Doughty (2009)	✓					✓			✓		
Draper et al. (2009)	✓						✓	✓			
Chaston (2010)	✓						✓	✓			
Uchida (2011)	✓					✓				✓	
Gill et al. (2011)			✓			✓		✓			
Perry and Beyer (2012)	✓						✓		✓		
Karp (2012)	✓					✓				✓	
Low et al. (2013)	✓						✓	✓			
Palmour et al. (2013)	✓						✓	✓			
Smith et al. (2013)				✓		✓					✓
Gooblar and Carpenter (2013)	✓					✓		✓			
Kaplan (2013)	✓					✓		✓			
Gabriel et al. (2014)		✓				✓		✓			

(*Continued*)

Table 4. (Continued).

	Interdisciplinarity					Consumption Patterns		Consumption Types			
	Health & Science	Social Science	Business & Economics	Travel & Accessibility	Other	Independent	Mediated	Care & Support	Tech	Financial & Legal	Travel & Leisure
Gregory (2014)			✓				✓	✓			
Meiland et al. (2014)	✓						✓		✓		
Igarashi and Okada (2015)		✓				✓			✓		
Heyn et al. (2015)	✓					✓			✓		
Gabriel et al. (2015)	✓					✓		✓			
Bligh (2016)	✓					✓		✓			
D. Goeman et al. (2016)	✓						✓	✓			
Stone and Gould (2016)			✓			✓		✓			
Swaffer (2016)	✓					✓		✓			
D. P. Goeman et al. (2017)	✓						✓	✓			
Lian et al. (2017)	✓						✓	✓			
Ebbing and Cichosz (2017)	✓						✓		✓		
Sakurai (2018)		✓				✓				✓	
Participatory Era											
Eskytė (2019)			✓			✓				✓	
Flavin and Sinclair (2019)	✓						✓	✓			
Fitzgerald et al. (2019)	✓						✓	✓			
D. P. Goeman et al. (2019)	✓						✓	✓			
Gresenz et al. (2019)			✓				✓			✓	
Hirakawa et al. (2019)					✓	✓			✓		
Hirano et al. (2019)	✓					✓		✓			
Pericu and Licaj (2019)	✓						✓	✓			
Sinclair et al. (2019)	✓						✓	✓			
Sheth (2019)	✓						✓	✓			
Asghar et al. (2020)	✓					✓			✓		
Charbonneau and Rathnam (2020)		✓					✓	✓			
Walsh et al. (2020)		✓					✓	✓			
While et al. (2020)	✓						✓	✓			
Barton (2021)		✓				✓				✓	
Bast et al. (2021)			✓				✓	✓			
Biglieri and Dean (2021)					✓	✓		✓			
Hansen et al. (2021)				✓			✓				✓

(*Continued*)

Table 4. (Continued).

	Interdisciplinarity					Consumption Patterns		Consumption Types			
	Health & Science	Social Science	Business & Economics	Travel & Accessibility	Other	Independent	Mediated	Care & Support	Tech	Financial & Legal	Travel & Leisure
Leon-Ayala et al. (2021)					✓	✓			✓		
Tsertsidis (2021)	✓					✓			✓		
Chelberg et al. (2022)	✓						✓		✓		
Goh et al. (2022)	✓						✓	✓			
Hosie et al. (2022)	✓						✓	✓			
Koh et al. (2022)	✓					✓			✓		
Kearns et al. (2022)	✓						✓		✓		
Ashford et al. (2022)	✓					✓		✓			
Mathews et al. (2022)		✓				✓					✓
Stewart et al. (2022)			✓				✓				✓
Dean et al. (2023)	✓					✓				✓	
Ong et al. (2023)	✓					✓			✓		
Tsertsidis et al. (2023)	✓					✓			✓		
Bast et al. (2024)			✓				✓	✓			
Loi et al. (2024)	✓					✓		✓			
Page and Connell (2024)				✓			✓				✓
Peterson et al. (2024)		✓					✓				✓

NOTE: This table categorises 77 publications across three developmental eras (Medical Era, Marketplace Expansion Era, and Participatory Era), classifying each according to interdisciplinary focus (Health & Science, Social Science, Business & Economics, Travel & Accessibility, or Other), consumption patterns (Independent or Mediated), and consumption types (Care & Support, Technology, Financial & Legal, or Travel & Leisure). The chronological organisation demonstrates the evolution of research focus from medicalised approaches towards recognition of consumer agency and marketplace participation.

Independent consumption

Forty-one publications examine independent consumption, analysing how individuals living with dementia navigate marketplace activities without ongoing support. The literature employs diverse terminology to describe this consumer segment. ‘People with dementia’ appears most frequently *(n = 15)*, followed by ‘people living with dementia’ *(n = 6)*, ‘elderly/older adults/people with dementia’ *(n = 5)*, ‘people/individuals with cognitive disabilities/impairments’ *(n = 5)*, and ‘people/persons with Alzheimer’s disease and related dementia’ *(n = 5)*. Less common descriptors include ‘disabled people with cognitive impairments’ and ‘aging and disabled populations’.

Notably, consumer-centric terminology appears infrequently across disciplines. Only one study uses ‘consumers with dementia’ (Whitfield, 2005), the legal literature contributes with ‘consumers living with dementia’ (Barton, 2021), while computer information technology research references ‘elderly consumers with dementia’ (Hirakawa et al., 2019). This limited use of consumer-focused language reflects a persistent tendency to frame dementia primarily as a medical or social care concern rather than a consumer identity with unique marketplace needs and preferences.

Research demonstrates the active role of people living with dementia in self-care and consumer decision-making. Many individuals maintain autonomy through structured routines, assistive technologies, and environmental modifications (Biglieri & Dean, 2021; Gabriel et al., 2015; Gabriel et al., 2014). This autonomy is enhanced when design processes incorporate CLWD’s direct input rather than defaulting to caregiver proxies, as this approach recognises the unique experiential knowledge that only CLWD possess. In this regard, Whitfield (2005) found that caregiver perspectives may diverge from those of people living with dementia. Furthermore, Manji’s (2008) ‘triadic’ framework illustrates relational dynamics and shared responsibilities among people living with dementia, their caregivers, and professional networks. This research highlights the need for balanced approaches that respect all perspectives, particularly as families navigate dual roles as decision-makers and service providers (e.g. Fernie & Fernie, 1990; Gill et al., 2011; Whitfield, 2005).

Swaffer (2016) exposes how people living with dementia often remain marginalised in conversations about intellectual property rights and their creative contributions, highlighting ethical concerns regarding informed consent and recognition. A commentary by Stone and Gould (2016), reflecting on Sandra Bem’s end-of-life planning with people living with Alzheimer’s disease, illustrates the complexity of maintaining autonomy amid personal identity shifts. This example also highlights the relationship between consumer vulnerability, autonomy, and societal barriers, stressing the need for thoughtful, inclusive policies and marketing campaigns that respect dignity and voice.

Mediated consumption

Thirty-six studies examine mediated consumption, exploring how people living with dementia engage with the marketplace through care partners, or other intermediaries. Terms for inclusion of others in the consumption include ‘people/elderly with dementia and their families/carers/travel companions’ (*n = 16)* and ‘people living with dementia and their caregivers/care partners’ *(n = 11)*. Additional terminology encompasses ‘persons with dementia and informal/professional carers’ (Kearns et al., 2022; Meiland et al., 2014) and ‘the elderly and their caregiver’ (Hosie et al., 2022; Pericu & Licaj, 2019). Broader descriptors like ‘people with Alzheimer’s or related dementias and their families/households’ (Gresenz et al., 2019; Taylor & Tripodes, 2001) and ‘consumer representatives – including aged care assessment teams, family carers, advocacy bodies, and service providers (Goh et al., 2022; Walsh et al., 2020) – address family-unit contexts. Only one study by D. Goeman et al. (2016) refers to ‘consumers with dementia, their carers, and families’.

By far, most of the studies include caregivers as intermediaries helping individuals navigate marketplace complexities (e.g. Fitzgerald et al., 2019; Hansen et al., 2021; Lian et al., 2017; Page & Connell, 2024; Pericu & Licaj, 2019; Peterson et al., 2024). Recent work in Transformative Service Research (TSR) applies service design principles to enhance consumer well-being, particularly for those with cognitive impairments. Bast et al. (2021) highlight three core themes for engaging people with dementia: cognitive factors, social dimensions, and representativeness. When direct involvement proves challenging, they recommend selecting representatives, such as family members or user advocates, while maintaining transparency about proxy participation limitations.

In this context, supported decision-making offers an essential alternative to substitute decision-making. The literature shows how CLWD require varying levels of assistance at different stages (Bast et al., 2024; Draper et al., 2009; Feinberg & Whitlatch, 2002), underscoring the dynamic nature of mediated consumption as cognitive changes progress. Sinclair et al. (2019) proposed a spectrum from informal family assistance to formal representation as a last resort, balancing the moral imperative of ‘maintaining involvement’ with increasing reliance on others. Feinberg and Whitlatch (2002) demonstrated how strengthening family support systems can significantly empower decision-makers among individuals living with cognitive impairments. While et al. (2020) identify ‘service patchworking’ as a key practice, where caregivers adapt and combine various offerings to meet the evolving needs of people living with dementia.

Research indicates that service providers constitute another group through which mediated consumption occurs with CLWD in the marketplace. Overcoming structural and organisational barriers requires systemic-level changes (Draper et al., 2009; Page & Connell, 2024). Stewart et al. (2022) discuss how the ‘Senses Framework’ composed of six essential ‘senses’ – achievement, belonging, continuity, purpose, significance, and security – must be collectively satisfied to enable people living with dementia to maintain autonomy while receiving necessary support at all levels (macro, meso, micro). In this regard, D. P. Goeman et al. (2019) underscore the crucial role of skilled support workers who facilitate consumer choice and maintain service responsiveness to individual needs. Similarly, Bast et al. (2024) highlight the role of frontline employees in a Norwegian dementia village as mediators to bridge consumer-provider gaps, ensuring that services are responsive to individual needs through active feedback and participant recognition.

Types of consumption

The last theme emerging from our coding reveals how consumption domains are categorised for CLWD. The presence of inclusive design practices and co-design methodologies signals an important shift towards recognising people living with dementia as legitimate consumers with valid preferences and market power, rather than passive recipients of care.

Early research by Gitlin (2002), Mann et al. (1992) and Taylor and Tripodes (2001) elucidates how individuals living with dementia encounter increasing challenges in consumption patterns – driving, shopping, recreation, homemaking, and hobbies. Despite these difficulties, Gitlin (2002) and Whitfield (2005) note a strong societal desire to maintain normalcy and inclusivity. As engaging in once-rewarding pursuits becomes more difficult, Fernie and Fernie (1990) observe how many people living with dementia and their caregivers turn to more passive pastimes, such as watching television, primarily for convenience. Our analysis identified four key consumption categories: care and support (*n = 40*), technologies (*n = 21*), travel and leisure (*n = 8*), and financial and legal (*n = 8*), as illustrated in Table 4. This distribution reveals both research emphasis and significant gaps in understanding CLWD’s diverse consumption experiences. While care and support services dominate the literature, growing attention to technological, leisure, and financial domains suggests an emerging recognition.

Care and support

The largest body of literature *(n = 41)* focuses on the consumption of goods and services for care and support, underscoring its critical role in enabling individuals living with dementia to navigate daily life while maintaining their autonomy. They are recognised not merely as patients but as informed consumers of health products.

As the field has evolved since the early 1990s, Fernie and Fernie (1990) highlighted a movement advocating for accessible, user-friendly products, reflecting a growing recognition of the unique needs of this consumer group. This shift towards consumer-centred solutions has driven significant advancements in research, technology, and product design, all aimed at enhancing accessibility and empowering individuals to maintain independence, dignity, and social engagement. For instance, Carpenter (1994) describes how innovations can go beyond medical interventions to include supportive environmental modifications that enhance daily functioning for CLWD, such as simplified signage, reduced noise and crowding, standardised routes, staff training, and complementary paratransit services – demonstrating how care and support can be integrated into physical and service environments. Similarly, Carder and Hernandez (2004) and Carder (2002) document an ongoing shift in care services towards consumer-centric models that prioritise independence, choice, and autonomy.

The focus spans a variety of products and services designed to support independence and dignity. Home-based care is emphasised across several studies as a vital service, encompassing a broad range of offerings such as 'home-delivered meals, personal care, nursing, allied health services, cleaning, home modifications, transportation, and case- managed packages of care' (Low et al., 2013, p. 91). These services empower individuals to remain in their own homes, preserving and respecting their autonomy while addressing their unique needs (Walsh et al., 2020). Tailored home modifications, including assistive devices and accessible layouts, further support independent living by aligning services with individual routines (Bligh, 2016; Gabriel et al., 2014, 2015).

Kaplan (2013) identified a gap in research concerning how variability among home health provider agencies and their workforces impacts the quality of care, particularly for consumers living with cognitive impairments. Recent studies, however, have begun to address these gaps. For instance, While et al. (2020) emphasise that trust in care workers and continuity of care are critical for consumer satisfaction and autonomy. Building on this foundation, Walsh et al. (2020) highlight more recent public support for person-centred care that prioritises autonomy, effective communication, and respect for individual preferences, demonstrating the ongoing evolution of these approaches.

The care and support consumption domain extends to include specially designed environments that function as supportive infrastructure. Beyond workforce dynamics, the built environment significantly contributes to fostering independence for individuals living with dementia. Biglieri and Dean (2021) examine the 'everyday built environments of care' in suburban neighbourhoods, showing how physical spaces function as consumable care resources for CLWD. Their research reveals how environmental features like accessible sidewalks, familiar landmarks, and intuitive street layouts serve as passive support systems that CLWD actively utilise during routine walking or public transportation. Ageing in place emerges as a significant recurring theme, with strong preferences for home-based living supported by environmental adaptations and accessible infrastructure (LoPresti et al., 2008; Manji, 2008). Similarly, dedicated community venues like Memory Cafés, as discussed by Charbonneau and Rathnam (2020), represent specialised consumption spaces that blend social engagement with supportive design, demonstrating how the physical environment itself becomes an integral component of the care and support marketplace.

Devlin et al. (2007) further stress the importance of consumer research to develop sensitive and effective communication strategies that address public perceptions, fear, stigma, and caregiving needs. Gill et al. (2011) further emphasise how care and support consumption extends to the value of co-creation, community-based aged healthcare services designed using the principles of Service-Dominant Logic (Vargo & Lusch, 2008). In this consumption process, CLWD actively participate in shaping their care experiences through collaborative service design involving clients, providers, and managers. This evolving approach to care consumption reflects a shift towards more customised support services that respond to individual preferences rather than offering standardised care packages. Research shows these customised care services increasingly integrate dementia-friendly design principles into practices, promoting participatory approaches to raise awareness and drive meaningful inclusion (Draper et al., 2009; Goh et al., 2022; Ong et al., 2023; Sheth, 2019). Ashford et al. (2022) demonstrated how consumption of care services is enhanced through culturally tailored communication approaches, showing that engagement with supportive services by underrepresented populations increases substantially when messaging addresses specific cultural contexts – an important finding for ensuring equitable access to participatory care models.

Technologies

Twenty studies in the review explore how technological innovations can enhance independence, social engagement, and overall quality of life for people living with dementia. As Heyn et al. (2015) explain, ‘assistive technology is any device that allows an individual with a disability to perform a task that would otherwise be difficult or impossible to do’ (p. 6). Many articles describe that these devices range from simple aids – such as canes and grab bars – to more advanced systems like medication reminders, smart home devices, pre- programmed music and lighting systems, and robotic companions (Costa & Doughty, 2009; Fernie & Fernie, 1990; Gabriel et al., 2014, 2015; Gitlin, 2002; Heyn et al., 2015; Hirano et al., 2019; Kearns et al., 2022; Koh et al., 2022; LoPresti et al., 2008; Mann et al., 1992; Meiland et al., 2014; Perry & Beyer, 2012).

Igarashi and Okada (2015) emphasise that recognising people living with dementia as consumers has driven companies to explore emerging markets for future opportunities. Assistive technologies are emphasised for their potential to improve the quality of life for people living with dementia, alleviate caregiver burden and anxiety, bolster caregiver and professional confidence, enhance job satisfaction, and enable older adults to safely remain in their homes for longer periods, ultimately contributing to reduced healthcare costs (Meiland et al., 2014).

A study on electric-powered wheelchair operators living with cognitive impairment highlights the critical role of consumption safety in minimising risks for both users and those around them (Kearns et al., 2022). Additionally, Koh et al. (2022) illustrate how the ‘Joy for All’ robotic cat can enrich the consumption experience by fostering meaningful activities, improving quality of life, and encouraging social interaction between individuals living with dementia and their caregivers.

Extending beyond physical assistive devices, digital innovations support independent living for consumers living with dementia. D. P. Goeman et al. (2017) developed a discussion tool that enables greater choice, while Pericu and Licaj’s (2019) ‘Restoqui digital platform’ serves as an online catalogue helping users identify appropriate home- based solutions. Taking technology further, Leon-Ayala et al. (2021) proposed the development of a mobile application featuring memory games, reminders, and physical activities, with future integration of artificial intelligence to assist early diagnosis and delay disease progression, offering significant potential benefits to individuals in the early stages of Alzheimer’s disease.

As technology evolves, new opportunities emerge – particularly in addressing common barriers to travel and promoting greater autonomy. According to Asghar et al. (2020) cognitive applications (used by 17% of respondents in a recent study) support users with memory-related tasks, while social applications (employed by 45%) help them maintain social connections, request assistance, and stay informed about plans. However, studies show that despite these advancements, the market remains fragmented, posing challenges like inadequate marketing efforts, limited price transparency, and ongoing safety and privacy concerns (Ebbing & Cichosz, 2017; Pericu & Licaj, 2019; Perry & Beyer, 2012). While many sometimes doubt the readiness or ability of individuals living with dementia to adopt assistive devices, many users express openness to memory aids and other tools, reflecting a positive overall reception alongside occasional resistance (Meiland et al., 2014).

Research by Tsertsidis (2021) revealed that in Sweden, people with dementia encounter difficulties in effectively utilising technology due to a lack of knowledge and support in the implementation of digital tools. Building upon this groundwork, Tsertsidis et al. (2023) pointed out that while digital technologies hold significant promise for enhancing the quality of life for people with dementia, their autonomy and independence are constrained without meaningful involvement in both the development and dissemination processes. This feedback loop shows how consumer experiences can foster innovation and fill systemic gaps in product offerings, with numerous studies advocating for co-design partnerships that actively involve end users in the creation of apps, ensuring that these products are aligned with real needs (e.g. Chelberg et al., 2022; Tsertsidis et al., 2023).

Financial and legal

The financial and legal dimensions of dementia-related consumption ($n = 8$) highlight both the challenges and opportunities that arise when addressing the needs of this vulnerable demographic. Recent interdisciplinary research emphasises the growing economic significance of individuals living with dementia, sometimes termed the 'dementia pound', as businesses increasingly recognise their value in the marketplace (Barton, 2021).

In the financial sector, Uchida (2011) explains how some institutions have begun to provide specialised staff training, to help them engage empathetically with customers who have dementia. This approach supports financial autonomy while safeguarding against financial exploitation. Many articles emphasise the importance of this research, as cognitive decline can affect financial capacity, rendering individuals with dementia vulnerable to fraudulent schemes and abuse (e.g. Dean et al., 2023; Gresenz et al., 2019; Karp, 2012). Sakurai (2018) further highlights the need for flexible 'soft law' approaches to support financial decision-making that respects autonomy while protecting against undue influence, suggesting that guiding principles and community oversight may be more effective than rigid regulatory frameworks in addressing the dynamic nature of dementia-related financial capacity.

As awareness increases, there is also a rise in misleading marketing practices. Researchers have found that fundraising campaigns (Gregory, 2014), online dietary promotions (Palmour et al., 2013), door-to-door sales (Hirakawa et al., 2019), and advertisements for Alzheimer's drugs (Gooblar & Carpenter, 2013) often rely on emotional appeals that target elderly consumers living with dementia, raising ethical concerns about exploitation. According to Cohen (2008), such strategies exploit social isolation and reliance on others for financial management, emphasising the need for tailored marketing that upholds autonomy and protects these consumer groups from harmful practices. More broadly, these market structures frequently overlook the unique needs of vulnerable populations. As Eskytė (2019) notes, 'the introduction of the "average" and "vulnerable" consumer categories communicates to the public what is considered "normal" and expected, and what is perceived as "abnormal" and less typical within the EU single market' (p. 523). Thus, meaningful progress in this arena requires combating stigmatising narratives, implementing appropriate regulations, and recognising people living with dementia as active, autonomous participants in the financial and legal marketplace.

Travel and leisure

The travel and leisure literature *(n = 8)* increasingly recognises the importance of inclusivity for people living with dementia as legitimate consumers deserving the same access to recreational experiences as others. Research highlights how travel can improve quality of life, encourage social engagement, and offer therapeutic benefits for both individuals living with dementia and their caregivers (Page & Connell, 2024), positioning CLWD as valuable customers in this market sector rather than simply care recipients. Although Carpenter (1994) acknowledges that various accommodations have emerged – such as simplified signage and announcements, reduced noise and crowding, standardised routes, staff training, and complementary paratransit services – accessibility challenges persist. These adaptations remain insufficient to fully integrate CLWD as equal consumers in tourism and leisure marketplaces. This gap reflects the industry's ongoing challenge to recognise and respond to CLWD as a significant consumer segment.

Importantly, there is a growing argument that destinations bear not only a moral but also a legal responsibility to accommodate people living with dementia, akin to their obligations under the US Americans with Disabilities Act and the UK Equality Act (Hansen et al., 2021). These frameworks underscore the necessity of ensuring equitable access and inclusion for all individuals, regardless of cognitive impairments.

For instance, people living with dementia often encounter accessibility challenges in public facilities that fail to meet accessibility standards, such as inadequate restroom facilities. These systemic barriers significantly undermine their ability to engage fully as consumers. Addressing these issues underscores the need for consistent infrastructure improvements (Mathews et al., 2022) and policies that prioritise universal design while fostering cross-sector coordination (Hansen et al., 2021; Page & Connell, 2024) to co-create equitable opportunities for all (Stewart et al., 2022).

The loss of driving privileges significantly impacts consumer autonomy for people living with dementia. Taylor and Tripodes (2001) document how this transition increases reliance on caregivers and limits participation in social and recreational activities. Gabriel et al. (2014) further demonstrate how inadequate transportation systems and poorly designed travel infrastructure further restrict their ability to access marketplaces and services independently, thereby constraining their consumer engagement and social inclusion. These studies highlight transportation's crucial role in enabling market participation for CLWD and reveal how mobility limitations can effectively exclude them from fully participating as consumers in travel and leisure contexts.

Research shows that accessibility issues also surface in various travel environments, creating substantial barriers for individuals living with dementia and their companions. Airlines, for example, often struggle to communicate available accommodations effectively, leaving travellers confused or frustrated (Smith et al., 2013). More broadly, the tourism industry has historically underestimated the economic potential of accessible travel markets, leaving this valuable segment largely underdeveloped (Hansen et al., 2021).

According to Smith et al. (2013), over 10% of the global population comprises the accessible tourism market; because people living with disabilities, including dementia, typically travel with caregivers, the actual numbers and financial prospects may be significantly larger. This mediated nature of consumption becomes especially relevant when caregivers act as intermediaries, navigating logistics and decision-making. Notably, Peterson et al. (2024) identified significant gaps in inadequate infrastructure – such as limited wayfinding systems, lack of quieter spaces, and untrained staff – adding stress for both individuals living with dementia and their companions.

Discussion

The importance of this topic cannot be overstated; however, there is a lack of in-depth research that directly addresses it. Through this scoping review, we examined the extent to which marketing has identified, understood, and served consumers living with dementia (CLWD). Four key findings emerged from our analysis of 77 publications spanning 1990–2024.

First, following Montecchi's et al. (2024) approach to temporal analysis, we identified meaningful chronological patterns in the literature. The recognition of CLWD has evolved across three distinct eras – progressing from the Medical Era through Marketplace Expansion to the Participatory Era – with a critical inflection point in 2019 marking the transition from theoretical recognition to practical application. This shift coincided with several converging factors: the implementation of national dementia strategies (Government of Canada, 2019a, 2019b) following WHO's Global Action Plan on the Public Health Response to Dementia (World Health Organization, 2017), the growth of global dementia-inclusive movements (Alzheimer Society (Canada), 2025; Alzheimer Society (UK), 2019, 2023; Dementia Alliance International, 2021), and demographic realities as baby boomers entered dementia risk zones (United Nations, 2019).

Second, health science perspectives dominate the literature, while contributions to business and economics remain limited. This disciplinary imbalance perpetuates a medicalised framing that can overshadow consumer identity and agency. Health sciences often identify needs but lack marketing expertise to develop viable offerings, while business literature frequently lacks clinical insights necessary for appropriate adaptation. Breaking down these silos represents a critical opportunity for comprehensive understanding and practical marketplace solutions.

Third, a tension exists between independent and mediated consumption. Independent consumption remains preferable in many contexts, particularly with appropriate environmental and service adaptations. However, market intermediaries – whether care partners, service providers, or technological interfaces – often facilitate marketplace participation. The data suggests that more attention should be paid to inclusive design approaches across all consumption types, even when care partners or professionals mediate consumption. This tension reveals how vulnerability operates situationally rather than inherently, requiring the industry to understand the heterogeneous nature and individual manifestations of dementia, resulting in both opportunities and challenges for creating truly inclusive markets that respect agency while providing necessary supports.

Lastly, the uneven distribution across consumption domains reflects both research priorities and market development gaps. The growing presence of technological solutions indicates promising developments in assistive and adaptive consumption, yet the relative scarcity of research addressing travel, leisure, financial, and legal consumption domains reveals significant blind spots. These underrepresented domains intersect with consumer identity, lifestyle preferences, and quality of life, suggesting critical opportunities for market innovation beyond medical and care contexts. This imbalance also indicates that marketing scholarship has yet to fully explore how universal design principles might enhance accessibility across diverse consumption domains.

Based on these findings, we propose a multi-level framework for marketplace inclusion (Figure 3) that integrates vulnerability theory with market systems approaches. This framework highlights pathways towards inclusive marketplaces that honour both consumer agency and the reality of cognitive impairments, providing direction for future research and practice.

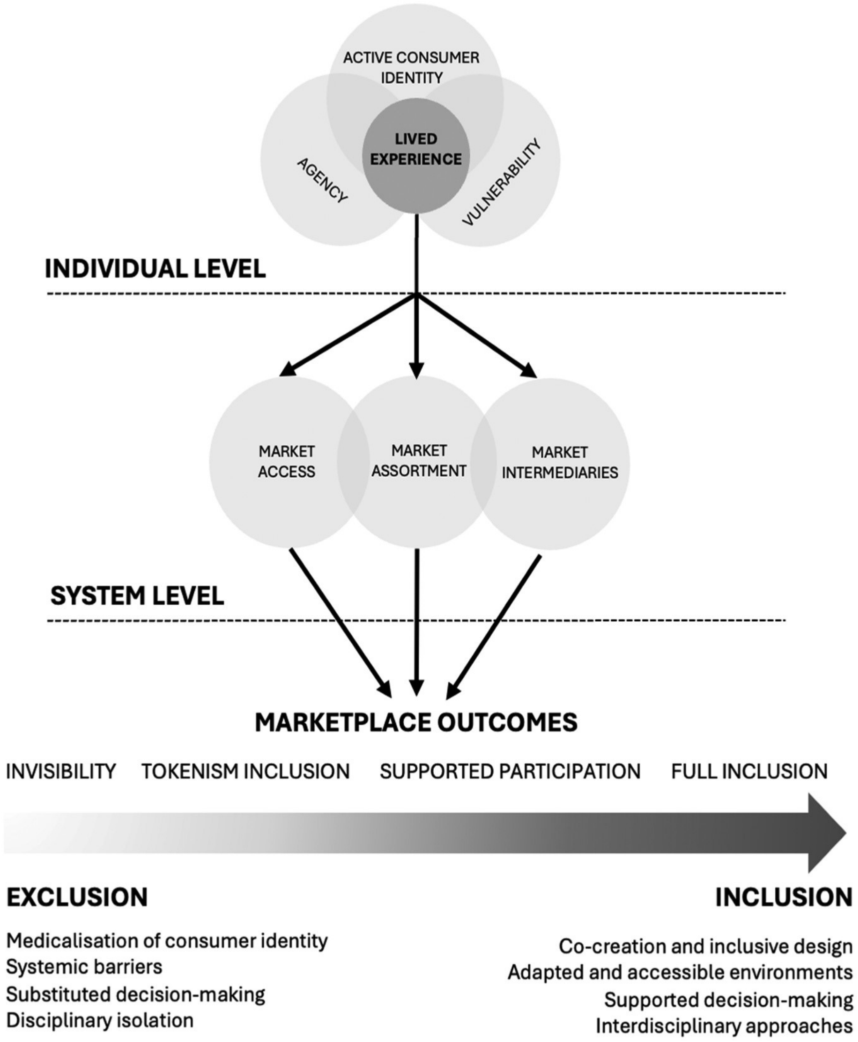

Figure 3. A multi-level framework of marketplace inclusion for consumers living with dementia.

A multi-level framework of marketplace inclusion

When viewed through the lens of our analytical framework, a critical insight emerges from our review: marketplace inclusion is a fundamental factor in the consumer experience of people living with dementia. As illustrated in Figure 3, we conceptualise this inclusion as arising from the dynamic interplay between individual-level constructs and system-level structures, producing marketplace outcomes that range from exclusion to full inclusion.

Our multi-level framework reveals how marketplace inclusion emerges from the interplay of individual and system factors. The intersection of agency, active consumer identity, and vulnerability at the individual level shapes lived marketplace experiences. These elements fluctuate based on personal capabilities and contextual factors. At the system level, three interconnected elements structure marketplace opportunities: market access (physical, cognitive, and social engagement capability), market assortment (range and relevance of available offerings), and market intermediaries (facilitators or constraints on participation). Our analysis reveals persistent barriers across all dimensions – from inaccessible environments to limited product ranges to intermediaries who substitute rather than support decision- making.

These individual-system interactions result in marketplace outcomes ranging from exclusion to inclusion: invisibility (complete absence from market considerations), tokenistic inclusion (superficial acknowledgement), supported participation (facilitated engagement with partial autonomy), and full inclusion (equitable participation where people living with dementia are recognised and respected as consumers).

The paradoxical recognition without implementation

Our framework exposes a critical disconnect between theoretical recognition and practical implementation of marketplace inclusion, pointing towards the necessity of transformative rather than incremental approaches to market inclusion. This challenge requires not merely adjusting existing systems but fundamentally reimagining markets *with* consumers rather than *for* consumers (Patrick & Hollenbeck, 2021) as a core design principle, focusing on abilities rather than deficits (D. P. Goeman et al., 2017). Such a transformation would shift viewing cognitive accessibility as an accommodation to recognising it as a universal benefit that enhances market experiences for all consumers.

Despite the evolution from a purely medical model towards greater consumer recognition, this shift remains largely rhetorical. A key insight from our review reveals a significant gap in scholarly literature, with minimal representation of this population in marketing journals, reflecting their systemic exclusion from mainstream discourse. Only four studies originate from marketing-focused journals: the *Journal of Marketing Management* (Stone & Gould, 2016), the *Journal of Service Theory and Practice* (Bast et al., 2021), the *Journal of Services Marketing* (Bast et al., 2024), and the *International Journal of Nonprofit and Voluntary Sector Marketing* (Devlin et al., 2007).

This disciplinary isolation contributes to inconsistent terminology across fields, with terms ranging from ‘patients’ to ‘service users’ to occasionally ‘consumers’ – reflecting fundamental disagreements about the identity and agency of people living with dementia. Our framework shows that barriers such as the medicalisation of consumer identity and disciplinary isolation perpetuate exclusion despite growing theoretical acknowledgement of consumer rights.

The literature’s contradictory positioning of people living with dementia – recognising their consumer status while simultaneously limiting their market participation – suggests that marketing theory has yet to adequately assign consumer agency to this demographic. When agency is acknowledged, it is often framed as exceptional rather than normative, reinforcing rather than challenging stereotypes about cognitive disability. This contradiction manifests in the gap between inclusive rhetoric and exclusive practices observed throughout our review.

Moving beyond tokenistic inclusion towards the supported participation and full inclusion depicted in our framework necessitates addressing both individual and system-level factors simultaneously. At the individual level, this shift entails creating conditions that recognise and support agency while acknowledging the contextual nature of vulnerability. At the system level, it involves transforming market access, broadening market assortment beyond medical needs, and reorienting intermediaries towards supportive rather than substitutive roles.

Vulnerability as contextual and systemic

Vulnerability theory exposes how the portrayal of CLWD has evolved from an inherent deficit model towards recognition of contextual vulnerability. Our analysis uncovers that despite this conceptual shift, marketplace structures continue to produce rather than merely respond to vulnerability. Applying Pavia and Mason's (2014) vulnerability dimensions to our findings, we observe how dementia as a 'Complex, Dynamic, Unresolvable' condition reveals limitations in current market approaches. Rather than recognising vulnerability as contextually produced, market systems may acknowledge it but fail to address the systemic factors that create or exacerbate it. They frequently treat it as an inherent characteristic, leading to standardised solutions instead of personalised ones.

Stone and Gould's (2016) case study discusses the concept of 'fourth age' consumption, 'a stage of ageing embedded in a discourse of frailty to distinguish it in gerontological theory from prior 'healthy aging' (p. 390). Their analysis reveals how vulnerability for consumers with Alzheimer's disease might include profound existential dimensions. This perspective emphasises how marketplace choices become intertwined with identity reconstruction and anxiety, highlighting the inadequacy of solutions that address only practical barriers. Their work reinforces our framework's position that vulnerability emerges not from inherent deficits but from the intersection between diverse cognitive experiences and standardised market expectations that fail to accommodate the deeper identity-related challenges of dementia.

The tension between demonstrated capability and persistent barriers (e.g. systemic obstacles and substituted decision-making) reveals how market structures, rather than inherent limitations, often create vulnerability. The structural barriers identified in our review – from inaccessible physical environments to complex digital interfaces to stigmatising representations – are not incidental but systemic features of markets designed for the ‘average’ consumers. The coping strategies employed by CLWD (Biglieri & Dean, 2021; Gabriel et al., 2015; While et al., 2020) highlight both remarkable individual resilience and necessary responses to complex and hostile marketplaces. This pattern suggests that vulnerability in this context is not an inherent trait but rather emerges at the intersection of cognitive diversity and standardised market expectations, challenging fundamental assumptions about consumer uniformity that permeate marketing theory and practice.

The literature’s emphasis on individual adaptations (D. P. Goeman et al., 2017) over systemic change reflects a troubling rejection of responsibility by market actors. By focusing on how consumers can better navigate hostile environments rather than how those environments might be transformed, marketing scholarship implicitly accepts the status quo of exclusion as inevitable rather than constructed. Issues related to consumer protection, ethical marketing practices, and the prevention of exploitation are particularly pertinent given the vulnerability of individuals living with dementia, yet these topics remain inadequately addressed. The stigmatisation associated with dementia further complicates the consumer identity of those living with this condition. There has been limited exploration of how societal attitudes influence their experiences as consumers.

The heterogeneity of this population further complicates vulnerability in marketplace contexts. Socioeconomic status, ethnicity, gender, and geographic location also create intersectional experiences that remain largely unexplored in the literature and reinforce the inadequacy of one-size-fits-all approaches (Fitzgerald et al., 2019; Goh et al., 2022; Loi et al., 2024; Manji, 2008; Mathews et al., 2022; Whitfield, 2005). As our analytical framework reveals, these intersections are not incidental but fundamental to understanding how market systems produce differential outcomes for diverse consumers. This finding reinforces our initial critique of current marketing approaches that treat older adults as a homogeneous group (Westberg et al., 2021) or assume consumer uniformity (Beudaert et al., 2017), overlooking the ‘individualised nature of dementia’ we emphasised at the outset of this review.

The complex role of market intermediaries

Our analysis of market intermediaries reveals tensions between support and substitution in how these actors influence marketplace participation. While care partners facilitate market access, our scoping review exposes how these arrangements can compromise rather than enhance agency, with tensions between intermediary needs and consumer preferences (Feinberg & Whitlatch, 2002; Sheth, 2019) often resulting in substituted rather than supported decision-making. This dynamic extends to service providers that also function as critical intermediaries, particularly in complex environments like healthcare and tourism (Bast et al., 2024; Peterson et al., 2024).

Our framework identifies supported decision-making as a key facilitator of inclusion, suggesting that market intermediaries should function as enablers rather than gatekeepers of consumer autonomy. This mindset requires a fundamental shift in how support relationships are conceptualised and enacted within market contexts. Recognising this interdependence calls for inclusive strategies that balance support with respect for consumer autonomy (Manji, 2008; Whitfield, 2005). Addressing these gaps requires reimagining current frameworks to reflect the lived experiences of CLWD, prioritising autonomy and dignity over tokenistic participation. This process necessitates systemic changes that include co-creating campaigns and products with organisations serving CLWD, ensuring that the messaging aligns with their real needs and preferences.

Yet, our analysis reveals that these efforts often fail to address structural limitations and systemic inequalities in market access and assortment. This disconnection between the rhetoric of inclusivity and the realities of service delivery represents a significant barrier to meaningful marketplace inclusion, which frequently implements standardised rather than individualised approaches. While collaborative efforts and consumer-centred approaches have shown promise in driving continuous improvement, the findings underscore the interplay of services, workforce dynamics, and environmental design in enabling autonomy and dignity for CLWD. These collaborative efforts ensure that services align with the lived experiences and needs of this demographic, promoting continuous improvement and fostering greater inclusion. Without critically examining these power dynamics, support systems risk becoming mechanisms of control rather than enablement. By examining market access, assortment, and intermediaries as interconnected elements, we gain insight into why recognition without implementation remains the status quo. The theory exposes how fragmented approaches – improving accessibility without expanding product ranges or developing products without addressing intermediary roles – limit progress towards full inclusion. Future work must adopt this systems perspective to create coordinated transformations across all market dimensions.

Marketing teams also play a crucial role in addressing these systemic gaps. Training programs for marketing professionals should incorporate education about dementia, including the common challenges faced by this group as consumers, and provide ongoing guidance on empathy-driven approaches to campaign design and delivery. Additionally, policy-supported initiatives can incentivise businesses to adopt dementia- friendly practices. For instance, certification schemes could help identify organisations that are dementia-friendly.

This study has its limitations. We searched only five databases, possibly missing relevant work elsewhere. We included only English-language publications, thereby excluding studies from non-English-speaking regions. These limitations are particularly significant in dementia research, which encompasses many languages and disciplines. Although our search terms were carefully selected, we might have overlooked studies that employed different terminology. Future reviews should broaden both linguistic and database coverage.

Future research agenda

Our framework highlights several priority areas for advancing research on marketplace inclusion. Going forward, we suggest six key themes listed in Table 5, which require urgent scholarly attention. By grounding future work in these priorities and our multi-level framework, researchers and practitioners can move beyond merely documenting marketplace barriers and instead develop transformative approaches that recognise CLWD as legitimate market actors with evolving needs and preferences.

Table 5. Future research agenda.

Market Structures and Vulnerability

- Investigate how market structures can proactively reduce rather than just accommodate vulnerability.
- Examine systemic barriers that generate instead of address consumer vulnerability.

Intermediaries and Agency

- Examine the role of intermediaries as potential bridges between individual agency and system constraints.
- Develop frameworks for supported decision-making rather than substitute consumer autonomy.
- Investigate training and support systems that enable intermediaries to strengthen rather than replace consumer choice.

Expanded Market Offerings

- Explore how market offerings could expand beyond medical needs to support identity maintenance and quality of life.
- Broaden market assortment across consumption domains to support holistic consumer experiences.
- Investigate underrepresented consumption areas such as travel, leisure, financial, and legal services.

Inclusive Design

- Study how inclusive design principles can transform physical, digital, and service environments for underrepresented consumer groups.
- Develop universal design approaches that benefit all consumers while addressing specific cognitive accessibility needs.
- Create accessible environments to enable direct consumer marketplace participation across all marketplace contexts.

Interdisciplinary Integration

- Bridge disciplinary silos for comprehensive marketplace solutions.
- Foster collaborative research approaches that combine health sciences, engineering, and business expertise.

Temporal Consumption

- Examine how marketplace participation for underrepresented consumers changed over time.
- Investigate how the evolution of labels and terminology (e.g. from ‘patients’ to ‘consumers’) has shaped consumption practices and market offerings.
- Analyse how changing societal attitudes and policy frameworks influence marketplace participation over time.
- Explore how technological and social changes create new consumption opportunities and barriers across different eras.

Conclusion

The results of this review describe the evolving landscape of research on people living with dementia as consumers, revealing both progress and persistent gaps. Our multi-level framework of marketplace inclusion synthesises findings across individual and system levels to offer a new conceptualisation of how marketplace participation is structured, constrained, and potentially enhanced for this population. Our findings demand a fundamental reconceptualisation of how marketing research and practice approach this consumer segment, moving beyond tokenistic inclusion towards meaningful engagement that recognises agency, mitigates vulnerability, and transforms market systems. Empowerment in the context of dementia consumption is not a singular concept; rather, it reflects a dynamic interplay of autonomy, support, and advocacy. By reimagining the marketplace as a space that empowers consumers living with dementia (CLWD), marketing can play a vital role in promoting independence while upholding dignity, honouring autonomy, and adapting to evolving needs, ultimately enhancing the quality of life for this growing consumer segment. We hope this review offers a foundation for reimagining inclusive marketplaces. This vision demands not only innovation but a dedicated commitment to equity, empathy, and shared understanding across all sectors.

Note

1. Throughout this review, we employ person-first language, referring to ‘people living with dementia’ to affirm their dignity, agency, and status as valued members of society (Alzheimer’s Society (UK), 2018; Andrews, 2017). Framing individuals as consumers rather than merely patients underscores opportunities to advance inclusive market practices that address their distinct needs and preferences (Barnhart & Peñaloza, 2013; Barton, 2021; Beudaert et al., 2023; Patrick & Hollenbeck, 2021).

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CHAPTER 3

Weathering Service Turbulence: From Accommodation to Inclusion

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ABSTRACT

Despite representing a growing and underserved consumer segment, individuals experiencing cognitive variability, including consumers living with dementia (CLWD), remain poorly understood in service research. Through a two-year netnography of air travel experiences among CLWD, our analysis suggests that successful navigation relies on ensemble mediation: coordinated, adaptive support provided jointly by CLWD and travel companions. We introduce the Service Turbulence Model (STM), which reconceptualizes the challenges CLWD and travel companions encounter in service systems as "turbulence"—emergent and dynamic conditions, shaped by four interconnected components (service ensemble, internal variability, service demand environment, and service ecosystem integration)—requiring ongoing adaptation and social coordination rather than discrete problem-solving, static barrier removal, or specialized accommodations alone. By illustrating how accessibility is achieved through dynamic coordination rather than individual accommodation alone, the model extends service inclusion theory and offers practical guidance for designing flexible service operations that reduce turbulence for diverse populations while enhancing overall service quality.

Keywords: service turbulence, ensemble mediation, air travel, cognitive variability, dementia, travel companions

Introduction

> *"The elderly gentleman sitting beside me was very confused about why he had missed his stop. He threw on his jacket, grabbed his bag, and made his way to speak to the bus driver. Only we were on an airplane..." [Anonymized netnographic observation]*

This moment of confusion—mistaking an airplane for a bus—is more than an anecdote. It is a window into a growing challenge for service systems. As our populations age worldwide (World Health Organization, 2026), service systems will face growing challenges from health conditions that are more common among older adults. For example, dementia—a major cognitive limitation found in older age groups—affected an estimated 57 million people globally in 2021, with nearly 10 million new cases each year, and is a leading cause of disability and dependency (World Health Organization, 2025). Yet despite this scale, consumers with disabilities remain underrepresented in marketing literature (Beudaert et al., 2024), with consumers living with dementia (CLWD) particularly overlooked (Primossi et al., 2025).

Within this sparse landscape, existing research frameworks—including consumer vulnerability (Pavia & Mason, 2014), service inclusion (Fisk et al., 2018), and customer journey (Lemon & Verhoef, 2016) approaches—implicitly assume that consumers possess baseline cognitive capabilities such as sequential processing, decision-making under time pressure, spatial navigation, and stress tolerance. For CLWD and others living with disabilities, these capabilities may be absent, compromised, or unpredictably variable, a reality these frameworks leave largely unaddressed.

This assumption creates a significant research gap: what happens when service systems require capabilities that consumers cannot consistently provide, how should service systems respond when consumer capacities fluctuate unpredictably, and how should service systems adapt when consumer needs emerge dynamically? CLWD exemplify this gap. Dementia is a clinical syndrome caused by multiple diseases, each producing distinct symptom profiles that affect memory, language, reasoning, behaviour, spatial navigation, and the interpretation of visual information (Petersen et al., 2023). Dementia produces two forms of variability that service research has not adequately addressed: differences in how symptoms manifest across individuals, and fluctuating capacities within individuals over time and across environments. This variability exposes fundamental limitations in how service research conceptualizes consumer needs and designs service systems to meet them.

Recognizing this heterogeneity, we chose to emphasize common marketplace experiences rather than diagnostic distinctions. While dementia encompasses various conditions—Alzheimer's disease, vascular dementia, Lewy body dementia with distinct neurological profiles (World Health Organization, 2025)—symptom expression depends substantially on environmental context, not diagnosis alone. Research on people living with dementia in suburban neighbourhoods demonstrates that the same individuals experience varying levels of function depending on environmental features: stressful intersections and car-centric designs amplify symptoms, while familiar landmarks and quiet streets support continued mobility and wellbeing (Biglieri & Dean, 2021). An environment with high cognitive demands may amplify symptoms; conversely, a facilitatory environment may prevent disruptive behaviours. This approach aligns with recent research emphasizing that 'disabling marketplaces' need not create diagnosis-specific barriers but should foster universal design (Beudaert et al., 2024; Primossi et al., 2025; Salomonson & Echeverri, 2024). By focusing on systemic factors such as service design, environmental demands, and information accessibility rather than medical classification, we avoid reinforcing stereotypes while promoting solutions that benefit diverse consumers.

The data revealed a pattern that existing frameworks could not adequately capture, leading us to introduce the concept of “service turbulence” to describe service contexts in which consumer needs emerge unanticipated, rather than being stable or predictable. Unlike service failures (discrete breakdowns) or accessibility barriers (static obstacles), we conceptualize service turbulence as a continuous, emergent instability that requires ongoing adaptive responses from all parties. Understanding service turbulence has implications beyond CLWD to include consumers living with autism, anxiety disorders, and other conditions characterized by variable response patterns, who may encounter similar challenges. To examine service turbulence empirically, we focus on air travel, a sector characterized by multiple touchpoints, limited cross-touchpoint communication, and complex interdependencies among airlines, airport personnel, security agents, and passengers (Martín-Domingo et al., 2024). Although transportation accessibility research has largely focused on physical impairments, cognitive disabilities such as dementia have received comparatively less attention (Connell & Page, 2021; O'Reilly & Shepherd, 2016), despite significant documented challenges for this population.

We report on a two-year netnographic study of air travel experiences of CLWD and their travel partners. Based on our findings, we put forward the Service Turbulence Model and the concept of "ensemble mediation"—coordinated, adaptive support provided jointly by CLWD and travel companions. This research contributes to service theory by conceptualizing how service systems can respond to continuously emergent consumer needs, challenging assumptions that accessibility can be achieved through standardized protocols alone.

The paper proceeds as follows: we first review existing service frameworks and develop the theoretical foundation for service turbulence. We then describe our netnographic methodology, present findings from air travel experiences, and introduce the Service Turbulence Model. We conclude with theoretical contributions, managerial implications, and directions for future research.

Service Systems and Cognitive Variability

Existing Frameworks in Service Research

Service research has developed rich frameworks for understanding how consumers move through and experience service encounters. Customer journey frameworks treat temporal progression as linear and cumulative: each touchpoint builds on the successful completion of prior stages, with consumers expected to carry forward information, credentials, and understanding (Lemon & Verhoef, 2016; Voorhees et al., 2017). Customer experience frameworks build on this by focusing on how emotional states and evaluative judgments change throughout the entire journey, viewing the encounter as a unified, comprehensive whole rather than a series of separate interactions (Becker & Jaakkola, 2020). Together, these perspectives establish the service journey as something experienced holistically as a continuous, unfolding process in which each moment is shaped by what came before and shapes what comes next.

Additionally, research has explored how service journeys are not navigated alone. Consumer network theory demonstrates how consumption decisions and experiences emerge from social systems rather than individual choices (Epp & Price, 2011). Ensemble perspectives show how multiple actors (family members or paid providers) collaborate to accomplish consumption activities that no single actor could complete independently (Barnhart & Peñaloza, 2013). Social customer journey research extends this further, showing how social groups navigate service systems together, with individual experiences shaped continuously by the dynamics of the group around them (Hamilton et al., 2021). These perspectives highlight that resources, relationships, and coordination in a service encounter are as vital to its outcome as the service system itself.

Vulnerability and inclusion frameworks recognize that marketplace limitations emerge from the interaction between individual characteristics and market structures, rather than from individual deficits alone (Baker et al., 2005; Fisk et al., 2018; Hill & Sharma, 2020; Pavia & Mason, 2014; Primossi et al., 2025). In practice, however, these frameworks still treat cognitive needs as stable, generating accommodations such as priority boarding or support services that are created once and used for everyone.

Service recovery frameworks address what happens when the encounter fails, providing a logic for identifying failures, assigning responsibility, and restoring consumer satisfaction (Bitner et al., 1990; Tax et al., 1998), or for removing structural barriers (Tuli et al., 2023). These frameworks assume that consumers can recognize when a failure has occurred, maintain a coherent account of events, and evaluate whether a recovery response was adequate. Service ecosystem frameworks similarly attend to the broader networks of actors and institutions that shape service encounters (Akaka et al., 2013; Vargo & Lusch, 2016), but focus on institutional arrangements rather than theorizing how individual cognitive variability propagates through those networks.

Taken together, these frameworks offer powerful tools for understanding service design, delivery, and experience. Yet across all of them, a common pattern is present: journey frameworks assume consumers can maintain a consistent experience across touchpoints; experience frameworks assume sufficient cognitive consistency to sustain coherence throughout an encounter; mediated consumption frameworks assume that social coordination remains relatively stable; and inclusion frameworks are designed for needs treated as fixed. When cognitive capacity varies during a single encounter, the theoretical tools these streams offer (barrier removal, recovery protocols, stable coordination) cannot fully account for what unfolds. None of these frameworks is designed to account for consumers whose cognitive capacity shifts within a single service episode. Table 1 maps these research streams against the specific demands of cognitive variability, making visible the consistent theoretical gap that this study addresses.

Table 1. Service research streams and their limitations under cognitive variability

Research stream	Core assumption about consumer capacity	What it explains well	Where it fails under cognitive variability
Customer journey Lemon & Verhoef, 2016; Voorhees et al., 2017	Consumers carry information and understanding forward cumulatively across touchpoints	How touchpoints connect and accumulate into a coherent service experience	The framework breaks down when information and orientation are lost across touchpoints
Customer experience Becker & Jaakkola, 2020	Consumers sustain a coherent experience narrative and stable evaluative judgments across an encounter	How emotional and cognitive states shape the holistic quality of a service experience	Fluctuating cognition prevents consumers from forming a coherent, stable assessment of the overall experience
Vulnerability and inclusion research Baker et al., 2005; Fisk et al., 2018; Pavia & Mason, 2014	Consumers needs are stable enough to be addressed through targeted, pre-designed accommodations	How marketplace structures create barriers and how accommodations can reduce them	Accommodations designed for stable needs cannot anticipate within-encounter fluctuation; barrier removal does not prevent cascading disruption
Service recovery Tax et al., 1998; Bitner et al., 1990	Consumers can recognize failures, assign responsibility, and evaluate recovery responses	How firms can restore satisfaction following discrete, identifiable service failures	Cannot apply when there is no clear failure to identify or stable baseline to restore
Mediated consumption and ensemble Epp & Price, 2011; Barnhart & Peñaloza, 2013	Social coordination among actors follows relatively stable and predictable patterns	How consumption is accomplished collectively through networks of actors and social relationships	Cannot theorize real-time adaptation when coordination must respond to moment-by-moment shifts in a fellow navigator's cognitive state
Collective journey Hamilton et al., 2022	Group dynamics shape but do not fundamentally destabilize the journey's cumulative progression	How social groups navigate service systems together and how individual experiences are shaped by group dynamics	Does not account for how cognitive variability in one actor cascades through the group, requiring continuous reorientation

Air Travel as a Revelatory Case

Among the service contexts in which cognitive variability shapes consumer experiences, air travel offers a particularly instructive empirical site: a context characterized by multiple sequential touchpoints, high cognitive demands compressed into short time windows, interdependent actors operating under fixed protocols with limited real-time discretion, and a documented record of difficulty for consumers whose cognitive capacity cannot be assumed to be stable (Connell & Page, 2021; Martín-Domingo et al., 2024; O’Reilly & Shepherd, 2016; O’Reilly et al., 2017).

Research in this context spans clinical, disability studies, and tourism literature. Medical and clinical research frames cognitive impairment as an individual condition requiring clinical oversight, asking whether CLWD can travel safely and what physiological complications may arise (Aquilina & Matthews, 2006; McCabe, 2017; Sadlon et al., 2021). Disability and gerontology research has brought the perspectives of CLWD and their companions directly into view: airport navigation generates sustained stress, security checkpoints produce forced separation and hostile interactions, and the burden of managing system inadequacy falls consistently on travelers themselves (Giebel et al., 2025; Peterson et al., 2024; Solis-Lopez et al., 2025; Tomej et al., 2024; Turner, 2022).

Sweeney and Helkkula (2025) offer an important counterpoint: travel can foster identity renewal and well-being for CLWD when conditions support it. This reframes the problem precisely. The issue is not that CLWD cannot benefit from travel, but that existing service systems are poorly designed to enable it, and the theoretical tools to explain why or to guide redesign do not yet exist. Throughout this body of work, there is little inquiry into why service systems produce these challenges in the first place or how they might be reengineered to better assist consumers with varying cognitive capacities. The closest engagement with this question comes from Bast et al. (2021, 2024), who identify social coordination and frontline employee mediation as central to enabling participation, but do not theorize the systemic conditions that make such mediation necessary.

The Gap and Research Objectives

The research streams reviewed above each contribute meaningfully to understanding service experiences and the challenges faced by consumers with varying cognitive capacities. Together, however, they leave a consistent theoretical gap: no existing framework accounts for consumers whose cognitive capacity shifts within a single service encounter or explains how those shifts propagate through the service systems in ways that cannot be resolved through standard accommodation or recovery approaches.

Transformative Service Research (TSR) calls for models developed with underserved populations that explicitly attend to well-being outcomes across service contexts (Anderson & Ostrom, 2015; Anderson et al., 2013; Fisk et al., 2018; Rosenbaum, 2015; Rosenbaum et al., 2020), and recent calls reinforce this urgency; Grégoire et al. (2025) call for research on service failure and recovery that moves beyond dyadic firm-customer models toward frameworks capable of addressing multi-actor networks and dynamic consumer needs. We respond to these calls by examining how CLWD navigate the complexity of air travel journeys. We ask: *how do consumers living with dementia navigate complex service environments, and what service interactions shape these experiences?*

Research Methods

Research Design

Our approach is grounded in transformative service research (TSR), which aims to improve service systems for marginalized populations by recognizing consumers as knowledge experts whose lived experiences can inform meaningful change (Anderson & Ostrom, 2015; Anderson et al., 2013; Azzari & Baker, 2020). We examined how CLWD and their travel companions construct navigation strategies that expose service system limitations and suggest pathways toward inclusive design.

After receiving Research Ethics Board approval, we positioned CLWD as knowledge experts whose insights could improve services, consistent with disability rights principles of "nothing about us, without us" (Koontz et al., 2022). This approach emphasized participant agency and adaptation strategies rather than deficits.

Our methodological approach responds to three imperatives. First, as Langer and Beckman (2005) observed, "if potential informants are not willing to meet the researcher personally, the second best solution is to 'meet' informants where they already are" (p. 191). Our netnographic approach reflects both methodological fit and an ethical commitment to minimize intrusion. Moreover, for CLWD specifically, participation in research helps fulfill their need to feel valued; including their voices "emphasizes their value as a person and honors their personhood" (Beuscher & Grando, 2009, p. 2).

To study this knowledge construction process, we used transformative netnography (Kozinets et al., 2024; Kozinets & Gretzel, 2023), following its six-stage process: initiation, interaction, investigation, immersion, integration, and incarnation. This method was well-suited to examine how people create meaning and develop practices in networked digital environments, with an explicit commitment to generating insights that improve service experiences for CLWD rather than merely describing them (Heinonen & Medberg, 2018; Kozinets, 2020). Netnography minimizes intrusion, reduces cognitive burden through self-paced participation, offers geographic reach without requiring travel, protects anonymity, and enables a longitudinal perspective through forum threads spanning multiple months and even years.

Third, TSR emphasizes consumers as knowledge experts. We need access to both individual sense-making processes and collective knowledge evolution to understand how navigation expertise develops. Capturing both dimensions necessitates a dual-platform research design that combines private, researcher-facilitated discussion forums with observation of public online communities (Belk et al., 2013; Kozinets, 2020, 2023). These platforms served complementary analytical purposes: one was a private researcher-facilitated forum, and the other was a public community observation. Together, these platforms inform both how turbulence is experienced in specific episodes (private) and how navigation knowledge becomes systematized across a community of practice (public). Relevant online communities were identified through systematic exploration, with careful consideration of ethical access, participant vulnerability, and data integrity. These considerations informed the dual-platform strategy, enabling us to capture both in-depth and prompted reflections in private research spaces and naturally occurring discussions in public online environments.

Private Researcher-Facilitated Forum

For our researcher-facilitated forum, we selected Reddit as our platform due to its cost-effectiveness, widespread usage, accessibility, and emphasis on anonymity (Costello et al., 2017). Following the ethical approval granted by the University of Ottawa Research Ethics Board (REB) in July 2023, we commenced the recruitment process.

Initially, recruitment through established travel forums yielded low response rates. Following guidance to "change the research design to fit participants rather than expecting participants to fit our research design" (Webb et al., 2020, p. 8), we used referral-based snowball sampling through stakeholder networks, ensuring representation across dementia experiences and travel contexts. Our sample included CLWD and diverse relationship types (spouses or adult children) with varied travel experiences from multiple regions. This subset of CLWD and travel companions represents a sample of digitally literate individuals who access online platforms and actively engage in travel planning despite dementia, with resources enabling participation in online communities. During recruitment, all potential participants received an information letter about the study and provided consent via email. Only those who consented were allowed to access the private forum, where a welcome post explained the study, data use, confidentiality, and withdrawal rights. This process ensured participants understood they were part of a research study, not just a peer support community.

We created our private research forum on Reddit (r/DementiaAirTravel). Reddit's threaded discussions and upvoting system supported our theoretical goals while maintaining participant anonymity through participant-chosen pseudonyms, geographic obfuscation, and removal of identifying details (Franzke et al., 2020). Participation lasted six weeks with flexible scheduling. We maintained a neutral moderating role while encouraging conversation through carefully crafted open-ended prompts. Participants each received $25 eGift cards to acknowledge their contributions.

Public Community Observation

To understand how community knowledge systems develop, we systematically observed publicly available platforms using Social Astronomy (Belanger, 2024) and Communalytic (Gruzd & Mai, 2024) to identify relevant conversations concerning dementia, air travel, navigation challenges, and accommodation strategies (see Table 2 for the search term strategy used for thread screening, selection criteria, and comment counts). Archival data was captured to illustrate how navigation knowledge evolves collectively. It allowed us to capture naturally occurring conversations without researcher interference, showing how travel adversity is discussed and collectively addressed. More precisely, it included which strategies achieve consensus, how tactics spread, and how expertise develops over time, providing breadth and temporal scope through naturally occurring discussions spanning multiple years and hundreds of participants. The long-term nature of these forums—some threads lasting several years—provided a longitudinal view of how community knowledge and strategies develop. Additionally, the larger scale of participation revealed patterns and differences that might not appear in smaller, researcher-created forums.

Table 2. Search Terms and Concepts for Data Collection

Category	Concept	Definition	Associated Terms
WHO	Consumer living with dementia	Individuals with dementia who participate in air travel, described using various identifiers	consumer, customer, passenger, traveler, traveller, guest, flyer, senior, elderly, older adults
	Travel companion	Individuals who accompany and help people living with dementia during air travel	travel companion, spouse, partner, husband, wife, mom, dad, companion, caregiver, carepartner, son, daughter, family, support person, personal assistant, mom, care partner
WHAT	Dementia	Progressive neurocognitive conditions that affect memory, thinking, behaviour, and ability to perform everyday activities	dementia, Alzheimer's, cognitive impairment
WHERE	Air travel	The settings, processes, and experiences associated with commercial aviation	air travel, fly, flying, flight, planning, airport, airline, plane, boarding, travel, accessible travel, trip, passport

Note. Terms are presented as found in online observations and forum discussions.

Analysis

We merged the researcher-facilitated forum data with the public community observation archival data to generate the final dataset shown in Table 3. Following the six-stage netnographic process (Kozinets & Gretzel, 2023), the analysis began with open coding to identify barriers, challenges, and navigation strategies. We then conducted abductive analysis (Belk & Sobh, 2019; Timmermans & Tavory, 2012), moving iteratively between data and theory to develop concepts that explain observed patterns. NVivo (Lumivero, 2026) facilitated pattern identification while preserving contextual richness (AlYahmady & Alabri, 2013). We used an iterative, team-based approach combining expertise in services marketing and dementia research (Braun & Clarke, 2012). The primary author (VP) maintained a reflexive journal, resulting in a final 108-page document that documented how personal and professional experiences influenced interpretation and contributed to biweekly discussions and reflections with the other researchers (Finlay, 2002). Different disciplinary perspectives—marketing, focusing on service systems, versus dementia, focusing on cognitive changes—required examining theoretical assumptions when participants' experiences challenged initial frameworks.

Findings

Private forums were created to allow deep reflection on specific moments of service disruption, asking participants to reconstruct episodes in which cognitive variability might affect service interactions. This platform offered detailed, consented first-person accounts with the opportunity to explore experiences through follow-up questions. Our analysis iteratively moved between data and frameworks until new patterns emerged that were not theorized by existing frameworks.

Our dual-platform design yielded two distinct data sources. The research-facilitated private forum on Reddit successfully engaged CLWD directly. The interactive phase included ten participants—six persons living with dementia and four family members/travel companions (nine from Canada, one from Europe)—generating 64 direct engagement observations. This sample size is consistent with published qualitative studies in dementia research, which typically range from 7 to 28 participants (Beuscher & Grando, 2009). In contrast, archival research across public communities on FlyerTalk and Reddit yielded 38 threads with 688 comments, with analysis revealing that travel companions—rather than CLWD themselves—constituted the majority of contributors. Table 3 demonstrates how our dual-platform strategy captured phenomena that single-method approaches would miss—both prompted reflections and naturally occurring community discourse. The entire dataset comprised 335,236 words, or approximately 1,006 single-spaced pages.

This distribution reflects both the accessibility challenges of unsupported online participation and the authentic nature of travel navigation for this population, in which companions often serve as primary investigators, planners, and advocates in air travel contexts. Our dual-platform design thus captured both direct CLWD voices (through supported private forums) and the companion-mediated knowledge construction that characterizes real-world navigation practices (through observation of public forums).

Four themes emerged to address our research question: motivations that make air travel essential for CLWD; how dementia affects travel; how ensembles coordinate to manage challenges; and how communities share navigational knowledge. This reveals individual experiences and systemic dynamics.

Table 3. Final Netnographic Dataset

Interaction [Direct Engagement]

Platform	**Observation Type**	**Observation Counts**
Reddit (Private forum) = Tot. 10 participants		
	Threads Created	8
	Comments	53
	Emails	2
	Phone Calls	1
		Tot. 64

Investigation [Archival Research]

Platform	**Forum**	**Observation Counts**		
		Threads Screened	**Threads Analyzed**	**Comments**
FlyerTalk	Travel Companion	—	1	85
Reddit	r/dementia	4173	24	445
Reddit	r/Alzheimers	2662	8	78
Reddit	r/AgingParents	1421	3	55
Reddit	r/CaregiverSupport	481	1	20
Reddit	r/eldercare	174	1	5
			Tot. 38	Tot. 688

The entire dataset comprised 335,236 words, approximately 1,006 single-spaced pages

Why CLWD Travel

Participants revealed that mobility is not discretionary but essential to their well-being and identity. Our analysis identified four interconnected motivations that make air travel a necessity rather than a choice: family connection, life fulfillment, health needs, and advocacy.

(1) Maintaining family connections emerged as the primary motivation*.* Air travel serves as essential infrastructure for relationships, enabling travel to family events and sustaining bonds that support identity and purpose. These stories reveal ongoing negotiations between independence and dependence, with travel serving both as an expression of autonomy and an acknowledgment of emerging care needs, as described by travel companions: *"His doctor encourages us to take him. He has told us that in his current state, this would be good for him"* and *"I honestly think that their willingness to travel is kind of awesome, because I struggle with a depressed dad I have to drag out of his room. Things like your daughter's wedding are reasons to keep living and fighting for happy days — and their health shouldn't get them uninvited."* In doing so, families stand against negative stories about dementia, showing support and understanding. Moreover, the benefits of staying active through travel extend beyond the person living with dementia to include the well-being of travel companions and broader family dynamics.

(2) Life fulfillment drove a second motivation. Rather than accepting travel restrictions, many participants viewed continued travel as essential to preserving their identity and relationship quality. A 'travel while we still can' approach reflecting a sophisticated awareness of disease progression, combined with a commitment to maximizing current capabilities. The concept of 'one last trip' emerged as a recurring theme, highlighting how air travel facilitates meaningful closure and the creation of memories. One participant reflected: *"I took my mum on holiday for three weeks whilst*

she was in the early middle stages... I'm forever grateful for that trip because we'll never be able to do it again."

(3) Health management represented a third motivation, where air travel is not discretionary but a necessity, most often involving accessing specialized dementia care or the coordination of family caregiving across geographic distances. One participant explained that *"It's time for my mother-in-law to move to a facility, one closer to us."* Another described urgent care coordination needs: *"We need to move my grandmother to memory care, and because the only one of her children who cares about what happens to her (my mother) lives several states away, we need to get my grandmother on a plane next week."*

(4) Finally, some participants travel for advocacy—attending conferences, awareness events, or policy meetings—demonstrating how CLWD can maintain active citizenship despite cognitive impairments, as a CLWD explains: *"When there have been hiccups, I try to view them as teachable moments, whether at the time or in future presentations. There are a lot of people to train to learn about dealing with, working with, and understanding people living with dementia, and I like to help those serving the public by filling in some blanks in their understanding."* This advocacy work extends beyond formal events to everyday travel encounters, with participants reframing travel challenges as educational opportunities: *"We're 'out' with this, because how else will we do what we can - in this instance we can't stop the disease, but we can try to educate others and attempt to diminish the stigma..."* For CLWD, air travel is an existential necessity touching on family bonds, identity, healthcare, and civic participation. The

question, therefore, is not whether CLWD should travel but how service systems respond to the cognitive variability they introduce into that travel.

How Dementia Affects the Air Travel Experience

Our findings demonstrate that air travel is feasible for CLWD when adequately supported, yet the journey presents distinct cognitive and emotional challenges. Participants discussed how restlessness, difficulty following instructions, and heightened anxiety are common, while the visual complexity and spatial similarity of airport environments—combined with impaired spatial memory—can make even straightforward routes confusing. These challenges intensify onboard, where companions described loved ones ignoring safety instructions or refusing assistance, behaviours that compound vulnerability. Some CLWD may be reluctant to disclose their condition whether due to stigma, privacy concerns, or desire for independence. As one participant explained: *"I think there could be some type of program established to identify discreetly dementia travellers who might get some extra assistance or supports when travelling. In general society, there is an overall lack of awareness of dementia, the types of dementia, the behaviours and challenges one lives with... let alone all the hurdles and obstacles that come up when travelling."* Even when CLWD do seek help, communication barriers affect both expression and comprehension—staff often remain unaware of cognitive needs until a crisis emerges.

The cumulative effect is clear. These individual-level challenges, including disorientation, navigation difficulties, memory disruption, and communication barriers, do not occur in isolation. Travel companions captured this cumulative challenge vividly, describing constant anticipation required throughout the journey: *"Give her the window seat. If she has the aisle she is apt to disregard the seatbelt sign and may initiate an altercation with the flight crew if she decides she needs to use the toilet during turbulence."* Another reflected on how even careful preparation can unravel in real time: "*Before the flight I loaded up her iPad with her favorite shows she spends all day watching at home... Once in the air, she couldn’t deal with the earphones so she was basically left with nothing to do... She spent most of the flight talking with me (exhausting) or fretting over turbulence… I can’t imagine a 14h flight. :(".* Together, these accounts reveal that the journey generates continuous, unpredictable demands that no amount of advance planning can fully absorb. Our analysis reveals that successful navigation depends on intensive, continuous ensemble coordination between the CLWD and their travel companions, and the broader ecosystem managing interactions with staff and other passengers.

Ensemble Coordination

Beyond the individual experience of cognitive challenges, our findings reveal that air travel experiences for CLWD fundamentally include others. Navigation success depends on coordinated ensemble activity. Travel companions, typically family members such as adult children, spouses, or siblings, provide emotional support, helping manage anxiety, confusion, and distress through ongoing reassurance and distraction. When service providers overlook emotional needs, stress levels rise significantly, underscoring the need for staff who can recognize cognitive impairments before situations escalate. A recurring theme is the need for a "third companion"—a family member, a friend, or a hired professional (such as a nurse or a safety assistant)—whose presence significantly lightens the coordination burden and provides reassurance: *"sometimes, one person cannot do it all… attend to what needs to be done while also ensuring the other person remains safe and comfortable."* Experiences with paid companions vary as some families express concern about entrusting loved ones to strangers, noting that *"relying on others (whether airport personnel, airline workers, or other travellers) to aid a dementia person in their travels is a recipe for disaster."*

Inconsistent staff accommodation remains a significant challenge. While some personnel offer patient assistance, others react with frustration or rigidly enforce procedures. As one participant noted: *"As more and more people with a disability (hidden or not) travel, patience will go a long way to make their job easier, the question and/or issue handled quicker, a pleasant interaction, and the retention of a satisfied customer. Please don't make assumptions on the ability or inability of prospective passengers."*

This ensemble coordination represents sophisticated nonpharmaceutical dementia care—using environmental management, emotional support, distraction techniques, and person-centred strategies rather than medical interventions. As one memory-care physician observing these discussions noted: *"This is a beautiful, heartwarming and heartbreaking thread...as a memory-care physician I can 100% say* *that you both could write a textbook on whole person, nonpharmaceutical approaches to dementia. The gift you gave your spouses is priceless."*

Social Dynamics That Shape the Travel Experience

Beyond logistics, social interactions profoundly shape the travel experience. No two journeys are alike. What may be straightforward for one traveler can become overwhelming for another. Our findings uncover two interconnected dynamics.

The first involves addressing fellow travelers' reactions. Companions often find themselves navigating public perceptions and reactions, which are generally empathetic and supportive but can at times include impatience or visible discomfort. In these situations, the companion acts as a 'mediator', anticipating negative interactions, de-escalating tensions, and fostering a sense of security. As one travel companion explains: *"I usually introduce ourselves and briefly explain the issue. John has a cognitive / dementia issue and will not remember to stay put. The couple of times that I did this, once I'd done introductions, asked how long they would be sitting there, they usually respond favourably. They agree to keep an eye on him and remind him to stay put."*

However, the invisible nature of dementia creates persistent challenges. Many travel companions struggle with balancing their loved ones' dignity with ensuring safety, especially in large disorienting spaces like airports: *"At times, I may have to tell someone 'I'm sorry, my wife has Alzheimer's disease; she's having difficulty understanding you'."* The pressure of public perception and interactions makes even simple tasks stressful: *"Whenever he got confused about things, we made sure not to make a fuss. He was so easily embarrassed and lived in fear of public humiliation at that point. We did everything we could to let people know there was a memory issue, and we were there to help, without making him aware that we were letting others know."*

The second interconnected dynamic is the significant emotional toll the social mediation described above has on travel companions. They are not merely logistics facilitators but emotionally invested care partners who simultaneously monitor their loved one's behaviour, manage social interactions, anticipate potential problems, and intervene when necessary to clarify confusion or prevent misunderstandings. The mental burden of this continuous vigilance can become overwhelming. Travel companions increasingly recognize that they, too, are experiencing profound changes alongside their loved ones: *"It turns out - we're both enduring changes and making adjustments; she's [CLWD] less aware of that, but it's how it is."* The constant need to manage another person's anxiety, behaviour, and interactions with strangers can be exhausting, leading some to question their capacity to continue: *"But the stress is tremendous. And the best way to help your loved ones is to make sure the caregiver is taking care of themselves. Like some have said, in an airplane emergency, you put the oxygen mask on yourself first."*

Travel companions do not perceive themselves as merely assisting a "passenger." Instead, they regard travel as a collaborative, co-experienced journey in which both parties are actively engaged. These narratives reveal protectiveness, frustration, and profound responsibility in ensuring travel that is as dignified and smooth as possible. Their stress levels are closely linked to the quality of accommodation their loved ones receive, underscoring the interdependence of their travel experience. As one companion advised: *"One other tiny piece of advice is to 'go with the flow.' It's not 'Mom, do you want to go for a walk right now?' It's 'okay, here's your coat and your purse, everybody's going for a walk now.' Of all things, you need to summon alllll the patience for yourself."* This perspective challenges service provider assumptions about who the "customer" is. Travel companions expressed frustration regarding the insufficient recognition and support they receive, emphasizing that effective service must attend to the ensemble or group, not just the individual passenger living with dementia. Their stress levels are closely linked to the quality of accommodation their loved ones receive, underscoring the interdependence of their travel experience.

Navigation Strategies Across the Travel Journey

Given the significant barriers and limited support from formal service systems, our analysis reveals that online communities serve as crucial platforms for peer-to-peer learning and strategy development, assisting CLWD and travel companions in successful navigation. Conversations relied on collective expertise through shared experiences and iterative refinement, creating a body of community-driven knowledge that addresses gaps by service providers. To systematically analyze how this knowledge operates in practice, we adapted Voorhees et al.'s (2017) service experience framework and mapped CLWD and travel companion experiences across pre-travel, travel, and post-travel service touchpoints. Table 4 summarizes key service touchpoints and navigation strategies across three journey stages.

Pre-travel service touchpoints: The pre-travel stage plays a pivotal role in mitigating travel-related stressors. This is done through anticipatory adaptation plans, thus ensuring a safe, smooth experience *"If you decide to make this trip with your dad, it will require a LOT of advance planning. You will definitely want to notify and work with the airline at every stage, both before and during the trip."* Key strategies include contacting airlines in advance to arrange accommodations such as wheelchair assistance and priority boarding, selecting direct and early morning flights to reduce sensory overload, and carefully configuring seating—companions on the aisle to facilitate movement, and CLWD by the window to minimize wandering risks: *"Don't let her have an aisle seat, Put yourself on the aisle and her next to you. Why? You might have to block her from getting up when the seatbelt sign is lit. I had to do this with my mother."* Additional preparation tasks suggested by online discussions include bringing visual aids, checklists, maps, and itinerary photos to establish familiarity; engaging in test trips to rehearse security, boarding procedures, and in-flight experiences; carrying disclosure cards for service providers and fellow passengers; and booking medical consultations to assess fitness to fly and necessary medications. Together, these strategies help reduce confusion and foster security, as one community member notes: *"be prepared for things to not go perfectly, but when cabin lights are dimmed and everyone else is sleeping, she probably will settle down, too."*

*Travel service touchpoints***:** The travel phase introduces dynamic, real-time challenges requiring environmental adaptation and negotiation. Airports present particular difficulties—pre-booked wheelchair assistance reduces physical fatigue but can introduce confusion when unfamiliar staff separate companions from CLWD. Security screenings remain among the most distressing touchpoints, though advanced notification strategies can streamline interactions. Travel cards and lanyards identifying cognitive impairment rank among the most recommended strategies, though important limitations exist. Discussants note that lanyards with English text may not be understood internationally, and fellow passengers typically remain unaware of their meaning even when staff recognize them. As one CLWD explained: *"I wear a lanyard, 'Please be patient, I have Alzheimer's disease' whenever I leave the house, so there is notice up-front I may have a problem, be disoriented, or anything else. It makes me more comfortable and confident."* Other key strategies include allocating extra time, using quieter airport lounges, traveling with minimal hand luggage, consideration of the use of ID bracelets or Airtags for added safety, and use of family restrooms when available to reduce disorientation risks: *"I lost my husband once when he left the men's washroom through another exit; the women's washroom did not have an alternative exit."*

On flights, strategies focus on comfort and safety: seating near washrooms, packing fluids for hydration and snacks, preloading personal devices with familiar entertainment, and bringing familiar items (e.g., books or old photographs, sleep masks, pillows, blankets, slippers, stuffed animals) to reduce anxiety. Disembarking typically proceeds more slowly, with pre-arranged passport control and baggage support easing the transition to an unfamiliar environment.

Post-Travel Service Touchpoints: The return home is a critical phase requiring continued monitoring and emotional support. Familiar routines ease disorientation and cognitive fatigue, while some travelers require follow-up medical consultations to address health concerns or adjust medications. Reflecting on experiences within online communities helped identify both successes and areas for adjustment, shaping decisions about future travel and contributing to the collective knowledge base others draw on: *"Thanks for your openness and for sharing your strategies with the community. It's great that both you and your wife are flexible enough to recognize that traveling is still possible, even if it has to be done differently. I raise my glass to both of you."*

Table 4. Air Travel Service Touchpoints by Travel Stage

Service Stage	Key Touchpoints
Pre-Travel Service Touchpoints	Information seeking through online communities and travel agents Strategic booking choices (timing, seating, connections) Contacting airlines for accessibility accommodations Airport arrangements for special assistance Visual aids and familiarization materials Test visits to airports when possible Disclosure strategy development Medical consultation and advice
Travel Service Touchpoints [Airport Navigation]	Negotiation with staff and other travelers Environmental adaptation in busy terminals Wheelchair assistance arrangements Use of traveling cards and identification lanyards Security screening procedures Access to family or accessible washroom
Travel Service Touchpoints [In-Flight Experience]	Communication with flight crew about needs Medication timing and management Seating arrangements and proximity Comfort measures and anxiety management Meal and hydration assistance Managing sensory stimulation
Travel Service Touchpoint [Arrival Process]	Slower disembarking process Pre-arranged passport control assistance Baggage claim support Transition to ground transportation Orientation to new environment
Post-Travel Service Touchpoints	Re-establishing familiar routines Medical follow-up if needed Reflecting on travel experience Evaluating success of accommodations Planning adjustments for future travel

Note. Touchpoints identified from analysis of online forum discussions about air travel experiences.

Discussion

In this study, we examined how consumers living with dementia (CLWD) navigate complex service environments and what service interactions shape their experiences. Our findings reveal that CLWD experience air travel as dynamic and unpredictable, shaped by the ongoing interaction between cognitive variability and the service systems they must navigate. The analysis reveals four interconnected patterns: travel is not discretionary for CLWD but essential to identity, family connection, and wellbeing; cognitive and emotional challenges do not occur in isolation but intensify as they interact with the complexity of the airport environment; navigation depends not on individual capability alone but on coordinated ensemble support from travel companions who continuously adapt to fluctuating conditions; and when formal service systems fall short, online communities help fill the gap by building collective knowledge infrastructure that companions depend on to plan and navigate successfully. When this interaction goes well, travel becomes possible and even meaningful; when it does not, disruption emerges in ways that individual accommodations cannot anticipate or arrest.

The first finding reframes the question at the heart of service design for consumers living with cognitive variability. Rather than asking whether CLWD can navigate service systems, our findings suggest the more productive question is why service systems are designed in ways that make navigation unnecessarily difficult, and what structural dynamics generate that difficulty. Participants did not describe air travel as a preference but as a necessity: to maintain family connections, preserve identity and life fulfillment, access healthcare, and advocate for others. This positions air travel not as an optional consumer activity but as a domain of wellbeing and social participation, with direct implications for TSR's call to design systems that enable flourishing rather than merely deliver transactions (Anderson & Ostrom, 2015; Anderson et al., 2013; Fisk et al., 2018).

Our findings suggest that the challenges faced by CLWD arise not solely from cognitive decline but from its interaction with the service environment. Disorientation, navigation difficulties, communication barriers, and cognitive fatigue do not occur in isolation: they interact with the complexity, sensory overload, and strict procedures of the airport environment, often intensifying each other across different touchpoints. The source of difficulty is not located in the consumer but in the structural mismatch between service systems designed for cognitive consistency and consumers whose cognitive capacity shifts within a single encounter.

This structural mismatch is compounded by inconsistent frontline responses. Bast et al. (2024) demonstrated that frontline employees can either enable or hinder service inclusion through their interpreting, bridging, and facilitating roles. Our findings extend this insight by showing how these inconsistencies force travel companions to compensate through intensive mediation, and how that compensation itself becomes the primary service challenge. We characterize this compensation work as ensemble mediation—dynamic, coordinated support that adapts continuously to fluctuating cognitive states and unpredictable service conditions. This concept enhances mediated consumption research by highlighting what existing frameworks have overlooked: the real-time responses needed when cognitive variability disrupts established coordination patterns between CLWD, travel companions, other consumers, and the service ecosystem around them. While existing research recognizes how family networks (Epp & Price, 2011), consumption ensembles (Barnhart & Peñaloza, 2013), and social journeys (Hamilton et al., 2021) shape experiences, these frameworks assume coordination patterns remain relatively stable. Our findings reveal that when disruptions occur, ensembles must continuously adjust through processes that these frameworks neither anticipate nor explain.

This navigation emerges from three interconnected processes: (1) real-time cognitive adjustments, where companions monitor confusion, anxiety, and comprehension moment-by-moment; (2) service gap compensation, where companions fill voids left by inadequate formal service provision, translating, simplifying, and mediating between providers and CLWD; and (3) collective knowledge mobilization, where online communities create informal infrastructure by exchanging strategies and developing practical wisdom that formal systems fail to provide. The emotional toll of this sustained mediation work is substantial: companions describe continuing vigilance, exhaustion, and the recognition that their own well-being is inseparable from the quality of accommodation their loved ones receive. Their stress levels are not a secondary concern but a direct measure of the adequacy of formal service systems. These findings emphasize the role of service ecosystem integration (the formal and informal networks that shape navigation) as a critical but undertheorized dimension of successful service engagement. When formal systems fall short, informal ecosystems become the primary infrastructure consumers rely on.

Current frameworks—whether centered on vulnerability, service delivery, or mediated consumption—tend to assume that consumers' cognitive abilities remain relatively stable during service interactions. Our findings suggest why this assumption may fall short for consumers like CLWD. Service challenges appear to arise not as isolated failures or static barriers, but as ongoing, emergent disruptions generated by the interaction between internal cognitive variability and externally standardized service systems. Customer journey frameworks (Lemon & Verhoef, 2016; Voorhees et al., 2017) treat progression as cumulative, but when cognitive capacity shifts mid-journey, that cumulative logic breaks down. Service inclusion frameworks (Fisk et al., 2018) address barriers as discrete and removable, but when disruption cascades across touchpoints, removing a single barrier does not prevent what follows. Service recovery frameworks (Bitner et al., 1990; Tax et al., 1998) assume a stable baseline to recover toward, but when that baseline is itself unstable, standard recovery logic does not apply.

We argue that these findings represent not discrete problems requiring targeted fixes but manifestations of what we term "*service turbulence"*: dynamic disruption arising from the interaction between individual cognitive variability and standardized service systems. Unlike discrete service failures (e.g., a delayed flight or a rude employee) or static accessibility barriers (e.g., stairs without ramps, complex wayfinding signage, or the absence of family washrooms), turbulence appears to manifest when internal cognitive-emotional fluctuations, such as confusion, anxiety, and disorientation, encounter external system characteristics, such as time pressure, sensory overload, procedural complexity, and unclear communication. That interaction is unpredictable, emergent, and cannot be resolved by removing a single obstacle. Turbulence requires continuous adaptation throughout the journey, not a one-time fix. What may be a manageable inconvenience for most travelers can set off a cascading effect of disruptions for CLWD, where each touchpoint becomes harder to navigate than the last. To conceptualize this phenomenon, we propose the Service Turbulence Model (STM) (Figure 1). The model is designed to understand service challenges when consumer capabilities vary dynamically, and as a theoretical contribution that extends beyond this context to any service system in which cognitive consistency cannot be assumed.

The Service Turbulence Model (STM)

The STM comprises four interrelated components that explain how service delivery succeeds or breaks down when consumers experience cognitive variability.

The *Service Ensemble* represents the social unit navigating service systems. Rather than isolated consumers experiencing variable cognitive, sensory, or emotional states, many service experiences involve multiple actors—family members, care partners, friends, or companions—who coordinate to manage demands. This challenges service design assumptions that envision single actors moving independently through touchpoints. Accessibility arises from social coordination, not merely from system accommodation.

Internal Variability refers to fluctuations arising from consumer characteristics such as cognitive shifts, emotional states, physical conditions, or social comfort. Internal variability should not be viewed as a deficit or a failure, but rather as inherent to human variability. Everyone experiences cognitive fluctuations due to fatigue, stress, hunger, illness, or emotion. Cognitive disabilities and aging simply make variability more pronounced and perhaps less predictable.

Service Demand Environment refers to characteristics of the service system, including environmental complexity, time pressure, information overload, procedural rigidity, and staff inconsistency. These features affect all consumers but create disproportionate barriers for those experiencing internal variability. Critically, service demand environment differs from static accessibility barriers: it represents dynamic characteristics that increase cognitive load, create stress, and demand rapid adaptation.

Service Ecosystem Integration encompasses formal and informal networks that shape service experiences, including providers, regulatory bodies, advocacy organizations, online communities, and peer networks. These actors create interconnected systems in which each touchpoint influences the others. Crucially, informal networks often provide essential infrastructure when formal systems prove inadequate. Our findings demonstrate that online communities frequently serve as the primary knowledge infrastructure when formal service design falls short.

The model's explanatory power lies in the interactions among these components as shown in Figure 1. The spiral symbols at the center capture this dynamic. Service turbulence emerges from the dynamic interplay between internal variability and external service demand environment, operating through mechanisms of amplification and reduction. Turbulence escalates or diminishes depending on how ensembles and ecosystems respond, not on the presence or absence of a discrete failure. External challenges (crowded terminals, time pressure, and procedural complexity) intensify confusion and anxiety, while effective ensemble strategies (e.g., fostering familiarity, simplifying demands, and addressing systemic gaps) reduce turbulence.

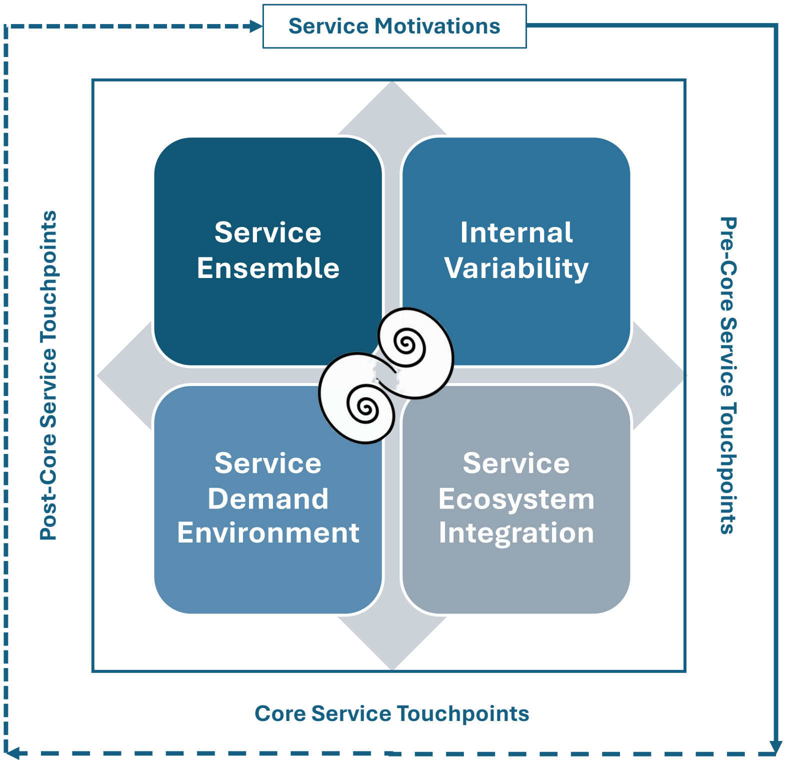

Figure 1. The Service Turbulence Model (STM)

Note. The dashed border represents the continuous service journey across pre-core, core, and post-core touchpoints, driven by and returning to service motivations. Spiral symbols indicate the dynamic amplification and reduction of service turbulence.

While service journey frameworks typically distinguish pre-core, core, and post-core touchpoints as linear stages (Lemon & Verhoef, 2016; Voorhees et al., 2017), the STM reconceptualizes these as recursive cycles where each phase feeds back into the next, creating continuous loops of learning and adaptation rather than a one-way progression. Pre-core touchpoints set navigation conditions through community knowledge and anticipatory planning (e.g., companions researching airline policies, preparing visual aids, and drawing on peer strategies). Core touchpoints involve real-time encounters that generate acute turbulence, requiring immediate ensemble coordination as internal states fluctuate and external pressures mount. Post-core touchpoints center on reflection and knowledge sharing, feeding experiential learning back into the ecosystem and informing future pre-core preparation, creating continuous cycles of collective adaptation rather than isolated service episodes. Critically, these cycles return to and are shaped by the motivations that initiated engagement, meaning that turbulence experienced along the way carries consequences that extend beyond the journey itself.

Although specific expressions of turbulence differ across populations and settings, the underlying pattern remains consistent wherever these three structural conditions converge: internal variability interacts with external system characteristics, service ensembles coordinate to manage turbulence, and ecosystems provide crucial support infrastructure. Our findings thus represent not an exceptional case but a concentrated illustration of a broader structural challenge, one that service systems across sectors might routinely generate but that service research has yet to address. The STM's transferability rests on structural similarity rather than demographic generalization. Dementia and air travel make these conditions especially visible, but the same dynamics are likely to emerge in any service context where they converge. The model addresses not a specific population but a specific structural configuration, one that is far more common and far more consequential than service research has recognized. We therefore call on future research to test the viability of the STM. Such research would refine the model's boundary conditions, extend its explanatory reach, and ultimately contribute to service design that treats cognitive variability not as an exceptional case but as a normal condition to be accommodated.

Research Implications

The STM advances service research by challenging foundational assumptions, introducing new conceptual language, and repositioning the unit of analysis.

Challenging the Cognitive Stability Assumption

Service research has long assumed that consumers maintain sufficient cognitive consistency to meet the demands service systems place on them: an assumption so fundamental that it has gone largely unexamined. The STM directly confronts this assumption by positioning internal variability not as an exceptional condition requiring special accommodation but as an inherent feature of human variability. Everyone experiences cognitive fluctuation; cognitive disabilities and aging simply make that variability more pronounced and less predictable. This extends beyond cognition alone: sensory conditions (hearing, vision), mobility (fatigue-induced walking difficulties, stress on arthritic limbs from stairs or prolonged waiting), and mental health (fluctuations in mood, anxiety, and fatigue) all contribute to the internal variability that consumers must manage alongside the demands of service environments.

This reframing has significant theoretical consequences. Rather than designing for a stable cognitive baseline and accommodating exceptions, service systems must be designed for variability as the norm—shifting the theoretical question from "how do we accommodate special cases?" to "how do we build systems that absorb variability as a standard condition?" with implications far beyond CLWD. Vulnerability frameworks (Baker et al., 2005; Pavia & Mason, 2014) classify dementia as complex, dynamic, and unresolvable, yet still operationalize it through static accommodations that fail when cognitive functioning fluctuates within a single service encounter. Our findings demonstrate that embedding flexibility into standard operations, rather than creating parallel accessible services, benefits all consumers, particularly those with greater cognitive variability.

Distinguishing Turbulence from Barriers and Failures

The STM introduces a conceptual distinction that sharpens existing frameworks by differentiating service turbulence from accessibility barriers and service failures. Accessibility barriers are static obstacles that, once removed, create lasting access (Tuli et al., 2023). For example, installing a wheelchair ramp provides ongoing accessibility. Service failures are discrete events that can be prevented or recovered through correction or compensation (Bitner et al., 1990; Tax et al., 1998). Organizations can eliminate barriers, prevent failures, and recover from disruptions, but they cannot eliminate turbulence. Turbulence denotes continuous, emergent conditions arising from the dynamic interaction between fluctuating cognitive capacity and rigid system demands. It cannot be fixed once and for all but requires ongoing adaptive management throughout the service encounter. This distinction enables more precise theoretical analysis and more appropriate practical intervention. Rather than one-time accommodations, organizations can amplify or reduce external sources of turbulence while supporting ensemble navigation of internal variability. For service inclusion frameworks (Fisk et al., 2018; Tuli et al., 2023), this contribution represents a fundamental conceptual extension: inclusion is not achieved at a single point but maintained continuously across encounters.

Ensembles as the Fundamental Unit of Analysis

Perhaps the most consequential theoretical contribution of the STM is its repositioning of the service ensemble, rather than the individual consumer, as the fundamental unit of analysis. This shift follows directly from our central argument. When cognitive capacity is assumed stable, focusing on the individual consumer makes sense, but when it fluctuates, the ensemble becomes the relevant unit through which service navigation unfolds. Existing frameworks acknowledge social influence on consumer behaviour (Hamilton et al., 2021) and recognize service networks (Tax et al., 2013), yet typically maintain the individual consumer as the primary analytical unit. Customer journey maps (Lemon & Verhoef, 2016) trace individual progression and service blueprints (Bitner et al., 2008) largely ignore informal support actors. The ensemble lens reveals phenomena that individual analysis cannot detect: coordination work, real-time adjustment, and service gap compensation. Crucially, this does not diminish CLWD's autonomy; rather, the ensemble concept reframes the relationship between autonomy and support. Our findings reveal that meaningful autonomy often requires social support; that independence is not the absence of support but its intelligent deployment. An ensemble agency respects the CLWD's capabilities while ensuring successful navigation.

Ecosystem Integration as Service Infrastructure

The STM also positions service ecosystem integration as a theoretical contribution to service research. Our findings reveal that when formal service systems fall short, consumers do not simply fail: they turn to informal networks, online communities, and peer knowledge to fill the gap. This positions informal ecosystems not as peripheral workarounds but as essential infrastructure for successful service engagement.

Managerial Implications

The STM suggests that organizations serving consumers living with cognitive variability need to move beyond discrete accommodations toward systemic adaptive design. We organize our recommendations around three principles.

Design for Ensembles, Not Individuals: Recognizing that many consumers navigate services as coordinated social units, organizations should recognize travel companions as active participants in service delivery, designing touchpoints that support ensemble coordination rather than individual engagement.

Design for Variability, Not Exceptions: Rather than establishing separate special assistance procedures that require disclosure and risk stigma, organizations should embed flexibility into standard operations. Universal design principles reduce external turbulence for all consumers while especially supporting those experiencing internal variability. The goal is not a parallel-accessible service but a standard service that accommodates the full range of human cognitive variability—benefiting all consumers while removing the burden of disclosure from those who need support most.

Build Adaptive Capacity Across the Ecosystem: Individual organizational improvements cannot achieve systemic change on their own. Industry coordination could establish cognitive accessibility guidelines comparable to existing physical accessibility standards, creating cross-provider consistency and reducing turbulence at the ecosystem level.

Limitations and Avenues for Future Research

This research has several limitations that simultaneously point to important directions for future investigation. Dementia represents a particularly revelatory case of cognitive variability, and air travel a high-demand service context. While the fundamental dynamics of the STM are expected to operate across conditions and sectors, the extent to which they manifest similarly in other contexts remains an empirical question.

Our netnographic approach, while well suited to capturing naturalistic consumer narratives, also has important limitations. It primarily reflects the experiences of individuals who are digitally engaged enough to participate in online forums and who continue to travel despite their diagnosis. Consequently, the sample is likely biased toward proactive and relatively resourceful travelers, predominantly from English-speaking countries. Individuals who lack access to online communities, are less comfortable using digital platforms, or have discontinued travel may be underrepresented. If even these motivated travelers encountered substantial challenges, those with fewer financial, social, technological, or health-related resources may face even greater barriers. The findings may therefore reflect a best-case scenario rather than the experiences of the wider population. Notably, the perspectives of individuals who have stopped travelling altogether following a diagnosis are absent, despite the possibility that they may encounter the greatest barriers to accessible travel. Future research should seek to include these voices. Greater representation across socioeconomic backgrounds, cultures, disability types, and levels of digital engagement would likely yield a richer understanding of travel experiences following diagnosis.

Beyond broadening representation, future research should examine the robustness and transferability of the STM across varied disabilities, industries, ensemble compositions, and technological contexts. Cross-industry replication could establish whether the structural conditions identified here hold across healthcare, financial services, retail, government, and other service settings. The internal dynamics of ensembles—including role negotiation, coordination breakdowns, and the conditions under which companion support enables rather than constrains consumer autonomy—remain particularly undertheorized and represent a rich area for future investigation.

Future research should also explore the intersectional dimensions of ensemble composition, including how relationships between consumers and companions, cultural expectations surrounding caregiving, and companions' own health, resources, and capacities influence the ensemble's ability to navigate service environments. The role of service ecosystem integration likewise warrants greater attention, particularly how formal and informal support systems can be better coordinated to support cognitively variable consumers across service contexts. Taken together, these limitations point toward a broader generative research agenda: one focused not only on testing the STM in new contexts, but also on developing a service theory capable of accounting for the full spectrum of human cognitive variability.

Conclusion

For consumers living with dementia, air travel is a means of maintaining family connections, preserving identity, and participating in life. Yet the service systems they must navigate are not designed for cognitive variability. Navigation through complex service environments occurs through ensemble mediation—coordinated, adaptive support that manages turbulence arising when cognitive variability interacts with standardized service systems. Through the Service Turbulence Model, we challenge core assumptions in service research and advocate a shift from specialized accommodations that require disclosure toward flexible operations that treat ensemble coordination as routine rather than exceptional. Beyond theory, we recommend that organizations partner with informal communities to generate navigation knowledge that formal service providers cannot develop on their own, a resource already operating at scale in the online communities we examined. This approach is increasingly urgent: as populations age globally and recognition of neurodiversity expands, the consumers who benefit most from flexible, ensemble-aware service design will only grow in number. Dementia and air travel represent acute turbulence contexts in which cognitive unpredictability meets extreme service complexity, but the dynamics we identified operate across service environments and populations. Meaningful inclusion requires not merely accommodating deficits but redesigning systems that generate turbulence through unexamined assumptions about capability. In the initial vignette, the passenger who mistakes an airplane for a bus is not failing to travel: he is navigating a system that was never designed to accommodate the variability he brings. Service research is well-positioned to change that.

Declaration of interest statement

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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CHAPTER 4

Behind the Turbulence: Uncovering Stakeholder Trade-Offs Towards Inclusive Service Experiences

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ABSTRACT

Vulnerable consumers, such as consumers living with dementia (CLWD), often encounter turbulent service experiences across multiple organizational touchpoints. While existing research has primarily focused on how consumers navigate these experiences, we examine how stakeholders' decisions create turbulence in the first place. We extend the Service Turbulence Model (Primossi et al., under review) by examining the provider-side dynamics that the model identified but left theoretically underdeveloped, demonstrating how coordination failures systematically construct disability. Through 20 semi-structured interviews with 22 aviation stakeholders, we identify four stakeholder trade-offs (Purpose Invisibility, Ensemble Mismatch, Paradoxical Progress, and Cost-Framing Myopia) that explain how service turbulence is produced at the network level rather than within individual organizations. More broadly, we contend that vulnerability stems from ecosystem design choices rather than solely from consumer characteristics. Our findings point to coordinated network design as the necessary pathway to reduce turbulence and build more accessible service ecosystems, with implications for managers, policymakers, and service industries facing mandates for inclusive transformation.

Keywords: Stakeholder trade-offs, service delivery networks, vulnerable consumers, consumers living with dementia, accessibility, service coordination, service turbulence

Introduction

Service researchers are increasingly recognizing that many consumers are disadvantaged in service contexts, particularly those from vulnerable or overlooked populations. This realization encouraged leading service researchers to advance a new research paradigm: transformative service research (TSR), which aims to create positive changes in consumer well-being (Anderson et al., 2013). TSR discloses how vulnerable consumers, those facing exclusion, access difficulties, or unfair treatment in service settings (Rosenbaum et al., 2017), experience unique challenges. However, vulnerability often emerges not just from individual characteristics but from how service systems are designed and coordinated (Primossi et al., 2025).

Air travel provides a critical lens for examining this challenge. It involves multiple service touchpoints, including airlines, airports, security, customs, and ground transportation. The landscape of air travel is continuously shaped by globalization, technological advancement, and demographic change. In response, the industry has made considerable advancements in physical accessibility, including wheelchair assistance, priority boarding, and inclusive design as standard features in its radar (IATA, 2023a, 2023c; ICAO, 2022). However, through a systematic review Martín-Domingo et al. (2024) demonstrate that persistent barriers remain across the entire passenger journey (from booking to arrival), spanning architectural, transport, attitudinal, and technological dimensions. Accessibility efforts have focused predominantly on physical disabilities, leaving the needs of those living with non-visible disabilities, such as cognitive impairments, largely overlooked (O’Reilly & Shepherd, 2016; O’Reilly et al., 2017).

Arsel et al. (2022) map the development of marketplace diversity, equity, and inclusion, and identify the limited research on age and disability as among the remaining gaps. They uncover that a large and growing population of consumers has been rendered invisible by prevailing research assumptions. This gap is exemplified by consumers living with dementia (CLWD) who represent a growing population whose cognitive variability and non-visible disabilities make them particularly vulnerable to coordination failures. In marketing scholarship, CLWD are considered a vulnerable consumer group whose vulnerability is 'complex, dynamic, and unresolvable,' indicating a situation that cannot be cured, is long-term, and typically progresses (Pavia & Mason, 2014). Dementia's unpredictable cognitive fluctuations—affecting memory, orientation, communication, and decision-making in ways that vary across contexts and time (World Health Organization, 2025)—make CLWD acutely sensitive to coordination breakdowns that other travelers might navigate more easily.

While dementia covers various conditions like Alzheimer's, Lewy body, and frontotemporal dementia (World Health Organization, 2025), we echo recent research that "focuses on shared marketplace experiences rather than diagnostic differences" (Primossi et al., 2025, p. 3) contending that symptom expression in services depends not only on individual changes but also environmental and contextual factors (i.e., an environment with high cognitive demands can challenge individuals regardless of diagnosis). Aligning with disability studies and marketing research, the focus is on systemic marketplace barriers—such as design, information access, and technology—that affect all consumers, rather than on individual conditions (Beudaert et al., 2024; Salomonson & Echeverri, 2024). This approach promotes universal design benefits and reduces stereotypes. Hence, we focus on how cognitive variability interacts with service system design, despite heterogeneity.

This pattern exposes a fundamental gap in marketing theory's understanding of how service networks generate vulnerability. TSR examines how service systems disadvantage vulnerable populations (Anderson et al., 2013; Rosenbaum et al., 2020), , and recent work demonstrates how marketplaces themselves can be disabling through their structural configuration (Salomonson & Echeverri, 2024). This view aligns with the social model of disability, which emphasizes that disability emerges not from individual impairments but from structural barriers (Andrews, 2017; Beudaert et al., 2024). This framing indicates that the root of the problem is in how systems are organized, not in the people navigating them. Yet, while researchers have examined how ecosystems integrate resources (Akaka et al., 2013) and documented coordination challenges in service delivery networks (Tax et al., 2013), existing theory has not fully addressed how coordination breakdowns across service networks generate vulnerability.

Current research documents accessibility barriers (Fisk et al., 2018) and tensions between stakeholders (McColl-Kennedy et al., 2020), but cannot explain why well-intentioned organizations' decisions systematically generate exclusion despite genuine commitment. Without understanding why this happens, interventions address symptoms rather than root causes. While institutional pressures can drive organizational attention to accessibility (Mulvey et al., 2026), whether their responses are coordinated or fragmented, and why fragmentation persists despite institutional imperatives, remains poorly understood (Berry et al., 2024; Van Heerde et al., 2021).

The paper proceeds as follows. We first present a conceptual framework drawing on the Service Turbulence Model, service delivery network (SDN) theory, and sequential satisficing to situate our theoretical contribution. We then describe our qualitative methodology, integrating perspectives from five organizational stakeholder types. We present our findings through the Integrated Service Turbulence Model, identifying four stakeholder trade-offs that explain how service turbulence is produced at the network level and proposing coordinated intervention layers to address them. We discuss theoretical, managerial, and policy implications before concluding with directions for future research.

Conceptual Framework

The Service Turbulence Model

The Service Turbulence Model (Primossi et al., under review) offers a way to reconceptualize service challenges for consumers living with dementia (CLWD), and individuals living with cognitive variability, as dynamic phenomena requiring continuous adaptation. It (Figure 1) holds that service experiences generate turbulence through interactions between the external service demand environment (crowded environments, fragmented coordination, inconsistent information) and the internal cognitive-emotional variability (confusion, anxiety, disorientation). One of the major components of the model is the service ensemble: a traveler (e.g., a CLWD) together with their travel companion (e.g., family member or friends), which constitutes the minimal viable unit of service navigation when cognitive demands exceed individual capacity. Companionship in this context is not discretionary but structurally necessary. The ensemble functions as a single, coordinated unit, with its members requiring support that spans organizational boundaries. Motivated by service needs, they navigate this turbulence across the service ecosystem integration (spanning providers, technology, and other consumers) throughout pre-, during-, and post-service phases.

However, the model was proposed based on consumer experience, revealing what turbulence looks like and how ensembles navigate it, while leaving the service ecosystem quadrant theoretically underdeveloped. This paper addresses that gap. Filling this quadrant requires examining not only how service networks are structured, but how multiple stakeholders with divergent priorities navigate the trade-offs that determine whose needs are ultimately served. Drawing on the model, we propose to examine the decisions and structures on the provider side that create this turbulence. Understanding these provider-side dynamics is essential to transforming turbulent service ecosystems into accessible ones. This paper thus complements the Service Turbulence Model by explaining how the network is structured and organized which produces the dynamics consumers must navigate.

Network Structure: Loose Coupling as a Structural Condition

We draw on Service Delivery Network (SDN) theory (Tax et al., 2013) to map the provider-side architecture of the Service Ecosystem quadrant. SDN theory holds that network structure is consequential for service outcomes. SDN is defined as "two or more entities that, in the eyes of the customer, are responsible for the provision of a connected, overall service" (Tax et al., 2013, p. 4), and it requires coordination across organizations to deliver a positive service experience. A service context comprising multiple interdependent stakeholder groups—such as airlines, airports, security agencies, ground transportation providers, and regulators—each responsible for a specific segment of the journey yet collectively accountable for its overall quality, illustrates how SDN structure shapes outcomes for consumers who require consistent support across organizational boundaries.

Critically, Tax et al. (2013) identify loose and tight coupling as an important dimension of SDN structure. In tightly coupled networks, shared governance structures and integrated information systems enable coordinated priority-setting across stakeholders, ensuring that decisions made by one actor account for their consequences across the broader network and enforce system-wide priority resolution. In loosely coupled networks, organizations operate independently within their own domains, with limited accountability to other network members and few mechanisms for system-wide coordination.

This structural distinction is significant because it determines whether competing stakeholder priorities are ever officially resolved. In loosely coupled networks, stakeholders do not simply have different operational objectives; they hold fundamentally divergent priorities that generate tensions throughout the service ecosystem. These tensions manifest as trade-offs: “a balance between two desired but incompatible features (goals, aims, or intentions) in effect, a compromise” (McColl-Kennedy et al., 2020, p. 662). For the service ensemble, the consequences of these unresolved trade-offs aggregate into system-level turbulence: a network in which no stakeholder is accountable for the full journey and accessibility needs are consistently at stake in trade-offs made by multiple independent actors. Understanding why certain priorities consistently prevail over others in these unresolved tensions requires a behavioural account of how organizations make decisions under constraint.

Sequential Satisficing as a Behavioural Mechanism

Simon (1955) argues that when organizations face too many competing demands and resources are limited, they often choose and settle for goals that are simply good enough rather than truly optimal, an approach he terms "satisficing," as the cost of searching for a better solution may exceed the benefit of finding it. Rather than evaluating every possible option, satisficing provides a practical way to make decisions by accepting what is good enough. Building on this, Simon (1956) demonstrates that organizational behaviour is also influenced by the environment in which organizations operate, which determines what goals become visible and worth pursuing.

The key point is that what organizations choose to measure shapes the trade-offs they perceive. Goals that are easy to measure, such as departure times or queue lengths, receive attention first. Unique and unpredictable needs, such as those of

CLWD, are hard to measure, cannot be easily captured by standard metrics, and are often ignored or treated as secondary. Therefore, they remain invisible to the systems that allocate resources. As a result, the problem of trade-offs arises: improvements in accessibility are lost and become invisible compared to other 'easily' measurable goals. Measurable goals win not because they are more important, but because they are visible. Accessibility is lost not because stakeholders do not care, but because the decision-making systems that allocate resources cannot see it.

The Unexplained Gap

Existing frameworks describe the conditions and consequences of coordination challenges. We know that loose coupling creates structural conditions for coordination challenges (Tax et al., 2013), stakeholders navigate tensions through trade-offs when priorities conflict (McColl-Kennedy et al., 2020), and consumers experience the outcomes as turbulence requiring intensive navigation work (Primossi et al., under review). What remains unknown is how these elements interact on the provider side to consistently produce and sustain that turbulence.

Accordingly, we approach this study abductively, moving iteratively between data and theory to surface the generative mechanisms underlying coordination failure (Belk & Sobh, 2019; Timmermans & Tavory, 2012). We engaged diverse stakeholders across the aviation ecosystem to examine how provider-side decisions, network dynamics, and organizational trade-offs produce the turbulence documented in the Service Turbulence Model (Primossi et al., under review). This investigation moves behind the air travel touchpoints into the provider decisions, network coordination dynamics, and organizational trade-offs that shape the experiences vulnerable travelers encounter. Rather than studying isolated interventions or single-actor accommodations, we examine the ecosystem, attending to how structural arrangements and coordination failures amplify or absorb disruption. By tracing how stakeholders with divergent goals coordinate, or fail to, across the service network, we seek to understand what lies *Behind the Turbulence* and to identify pathways for transforming aviation networks from turbulence generators into turbulence reducers. Our guiding research question is: *How do aviation industry stakeholders perceive and respond to the cognitive accessibility needs, and what organizational factors shape those responses?*

Methods

Research Design

We conducted semi-structured interviews (Creswell & Creswell, 2018; Creswell & Poth, 2023) with aviation stakeholders in their operational contexts to examine how real-world coordination challenges emerge across organizational boundaries. We adopted an abductive research approach (Belk & Sobh, 2019; Timmermans & Tavory, 2012), beginning with open-ended exploratory inquiry of stakeholder experiences of accessibility coordination, moving iteratively between empirical observations and theoretical frameworks as patterns emerged. This field-based approach prioritizes ecological validity (Van Heerde et al., 2021), enabling us to understand how stakeholders actually navigate trade-offs in complex service ecosystems.

The interview protocol addressed five domains: (1) organizational roles and accessibility involvement, examining participants' positions and engagement with accessibility initiatives; (2) current practices and policies, exploring accommodations for CLWD, needs identification, and assistance provision; (3) training and resources, investigating dementia-specific training content, effectiveness, and gaps between training and practice demands; (4) technology and infrastructure, examining how physical environments (terminal design, signage) and technological systems (kiosks, apps) facilitate or hinder CLWD navigation; and (5) stakeholder coordination, investigating how service delivery is coordinated across the aviation ecosystem, existing barriers, and potential improvements for CLWD and companions. This structure enabled systematic comparison across stakeholder types while allowing elaboration on role-salient issues.

Research Positionality

This research is grounded in sustained, embedded engagement within the air travel accessibility ecosystem between 2021 and 2025. Guided by transformative service research and service ecosystem perspectives, the research team engaged collaboratively with stakeholders across the ecosystem, cultivating ongoing relationships with CLWD, care partners, industry leaders, regulators, and interdisciplinary scholars. This immersion fostered what Timmermans and Tavory (2012) term cultivated theoretical sensitivity, enabling recognition of underlying structures, patterns and tensions not readily visible through formal data collection alone.

Rather than treating the translation of research into practice as a downstream activity, the research integrated academic and practitioner perspectives through iterative engagement, including multi-stakeholder workshops on air travel accessibility focused on critical service-design domains. Ongoing dialogue at industry and academic forums further informed the researchers' understanding of the field and sensitized them to emergent patterns and institutional dynamics. Consistent with abductive theory-building traditions (Belk & Sobh, 2019; Timmermans & Tavory, 2012), these engagements functioned as sources of theoretical inspiration rather than empirical evidence. The semi-structured interviews reported in this study served as the primary data for systematic analysis and theory development, enabling validation of emergent insights.

Data Collection

After receiving ethics approval from the Research Ethics Board (REB), a purposeful sampling method (Patton, 2002) was employed to select participants with relevant expertise and experience across multiple organizational types within the aviation service delivery network. Following established guidelines for conducting interorganizational research (Kumar et al., 1993), we deliberately sampled key informants from diverse stakeholder organizations—airports, airlines, regulatory bodies, manufacturers, and consultants—to capture coordination challenges that emerge across organizational boundaries rather than within single organizations. This multi-informant approach is particularly well-suited for investigating network-level phenomena, as recent meta-analytic evidence demonstrates that triangulation across organizational types significantly enhances both the reliability and validity of findings in interorganizational contexts (Homburg et al., 2012).

Recruitment proved challenging. Several organizations declined participation, and many did not respond despite repeated contact attempts. These difficulties may reflect the novelty of dementia-inclusive practices in aviation and underscore the pioneering nature of participating organizations. Accordingly, participating stakeholders represent leaders and early adopters in accessibility innovation rather than typical industry practice—an important consideration when interpreting findings.

Interviews were conducted throughout the summer and fall of 2025 via Microsoft Teams. With participants' consent, interviews were audio- and video-recorded and averaged 1 hour and 12 minutes in duration (range: 45 minutes to 1 hour 45 minutes). The lead author (VP) recruited participants via invitation email and conducted all interviews, ensuring consistency in interview approach and probing strategies. Following Patton (2015), we combined the interview protocol with a standard open-ended interview style (Brinkmann, 2014), allowing participants to elaborate on role-salient issues while ensuring systematic topic coverage.

Following Whittemore et al. (2001), all identifying information was removed from transcripts, which were returned to participants via password-protected email for verification, thereby confirming data accuracy before finalization for analysis. Following Glaser and Strauss (2017), we continued interviewing until theoretical saturation was reached, at which point new interviews no longer yielded new insights.

Data Analysis

Consistent with our abductive approach, we treated data collection itself as the generative source of insight, allowing themes to emerge naturally from the data before bringing them into dialogue with existing theory (Belk & Sobh, 2019; Timmermans & Tavory, 2012). The lead author (VP), assisted by the second coder (AC), utilized NVivo software (AlYahmady & Alabri, 2013) to conduct thematic analysis following Braun and Clarke (2012). Following Glaser and Strauss (2017), we proceeded through open, axial, and selective coding to identify key codes and develop higher-order themes. Both authors independently coded transcripts to generate initial codes, then met to compare, reconcile, and integrate them into a shared coding framework. Throughout, we maintained a reflective journal to support ongoing reflexivity (Creswell & Creswell, 2018). We held biweekly meetings with two expert researchers (MSM, LG) to discuss emerging themes, challenge interpretations, and resolve disagreements.

Our primary objective was to identify patterns and themes that align with the research question. We extracted data on practices, initiatives, and policies that stakeholders described as shaping CLWD experiences, examining their effectiveness, implementation challenges, and stakeholder commitment. Using the Service Turbulence Model (Primossi et al., under review) as an analytical lens, we examined how stakeholders' system dynamics might generate the turbulence that CLWD navigate. Together, these analyses provided a comprehensive understanding of system interactions, constraints, and opportunities for improving CLWD journeys, grounded in both stakeholder accounts and emergent themes from the data. To protect participant anonymity, we do not disclose specific organizational roles or affiliations. The Canadian aviation accessibility sector comprises a relatively small professional community where role disclosure, combined with verbatim quotes, could potentially identify participants. Participants are identified by numeric codes (P1-P21) throughout the manuscript.

Findings

We conducted 20 interviews, yielding 22 participating stakeholders representing diverse organizational perspectives across the aviation service delivery network (Table 1). The sample included one interview with two participants simultaneously and one participant who provided written responses for a total of 21 transcripts. No substantive differences were observed between these data and individual interviews; given their analytic value, they were retained.

Table 1. Sample composition

Stakeholder group	N	Primary roles represented
Airports	7	Accessibility managers, CX leads, operations directors, senior leadership
Regulators	6	Accessibility regulators, policy advisors, standards developers
Airlines	3	Accessibility experts, training coordinators, service managers
Manufacturers	3	Design engineers, product development managers
Consultants	3	Accessibility advisors, industry consultants
Total	**22**	**Participants**

Through iterative analysis, we identified four recurring patterns of accessibility failure that persist despite organizational effort, goodwill, and awareness. These patterns are not the result of individual negligence or bad intent. Rather, they emerge from the architecture of the aviation service network itself that collectively constructs disability. The four patterns each capture a distinct way the network falls short: (1) Purpose Invisibility, (2) Ensemble Mismatch, (3) Paradoxical Progress, and (4) Cost-Framing Myopia. Together, they point to a systemic breakdown that no single actor can fix on their own. The findings are organized around each pattern, examined in turn below.

Purpose Invisibility

Organizations measure operational performance, but not what passengers need or why they are traveling. This invisibility operates on two levels, together explaining why purpose remains structurally absent from service design.

The first is an information gap. Service providers cannot differentiate between discretionary leisure travel (which causes inconvenient delays) and essential care travel (where delays can be catastrophic) because they simply do not have the data. As P1 reflected, *"...the customer was never at the center of a global coherent process. It was the sum of processes put upon you if you wanted to travel. The philosophy changed in recent years. I'd say the last maybe 15 years... we got to be far more customer centric."* P18 articulated what that data would make possible: *"You need to know the whys before anything else. Same thing with travel. Why are you traveling today? For work? For a health procedure? To visit family? What is the purpose of your trip today? ... If we knew why, what the purpose of the trips was, we could tailor the service better."* P5 described the practical consequence of this gap: *"If we know that 2% of the passengers* *have cognitive impairments, dementia, we would know we need more sensory rooms. We're just guessing at this point...We're guessing how many passengers fly. We know the population and how many people have disabilities, but what are those disabilities? We don't... do you even know how big the consumer base is?"*

Yet the data does not exist because disclosure is voluntary and inconsistent. P6 explained that *"...some people don't want to disclose because they're afraid they won't be allowed to fly. They might be deemed unfit, especially if it's a cognitive disability."* P19 confirmed: *"It's not a metric that we track... it's voluntary—it isn't even voluntary. It's not information people divulge... So unfortunately, we don't have that information."* Although self-disclosure remains the only method for service providers to learn about certain issues, P15 pointed out that it happens inconsistently, and *"...unless they self-disclose, I wouldn't be able to provide numbers in any capacity."* Even when data does exist, its use is limited. P3 captured the gap between what organizations collect and what would actually help: *"...the request from the airport and what the airport need[s] is not the details of the person itself, right?... I just need to know how many people with which disabilities. That's it."*

The second level runs deeper. Even when organizations want the data, the systems they operate within are not designed to use it. Infrastructure is built for the average, able-bodied passenger, what P4 called a *"one trick pony"* system built to move people through as efficiently as possible, not to understand why they are traveling or what they need along the way. Efficiency does not require purpose; it requires predictability. P9 described how good intentions get overtaken by system logic: *"...And* *then before you know it, accessibility gets engineered out of any sort of solution..."* Because the system is designed with a typical traveler in mind as someone who moves quickly, follows standard procedures, and does not need extra support, when a traveler does not fit that picture, their needs do not just go unnoticed: they were never part of the equation in the first place. When systems track how many passengers move through, but not why they are traveling or what they need, staff must improvise without information, time, or authority. Case-by-case accommodation does not scale across thousands of daily passengers.

These visibility gaps extend to the frontline. P1 observed that staff remain *"far more understanding or reactive to visible disabilities rather than non-visible disabilities because it's a natural instinct."* Staff are more likely to notice and respond to disabilities they can see than those they cannot. P18 connected this directly to education gaps: *"Within aviation, we're not taught to recognize the signs. So people are uncomfortable because they're uneducated."* Yet P19 described the structural constraint: *"staff only has seconds, literally seconds to interact with each individual and pick up on these cues."* Even when awareness exists, P13 noted that high staff turnover undermines it: *"high staff turnover means that you're going to get new people in the jobs all the time... So it's almost like you need to have training, recurrent training because there's skill fatigue too."* P21 articulated the particular challenge dementia poses: *"...you don't know how the person will react... everybody wants to help, but there becomes a line where there's a level of comfort in whether or not you're able to provide* a service appropriately *and if you think you are, but you actually aren't, where's the liability in that?"*

Overcoming these gaps requires more than infrastructure. As P7 emphasized: *“The attitude is the root of everything. So you can have a wonderful airport, very accessible, and if the human [attitude is negative], it will be an awful experience for the customer.”* P12 reinforced that *“...the experience is going to be determined by how you're treated and how people behave and work with you... it just comes down to empathy and human connection.”* Training and attitude are interdependent: neither is sufficient without the other.

Even when services exist, passengers must know about them to benefit from them. P16 captured this vividly: *"After you tell guests the services that you have, tailored based on what they've told you to their needs, it's like, 'Wow, that would have helped me a lot, but I don't know where it is.'"* This exposes what could be called a checkbox mentality: the idea that creating a program is the same as delivering it. Accessibility requires not just service provision but service discoverability, and the two are rarely treated as equally important.

Ensemble Mismatch

Systems designed for individuals fail when consumers travel as ensembles (passenger plus companion), requiring coordinated support. P1 and P21 noted that travel companions mediate what the service system lacks, yet staff struggle with the delicate balance of addressing the CLWD while acknowledging the travel companion’s role. P17 highlighted a systemic gap in the industry, asserting that the needs of travel companions must be treated with equal priority to CLWD, a dimension the industry has yet to adequately address. P12 captured this tension directly by emphasizing that staff should not address the care partner or companion unless *"there's a reason to do so" to* preserve the CLWD's identity and agency. Yet, as P12 noted, companions are *"all too often forgotten"* despite being a key support through which smooth travel is possible, and *"very much needing to be included in the process, and their stress levels need to be considered as well."*

When companions are absent, the system's gaps increase significantly. P18 noted that some CLWD do travel alone, and P16 described one such instance where a CLWD, post-security, remained waiting on the wrong side of the airport for hours while family at the baggage carousel panicked. P11 illustrated why carrier personnel cannot fill this gap since *"there's an entire aircraft of people"* to manage, making sustained, consistent support impossible for staff to provide alone. Yet P11 equally emphasized that the goal is not to restrict independent travel but to *"remove as many barriers as we can to ensure that they still have access to travel."* The issue is that the system currently offers limited alternatives when companion support is unavailable.

The limitations of the system, as P9 observed, *“are really about where service starts and ends rather than who’s doing it.”* This boundary logic was widely recognized across participants. P17 described the complexity of airport navigation as involving *"multiple, multiple entities and they all have to talk to each other,"* while P14 captured both the aspiration and the reality: *"things to work together. Yeah, that would be beautiful, because right now they don't."* Currently, the coordination burden falls on ensembles rather than the system itself. P17 articulated that the responsibility is on the travelers to contact the airline, airport, and destination separately without a central coordination, and *“...people might not even know that they need help or might not even be aware of their own... condition”* (P9) or even further, *“you don't know you need help until you need it”* (P16). P19 noted, *“oftentimes when it comes to a person with disabilities, especially if it's one of the first times that they're travelling... they don't know what services you need, they don't know what services are offered.”*

P9 delivered perhaps the most critical observation when it comes to non-visible disabilities: *“Self-advocacy is a luxury. It is a luxury that not everyone has and I would argue that a good majority of people are not able to advocate for themselves.”* Disclosure barriers often arise because information about needs must be repeatedly communicated across different actors and stages of the journey, rather than seamlessly carried forward within the system. The system forces ensembles to manually construct the coordination infrastructure that organizations have failed to provide. This coordination gap translates into an imperative for the ensemble to prepare.

P2 captured the stakes plainly: *"fail to prepare, prepare to fail."* But this preparation is not a choice: it is what travelers must do to fill the gaps the system leaves behind. When coordination infrastructure is absent, the planning burden shifts onto ensembles themselves. P13 described how travelers *"have to put in more effort to pre-plan their travel to know everything in advance so that they've got all their steps in order."* P17 illustrated the documentation demands checklists, pre-submitted forms, and advance arrangements, so that *"when you get to the airport, it's a hassle-free process."* P8 captured the cumulative effect: *"... the onus is on the traveller to know if you need* *support at the curb, you talk to the airport. If you need assistance on the airline, well, talk to the airline. Again, so let's go back to how savvy, how experienced are you as a traveler to know that you have to make two calls and then you have to make calls at the other end too, right?"*

Technology has done little to ease this load. The industry's push toward digital self-service has reduced human interaction precisely when CLWD ensembles need it most. As P3 noted, *"technology complements your services, but it's not a replacement... you can't just rely only on technology."* P11 echoed this specifically for CLWD, noting that "*technology isn't always at the forefront of everybody's mind... we need to be careful, I think, to ensure that that information is still available in other means."* P14 made the barrier concrete: *"Every airline has their own app, right? And you know, I can't even imagine somebody with dementia trying to navigate...on a different airline than I did last time*." For ensembles navigating complex, unpredictable journeys, the retreat of human support behind digital interfaces does not simplify the journey: it transfers the coordination burden onto the people least equipped to carry it.

The One Person, One Fare policy (Canadian Transportation Agency, 2020) represents a structural advance by providing free companion seats. P18 noted, *"For anyone with any type of medical concern...they can actually travel with their caregiver and their caregiver is traveling free of charge."* Yet P17 and P11 distinguished this as applying only domestically. Coordination infrastructure, it turns out, is bound by jurisdiction. The policy addresses cost without addressing continuity.

Paradoxical Progress

Individual organizations seek accessibility progress and innovation, yet seamless journeys for CLWD demand coordinated action across organizational boundaries. This results in paradoxical progress: each provider advances accessibility (i.e., programs, terminology, and procedures) reflecting a genuine commitment to improvement but fail to coordinate together. Our participants noted that one organization's innovation could become another's inconsistency, and that progress at one touchpoint can create unpredictability across the delivery network. Various stakeholders highlighted the Sunflower Lanyard example, a global symbol of hidden disabilities (Hidden Disabilities, 2023). It works when recognized network-wide, but if passengers fly from airports that recognize it to those that do not, or to airlines that do not use it, the 'brand promise' breaks.

This inconsistency extends beyond physical innovation to how the industry operates in terms of terminology and communication. Many stakeholders emphasized that the words used to describe and address accessibility matter more than the industry has recognized. P12 reinforced the need for people-first language, while P7 stressed the importance of plain language accessible to all travelers. Yet reforming language at scale is slow and challenging. P6 noted that at the international level, *"things move so slowly... you have to be so careful with your wording so that anything can pass."* With 193 International Civil Aviation Organization (ICAO) member states (ICAO, n.d.), consensus-building further dilutes, as P11 observed that *"by the time you find language that everybody agrees on, it's probably fairly well boiled down."* When individual member states retain interpretive autonomy, the resulting language reflects the demands of international consensus rather than the lived realities of the travelers it is intended to serve.

Stakeholders described a persistent tension between each organization's freedom to innovate and passengers' need for consistent, predictable experiences across the network. Organizations understand that passengers experience the journey as a whole, yet each one can only control its own piece of it. P2, P21, and P7 contrasted European and North American models. The European system is centralized through single-provider models, with more responsibilities on the airports, as P2 describes: *“The airport has a bigger responsibility than the airlines in terms of the airport experience, because in Europe what they decided to do is to have one supplier of accessibility assistance.”* In North America, that responsibility is fragmented among airlines, airports, and regulators, with no single owner, creating a patchwork of different rules and service levels at every leg of the journey. Even within systems that attempt coordination, however, the quality of innovation itself is not guaranteed.

This tension is further deepened by privacy rules that prevent information about passengers' needs from transferring across organizational boundaries. P6 articulated the dilemma: *“I agree, it's a major barrier to accessibility to not be able to share the data between providers. But then I also completely understand why they can't do it, especially because a lot of it is medical information.”* To preserve privacy, information does not transfer, resulting in coordination failure. Sequential handoffs, where coordination fails at transitions, result in the *“Swiss cheese model of failure”* (P21), which in turn introduces additional challenges.

The paradox intensifies with genuine excellence. P9 criticized *“accessibility is the new sustainability,”* where organizations engage in 'performative' acts such as building sensory rooms not based on user research but on assumptions: *“I find a contradiction among aviation leaders where they'll say we're going to focus on universal design* and we're going to do things based on universal design, *but then they'll create segregated space...that's designed to exclude.”* P7 reinforced this argument, discussing quiet spaces: *“...to have just one place, it's segregation. That's the old way of doing accessibility.”* This pattern reflects a fundamental tension in how the aviation ecosystem conceptualizes both accessibility and the consumers it serves. Current systems place people in generic "buckets," resulting in fragmented service expectations. CLWD are categorized across multiple service segments (older adults, cognitive impairments, neurodiversity, invisible disabilities, intellectual disabilities), yet the system defaults to segregated solutions rather than integrated ones.

Coordination failures are structural, not the result of any single organization falling short. Each organization aims to do the right thing, but it only controls its small part of the journey. They share ideas loosely through conferences, conversations, and best practices, but there is no formal system forcing everyone to align. So every organization improves its own bit in its own way, and when you stitch all those pieces together for a passenger, it becomes inconsistent and confusing. Participants described this as architecturally produced, drawing on structural metaphors such as the *"relay* *race"* and *"dropped baton"* (P21), in which responsibility is literally handed off at each point, and if one runner is missing or does not pass the baton smoothly, the entire team stumbles.

Cost-Framing Myopia

Accessibility is framed as a compliance cost rather than a strategic investment, leading to systematic underinvestment despite long-term value. P4 articulated the decision logic for investing the money to improve the experience or pay the fine, and he concluded that the current mentality is often: *"If the fine is cheaper, then I'll just go with the fine."* P1 described that even with leadership's belief in accessibility, financial officers ask, "*How much is it going to cost me, and how do you measure that?"* Immediate cost savings meet budget objectives; accessibility benefits that develop over time remain unmeasured.

Stakeholders increasingly recognized the costs of reactive approaches. P15 described the proactive approach: *"How can we already have the supports in place before people really need them? That's the point. Where is the opposite when we have to scramble last minute to add in supports—it's not too late, but it could have been done a lot sooner just to make it less stressful, an easier transition and more supportive environment. So we want to be ahead of it.*" P16 captured the broader frustration: *You're living in this reactive world and it's just not the greatest place to be.*" This framing, in which demographic inevitability requires anticipatory design rather than reactive service provision, represents a fundamental shift from accommodation thinking to system transformation thinking. This shift is increasingly recognized as a strategic imperative. P17 argued that *“The industry has to accept that these passengers are going to be more and more part of your future population base. They are not the exception.”* P12 reinforced this, pointing to the "*The untapped market of people with dementia and the fact that they're younger than maybe previously thought and the fact that they will always travel with someone else so that doubles your revenue right there. They talk a lot about dwell time in the airport."* P7 extended the demographic logic further, acknowledging that "...*most of the people that have the money to travel are people that are aged. So it's a big part of the market too... So it will be not smart to do nothing about it."*

P4 articulated a radical reconceptualization: “*We need to rewrite the game where accessibility is seen as a competitive advantage… But with accessibility, we see it from a medical perspective, not a competitive advantage, so no one is investing in it, which is ironic, because a phone with a touch screen was invented for a person with carpal tunnel syndrome. It is a competitive advantage.*” Accessibility investments take time to pay off, and because no one is measuring the returns, organizations struggle to justify the spending; as P4 observed, accessibility is “*done after the fact, an add-on...that's why it never works. It never really fits, and it feels off”* (P4). P5 illustrated this challenge with a compelling example: a quadriplegic passenger who, after installing an adult change table, could finally eat, drink, and make full use of airport facilities before his flight, something that had previously been impossible. As P5 noted, this kind of change has real commercial implications: *“he could come for hours before his flight and take advantage...that's huge for airports. Non-aeronautical revenue is their bread and butter.”*

Yet this spillover effect, where accessible facilities enable longer dwell times and increased retail spending, rarely appears in how organizations calculate the value of accessibility investments.

P4 explained the 'curb-cut effect,' in which designs for accessibility improve efficiency for everyone. Several participants articulated a direct business case for investing in accessibility. P2 pointed to the multiplier effect of disability travel: *“Is this going to cost? Yes, it will cost you money to refurbish an area, but then usually a person with disability comes with two others.”* The business case, however, extends beyond acquisition. P13 framed it as a retention issue, warning that when air travel becomes too stressful, travelers living with disabilities turn to alternatives like trains, *“losing potential revenue money from customers who are the same as everybody else, and their dollars are the same dollars.”* P10 added that getting the experience right can yield longer-term dividends: *"sometimes that creates a brand loyalty, just knowing that the experience is going to be a little bit easier.”* This highlights a form of loyalty that remains invisible to service providers because they do not track why passengers choose them. These attempts to justify long-term investment fail because organizations operate within measurement systems that make costs visible while leaving value invisible. The result is circular: organizations do not invest because they cannot prove ROI, and they cannot prove ROI because they do not collect data that would reveal accessibility's value. Until accessibility is framed as a strategy rather than a compliance obligation, the data required to justify investment will remain uncollected, and the cycle will persist.

Discussion

With this study, we sought to understand how aviation industry stakeholders perceive and respond to the cognitive accessibility needs of CLWD, and what organizational and structural factors shape those responses. Through 20 semi-structured interviews with 22 aviation stakeholders, we identified both why accessible air travel for CLWD remains unrealized and the pathway towards its inclusion. We draw from the Service Turbulence Model (Primossi et al., under review) to examine the provider-side environment that the model identified but left theoretically underdeveloped. Our findings suggest that turbulence is not produced by indifferent providers, but by structural conditions that make individual variability systematically difficult to see and coordinate across organizational boundaries.

Disabling Service Systems

A fundamental insight emerged from our analysis: disability is not inherent to the individual but created by the system, the process, the culture, and the attitude. Complex procedures, inconsistent services, organizational silos, and fragmented coordination create disabling experiences resulting in disability derived not only from individual impairment but also from environmental barriers and system design choices (Beudaert et al., 2024; Primossi et al., 2025; Salomonson & Echeverri, 2024). When systems are designed to be accessible, CLWD can navigate many aspects of travel successfully; otherwise, the turbulence they encounter is largely produced by the infrastructure around them, not by their condition alone.

The interviews suggest that the aviation sector is making meaningful progress toward inclusion. Nonetheless, our findings show how fragmented systems continue to create gaps and friction that manifest as service turbulence for consumer ensembles. While customer journey frameworks map experiences across touchpoints (Lemon & Verhoef, 2016), our system-level perspective highlights that understanding the experiences of CLWD requires examining the behind-the-scenes dynamics that produce those touchpoints in the first place.

Our findings are consistent with the SDN theory in which organizational boundaries shape and constrain the customer experience (Tax et al., 2013). Aviation appears to operate as a loosely coupled SDN: airlines cannot control airports, airports cannot mandate airline procedures, and security follows diverse jurisdictional protocols. Multiple stakeholders in our study expressed a genuine commitment to accessibility, indicating that this problem is structural rather than a lack of values. Our findings suggest that the architecture of the network itself may make coordination failures structurally inevitable, consistent with Simon's (1956) argument that organizational behaviour reflects the structure of the environment in which it occurs. In a loosely coupled network, each actor's environment ends at its own organizational boundary, which is precisely why excellence at *any* single node cannot compensate for weak handoffs *between* nodes.

Within each organization, our data suggest that accessibility goals may be systematically deferred not through deliberate choice but through measurement constraints. When stakeholders must allocate resources across competing priorities, objectives with quantifiable metrics (i.e., on-time departure, throughput, compliance rates) are reliably prioritized, while objectives that resist quantification, such as individual cognitive variability, remain structurally less visible to the decision systems that govern resource allocation (Simon, 1955). This may help explain why well-intentioned organizations consistently underserve CLWD: not because accessibility is deprioritized, but because it is difficult to measure, and therefore difficult to see.

By analyzing service turbulence through the lens of stakeholder tensions and trade-offs in multi-actor service ecosystems, we demonstrate that tensions emerge when actors hold different worldviews that shape their roles, practices, and priorities. In healthcare ecosystems, for instance, prior research has identified tensions among medical worldviews (efficiency, standardization), family worldviews (personalization, care quality), and team worldviews (coordination, collaboration) (McColl-Kennedy et al., 2020). Such tensions are managed through trade-offs, as actors accept some outcomes to achieve others, depending on their relative influence and focal relationships (McColl-Kennedy et al., 2020). Our aviation context reveals parallel dynamics, generating four critical stakeholder trade-offs, each representing tensions between competing organizational priorities and consumer needs. These trade-offs arise from the loose coupling of the aviation SDN and the measurement constraints that influence organizational decision-making, as shown in the Integrated Service Turbulence Model in Figure 1.

Each trade-off reflects a tension between goals that stakeholders see as legitimate but cannot pursue simultaneously (McColl-Kennedy et al., 2020). First, purpose invisibility occurs when organizations focus on efficiency but overlook passenger needs. Second, ensemble mismatches occur when service design caters to individuals rather than coordinated social units. Third, paradoxical progress occurs when organizations innovate independently without cross-network coordination, generating inconsistency despite genuine investment. Fourth, cost-framing myopia occurs when short-term costs are visible, but long-term value is not. Any organization within the network may experience one or more of these tensions at the same time, and their combination might vary across stakeholders and contexts. Each trade-off may contribute to the turbulence that consumers must navigate, and resolving them requires coordinated action across the service ecosystem rather than isolated organizational improvements.

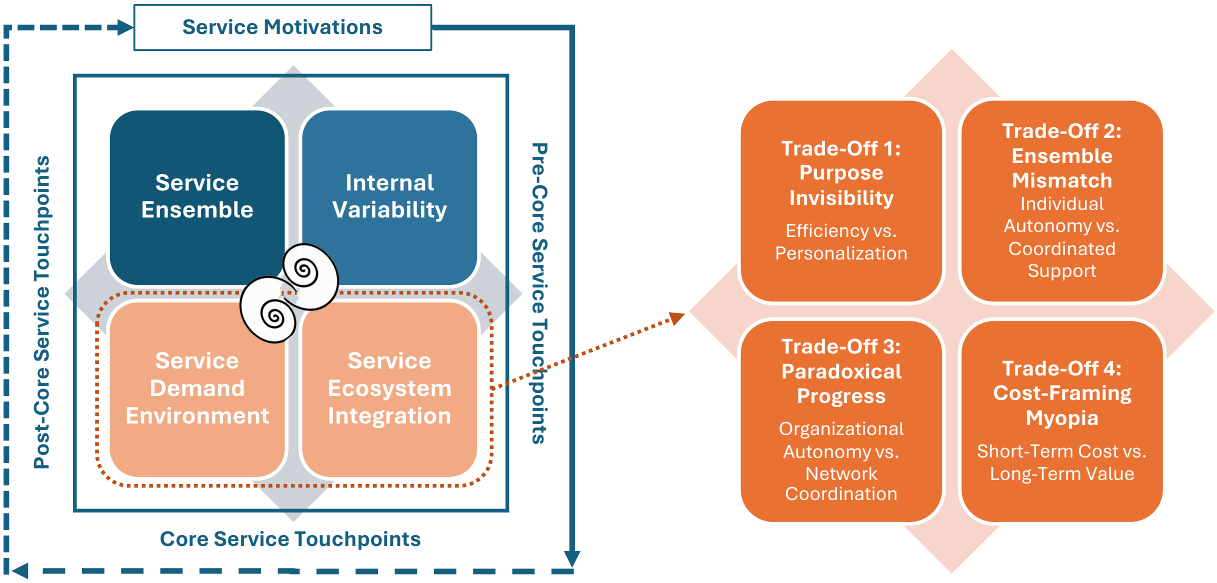

Figure 1. The Integrated Service Turbulence Model

Trade-Off 1: Purpose Invisibility *(Efficiency vs. Personalization)*

Our findings suggest a fundamental tension between aviation stakeholders' need for operational efficiency and CLWD's need for personalized, flexible support. Systems optimized for standardized passengers (i.e., predictable timing, uniform procedures, measurable throughput) generate turbulence for those whose needs fall outside the norm. As such, this tension may be compounded by what we call purpose invisibility. Accessibility may be framed as getting people from A to B, while the motivational purposes that make challenging journeys worthwhile (participating in meaningful activities, business travel) (Primossi et al., under review) remain invisible to operational systems. When systems optimize efficiency without recognizing these motivations, they create barriers that work against the very reasons people choose to travel at all. At its core, this is a clash between two logics: standardization enables efficiency while personalization requires adaptation.

This conflict reflects a satisficing logic: when systems cannot measure travel purpose, they optimize for what they can see (e.g., throughput, compliance, departure times) and treat personalization as a residual concern addressed only when operational goals are already met. As stakeholders described, accessibility is *"engineered out"* (P9) and removed during the design process when efficiency takes priority. The system optimizes what it can measure, and accessibility gets cut because it cannot be measured, not because organizations lack values, but because their measurements cannot see what accessibility is actually for. This aligns with McColl-Kennedy et al.'s

(2020) observation that real conflict is not merely about which features are cut, but about what different groups value in the first place.

Our findings suggest that a possible pathway for managing this tension is strengthening information infrastructure that enables travelers to assess journey feasibility before service encounters. This includes harmonizing accessibility program names across airports, providing information in plain language, and offering visual communication tools that reduce stress. By enabling informed decisions before the service encounter, these tools may reduce real-time coordination pressures during the journey itself and make the motivational purposes that drive travel visible to operational systems before the encounter begins, thereby addressing purpose invisibility at its source.

Trade-Off 2: Ensemble Mismatch *(Individual Autonomy vs. Coordinated Support)*

A second tension our findings reveal concerns the mismatch between service systems designed for individual passengers and the ensemble navigation that CLWD require. For CLWD, companions are not discretionary; they function as navigation infrastructure coordinating handoffs, managing information flow, and adapting in real time to system failures (Primossi et al., under review). Current frameworks do not recognize this component, leaving ensemble coordination invisible and unsupported. This mismatch reflects the same satisficing logic: systems are built around what they can count (e.g., individual passengers, seat assignments, boarding times) while the coordination work companions do simply does not show up in any measurement system.

Our findings suggest that policies designed to promote individual autonomy may inadvertently undermine it. When CLWD and companions are processed as separate individuals, as most current regulatory frameworks require, the support that makes participation possible becomes fragmented rather than coordinated. Privacy protections, while essential, can further disrupt information continuity at critical handover points. When information about passengers' needs cannot travel with them across organizational boundaries, the ensemble must repeatedly re-explain, re-advocate, and re-establish support from scratch at every new touchpoint. Rather than the system carrying that information forward, the companion becomes the information carrier—absorbing yet another coordination burden that formal systems have failed to provide.

The autonomy-coordination trade-off emerges because privacy frameworks designed to protect individual passengers inadvertently fragment the ensemble coordination that those same passengers depend on. The result is that ensembles must repeatedly explain needs across organizational boundaries without systemic support, ironically increasing dependency rather than enabling independence. This burden extends beyond logistics: both companions and frontline staff absorb significant emotional labour by managing uncertainty, navigating distress, and bridging system gaps in real time (Bast et al., 2024; Primossi et al., under review). Yet neither role is formally recognized or supported within current service frameworks. As participants noted, staff have only seconds to interact with each passenger and pick up on cues, making the recognition of non-visible disabilities like dementia particularly demanding, a challenge that is compounded by inadequate training and high turnover. Our data suggest that recognizing the ensemble as the unit of service navigation (i.e., in training, in policy, and in system design) may be a necessary condition for resolving this trade-off.

Trade-Off 3: Paradoxical Progress *(Organizational Autonomy vs. Network Coordination)*

A third tension concerns what our findings suggest may be called paradoxical progress: individual organizational excellence may create confusion at the network level. Each organization operates independently using bounded authority and local information, optimizing within its domain while handoffs remain uncoordinated (Tax et al., 2013). The result is that progress at one touchpoint can create unpredictability for the consumer who must navigate multiple organizational handoffs without coordinated protocols. Organizations create accessibility roles (progress), but expertise becomes dispersed across departments (fragmentation). Airlines implement assistance programs (progress), but each uses different terminology (inconsistency). Airports build sensory rooms (progress), but these are often designed for children, despite their potential to serve other consumers living with non-visible disabilities such as CLWD (misalignment). Progressive policies emerge (progress), yet system structures still process ensembles as collections of separate individuals. In practice, one step forward at one organization becomes two steps backward when inconsistency across the network creates confusion and unpredictability for travelers. This pattern reflects satisficing logic: each organization optimizes for what it can see and control, which stops at its own boundaries. Cross-network coordination is too complex to measure or reward, so it does not happen. Progress is real but fragmented, and no single organization is accountable for how the pieces fit together.

Regulators face a similar dilemma. Mandating specific approaches risks constraining innovation, while allowing organizational autonomy risks further fragmentation. Nowhere is this more visible than at the international level. As the findings illustrate, language reform across 193 ICAO member states (ICAO, n.d.) shows the autonomy-consistency trade-off in its strongest form. The consensus required to produce coordinated standards simultaneously strips them of the specificity needed to meaningfully protect travelers. When each country decides how to interpret the rules on its own, the language used tends to show what most countries agree on instead of explaining the real experiences of the travelers it's meant to help. The paradox is that genuine organizational progress creates network-level unpredictability, leading to turbulence for CLWD. As one stakeholder described, the system operates like a *"Swiss cheese model"* (P21), where organizational gaps allow passengers to fall through the cracks.

This dynamic is consistent with Tax et al.'s (2013) SDN framework, in which organizations operating without cross-boundary accountability generate coordination failures at the network level. Our findings suggest that aviation accessibility currently lacks the cross-organizational governance structures and integrated information systems that enable network-level coordination. Resolving this trade-off may require regulatory frameworks that address not just individual organizational obligations but the coordination infrastructure itself—standardized terminology, harmonized handoff protocols, and accountability rules that make organizations responsible for the handoffs between them, not just their own piece of the journey.

Trade-Off 4: Cost-Framing Myopia *(Short-Term vs. Long-Term Accessibility)*

A fourth tension concerns how accessibility is financially framed. Our findings suggest that when accessibility is positioned as a cost competing with safety and efficiency, it consistently loses: organizations do what is good enough to meet compliance requirements (Simon, 1955, 1956) rather than what would genuinely meet consumer needs. Organizations face immediate financial pressures that conflict with accessibility investments, which require upfront commitment with uncertain returns. Leadership must balance immediate shareholder expectations against long-term market opportunities in the context of an aging global population.

Rather than being treated as a core design principle that improves experiences for everyone, accessibility is often framed as an additional burden, *“done after the fact, an add-on"* (P4), competing with safety and efficiency goals rather than being built in from the start. This is satisficing in its most direct form: immediate costs satisfy budget objectives because they are visible and measurable, while the long-term value of accessibility investment remains unmeasured and therefore invisible to the resource allocation decisions that determine what gets built and what gets cut. This framing is reinforced by regulatory environments that penalize non-compliance rather than reward progress. When penalties cost less than solutions, organizations rationally choose penalties. Incentive-based regulation (i.e., tax write-offs for accessible facilities or expedited certification for accessible airports) may more effectively redirect organizational attention from risk management toward opportunity.

Our findings suggest that this framing may create a false contradiction: the belief that making something accessible conflicts with generating profit. Instead, accessibility can help generate value by creating spillover benefits through universal design, reaching more consumers and multiplying customers per booking. Some stakeholders reframe accessibility not as compliance but as a competitive advantage. They noted that when universal design is applied to address diverse cognitive needs, the so-called 'curb cut effect' may arise, benefiting not only CLWD but all travelers. For instance, clear wayfinding and simplified procedures would help everyone manage fatigue, language barriers, or situational stress. This shift makes it possible for efficiency and personalization to coexist rather than conflict.

Furthermore, organizations can strengthen brand differentiation by treating accessibility as efficiency-enabling rather than efficiency-constraining. This approach transforms the efficiency-personalization and cost-strategy trade-offs by changing what constitutes organizational success: accessibility moves from secondary (addressed with residual resources) to strategic (integrated into core objectives). Treating accessibility as a game changer, not an accommodation, repositions investment as market expansion rather than compliance cost, a reframing that is particularly relevant given demographic projections of 57+ million people globally living with dementia, a number projected to triple by 2050 (World Health Organization, 2025).

Toward Integrated Resolution

Taken together, these four trade-offs (Purpose Invisibility, Ensemble Mismatch, Paradoxical Progress, and Cost-Framing Myopia) may help explain the provider-side dynamics that the Service Turbulence Model identified but did not develop. The dysfunction is architecturally produced by interactions between loose coupling network structure and population characteristics, not by individual impairments or organizational failures. As Figure 1 illustrates, we propose that the findings from this study can be understood as a deeper examination of both the Service Ecosystem Integration and Service Demand Environment quadrants. Specifically, this study has uncovered how the fragmented structure of aviation produces the coordination gaps, inconsistent information, and unpredictable service demand environments that consumer ensembles must navigate.

This reframing carries practical implications for managers, regulators, and policymakers. If turbulence is structurally produced rather than values-driven, interventions that target individual attitudes or isolated provider training are unlikely to achieve network-level change. Across all four patterns, one factor emerged consistently as the precondition for meaningful change: leadership. Not regulation, budget, or infrastructure, but leaders with the foresight, authority, and genuine demographic understanding to reframe accessibility as a strategic priority before it is mandated. As P1 noted*, "the best practices I've seen for things to happen before they're regulated is leadership... if someone has the foresight to say we better prepare before it's regulated* *on us, that's a key differentiator."* This leadership imperative operates at every level, from executives setting strategic direction to frontline staff empowered and incentivized to make environments more accessible in real time. Our findings suggest that structural interventions, however well designed, may remain unrealized without leaders who see accessibility not as a cost to manage but as an opportunity to pursue. With that precondition in mind, our findings suggest that meaningful transformation may require coordinated action across four complementary layers: cultural reframing, capability development, information infrastructure, and ecosystem coordination.

Cultural reframing can reposition accessibility from a compliance to a competitive advantage. Capability development can equip staff to recognize and support ensembles and operationalize cultural commitments at the frontlines. Frontline employees occupy a structurally critical mediating position in these processes, bridging the gap between organizational systems and consumer needs in ways that infrastructure investment alone cannot replace (Bast et al., 2024). Information infrastructure can support consent-based data sharing across boundaries, capture travel purposes, harmonize information continuity at handoffs, and enable prepared travel. Ecosystem coordination can create shared accountability across organizational boundaries. This means designating coordinators with authority across organizational boundaries, creating shared systems that track the full passenger journey rather than individual organizational performance, and establishing clear rules about who is responsible for what at every handoff. Ecosystem coordination can transform boundaries from points of fragmentation into points of coordination. Without governance, cultural commitments, information systems, and staff capabilities remain trapped within organizational silos, unable to address what happens between organizations, reproducing the very ensemble mismatch and paradoxical progress that these layers are designed to resolve. Future research could examine each of these layers in greater depth, as well as the conditions under which they interact to reduce or amplify turbulence in consumer ensembles.

Implications

Theoretical Contributions

Collectively, our findings exemplify boundary-breaking marketing research (MacInnis et al., 2020) by integrating consumer and provider perspectives across multiple levels of analysis to address a critical societal challenge: transforming service ecosystems to reduce vulnerability through coordinated network design. While prior research positions turbulence as something consumers must navigate (Primossi et al., under review), our provider perspective reveals how service ecosystem design produces it.

Our findings validate that disability is socially constructed through disabling marketplaces (Beudaert et al., 2024; Primossi et al., 2025), revealing four trade-offs that extend McColl-Kennedy et al.'s (2020) framework from healthcare to transportation. These tensions are especially consequential for vulnerable consumers who lack the capacity to absorb coordination failures that others navigate through effort alone. This validation moves disability research from conceptual understanding (systems create disability) to operational specificity (here is how and what to change). While CLWD exemplify vulnerable consumers facing exclusion during service consumption, our findings suggest that vulnerability emerges from service ecosystem design choices rather than solely from individual characteristics (Primossi et al., 2025). This shifts the locus of vulnerability from consumer characteristics to system architecture, with implications for any vulnerable population navigating complex service networks.

It is coordination breakdowns, not cognitive variability alone, that generate exclusion and result in service turbulence (Primossi et al., under review). The Service Turbulence Model positioned companions as part of the consumer ensemble, but our provider-side findings reveal why their role is structurally necessary rather than discretionary. Companions enable navigation itself in contexts where the system fails to coordinate across boundaries. Travel purpose emerges as a key driver shaping navigation choices, revealing how life meaning motivates and evaluates journeys in ways that operational systems fail to recognize.

We expand service ecosystem literature by demonstrating that disability emerges from network structure rather than individual organizational deficiencies. Drawing on SDN theory (Tax et al., 2013), we show how networks operating without cross-boundary accountability generate coordination failures that systematically disadvantage vulnerable consumers. Individual touchpoint improvements, however well-intentioned, produce cascading inconsistencies across the network, pointing to network-level coordination as the necessary site of intervention. While customer journey frameworks map experiences across touchpoints (Lemon & Verhoef, 2016), our approach reveals that understanding experiences for CLWD requires examining the backstage network dynamics that produce those touchpoints in the first place.

We further contribute by identifying sequential satisficing (Simon, 1955, 1956) as the reason why organizations in loosely coupled networks consistently fall short: not because they lack commitment, but because their systems are not built to measure and therefore cannot prioritize what accessibility actually requires, leaving cognitive accessibility structurally invisible. Accessibility failures are not the result of bad intentions: they emerge because each organization does what works well enough within its own boundaries, with no one accountable for how it all fits together. This reframes the intervention target: meaningful change requires improving data collection and measurement systems, coordination infrastructure, and network governance, not simply changing individual behaviour through training or awareness campaigns. This connects network structure to organizational behaviour, explaining why coordination failures persist even among well-intentioned actors.

Practical Recommendations

For managers, our findings generate a clear intervention logic. Because turbulence is structurally produced, isolated organizational improvements cannot resolve it—which explains why substantial investments consistently fall short. Meaningful transformation requires coordinated action. Some of the messages that might be extrapolated from this study include:

1. Cultural reframing is needed to position accessibility as a competitive advantage rather than a compliance cost, recognizing that investments designed for CLWD benefit all travelers through the curb-cut effect.
2. Management of service systems requires ensemble navigation support rather than the focus being solely on individual passengers. There is a need to recognize companions as active participants in service delivery.
3. Investments in information infrastructure must harmonize terminology and enable continuity across organizational boundaries.
4. There is a need for engagement in ecosystem governance that fosters industry-wide coordination. More specifically, protocols must be harmonized and handoff gaps addressed to ensure organizations share accountability for the passenger's journey as a whole, not just their part of it.

Policymakers should note that current regulatory frameworks focused on individual passenger rights and organizational compliance are necessary but insufficient. Regulations must evolve to recognize the ensemble as the unit of protection, mandate cross-boundary continuity of information, and establish accountability for network-level coordination. Lastly, incentive-based regulation that rewards accessibility innovation, rather than solely punishing non-compliance, would unlock the business case for proactive transformation.

These principles extend beyond aviation: disability emerges from network-level coordination failures, not individual organizational deficiencies. Healthcare, financial services, and public transportation share structural characteristics that generate fragmented prioritization, suggesting that our framework may apply wherever loose coupling, divergent stakeholder priorities, and vulnerable populations requiring cross-boundary continuity intersect.

Limitations and Future Research

Our focus on Canadian aviation stakeholders may limit transferability given Canada's relatively progressive regulatory context, including policies such as the "One Person, One Fare" rule (Canadian Transportation Agency, 2020) and the "Accessible Canada Act" (Government of Canada, 2019a; Jacobs et al., 2021). Comparative international studies examining how different regulatory frameworks and cultural attitudes shape transformation pathways would strengthen the generalizability of these findings.

A second limitation stems from our provider-focused perspective. While this perspective offers novel insights into system-level barriers and transformation opportunities, future research would benefit from integrating consumer and provider voices within a single study. Such work could examine how navigation labour is experienced and distributed across ensemble members in turbulent service systems. Exploring intra-ensemble tensions, particularly between companion support and the autonomy of consumers living with dementia (CLWD), would deepen understanding of how vulnerability is negotiated within the ensemble rather than simply imposed from the outside. The emotional labour carried by frontline staff as they navigate cognitive accessibility needs also remains underexplored and warrants dedicated investigation.

Although stakeholders suggested that our findings may apply broadly to cognitive diversity and other non-visible disabilities, empirical validation with additional vulnerable populations is needed to determine whether the ensemble concept and the four stakeholder trade-offs extend beyond the context of dementia and air travel.

Methodologically, our cross-sectional design captures only a moment within an ongoing process of service-system transformation. Longitudinal research tracking implementation efforts over time would provide insight into whether the four-layer intervention framework produces the predicted outcomes and what barriers emerge during implementation.

Finally, and perhaps most promisingly, this study identifies four stakeholder trade-offs as distinct mechanisms through which loosely coupled service networks produce exclusion for vulnerable consumers. However, the relationships among these trade-offs remain an open empirical question. Do the trade-offs correlate, interact, or amplify one another in practice? For example, if organizations are unwilling to invest in accessibility because it is framed primarily as a cost (Cost-Framing Myopia), are they also less likely to invest in the data systems needed to understand why passengers travel and what supports they require (Purpose Invisibility)? Similarly, does Paradoxical Progress exacerbate Ensemble Mismatch by creating inconsistencies that companions must absorb at every handoff? Mapping these interactions would shift the framework from a taxonomy of distinct failures to a dynamic model of how coordination breakdowns compound across service networks. Such work could also identify which trade-offs, if addressed first, create the greatest leverage for system-level change.

Future research might further examine how sequential satisficing varies across stakeholder groups, identifying where and how accessibility is most systematically lost within the network. Together, these directions extend the present work and lay the foundation for a broader research program focused on network-level accessibility transformation.

Conclusion

This study set out to understand how aviation industry stakeholders perceive and respond to the cognitive accessibility needs of CLWD, and what organizational and structural factors shape those responses. Our findings suggest that disability emerges not from dementia itself, but from service systems that generate turbulence through structural conditions within providers' control. Four trade-offs (Purpose Invisibility, Ensemble Mismatch, Paradoxical Progress, and Cost-Framing Myopia) may help explain why well-intentioned individual efforts consistently fall short of network-level transformation. The architecture of the network makes coordination failures structurally inevitable, and no single organization can resolve them alone. Yet transformation is possible. What is missing is not commitment but the right coordinated structures: shared ways of measuring accessibility, consistent terminology, recognition of ensembles as the unit of service, and clear rules about who is responsible across organizational boundaries. Contributing to the Service Ecosystem Integration and Service Demand Environment quadrants of the Service Turbulence Model, this paper offers a structural explanation for why turbulence persists and a practical roadmap for how it may be reduced. The pathway forward may start by acknowledging that systems construct disability (Beudaert et al., 2024), recognizing ensembles as the unit of service navigation, and reframing accessibility from compliance cost to an enabler of the life purposes that make challenging journeys worthwhile. Given demographic realities, with more than 57 million people globally living with dementia, a number projected to triple by 2050 (World Health Organization, 2025), this transformation is not only possible. It is increasingly inevitable.

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CHAPTER 5

General Discussion

In this concluding chapter, the findings from the three articles comprising this dissertation will be integrated to address the central question of how to create empowering journeys for consumers living with dementia (CLWD). The exclusion of CLWD from the marketplace is not incidental but structural. The thesis stresses that service systems are designed around assumptions of cognitive stability that CLWD cannot reliably meet, producing not isolated failures but continuous turbulence. Meaningful inclusion requires not merely better accommodation of individuals but a fundamental redesign of the systems that generate exclusion—moving from standardized to adaptive, from individual to ensemble, and from organizational to network-level thinking. This argument emerges across three interconnected studies. This chapter proceeds as follows: I summarize each of the three articles, then address the dissertation's central question of empowering consumer journeys, and finally turn to the theoretical, practical, and methodological implications of the integrated findings, before closing with limitations and concluding reflections.

Summary of Articles

Article 1 establishes that marketing scholarship has historically underrepresented CLWD, with growing but still limited recognition of cognitive impairment as a market design problem rather than solely an individual deficit. Article 2 reveals how CLWD and their companions navigate service turbulence generated by the interaction between cognitive variability and standardized service systems. Importantly, the responsibility for navigating the journey falls largely on travel companions, who bear emotional burdens, develop their own solutions, and rely on online communities for knowledge and support.

Article 3 demonstrates that this turbulence is architecturally produced not through organizational failure or lack of goodwill, but through four structural trade-offs that fragment prioritization across the network.

Together, the three studies reveal that the same pattern holds across all levels: service systems have not been designed with CLWD in mind. Closing this gap requires change at every level: in how scholarship conceptualizes CLWD, in how CLWD experience and navigate marketplaces, and in how providers coordinate across organizational boundaries to meet their needs. While grounded in air travel, the contributions of this dissertation may extend to other service sectors and populations, particularly those living with non-visible disabilities whose needs standardized systems are only beginning to meet.

In the first article, *"Consumers living with dementia: a scoping review of overlooked marketplace experiences,"* I examined how marketing scholarship has identified, understood, and served CLWD as a market segment. Drawing on vulnerability theory (Baker et al., 2005; Pavia & Mason, 2014) and market systems theory (Mittelstaedt et al., 2009) allowed the examination of how the intersection of individual cognitive impairment and market structures creates unique patterns of exclusion. Through a scoping review of 77 publications from 1990 to 2024 focusing on consumer-centric terminology, four key factors influencing the reporting of CLWD experiences were identified: temporal trends in research output, limited interdisciplinary engagement in Business & Economics, tension between independent and mediated consumption, and uneven distribution across consumption types.

While the review reveals persistent gaps, it also traces a growing trajectory of scholarly interest, suggesting that the field is catching up, even if significant work remains. The findings were brought together in a multi-level framework for marketplace inclusion, illustrating inclusion as a dynamic outcome from the interplay between individual-level factors (agency, active consumer identity, vulnerability) and system-level structures (market access, assortment, intermediaries). The study calls for a fundamental reconceptualization of marketing strategies, moving beyond tokenistic adjustments toward systemic transformation, universal design, and supported decision-making.

Building on Article 1's finding that CLWD are an underrepresented segment whose vulnerability is contextual and systemic, Article 2, *"Weathering Service Turbulence: From Accommodation to Inclusion,"* presents the dissertation's primary empirical study through a two-year netnography. Situated within mediated consumption (Barnhart & Peñaloza, 2013; Epp & Price, 2011), customer journeys (Hamilton et al., 2021; Lemon & Verhoef, 2016; Voorhees et al., 2017), service experience frameworks (Bitner et al., 1990; Fisk et al., 2018; Tax et al., 1998; Tax et al., 2013), and Transformative Service Research (Anderson et al., 2013; Azzari & Baker, 2020; Ostrom et al., 2015), this study examines how CLWD and their companions experience and navigate air travel. The findings are integrated into the proposed Service Turbulence Model, which views service challenges not as isolated failures or fixed barriers but as dynamic, emergent turbulence arising from the interaction of cognitive variability with standardized service systems, necessitating continuous adaptation.

The model embraces collaborative navigation and continuous adjustment as core characteristics of service experience, suggesting that accessibility arises from ongoing adaptive capabilities and social coordination rather than specialized accommodations alone. One of the most significant findings is that the service ensemble (CLWD + travel companions), mostly without institutional support, absorbs the coordination challenges, emotional labour, and navigational complexity that formal service systems fail to provide. Travel companions do not simply assist: they become the infrastructure that makes travel possible at all. Importantly, they do not do this alone: online communities of people with lived experience have built remarkable collective knowledge, sharing strategies, validating experiences, and filling the gaps that formal service systems have failed to provide. The challenge for service research, service design, and service policy is not to fit these consumers into existing systems designed for others, but to work together to create accessible service systems *with* them (Patrick & Hollenbeck, 2021).

Lastly, in Article 3, *"Behind the Turbulence: Uncovering Stakeholder Trade-Offs Towards Inclusive Service Experiences,"* I shift focus from consumer navigation to provider coordination, examining how organizational decisions and network structure shape the turbulence that consumer ensembles must navigate. Building on the Service Turbulence Model (Primossi et al., under review), the study draws on service delivery network (SDN) theory (Tax et al., 2013), sequential satisficing (Simon, 1955, 1956), and stakeholder trade-offs (McColl-Kennedy et al., 2020), which captures how disagreements about priorities and practices are navigated through compromise, to explain how network architecture produces the dynamics consumers must navigate.

Drawing on 20 semi-structured interviews with 22 stakeholders across the Canadian aviation ecosystem, the findings reveal that the systematic exclusion of CLWD results not from a lack of commitment but from structural conditions that make coordination failures architecturally inevitable. Four stakeholder trade-offs explain why well-intentioned individual efforts consistently fall short of network-level transformation: (1) Purpose Invisibility, where operational efficiency obscures individual passenger needs; (2) Ensemble Mismatch, where systems designed for individual travelers fail to support companion navigation; (3) Paradoxical Progress, where independent organizational innovation produces network-level inconsistency; and (4) Cost-Framing Myopia, where short-term cost visibility obscures the long-term value of accessibility investment. The problem is structural, not motivational, and resolving it requires coordinated action across the service ecosystem rather than isolated organizational improvements.

In sum, together, the three articles advance an integrated argument that no single study could make alone: that CLWD remain underrepresented in marketing scholarship, though with growing recognition, and that full inclusion requires addressing both individual and structural barriers (Article 1); that the service systems they navigate generate turbulence whose weight falls most heavily on companions, a consequence of service systems designed without CLWD and their ensembles in mind (Article 2); and that this turbulence is amplified by fragmented provider coordination rather than individual organizational failures (Article 3). The progression enables comparison across levels, from academic representations to lived experiences to organizational practices, revealing the gap between how service systems are theorized and how they are actually experienced. Meaningful inclusion for CLWD requires fundamentally reconceptualizing service systems as adaptive rather than standardized, collaborative rather than siloed, and dynamic rather than static. With dementia prevalence rising globally and aging populations seeking to maintain mobility and independence, this dissertation advances theory and offers practical guidance toward broader societal goals of inclusion and equity.

Empowering Consumer Journeys

Creating empowering journeys for CLWD requires confronting a problem that operates at three levels simultaneously, and that cannot be solved by addressing any one level alone.

The first level is conceptual. Before a service system can be designed to include CLWD, scholarship must recognize them as consumers in the first place. It has not done so adequately. By framing CLWD as patients, care recipients, or exceptional cases, marketing research has systematically placed them outside the scope of consumer theory, and service design has followed. But recognition alone is insufficient, because even when CLWD do travel—motivated by family connection, identity, healthcare, and a refusal to withdraw from life—they encounter a second level of the problem: systems that were never designed to hold them. The air travel environment, with its layered complexity, does not merely fail to accommodate cognitive variability: it amplifies it. Every handoff between organizations is a moment where adaptive capacity must be rebuilt from scratch. The turbulence CLWD experience is not solely the result of dementia but is produced by the mismatch between how systems are built and individual variability.

What makes this mismatch so persistent is the third level: it is architecturally produced. The organizations operating within these systems are not indifferent. They train staff, build sensory rooms, and publish accessibility commitments; yet the turbulence continues, because no single organization controls the journey. Exclusion emerges in the gaps between organizations, in the handoffs where information is lost, in the coordination that never happens because no one is accountable for it. This is the most important and most counterintuitive finding of this dissertation: goodwill is not the constraint. Architecture is.

Together, these three levels produce an argument with a clear conclusion: empowering journeys for CLWD require scholarship that sees them, systems designed for them, and networks coordinated around them. Address only one level, and the other two will reproduce the problem. Address all three, and the possibility of genuine inclusion comes into view.

Theoretical Implications

The findings of this dissertation carry significant implications for how marketing and service research conceptualize CLWD, service experiences, and the systems that shape them. The overarching theoretical implications of this dissertation converge on a fundamental assertion: that the frameworks constructed within marketing and service research are founded upon an unstable foundation, which posits that consumers maintain cognitive stability; they can be reliably expected to remember, orient themselves, decide, and execute consistently throughout their customer journeys. This assumption is so deeply rooted that it has been shaping how we design customer journeys and service experiences. This dissertation shows that it is important to study overlooked consumer groups such as CLWD because, once the cognitive stability assumption is made explicit, it becomes possible to ask what frameworks would look like if they were built for variability instead, and that question opens up more than it might initially appear.

The first implication concerns the unit of analysis. Perhaps this dissertation reveals that the individual consumer, long the fundamental unit of analysis in marketing research, should be re-defined when cognitive capacity fluctuates. Marketing research has long centered the individual consumer as its fundamental unit. Customer journey maps trace individual progression (Lemon & Verhoef, 2016; Voorhees et al., 2017), maintaining the individual customer as the primary unit of analysis. By building on mediated consumption research (Barnhart & Peñaloza, 2013; Epp & Price, 2011) and social customer journey frameworks (Hamilton et al., 2021), which acknowledge that consumption is shaped by social networks, this dissertation extends them by showing that when cognitive capacity fluctuates, the ensemble is not merely an influence on the individual consumer's experience: it becomes the unit through which service navigation unfolds. The ensemble is not a special case that requires a special framework; it is what service navigation actually looks like for a growing, underserved segment of the population. When one person cannot reliably hold the full cognitive load of a service encounter, that load is distributed across a companion, a community, or a set of accumulated strategies developed over time. This reframing has implications that extend well beyond CLWD. Cognitive variability is not specific to dementia; it is a universal human condition affecting other non-visible disabilities within a growing segment of the population (World Health Organization, 2024b). A theoretical framework that cannot serve cognitive variability will become progressively inadequate.

The second implication concerns the source of exclusion. Service inclusion research (Fisk et al., 2018) and vulnerability frameworks (Baker et al., 2005; Pavia & Mason, 2014) have advanced understanding of how marketplace structures disadvantage vulnerable consumers, but they tend to locate the solution in barrier removal or targeted accommodation. Service delivery network (SDN) theory (Tax et al., 2013) has shown how loose coupling creates coordination challenges across organizational boundaries. This dissertation builds on this body of research by showing that exclusion is produced not by individual impairment, organizational failure, or even discrete barriers, but architecturally, through the fragmented coordination of networks that no single organization controls and no single intervention can fix. The four trade-offs uncovered (purpose invisibility, ensemble mismatch, paradoxical progress, and cost-framing myopia) are not symptoms of bad intentions: they are the predictable results of service systems never designed with cognitive variability in mind. Satisficing (Simon, 1955, 1956) explains the behavioural mechanism: organizations optimize for what they can measure, and what they cannot measure (e.g., individual purpose, ensemble coordination, long-term accessibility value) remains structurally invisible. This shifts the target of intervention from the consumer and the organization to the network itself, redefining inclusion not as individual accommodation but as coordinated system design.

Overall, these implications propose a new perspective: from frameworks built around stable, individual consumers toward frameworks that treat cognitive variability as a normal condition, the ensemble as the relevant unit of analysis, and coordinated network design as the primary lever for inclusion.

Practical Implications

The practical implications of this dissertation are structured around a finding that is both straightforward and somewhat discouraging: the issue is not attributable to any individual's fault, yet it remains a collective responsibility.

Service providers understand this intuitively when it is pointed out to them. Airlines can invest in staff training, and they do. Airports can build sensory rooms, and some have. Individual organizations can act with genuine commitment to accessibility and still produce journeys that are exhausting, disorienting, and exclusionary: because the journey does not belong to any *one single* organization. It crosses boundaries that goodwill alone cannot bridge. The practical implication for service providers is therefore not simply to do more, but to measure differently: to capture travel purpose at booking, track ensemble size and support needs, measure handoff quality at transitions, and build systems that make the cost of inaccessibility visible alongside its benefits. Without that foundation, cultural change has no data to sustain it, and the business case for accessibility remains invisible in the very systems designed to surface it.

However, measurement within organizations cannot resolve coordination failures between them. This is where industry bodies and policymakers become indispensable: not as enforcers of minimum standards, but as architects of the coordination infrastructure that individual organizations cannot build on their own. The One Person One Fare policy (Canadian Transportation Agency, 2020) demonstrates that structural advances are possible. It also demonstrates their limits: a policy that addresses one dimension of accessibility without ensuring that the coordination infrastructure crosses the same boundaries will always fall short of the journeys it was designed to protect. Cognitive accessibility regulation will require the same ambition: binding handoff protocols, shared performance dashboards, and network coordinators with cross-organizational authority. This research provides the empirical foundation for what that regulation should address.

Advocacy organizations have a position that neither providers nor policymakers can replicate: direct access to the expertise that CLWD and their companions have built through lived experience. The thousands of forum posts, warnings, recommendations, and collective strategies documented in this research are stories derived from lived experiences. They are a sophisticated knowledge infrastructure, developed without institutional support, that formal service systems have consistently failed to incorporate. The practical implication here is that advocacy should not only demand better services: it should demand that the expertise already developed by the people who need those services be treated as evidence, not an exception. That shift, from advocacy as pressure to advocacy as knowledge transfer, may be the most powerful lever available for systemic change. Together, these three groups form the network that this dissertation argues must be the site of change. No single stakeholder can deliver empowering journeys for CLWD. But each holds a piece of the coordination infrastructure that, assembled intentionally, could.

Knowledge mobilization has been a priority throughout this research, reflecting my commitment to bridging the gap between theory and practice. As a researcher, my goal is not only to advance scholarship but also to apply it to tackle real-world problems in ways that reach the people who need it most. Beyond academic dissemination, I have been sharing findings at industry and academic conferences, in webinars with aviation and accessibility practitioners, and through ongoing engagement in standards development at the Canadian Standards Association. Short-form video summaries of key findings are in development to reach practitioners, advocates, and travelers who would not typically engage with academic publications. These efforts reflect a commitment to ensuring that research on inclusion does not itself remain inaccessible and that the people most affected by these findings are among the first to encounter them.

Methodological Implications

Studying CLWD as consumers presents a fundamental tension: the population whose experiences most need to be understood is also among the most difficult to access without imposing burden or researcher assumptions. The sequencing of scoping review, netnography, and stakeholder interviews was designed to navigate this tension. In this dissertation, I begin with what scholarship has said, moving to what consumers have actually done, and arriving finally at what organizations believe they are providing. Each method addresses the blind spots of the others, but, more importantly, the sequence itself enacts the dissertation's core argument: that understanding exclusion requires moving between levels rather than settling at one.

The netnographic immersion, in particular, produced a finding that was not anticipated and that no other method could have surfaced: online communities are not just spaces where CLWD and their companions share experiences. They are service infrastructure. The strategies, warnings, and collective wisdom documented across thousands of forum posts represent a sophisticated knowledge ecosystem that formal service systems have consistently failed to build, and that consumers have therefore built for themselves. This reframes what netnography can reveal in service research. It is not simply a method for accessing consumer voices but a lens for seeing what institutions have abandoned and what communities have quietly taken over. The two-year longitudinal dimension was essential to this discovery.

The integration of consumer and provider perspectives across Articles 2 and 3 completes the methodological argument. Examining the same phenomenon from both sides of the service encounter enabled us to uncover consumers' experience of turbulence that organizations do not see as producing on their own. Organizations act with a genuine commitment to accessibility that consumers do not experience as accessible.

The implication for future research is not simply that mixed methods are useful. It is that studying service experiences where consumer vulnerability and organizational complexity intersect requires methodological designs that can move between levels, sustain engagement over time, and treat the distance between consumer experience and organizational intention as data rather than discrepancy.

Limitations and Directions for Future Studies

This dissertation has three primary limitations. First, the air travel context, while analytically productive, represents an extreme case. Future research should examine whether the same patterns of turbulence and coordination failure emerge across other complex service contexts, such as healthcare, financial services, education, and retail, where cognitive variability and multi-actor coordination similarly shape consumer experiences. Second, the netnographic approach captures digitally literate, proactive consumers, potentially overrepresenting severe or successful cases; future research should complement this with direct recruitment, interviews, and longitudinal methods. Finally, the Canadian aviation context might limit cultural transferability; ensemble dynamics, disclosure norms, and accommodation-seeking patterns may differ across cultural contexts.

These limitations point to three priority research directions. First, testing the Service Turbulence Model across conditions involving other non-visible disabilities, such as cognitive or sensory variability, would establish whether the model holds for different populations and conditions or requires refinement. Second, studying how service ensembles coordinate in other service settings—where the involvement of companions, cognitive demands, and the progression of the journey differ from air travel—would help identify the conditions under which ensemble coordination succeeds or fails, and under which turbulence is reduced or amplified. Third, bringing consumer and provider perspectives together in a single study would test whether the four trade-offs identified in Article 3 amplify or reduce the turbulence that consumers and their ensembles experience in Article 2.

Concluding Reflections

Over the past decades, we have become a more accessible society. We have started to learn how to lower steps, widen doorways, and install ramps; these changes did not happen because the problem was easy, but they happened because researchers began studying these consumer groups, advocates began speaking up for consumer rights, and policymakers eventually developed a clear enough understanding of the problem to act together. Cognitive accessibility has not yet experienced that transformation. Service systems still assume a consumer who navigates confidently, remembers instructions, and performs consistently at every interaction. For the increasing number of people living with dementia worldwide, and for the growing number of consumers whose cognitive engagement varies, this assumption does not hold; and when systems are built around it, exclusion becomes the default outcome, not the exception.

This dissertation advocates for an alternative foundational perspective, proposing that service systems should be designed with human variability as a central consideration, rather than built around the 'average consumer' (Patrick & Hollenbeck, 2021). The ensembles navigating service turbulence in real time—distributing cognitive effort, leveraging collective knowledge, and adjusting without institutional support—show us what service navigation actually looks like when systems are not designed for everyone. The findings, framework, and model presented here are a step toward changing that. The goal is not to fit variable consumers into stable systems, but to build systems resilient enough to meet people where they are.

Vernā Myers reminds us that *'Diversity is being invited to the party; inclusion is being asked to dance'.* For consumers living with dementia, getting to the party has always been the hard part, and once there, being asked to dance has been harder still. This dissertation is a call to change that. This is not solely an academic aspiration; for those whose journeys this dissertation seeks to honour, it represents a future in which consumer experiences are empowered through accessible and inclusive marketplaces.

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Appendices

Appendix A: Relevant Study Materials for Article 2

A1) Email of Information

Email of Information

Hello PARTICIPANT NAME,

We appreciate your interest in participating in our research focusing on improving air travel for passengers living with dementia and their travel companions. This is a consent email containing all the details about the project.

If you agree and want to participate in this study, we will require you to reply to this email before accessing our discussion board. We aim to launch the discussion board in the next few weeks.

Consent Form

Affiliation (Department, Faculty, Institute): The LIFE Research Institute, The University of Ottawa, National Research Council Canada

Research Project Title: Accessible air travel experiences for passengers living with dementia and their travel companions

Principal Investigators: Valentina Primossi, Dr. Michael Mulvey, Shelley Roberts

Purpose of the Study

The purpose is to better understand air travel experiences and service failures encountered by passengers living with dementia and their travel companions. The approach is rooted in community-based participatory research, designed to empower the community to have a say in solving problems and creating solutions.

This project will lay the groundwork for further research to confirm the identification of best practices and effective strategies to improve air travel experiences for these passengers and respond to the requirements of the Accessible Canada Act.

Participation

Invitation to Participate: I am invited to participate in the abovementioned research study conducted by *Valentina Primossi under the supervision of Dr. Mulvey.* National Research Council Canada funds this project.

My participation will consist of online discussions of my air travel experiences on a research webpage with a maximum duration of six weeks. The posts will be screen-captured and transcribed. The information I provide in the interview and discussion may be used for other student research purposes (e.g., doctoral thesis).

The research webpage has a discussion forum format. Only registered participants will be able to access the board. The website will be active for six weeks. The researchers will share a new question as a weekly thread, and participants will interact by commenting on the posts. Participants will interact with the other group members and the researchers.

Risks: My participation in this study will entail that I share some basic demographic information (i.e., name, location, date of birth) and discuss my air travel experiences and service failures I have encountered. I understand that I can interact at convenient times and withdraw from the study at any point without having to provide a reason. Identities in this study will not be revealed.

Benefits: My participation in this study will allow researchers to lay the groundwork for further investigations of best practices and effective strategies to improve air travel experiences for passengers living with invisible disabilities, specifically passengers living with dementia. Although the participants may not directly benefit from this study, we hope their engagement will make them feel valued and reflect on the study's importance in raising awareness.

Confidentiality and Privacy: I receive assurance from the researchers that the information I share will remain confidential. I understand the contents will be used for this study and other student research projects (e.g., doctoral thesis). If my words posted on this board are quoted, I will be assigned a pseudonym (a fake name to mask my identity). The information used in the publication will be my age, location, and status as a person living with dementia or a travel companion. This is a private website; only registered participants can see my comments and discussions. The webpage has a discussion board format where I will interact with the other group members and the researchers. I agree not to share private information (e.g., name, last name, address). I agree NOT to write inappropriate content (e.g., offensive language). If the researchers perceive the content as unacceptable, they can address, edit, or remove it.

Conservation of Data: The data collected includes images of screen captures, transcripts, researchers' notes, and consent forms. The collected data will be securely kept on a password-protected document in a OneDrive folder, accessible only to the principal investigator, co-investigators, and student researchers. The data will be aggregated across all discussion posts and stored for ten years. After the retention period expires, all data will be securely deleted from the computer.

Compensation: All participants will receive a $25 eGift Card (e.g., Visa, Mastercard, Amazon, Walmart) as a token of appreciation for participating in this project. Participation requires discussion in a forum format for a maximum of six weeks, but participants can withdraw at any time without providing a reason. If participants consent to the study but choose to withdraw part-way through the project before the end of the six weeks, they will still receive compensation.

Voluntary Participation: I am under no obligation to participate, and if I choose to participate, I can withdraw from the study at any time without suffering any negative consequences. Given the collective nature of the data, data will be used should one choose to withdraw from the study. Participants should print a copy of this consent form email for their personal records.

I may contact the researcher or their supervisor if I have any questions about the study. If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613-562-5387).

Acceptance: I agree to participate in this research study by replying to this email.

We look forward to receiving your confirmation email and inviting you to the discussion board in the next few weeks!

A2) Registration Form

Registration Form

Introduction - *My name is Valentina, and I am a student at the University of Ottawa. As my research focuses on improving air travel for passengers living with dementia and their travel companions, I strongly believe that my mission aligns with many of you.*

I appreciate your willingness to participate in my research focusing on improving air travel for passengers living with dementia and their travel companions. If you decide to join these conversations, you will share your experiences via a private research webpage at your convenience for a maximum of six weeks (after six weeks, the webpage will be shut down).

Fill out this form to receive an email confirmation with all the project's details.

First Name
Last name
Email
Location as the name of your nearest airport
Date of Birth
Date of Registration
Status (Person living with dementia, travel companion, a family member of a person living with dementia, a friend of a person living with dementia, others with dementia insights)

A3) Online Discussion Board Threads

Discussion Board

Title	Content
Welcome to this discussion board	Hello, Welcome to this discussion board. Our names are Valentina and Michael. I am a student researcher at the Life Research Institute, and Michael is a Professor of Marketing at the University of Ottawa. As the number of aging passengers in the travel industry continues to rise, airports and airlines must adapt to accommodate the needs of older adults and passengers with visible and invisible disabilities. Air travel presents challenges to passengers living with mobility, sensory, and cognitive disabilities. We want to help the industry prepare. For this reason, we would like to learn more about your experiences and gain insights from these discussions. There are no right or wrong answers, so we simply ask for your honest views.
Let's start by sharing our stories	What air travel stories would you like to share with us? Let's start with a positive and memorable one.
A service failure	How about a negative one when encountering a service failure during your journey?
Improving air travel	How do you think air travel experiences could be improved? Do you have any suggestions or recommendations?
Services and Programs	Are you aware of any services and programs that support you in your air travel journey? Where might passengers find out about them? Do you feel that they are useful for travellers living with dementia or other invisible disabilities?
Any trip planned?	Do you have any trips planned? How are you going to prepare for it?
Anything you'd like to add?	This is the last thread of the research. Please share with us anything else that you think might help us improve accessibility for travellers living with dementia or other invisible disabilities.
Greetings	We would like to remind you that the forum will remain open for the coming six weeks until XXX. We'd like to invite you to share your stories at a time that works best for you, responding to the prompt questions we've posted.
Thank you for your participation.	Your insights into air travel experiences have been invaluable! We sincerely thank you for participating in this study and helping us make a difference. You will receive an eGift Card via email as a token of our appreciation.

Appendix B: Relevant Study Materials for Article 3

B1) Invitation Email

Invitation email (*see subject line below)*

Subject: Invitation to Share Your Insights – Doctoral Thesis Project on Inclusive Air Travel - Dementia

Dear [Name],

I hope this message finds you well. I'm reaching out to invite you to take part in a research interview for my doctoral thesis project at the University of Ottawa's LIFE Research Institute, focused on improving the travel experience for passengers living with dementia.

As someone with deep expertise in consumer experience and service delivery, I believe your perspective could offer vital insights. This project explores how the aviation industry supports (or not) the travel experiences of those living with dementia or Alzheimer's disease. We want to know about the real challenges and want to co-create meaningful solutions with stakeholders like you.

The study is partly funded by the National Research Council of Canada (NRCC), though it is conducted independently. Your participation is confidential, and your decision will in no way affect your professional relationship with NRCC or your employer.

The interview will be conducted virtually via Microsoft Teams and will last about 90 minutes (maximum 2 hours) at a time that suits you. With your permission, it will be video-recorded for research purposes. As a thank you for your time, participants receive a $100 honorarium.

If you're open to participating, I'd love to hear from you. Or, if you have someone else on your team, feel free to share this information and let them know to get in touch with me.

Please be reassured that we will communicate the results of the study once they become available.

Thank you for considering this invitation. I hope to speak with you soon. Please feel free to reach out with any questions. Should you be willing to participate, official consent will be obtained before the interview.

Warm regards,

Signature

An email with the attached* LETTER OF INFORMATION (LOI) *and a Calendly calendar to schedule the interview.

Dear [NAME],

Thank you so much for the reply! I appreciate your eagerness to participate. I know I will gain valuable information from all our interviews and look forward to engaging in thoughtful conversations with you.

Please find the attached Letter of Information, which includes all project details. When you're ready, you can use the following link to schedule a time that works best for you: click here.

Looking forward to connecting,

Signature

An email with the Interview transcript revision email (see subject line below)

Subject: University of Ottawa - Interview Transcript

Hi [NAME],

I hope you're doing well. I wanted to thank you again for taking the time to meet with me earlier this week. It is wonderful to hear about the accessibility priorities being implemented at the NAME.

Attached to this email is the transcript from our discussion. I would greatly appreciate it if you could take a moment to review it, ensuring all pertinent information is included. Additionally, please feel free to highlight any sections within the transcript that you believe should not be incorporated into my dissertation. If possible, I am hopeful to receive your feedback by **TEN BUSINESS DAYS FROM THE DATE.**

Warm regards,

Signature

B2) Letter of Information

LETTER OF INFORMATION (LOI)

Telfer School of Management Research

Affiliation (Department, Faculty, Institute): The LIFE Research Institute, The University of Ottawa

Research Project Title: Empowering Journeys: Navigating Air Experiences of Consumers Living with Dementia

Principal Investigator: Valentina Primossi, *Telfer School of Management, The LIFE Research Institute, University of Ottawa (Canada)*

Supervisor: Dr. Michael Mulvey, *Telfer School of Management, The LIFE Research Institute, University of Ottawa (Canada)*

Co-Supervisor: Dr. Linda Garcia, *Interdisciplinary School of Health Sciences, The LIFE Research Institute, University of Ottawa (Canada)*

Invitation to Participate: I am invited to participate in the above-mentioned research study by *Valentina Primossi under the supervision of Dr. Mulvey* and *Dr. Garcia.*

Background and Purpose of the Study

I am invited to participate in this doctoral thesis project, which seeks to better understand the challenges and opportunities in providing inclusive and supportive services for passengers living with dementia.

Participation

My participation will consist of a virtual interview with a maximum of two hours on the Microsoft Teams platform. The anticipated duration of the interview is 1.5 hours. My expertise is very important to this project. During this interview, I will be asked to share my experiences and perspectives to gain insights into current practices and identify areas for improvement within the complex aviation system. I may be invited to participate in a follow-up discussion, but only if the researchers require any clarification after my interview is finished. The interview and discussion will be audio- and video-recorded. I understand that I will have the opportunity to review my interview transcript (within 10 business days) and remove any unwanted portions before the data analysis. The transcript will be directly emailed to me without any identifying information to protect the data. The information I provide in the interview and discussion may be used for other student research purposes (e.g., doctoral theses). The study will be conducted in English.

Risks

My participation in this study will entail that I share some basic demographic information (i.e., name, job title, role, and job description) and discuss current practices and experiences based on my expertise within the aviation industry regarding the air travel experiences of passengers living with dementia. I understand that the interview could take up to 2 hours, which might cause me to feel tired, but I can take breaks at any time throughout the interview. I have received assurance from the researchers that every effort will be made to minimize these risks by refusing to answer specific questions and withdrawing from the study at any point without having to provide a reason. I understand that the researchers will maintain the confidentiality of all information by storing the data securely on a password-protected OneDrive.

Benefits

I understand that I may not receive any direct benefits from participating in this study. However, it will allow me to reflect on the complexity of the aviation ecosystem and the importance of harmonization between stakeholders for enhancing air travel experiences. Although I may not directly benefit from this study, my engagement is very important. My participation in this study will allow researchers to lay the groundwork for further investigations within the realm of accessibility and inclusive air travel for passengers living with disabilities, specifically passengers living with dementia. I will also be given a summary of the results, which may help me in developing strategies within my own workplace.

Confidentiality and Privacy

I receive assurance from the researchers that the information I share will remain confidential. I understand the contents will be used for this study and may be used as secondary data analysis by other student research projects (e.g., doctoral theses). Some identifying information, both direct and indirect, will be collected (e.g., name, contact information, job title, and number of years working for the organization). The identifying information will only be available to the study team members. The researchers will keep information confidential. I understand the research team will not use my identifying information in the final report and publications. If quotes are used in publications, participants will be assigned a pseudonym (a fictitious name to conceal their identity). Although your contributions may inform published findings, individual recognition is neither guaranteed nor intended, as anonymity will be maintained.

Conservation of Data

The data collected includes audio/video recordings, transcripts, researchers' notes, and consent forms. The video recordings will be deleted immediately after the interview, while the audio portion will be kept to facilitate analyses. The collected data will be stored securely on a password-protected document in a OneDrive folder accessible only to the principal investigator and co-investigators. The data will be aggregated across all participating stakeholders and stored for five years. Once the retention period ends, all data will be securely deleted from the computer.

Compensation

All participants will receive a $100 e-gift card as a token of appreciation for participating in this project. Participation only requires a one-time interview. I can choose to withdraw at any time without having to provide a reason. If I consent to the study but choose to withdraw before the interview, I understand that I will not receive compensation (as this is the only requirement of the study). If I decide to withdraw partway through the interview or once the interview is complete, I will still receive compensation. The NRCC funds this project, but the NRCC will not know the participants or access their information.

Voluntary Participation

I am under no obligation to participate. If I participate, I can withdraw from the study at any time or refuse to answer any questions without facing any negative consequences. If I withdraw, all data collected up to that point in the interview will be deleted from the dataset and will not be utilized in the study.

Questions about the Study

I may contact the researcher or their supervisor if I have any questions about the study. If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613-562-5800 ext. 5387).

It is recommended that I save a copy of this consent form for my records.

How do I find out about the study's findings?

The results of this study will be part of the principal investigator's PhD dissertation, which will be eventually published in a Scientific Journal. To receive updates about the study's progress, I can email or call the principal investigator, who will be more than happy to send a link once it is published.

Acceptance: By agreeing to participate in this study, I understand that I will provide verbal consent before the start of my interview.

B3) Interview Guide

Interview Guide

Affiliation (Department, Faculty, Institute): The LIFE Research Institute, The University of Ottawa
Research Project Title: Empowering Journeys: Navigating Air Experiences of Consumers Living with Dementia
Principal Investigator: Valentina Primossi, Telfer School of Management, The LIFE Research Institute, University of Ottawa (Canada)

Interview Details:

- Candidate Name:
- Position Title:
- Name of Organization:
- Date of Interview:
- Interview Start Time:
- Interview End Time:

Introduction

Hello [NAME],
Welcome to this interview! Thank you for taking the time to participate. My name is Valentina, and I am a fourth-year PhD candidate at the University of Ottawa. Before we begin, as a reminder, you have agreed to audio and video record the meeting for note-taking purposes.

>START RECORDING<

Before we start, I need your verbal consent to participate in this interview. **Do you consent?**

Thanks so much for taking the time to speak with me today. This study looks at how the aviation industry can better support passengers living with dementia. I'm especially interested in learning from people like you—those with hands-on experience navigating this complex system.
Our conversation will help identify current practices, challenges, and opportunities for improvement. Your insights are incredibly valuable, and I truly appreciate your willingness to share them.
Here's how our discussion will flow:
We'll begin with your role and background, then move into how your organization approaches passengers living with dementia—your experiences, services in place, and any future plans. Finally, I'll ask for your thoughts on what could be improved.
There are no right or wrong answers, and feel free to share stories or examples—they really bring the issues to life. The conversation should take about 90 minutes, and no more than 2 hours.
Does that sound good? Any questions before we begin?

For the interviewer's purpose only:
RQ1: How do aviation industry stakeholders perceive and discuss CLWD?
RQ2: What concrete actions do aviation industry stakeholders take to create supportive and inclusive air travel consumer journeys for CLWD?

<u>RQ3:</u> What are the implications of understanding system dynamics and barriers for enhancing CLWD journeys in air travel, and what solutions can be proposed?

Interview Questions

Background and Experience

For the interviewer's purpose only, try to engage the interviewee in a conversation around these questions:

1. Please tell me a little about yourself. How long have you been working in the aviation industry? And how long have you been with this company/organization?
2. Can you describe your role and how long you have been in it?
3. What is your branch? To whom do you report?
4. How many employees are on your team?
5. Do you usually interact with customers?
6. Please describe your role within the aviation service system for passengers with invisible disabilities, particularly dementia.

Note for the interviewer: Summary - ok, from what I understand, you said...

How do they think?

Note for the interviewer: Thanks for sharing about your position and experience... Let's now turn to discussing passengers with dementia and how you work with this group...

I. Perception/View of CLWD

7. How familiar do you consider yourself to be with dementia/ or Alzheimer’s? Do you have any personal experience?
8. Do you know if people living with dementia are one of your customer segments?
    - It is not always easy to know if someone has dementia. How do you or your team know or figure out that passengers have cognitive impairments?
    - How do you balance collecting necessary information about cognitive needs while respecting privacy and dignity?
    - Does it make up a big part of your consumer base?
    - Are there peak seasons? Or peak times when travelers living with dementia make up a bigger part of your consumer base?
    - Have you seen any changes in the aviation industry's approach to serving passengers living with dementia over the years?
9. Have you noticed whether they typically travel alone or with companions?
    - *If yes:* Have you noticed who the travel companions usually are?
    - *If yes:* How would you describe the role of travel companions when they're involved?
    - *If yes:* Do you find yourself approaching things differently when passengers with dementia have companions with them?
10. Have you any sense of their reasons for travelling? For what purpose?
    - Leisure? Medical reasons?
11. How do you typically learn about what passengers living with dementia might need during their journey?
    - How do passengers or their companions usually communicate their needs to you?

- Do you think their needs are based on the stage or severity of their illness (mild vs. moderate vs. severe dementia)?

12. How do you feel about your organization's ability to serve these needs? or How do you think your current services meet these needs?
    - *If yes:* How do you balance operational efficiency with individualized needs?
    - *If yes: [explore in the next section].*
    - *If not*: have you seen other organizations that seem to handle this differently?
13. In research, we sometimes talk about 'vulnerable consumers.' The idea is that vulnerability comes from multiple internal and external factors working together - so it's more about situations and systems rather than something inherent to individuals (Baker et al., 2005). What are your thoughts on how this definition might apply to passengers living with dementia? Please elaborate...
    - Is there anything that comes to mind when you think about factors that might create vulnerability for this group?
14. Have you noticed anything different about how other travelers respond when passengers living with dementia are there? Please elaborate.

Note for the interviewer: Summary - ok, from what I understand, you said...

What do they do?

Note for the interviewer: Thank you. We have only two more sections. Let's now explore what services are currently in place...

15. Do you have any programs/trainings that specifically address the needs of people traveling with dementia? If so, which ones?
16. We have come to view the travel journey as follows:
    - <u>Pre-Travel</u>: What happens before they travel - during planning, booking, or check-in? (checklists, maps, ...)
    - <u>Travel:</u> What support is available during the actual travel day - at security, boarding, on the aircraft? (seat selection (by window and close to washrooms), comfort packages,...)
    - <u>Post-Travel:</u> What support is available at arrival, immigration, and pre-arrangements
17. Where would your services/programs be most effective and how do you know?
18. In your experience, have you learned what aspects of travel tend to be easier or harder for passengers living with dementia?
19. Some people have told us that the staff needs training in this area. Do you agree? Do you have any suggestions of things you might have heard of or done yourself? Do you know if they are effective? If so how?
20. We've noticed that passengers living with dementia don't always know where to find information about what travel services and accommodations are available to them.
    - How do they usually learn about what's available to help them through your services and programs?
    - Do you have a way of knowing if it works well?
21. With the development of technology in the travel industry, what's your experience with how passengers living with dementia interact with these digital options, if at all?
    - Are there any apps, digital tools, or accessibility technologies that you're aware of?

22. Have you ever had situations where passengers living with dementia needed extra support from multiple organizations?
    - Can you tell me about how that usually works?
    - What happens when several groups need to get involved?
23. Sometimes people living with dementia tell me that it is confusing to travel. If you could imagine organizations working together more smoothly for passengers with dementia, what would that look like?
24. Have you had opportunities to get input from passengers living with dementia or disability advocates?
    - *If yes:* what is it like for your organization to work or connect with passengers living with dementia?
    - *If not*: do you see other companies/organizations doing it?
25. Are you familiar with any standards or guidelines for serving passengers living with dementia in aviation?
    - What's your sense of how well these work in practice?
26. Have you noticed any influence from regulations on how services are provided?
    a. How do you think regulations affect service delivery, if at all?

Note for the interviewer: Summary - ok, from what I understand, you said...

What should be done?

Note for the interviewer: Thank you. Now we want to look to the future. *I'd love to hear your thoughts about what might be possible...*

V. Business Considerations and Future Vision

27. What do you think we could do from the service provider side in order to better respond to the needs of passengers living with dementia?
    - What influences decisions about investing in these kinds of services?
    - How do costs factor into these considerations?
    - Do you think it would make a difference to other groups of passengers? If so, which ones? *Note to interviewer: If interviewee does not come up with these, mention passengers living with autism, people anxious about flying, etc.*
28. Have you come across any interesting approaches from other industries that might work well in aviation?
    - What innovations have caught your attention?
29. If your organization could try one new approach for supporting passengers with dementia, what would interest you most?

Concluding questions

30. Is there anything about this topic that we haven't discussed or touched on that you feel is important?
31. Is there anyone else you think I should talk to who might have valuable insights on this topic?

I sincerely thank you for participating in the interview. Would you be open to us contacting you if we require any clarification once the data is analyzed?

Thank you very much for your time.
>STOP RECORDING<