

# **The Performance of Immigrant-owned Business Ventures**

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## **Abstract**

Employing a representative sample of small- and medium-sized enterprises, this study examines the performance of immigrant-owned business ventures (IBVs) and firms owned by non-immigrants. The study also presents a comprehensive profile of Canadian IBVs.

Anecdotal evidence has suggested that many successful growth-oriented firms have been started and managed by immigrant entrepreneurs. Immigrant business owners are also thought to bring to business start-up unique managerial acumen and social capital derived from diverse experiences and international networks. To date, however, there remains a lack of substantive evidence regarding the performance of immigrant-owned ventures. The study also considers the performance of comparable groups of new firms owned by non-immigrant entrepreneurs, with a particular focus on the relationship between firm internationalization and enterprise performance. The results lend support to arguments that owner-level factors influence the process of internationalization among SMEs and that, compared to non-immigrant business owners, immigrant business owners retain entrepreneurial acumen that is conducive to the internationalization of young ventures. The implications of the findings for research and policy are considered.

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# 1. Introduction

Employing a representative sample of Canadian small- and medium-sized enterprises (SMEs), this study examines the performance of immigrant-owned business ventures (IBVs) and firms owned by non-immigrants. The study also presents a comprehensive profile of immigrant-owned ventures (IBVs). The contribution of the study to entrepreneurship theory and public policy is evidenced in several important ways.

First, anecdotal evidence has suggested that many successful growth-oriented firms are started and managed by immigrant entrepreneurs (Ensign & Robinson, 2011). To date however, most related studies have focused on descriptive attributes of immigrant entrepreneurs and their management practices during start-up. Of note are studies authored by Waldinger, Aldrich, and Ward (1990) who were among the first scholars to study immigrant and ethnic minority entrepreneurs; Portes and Jensen (1989) who examined Cuban exile entrepreneurs in Miami; and Portes, Guarnizo, and Haller (2002) who have reported on the incidence of ‘transnational immigrant entrepreneurs’ in the United States. In the Canadian context, Dalziel (2008) has compared *successful* immigrant and non-immigrant entrepreneurs; immigrants were observed to be comparatively *more successful* than non-immigrant entrepreneurs who were already said to be *successful*. However, the extent to which IBVs outperform ventures owned by non-immigrants, if at all, remains unclear. Such unanswered questions motivate the need for research to understand the influence of residency or immigrant status on enterprise performance.

Second, examination of the influence of immigrant status on enterprise performance is important given increasing rates of migration and the potential influence of immigration policies on venture creation. For example, the United Kingdom reports a continued and positive trend in immigration; between 2004 and 2009, approximately 590,000 immigrants arrived annually (Office for National Statistics, 2009). In 2009, 1,130,818 individuals immigrated to the United States (U.S. Department of Homeland Security, 2009). In Canada, 195,803 persons immigrated as legal permanent residents (Citizenship and Immigration Canada, 2011). Moreover, 61 percent of immigrants entering Canada in 2009 were part of an

‘economic class’ — as opposed to other immigration classes (e.g. ‘family class’ or ‘refugees’) (Citizenship and Immigration Canada, 2011).

Third, there appears to be evidence to the effect that IBVs create wealth within their host countries. For example, in the United States, immigrants were observed to be 30 percent more likely to start a business compared to non-immigrants (Fairlie, 2008). In 2007, IBVs generated \$67 billion in revenue, this equals, approximately, 11.6 percent of all business income in the United States (Fairlie, 2008). Moreover, there is evidence that immigrants act as catalysts of international trade (Co, Euzent, & Martin, 2004; Dunlevy & Hutchinson, 1999; Mundra, 2005; Partridge & Furtan, 2008). It is expected, therefore, that this study informs commercial and trade policy, contributions that are deemed important for the development of international entrepreneurship research (Wiklund, Davidsson, Audretsch, & Karlsson, 2011).

Finally, it is expected that this study will inform discussion about the extent to which owner and firm level factors influence enterprise performance. This is because research has suggested that immigrant entrepreneurs retain unique competencies, competencies that influence their strategic orientation and hence, firm performance (Ensign & Robinson, 2011). For example, Canadian research has reported that, compared to firms owned by non-immigrants, IBVs are more likely to internationalize or engage in exporting activities (Orser, Spence, Riding, & Carrington, 2008). Internationalization is also linked to enterprise growth and performance (Daniels & Bracker, 1989; Lu & Beamish, 2001; McDougall & Oviatt, 1996; Shrader & Siegel, 2007). Furthermore, immigrants voluntarily and involuntarily accept risks when leaving the known confines of a home country to seek residency in an unknown and potentially more developed host country. Therefore, immigrants may have higher risk-taking propensity or risk tolerance. IBVs also tend to be smaller than non-immigrant owned firms (Fairlie, 2008). Studies have suggested that smaller firms seize on opportunities more efficiently and effectively than larger firms (Chen & Hambrick, 1995) and that they exhibit higher growth rates (Cooper, Woo, & Dunkelberg, 1989) and that IBVs also tend to be concentrated in service sectors (Fairlie, 2008; Industry Canada, 2009; Kushnirovich & Heilbrunn, 2008) thereby benefitting from less onerous production costs or inventory

carrying costs, R & D expenditures, and marketing budgets (potentially increasing profit margins).

Conversely, immigrant status may be inversely associated with firm growth. Evidence from Canada indicates that immigrant entrepreneurs tend to be younger and, therefore, potentially less experienced than non-immigrant business owners (Industry Canada, 2009). Research has also suggested that entrepreneurial education is positively associated with firm growth (Storey, 1994) and making better strategic choices (Roper, 1998). Given limited periods of residency, it is reasonable to suggest that immigrants may be at a higher risk of making poor strategic decisions. Furthermore, although smaller firms may be more agile, size has been described as a performance liability (Brush & Chaganti, 1999; Lu & Beamish, 2001). Studies also indicate that immigrant start-ups are undercapitalized, and that compared to non-immigrants, immigrant business owners lack of access to financing (Bates, 1997; Kushnirovich & Heilbrunn, 2008). Avery, Brevoort, and Canner (2009) also report that immigrants receive generally low credit scores. As such, immigrants are likely to have comparatively short and, therefore, weaker banking relationships compared to non-immigrant business owners. This is important given that strength and tenure of the relationship have been demonstrated to improve access to financing (Petersen & Rajan, 1994).

This thesis, therefore, contributes to our understanding about the incidence and socio-economic impact of IBVs. Given the attributes of IBVs and the ‘international acumen’ of their owners, the thesis focuses on the association between firm internationalization and performance. In the event that IBVs are more likely to export compared to firms owned by non-immigrants, IBVs may be better positioned to compete in a globalized marketplace. To the extent that exporting is linked to growth, IBVs may also outperform firms owned by non-immigrants. To report on this work, the review of the literature examines the influences of firm attributes, human capital, and opportunities on firm internationalization and performance. This leads to conceptual arguments from which testable hypotheses are generated. A description of the data and methodology are then presented and empirical

findings are explained. This paper concludes with a discussion of the findings, limitations, and implications for public policy and future research.

## **2. Literature Review**

This section presents an overview of research that informs conceptual arguments about the performance of immigrant-owned business ventures (IBVs). The review begins with a profile of IBVs, including firm and owner attributes and opportunity structures. Given the focus of study, two theories about the internationalization process of entrepreneurial firms are discussed. Obstacles and factors associated with export-orientation are also noted. Finally, the review concludes with a discussion about internationalization and performance.

### **2.1. Immigrant-owned Business Ventures (IBVs)**

Data about the incidence, profile, and propensity of immigrants to engage in business start-up are limited. Industry Canada has reported that *new* immigrants (owners with less than five years of Canadian residency) account for 3 percent of Canadian SMEs (Industry Canada, 2009). The U.S. Small Business Administration reports 1,500,000 immigrant business owners in the United States (representing 12.5 percent of all business owners) and that immigrants are 30 percent more likely to start a business than non-immigrants (Fairlie, 2008). The United Kingdom's Department of Trade and Innovation reports causality between entrepreneurial intentions and London's concentrated immigrant (ethnic minority) population (Lomax, Davies, & Morrison, 2007). It has also been suggested that the propensity of firm start-up among immigrants in developed countries, including the United States, Canada, Australia, and the United Kingdom is significantly higher than that among immigrants in less developed nations (Fairlie, 2008).

### 2.1.1. Potential influence of immigration policies on owner profiles

Immigration policies in many developed countries seek to attract immigrant entrepreneurs with significant commercial acumen (e.g., Canadian Business Immigration Program)<sup>1</sup>. For example, Table 1 presents a summary of selected criteria, for candidates with entrepreneurial intentions, seeking entry into Canada, the United States, and the United Kingdom. Within each of the sample immigrant entrepreneur programs, applicants are expected to demonstrate the ability to invest in start-up and are expected to create employment.

**Table 1. Host country admission requirements for immigrant entrepreneurs**

<b>Canada</b>	<b>United States</b>	<b>United Kingdom</b>
Business Immigration Program <sup>2</sup>	Green Card Through Investment <sup>3,4</sup>	Tier 1 Entrepreneurs <sup>5</sup>
<ul style="list-style-type: none"> <li>• Demonstrate business experience</li> <li>• Minimum net worth of \$300,000</li> <li>• Viable business plan</li> <li>• Commitment to hiring more than one Canadian in the business</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in commercial enterprise in the United States</li> <li>• Invest \$1,000,000 (USD) or at least \$500,000 (USD) in a targeted employment area</li> <li>• Create or preserve 10 permanent full-time jobs for qualified Americans</li> </ul>	<ul style="list-style-type: none"> <li>• Invest £200,000 in to a business in the United Kingdom</li> <li>• Register new business within three months</li> <li>• Create at least two full-time jobs for residents in the United Kingdom</li> </ul>

### 2.1.2. Managerial acumen and human capital

Entering under immigration business start-up programs suggests that some IBV owners bring to the host-country entrepreneurial experience, substantive working capital, and an intention to grow their firm. For example, research has suggested that immigrants admitted to Canada under an ‘economic class’ program such as the *Business Immigration Program* are more likely to engage in self-employment compared to immigrants admitted under other entry

<sup>1</sup> The Canadian Business Immigration Program is an initiative of Citizenship and Immigration Canada. The Program seeks to attract immigrants with business experience to Canada. Such immigrants are expected to make a \$400,000 (CDN) investment or to own and manage businesses in Canada (Citizenship and Immigration Canada, 2010).

<sup>2</sup> Source: Citizenship and Immigration Canada.

<sup>3</sup> Source: U.S. Citizenship and Immigration Services.

<sup>4</sup> The U.S. Citizenship and Immigration Services, to reflect an immigrant’s investment into their own start-up or another enterprise, employ the term ‘investment’ interchangeably.

<sup>5</sup> Source: United Kingdom Border Services.

criteria (Li, 2001). However, relatively few immigrants enter Canadian through business start-up programs. For example, in 2009 *Business Immigration Program* applicants represented 2 percent of the ‘economic class’ applicants to Canada (Citizenship and Immigration Canada, 2010).

For many immigrants, business start-up is born out of ‘necessity entrepreneurship’, due to unfavourable employment markets in the host countries (Kloosterman, Van der Leun, & Rath, 1998). Shinnar and Young (2008) have reported that approximately 40 percent of immigrants had encountered difficulties in a previous job or felt disadvantaged by the state of the labour market<sup>6</sup>. Furthermore, Bauder (2008) has reported that in comparison to *unemployed* immigrants, *employed* immigrants have significantly less desire to be self-employed. In Canada, it has also been reported that immigrant business owners are significantly younger than non-immigrant business owners (Industry Canada, 2009). This observation may reflect criteria for immigrant entry that enables younger, less experienced, and potentially under-capitalized applicants to enter Canada<sup>7</sup>. However, younger business owners may possess higher risk tolerance for business start-up given possibly fewer personal commitments (e.g., in the event that the business fails, younger immigrants may perceive that they have the ability to recover losses over time compared to older immigrants). Besides being younger, research suggests that immigrants are, on average, less educated than non-immigrant business owners. For example, in the United States, 31.3 percent of immigrant business owners report college education compared to 32.7 percent of all business owners<sup>8</sup>. Conversely, 27.2 percent of immigrant business owners report the highest level of education attained was high school compared to 11.9 percent of all business owners (Fairlie, 2008). Yet, the influence of immigrant status, managerial capital, education, and owner age on firm performance is not clear.

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<sup>6</sup> The study examined the influence of *push* and *pull* factors on business ownership among foreign-born Hispanic entrepreneurs in the Las Vegas metropolitan area. Overall, *pull* factors were determined to have a stronger impact on entrepreneurship than *push* factors.

<sup>7</sup> Under standard Canadian visa criteria, applicants must attain a score of 67 out of 100 points based on the following criteria: *education* (25 points), *work experience* (21 points), *age* (10 points), *offer of employment* (10 points), *knowledge of English and/or French* (16 + 8 points), *close relative(s) in Canada*, and *other* (e.g., graduate education, legal experience, spouse’s education: 10 points) (Citizenship and Immigration Canada, 2010).

<sup>8</sup> The statistical significance of the educational difference between immigrants and non-immigrants was not reported.

### 2.1.3. Influence of immigration status on firm performance

Despite differences in age and education, immigrant business owners are thought to bring to business start-up unique and valuable social capital derived from diverse and international networks. Drawing on a sample of ethnic (versus new immigrants) entrepreneurs, Kariv, Menzies, Filion, and Brenner (2009) have reported that ethnic entrepreneurs from *recently established*<sup>9</sup> communities were more likely to engage in transnational networking activities compared to entrepreneurs from *well-established* ethnic communities. Similarly, Kloosterman et al. (1998, p. 261) suggested that "...through their networks of relatives, co-nationals or co-ethnics, [immigrants] have privileged and flexible access to information, capital and, with relatively low monetary costs[,] labour." New immigrants have also been described as particularly industrious and willing to engage in self-exploitation in order to gain competitive advantages over businesses owned by non-immigrants (Waldinger et al., 1990).

However, firm size (expressed as 'employment') may limit the extent to which IBVs may outperform firms owned by non-immigrants<sup>10</sup>. It is observed that, on average, IBVs are smaller in terms of employment mass compared to non-immigrant owned firms (Kushnirovich & Heilbrunn, 2008). For example, in the United States, 15 percent of IBVs report fewer than five paid employees compared to 12.5 percent of all American businesses (Fairlie, 2008). Finally, access to capital may also be associated with firm size given evidenced by relatively smaller initial investments by immigrants (less than \$50,000) compared to non-immigrant counterparts (Kushnirovich & Heilbrunn, 2008). Bates (1997) has observed that in the United States, Korean, and Chinese immigrant owners retain less debt than non-minority borrowers. Low levels of early investment, limited financial flexibility, and the need for low cost labour may also be associated with a higher likelihood of IBVs employing family members (Portes & Jensen, 1989). Consequently, compared to non-immigrant firms, IBVs may not attract employees with comparative human and managerial capital.

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<sup>9</sup> *Recently established* communities (e.g., Chinese, Vietnamese, Indian/Sikh) are reflective of more recent immigration waves to Canada; *well-established* communities (e.g., Jewish, Italian) are reflective of earlier immigration waves to Canada.

<sup>10</sup> It has been suggested that firm size is positively associated with higher levels of human and organizational resources, leading to higher levels of performance (Brush & Chaganti, 1999).

#### *2.1.4. Opportunity structures*

IBVs are slightly more likely to operate in a service sector than firms owned by non-immigrants. Between 1996 and 2007, 49.1 percent of American-based immigrant-owned firms *started* in a service industry. This compared to 44.8 percent of non-immigrant-owned firms (Fairlie, 2008). Overall, 51.6 percent of IBVs operate in a service sector compared to 45.6 percent of all American businesses. Similarly, Canadian immigrant-owned firms are concentrated in knowledge-based industries, tourism, hospitality and food services, and other services (representing 17 percent of the all small- and medium-sized (SMEs) in Canada (Industry Canada, 2006). Given that firms owned by non-immigrants are more likely to understand their own country's markets (and business practices), viable opportunities for IBVs could be limited by sector choice. It is not clear, however, the extent to which sector choice and immigrant status influence performance outcomes. For example, it is observed that some immigrant (and ethnic) entrepreneurs capitalize on market opportunities not bestowed to non-immigrant (ethnic) entrepreneurs. Waldinger et al. (1990) have summarized five such opportunities: serving ethnic community's needs; serving underserved or deserted markets; penetrating markets with low economies of scale; operating in unstable markets; and selling ethnic goods. Furthermore, IBV owners have been noted to participate in enclave economies (Kim & Hurh, 1985; Organisation for Economic and Co-operation and Development (OECD), 2010; Portes & Jensen, 1989). These opportunity structures may have implications for IBVs performance (e.g., potentially limited market growth for ethnic goods, or the limitations of competing in enclaves as opposed to open markets). However, the extent to which opportunity structures influence firm performance is not known. Kloosterman et al. (1998) have stated that IBVs "... are funnelled towards the lower end of the opportunity structure of urban economies." This statement, however, should be interpreted with caution given its assumption that some IBVs settle for relatively undesirable opportunities.

Research has also reported that some IBVs capitalize on opportunities outside of their host countries. Miera (2008) has identified four internationalization strategies employed by Polish-owned IBVs operating in Germany. These include: utilizing a high degree of mobility and differences in purchasing power between Germany and Poland; recruiting immigrant workers; targeting the Polish buyers living in Germany; and opening branches in Poland

from Germany. Similar strategies were evidenced in the study by Portes et al. (2002), who focused on the *transnational* nature of entrepreneurial activities among Dominican, Colombian, and Salvadoran immigrants in the United States. These authors found that ‘transnational entrepreneurs’<sup>11</sup> represented a large proportion of the self-employed population in immigrant communities. While close geographic proximity between some host countries and countries of origin may influence owners’ cross-border strategies; globalization, technology, and efficient transportation have also helped to eliminate geographic barriers for many SMEs. The findings of Miera (2008) and those of Portes et al. (2002) may reflect unique opportunity structures for IBVs overall. Hence, IBVs may employ internationalization strategies to achieve relative competitive advantage.<sup>12</sup>

## 2.2. Internationalization of SMEs

Internationalization has been associated with firm growth, productivity and other performance outcomes (Cavusgil, 1984; Daniels & Bracker, 1989; Etemad, 2004; Fischer & Reuber, 2010; Johanson & Vahlne, 1977; McDougall & Oviatt, 1996). It is not surprising, therefore, that the process by which SMEs internationalize has been a focal point of considerable research and policy debate. Two models of internationalization have been particularly influential: the ‘Internationalization Process of the Firm’ (also referred to as ‘stage theory’ or the ‘Uppsala model’) (Johanson & Vahlne, 1977), and the ‘Theory of International New Ventures’ (Oviatt & McDougall, 1994). This section presents a brief description of each theory and a theoretical bridge between the two perspectives. The implications of internationalization on firm performance are then considered.

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<sup>11</sup> Transnational entrepreneurs were defined as those who travelled abroad at least twice a year for business, and who reported the success of their business depending on regular contact with foreign countries or their countries of origin.

<sup>12</sup> Orser et al. (2008) have reported that IBVs are more likely to export compared to ‘established’ business owners, all other variables held constant. ‘Established’ business owners may be better able to exploit favourable opportunities in their domestic market and hence, perceive little need to export. Consequently, the authors may not have used an adequate cohort of firms as a basis to compare the relative export propensity of IBVs to that of firms owned by non-immigrants. The present study compares the export propensity of IBVs (firms whose owner has resided in a host country for less than five years) against that of benchmark new firms (firms that are five years or younger, started by non-immigrants).

### 2.2.1. *Internationalization process of the firm*

The Uppsala model suggests that the internationalization process is developmental, incremental, and contingent on the accumulation of resources leading to increased management commitment and financial investments in foreign markets. This process is, therefore, thought to unfold in one of two ways: by gradually increasing resource commitment in foreign markets; or by going to markets that management can most easily understand (e.g., markets presenting least ‘psychic distance’) (Johanson & Vahlne, 1990).

However, the applicability of the Uppsala model has been questioned for several reasons. First, the model is theoretical and offers no insight as to: how or when the internationalization process starts; sequence of events; or time limits (Andersen, 1993). Second, the model was advanced during a period with relatively high barriers to international market entry. Since then free trade policies conducive to SME exporting, global supplies of human capital, more effective and efficient mediums of communication and new modes of transportation have made the process of internationalization accessible to even the smallest and youngest of firms (Etemad, 2004). Finally, ‘born global’ enterprises challenge the assumption about gradual investment and commitment. The extent to which the model is relevant is debated.

A complementary perspective is advanced through International New Ventures (INVs) Theory (Oviatt & McDougall, 1994). INVs have been defined as “...a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries” (Oviatt & McDougall, 1994). INV theorists contend that the stage or Uppsala model depicts the process of internationalization as slow and arduous. In response, Oviatt and McDougall (1994) have identified four elements necessary for the formation of a *sustainable INV*<sup>13</sup>. These include: internalization of some transactions; non-traditional (even ad hoc) governance structures; foreign location advantage; and unique resources. The non-traditional governance structures of INVs appear

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<sup>13</sup> The authors refer to a ‘sustainable INV’ as one that is able to maintain business activities (and more so those resulting from international transactions) over an extended period of time. As opposed to those INVs that might be considered INVs by definitional standards, but whose business operations are seen to be short-lived.

to be their main distinguishing element. INVs are argued to adopt these structures because they are resource constrained in comparison to more established firms. Therefore, such firms lack the necessary resource control that facilitates internationalization through gradual commitments (as suggested by the Uppsala model) (Oviatt & McDougall, 1994).

Empirical support of the INV theory has also been criticized. This is because studies examining the incidence of INVs have tended to use firm age as a central variable (Fernhaber, Gilbert, & McDougall, 2008; Kundu & Katz, 2003; McDougall & Oviatt, 1996). Such data is not sensitive to ‘new ventures’ that are spin-offs of existing firms, firms that may benefit from resources, and financial flexibility afforded by the parent corporations, including their networks, established systems, and managerial acumen (Zahra, 2005). Furthermore, identifying the point at which a new venture takes shape, and begins to operate, is imprecise. While some firms enter the market following extensive incubation periods, others do not. Resource accumulation throughout the incubation period also takes place before ‘official’ start-up or inception (Reynolds & Miller, 1992).

Given such arguments, both perspectives suggest that firms must meet a resource threshold before internationalization. The stage theory or Uppsala model infers that firms must accumulate physical and managerial resources in order to increase foreign commitments. INV theory suggests inaugural endowments must be present unique resources<sup>14</sup> being one (Fan & Phan, 2007). Hence, there is little contradictory evidence to the effect that: INVs proceed through an accelerated *stage* process shortly after inception; or that the owner(s) has proceeded through a *stage* process, during incubation (e.g., before the official launch).

### 2.3. Factors Associated with SME Internationalization

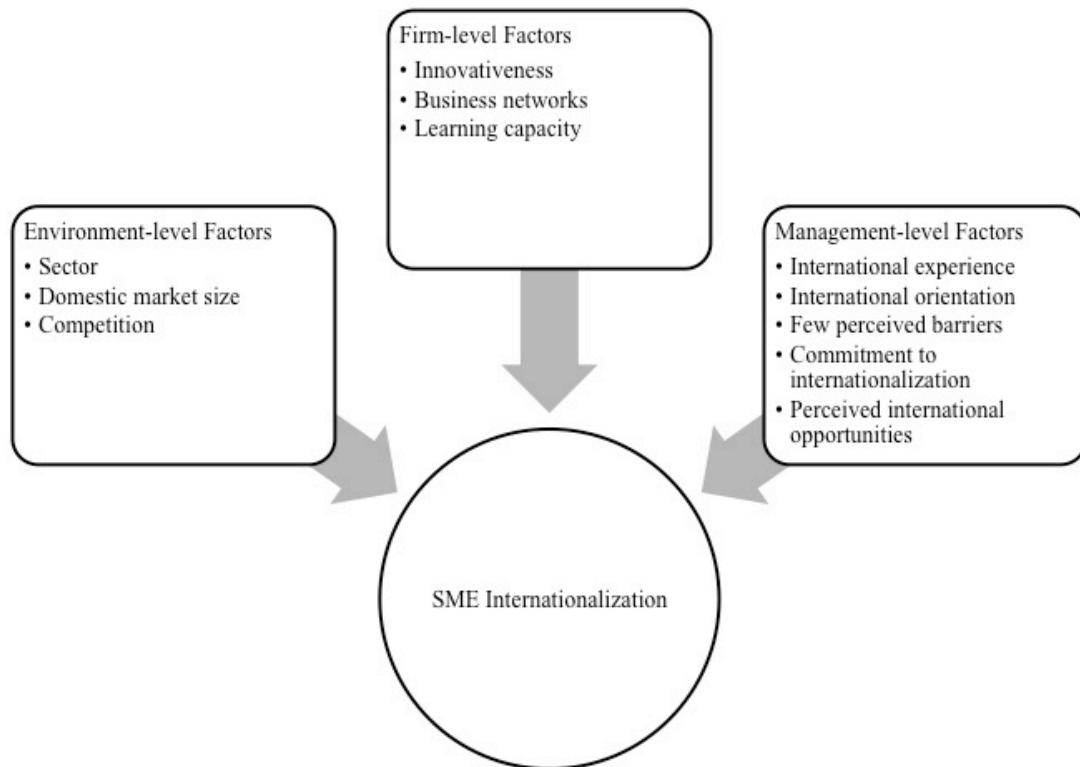
As noted, trade policy, progress in transportation and technology, and other factors have made internationalization accessible to many SMEs. Figure 1 summarizes how previous research has associated firm internationalization with multiple firm-, management-, and

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<sup>14</sup> The authors view a firm’s production capacity as the most important resource necessary to INV formation. Specifically, the firm’s ability to allocate at least 20% of its inaugural production capacity to potential international sales and markets upon inception is seen to be a unique resource that differentiates firms that have become INVs in comparison to those that could have, but did not.

environment-level factors (Fischer & Reuber, 2010; Leonidou, 2004; OECD, 2009). The diagram is an integrative interpretation of select factors identified by Fischer and Reuber (2010). It is useful to understanding SME internationalization as it illustrates that all three levels of analysis should be considered.

**Figure 1. Factors associated with SME internationalization (Fischer & Reuber, 2010)**



Furthermore, the work of Fisher and Reuber (2010), as summarized in Figure 1, contributes to the understanding of SME internationalization for three reasons. First, it summarizes how previous research has reported on the influence of firm-, management-, and environment-level factors on internationalization. Second, it considers how these factors influence both *extensive* and *effective* SME internationalization. Finally, it speculates that the relationship between export intensity and benefits of firm internationalization may have an optimal point (presenting as an inverted U-shaped curve).

### 2.3.1. Firm-level factors

Theoretical and empirical observations suggest that firm size is positively associated with internationalization (Calof, 1993; Crick & Jones, 2000; Shaw & Darroch, 2004; Wagner, 1995; Wolff & Pett, 2000). This is because size is indicative of a firm's export-ready resource base and it facilitates or hampers a firm's ability to acquire other export facilitating resources (e.g., capital). It also mitigates the risks of competing in foreign markets and it tempers the extent to which firms have to commit to internationalizing. The latter two points are linked given that smaller firms are not only relatively more resourced constrained, but also potentially intimidated by the prospects of *overly committing* resources to internationalization activities.

On the basis of the above theories, it is also expected, all else being equal, that larger firms achieve more export success compared to smaller firms. For example, McDougall and Oviatt (1996) have reported that among new firms, firms with more employees are more export intensive and benefit from higher growth rates in their levels of international sales compared to smaller INVs. Wolff and Pett (2000) have also reported that among export firms, firm size is positively associated with absolute levels of export sales and total sales, but inversely related to export intensity. In comparison to large firms, small firms also face greater challenges getting financed<sup>15</sup>. Moreover, financial constraints, and the evident resources limitations that accompany them, are among the leading impediments for export-oriented SMEs (Macmillan, 2009; OECD, 2009; Shaw & Darroch, 2004). This is common for SMEs operating in both developed countries such as Canada, Australia, the United States, China, Finland, Ireland, Russia, Spain, and Sweden, and in emerging nations such as India, South Africa, Indonesia, and Turkey (OECD, 2009).

Firm size, however, does not appear to inhibit strategies which may lead increased international performance (Westhead, Wright, & Ucbasaran, 2001; Wolff & Pett, 2000). Although many impediments to SME internationalization are related to firm size, of equal

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<sup>15</sup> This is evidenced by: small firms loans being riskier and costlier for banks to administer (Churchill & Lewis, 1986); small firms facing strenuous collateral requirement (Zambaldi, Aranha, Lopes, & Politi, 2009); a high proportion of loan applications for smaller amounts being credit scored (Berger & Frame, 2007).

importance are attitudinal barriers related to psychological obstacles, managerial acumen and owners' perceptions (Axinn, 1988; Macmillan, 2009; OECD, 2009; Shaw & Darroch, 2004). Discussion about the influence of the owner-manager is also warranted.

### *2.3.2. Owner-level factors*

Firm owners are instrumental in influencing international development of the firm (Crick & Jones, 2000; Ruzzier, Hisrich, & Antoncic, 2006). It is reasonable to suggest that owners provide resources to reach the internationalization threshold suggested by both stage and INV theory. For example, owners contribute market knowledge, a resource provision suggested by stage theory. This suggestion is substantiated through studies that have reported that 'perceptions about managerial risk' and 'lack of knowledge about foreign markets' are two reasons that owners do not engage in international trade (Macmillan, 2009; OECD, 2009). Alvarez and Busenitz (2001) also report "entrepreneurs have individual-specific resources that facilitate the recognition of new opportunities and the assembling of resources for the venture." This also distinguishes owners as the providers of inaugural endowments, as specified by INV theory (Fan & Phan, 2007).

Five common traits related to firm owners have been associated with SME internationalization. These traits include: international experience; international orientation; perceived barriers to internationalization; commitment level to internationalization; and perceived international opportunities (Fischer & Reuber, 2010). Shrader and Siegel (2007) have also reported that industry and start-up experience were positively related to firm internationalization<sup>16</sup>. Furthermore, international experience decreases the firm's delay in generating international sales after start-up (Reuber & Fischer, 1997). However, it has also been suggested that experience is unlikely to lead directly to internationalization and that experience is a moderator of other firm attributes (Fernhaber et al., 2008; Fischer & Reuber, 2010). Nevertheless, given the nature of new ventures, owners are in a position to facilitate internationalization through contacts and business/personal networks. This is important

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<sup>16</sup> Shrader and Siegel's (2007) sample consisted of publicly-traded new ventures. As a consequence, the management groups were likely to be selected in line with the strategic objectives laid out by the venture's shareholders and board of advisors. International experience of the management team also increases the likelihood of establishing foreign strategic partnerships.

because limited levels of information (typically acquired through business-personal networks) as well as the inability to contact customers abroad have been categorized as internationalization barriers with a ‘very high impact’ (Leonidou, 2004). Additionally, the process of internationalization of small software firms is accelerated or limited by a set of formal and informal network relationships (Coviello & Munro, 1997). These relationships are seen to have an effect on foreign market selection, mode of entry, product development, and market diversification activities. Crick and Jones (2000) have found that owners of export firms had more established customer networks, networks that influence the decision to expand their business operations into foreign markets. This being said, it appears that owners most likely to influence a firm’s ability to internationalize are experienced (especially internationally) and have diverse and expansive international networks of contacts.

### *2.3.3. Sector-level factors*

It is reported that SMEs operating in services, compared to SMEs operating in manufacturing or technology industries, are less likely to operate in multiple countries and slower to internationalize (Fischer & Reuber, 2010). However, few, if any, reported barriers to internationalization are attributable exclusively to a firm’s operating sector (Leonidou, 2004; Macmillan, 2009; OECD, 2009; Shaw & Darroch, 2004). It can also be argued that sector is likely to have minimal influence on export propensity given that sector is not responsible for: assigning the firm an owner; establishing its resource base (including capital structures); and generating opportunities abroad. Therefore the extent to which a firm’s operating sector influences its export propensity appears tertiary in relation to owner- and firm-level factors. However, the relative influence of a firm’s sector on its export propensity is still relevant to examine, as it may be a proxy for other environment-level factors such as competition and market size (e.g., the mix of *push* and *pull* factors that may influence export propensity).

## 2.4. Linking Internationalization to Performance

Internationalization, particularly exporting, appears to be a viable strategy that stimulates growth and performance. Research suggests that firms that depend on international operations (through foreign sales or production) also exhibit increased levels of performance through increased returns on sales and assets (Daniels & Bracker, 1989; Lu & Beamish,

2001). Furthermore, growth in sales and assets have been linked to employment growth and equity growth for firms (Shepherd & Wiklund, 2009).

Export intensity has also been observed to be positively associated to important performance indicators, notably growth in sales and profitability (Shrader & Siegel, 2007). New ventures whose international sales were more intense subsequently benefitted from increases in their ‘relative market shares’<sup>17</sup> (McDougall & Oviatt, 1996), likely to lead to sales growth. In addition, firms that seek out opportunities in new foreign markets can also be considered first movers or ‘pioneers’ in relation to their domestic counterparts (insofar as entering new markets). Furthermore, foreign markets and their inherent language, cultural, and political barriers can constitute hostile environments for these exporting ventures. Subsequently, pioneers demonstrate higher growth in terms of sales in hostile environments than ‘followers’ (Covin, Slevin, & Heeley, 2000).

Finally, resource endowed firms may present certain attributes of value, rarity, non-substitutability, and inimitability, relative to competitors in foreign markets. In addition, the forces that govern industries abroad may foster a favourable competitive landscape for several firms (especially those in highly competitive domestic industries). This in turn, may see exporting firms potentially outperform non-exporting firms.

In summary, research has consistently reported that firm-, management-, and sector-level factors are associated with the process of internationalization. Owners must first recognize market opportunities and provide the firm with essential managerial and social capital (Crick & Jones, 2000; Westhead et al., 2001). Firm size is a suitable proxy for other resources such as the ability to acquire export-facilitating capital. Sector influences are assumed to be of tertiary importance. On the basis of the foregoing discussion, it is suggested that export propensity is associated with (in order of importance): owner acumen, firm size, and firm sector. The literature also indicates that internationalization is a viable strategy that can be associated with firm growth and performance and that export-orientation is influenced by

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<sup>17</sup> Relative market share was expressed as a measure of dividing venture market share by the market share of the largest competitor.

*push* and *pull* factors (Etemad, 2004; Fischer & Reuber, 2010; Macmillan, 2009; OECD, 2009). In this light, to what extent can firms *pushed* to internationalize be expected to outperform the same rivals they were inferior to initially? The following section builds on this review to consider how IBVs are expected to perform in comparison to firms owned by non-immigrants. Arguments lead to five testable research propositions.

### **3. Conceptual Development**

This section presents conceptual arguments regarding the expected performance of IBVs compared to firms owned by non-immigrants and includes a discussion related to performance measurement. Next, the expected outcomes of each performance measure are discussed. Each discussion concludes with one or more testable research hypotheses. Finally, a conclusion summarizes the discussion and study propositions.

#### **3.1. Measuring Performance**

Performance has been labelled as dynamic, an evolutionary process that can only be described by complementary and, sometimes, contradictory indicators (Lebas & Euske, 2002). SME growth and performance is not easily measured using traditional financial measures (commonly associated with large firm performance). Researchers, therefore, have employed a variety of measures that seek to explain SME growth and performance. In their review of such measures, Shepherd and Wicklund (2009) have noted that small firm performance has variously been measured through: growth in sales; employees; profit; assets; and equity. Furthermore, they report that not all measures demonstrate sufficient concurrent validity. Accordingly, it makes sense to use a range of performance measures when investigating SME growth and performance. Thus this study responds to concerns raised by Shepherd and Wicklund (2009) by using a vector of measures that comprehensively explain firm growth and performance. Furthermore, use of longitudinal data reflects the dynamic and evolutionary nature of firm performance.

## 3.2. Performance of Immigrant-owned Business Ventures (IBVs)

This study first examines the export propensity of IBVs. While exporting is not, in and of itself a performance metric, it is a strategy that is often invoked in order to achieve growth. Therefore the importance of measuring export propensity is twofold. First, based on the opportunity structures and human capital of IBVs, export propensity acts as a measure of strategic effectiveness. The literature and anecdotal evidence supports the theory that IBVs lend themselves to exporting in light of both *push* and/or *pull* factors that may be operative. Market conditions in their host countries might expose weaknesses of IBVs in relation to firms owned by non-immigrants, thereby *pushing* IBVs to seek out opportunities abroad. Moreover, IBVs can be *pulled* towards opportunities abroad once they have acquired resources and knowledge in their host countries<sup>18</sup>. Second, in the event that IBVs are more likely to export than firms owned by non-immigrants, it could be argued that IBVs are better positioned to compete in a globalized marketplace, and more likely to grow because they are exporter firms (Daniels & Bracker, 1989; Lu & Beamish, 2001; McDougall & Oviatt, 1996; Shrader & Siegel, 2007). Finally, the study separately examines longitudinal changes in revenues, profits, employment mass and salary mass.

### 3.2.1. Export propensity

IBVs present attributes that may influence exporting in a positive manner as immigrant owners appear relatively more likely to: have more international experience; have stronger business and personal relationships in their countries of origin and with the diasporas associated with their country of origin; perceive lower barriers to internationalization; and have higher risk tolerance in regards to international opportunities. The two latter attributes reflect the risks that immigrants have accepted in immigrating to their host countries. As noted previously, the literature has recognized firm owners as being among the most important variables in the internationalization processes (Crick & Jones, 2000; Westhead et al., 2001). It is, therefore, reasonable to suggest that immigrant owners present traits more commensurate with exporting than non-immigrant owners and that these traits would have a

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<sup>18</sup> For example, a Haitian immigrant may have acquired commercial acumen in the telecommunications sector. In turn, he could capitalize on a business opportunity in Haiti as the country has the least developed telecommunications among Caribbean countries (Central Intelligence Agency, 2011).

greater influence on the export propensity of IBVs in comparison to that of firms owned by non-immigrants.

However, IBVs present attributes that negatively influence export propensity. First, according to the literature, IBVs are concentrated in service sectors, like the majority of SMEs owned by non-immigrants. Overall SMEs operating in service sectors are relatively less likely to operate in multiple countries and slower to internationalize (Fischer & Reuber, 2010). Second, IBVs may face a liability of size. As discussed previously (and, again, according to the literature), IBVs are relatively smaller than firms owned by non-immigrants. This indicates that IBVs may not possess the resources to meet the threshold required to export. Therefore, stage theories and INV theories would both suggest that IBVs are less likely to export.

Table 2 includes select factors from Fisher & Reuber’s (2010) work that influence extensive SME internationalization. The profile of IBVs is included in the table as well as their expected influence on export propensity.

**Table 2. Factors associated with export propensity of (IBVs)**

<b>Factor(s) leading to internationalization</b>	<b>IBV characteristics</b>	<b>Anticipated impact on export propensity</b>
Sector	<ul style="list-style-type: none"> <li>Concentrated in service sectors</li> </ul>	-
Size	<ul style="list-style-type: none"> <li>Smaller compared to firms owned by non-immigrants</li> </ul>	-
Business networks	<ul style="list-style-type: none"> <li>International, culturally diverse networks in multiple countries</li> </ul>	+
International experience and orientation	<ul style="list-style-type: none"> <li>Owners that are familiar with country of origin business practices, and that have gone through the immigration process</li> </ul>	+
Perceived barriers to internationalization	<ul style="list-style-type: none"> <li>Likely to perceive lower barriers to internationalization</li> </ul>	+
Commitment to internationalization	<ul style="list-style-type: none"> <li>More likely to demonstrate a higher commitment to internationalization</li> </ul>	+

On the basis of the foregoing discussion, the following testable hypothesis is advanced:

Hypothesis 1: Immigrant-owned business ventures (IBVs) are more likely to be exporter firms and firms owned by non-immigrants.

### 3.2.2. Revenue growth

Certain attributes of IBVs could negatively influence their revenue growth. First, IBVs may face liabilities of size and of resources. They appear to be undercapitalized in comparison to firms owned by non-immigrants because: immigrants tend to make smaller initial investments into their firms, receive low credit scores (Avery et al., 2009), and may have weaker and shorter relationships with potential lenders<sup>19</sup>. As noted above, IBVs also tend to employ a high concentration of co-ethnic immigrants and/or family members as low cost alternatives to non-immigrant employees (Kloosterman et al., 1998; Portes & Jensen, 1989; Waldinger et al., 1990). Prioritizing low cost labour places IBVs at hazard of having lower quality human capital (i.e., less skilled, educated, and experienced) than that of firms owned by non-immigrants. Lower quality human capital resources may also compound the liability of size faced by IBVs. The descriptive evidence of immigrant owners also suggests that IBVs may also be disadvantaged with respect to quality of ownership (immigrant owners are less educated than non-immigrant owners).

In contrast, there are reasons to expect that IBVs attain higher levels of revenue growth in comparison to firms owned by non-immigrants. Research has shown that the impact of owner resources is more significant in smaller firms (Brush & Chaganti, 1999). Immigrant owners are in a position to compensate for lack of education with first hand experience. The literature has indicated that these owners gain extensive experience through on the job training, because of their willingness to work long hours (Waldinger et al., 1990). IBV owners also tend to be younger in comparison to non-immigrant firm owners. Despite the fact that older and more experienced firm owners tend to make better strategic choices, younger immigrants may have a minor advantage over non-immigrant owners for four

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<sup>19</sup> This is expected because *new* immigrants, who have not resided in the host country for a long period of time, in comparison to non-immigrant firm owners, lead IBVs.

reasons. First, they are likely to present higher risk tolerance (reflective of accepted immigration risks). Next, they are likely to have less strenuous personal commitments. Third, they may perceive a better ability to recover in the event that their business venture failed. Finally, they may demonstrate more zeal to engage in self-exploitation in order to sustain and grow their business. Therefore, it can be suggested that IBV owners present human capital resources of greater value and rarity than non-immigrant owners. According to the resource-based view (Barney, 1991), this would see the revenue growth of these firms be more robust.

On one hand, it could be expected that IBVs would see lower levels of revenue growth. They are resource constrained, employ immigrants and family members at a potential disadvantage, and have owners who are less educated than non-immigrants. In contrast, it might be expected that IBV revenues demonstrate higher growth than those of firms owned by non-immigrants. IBVs are more likely to export or leverage their international networks. Such firms also have owners who demonstrate higher levels of resourcefulness and work ethic, along with certain intangibles such as higher risk tolerance. Correspondingly, the following hypothesis is advanced:

Hypothesis 2:	Immigrant-owned business ventures (IBVs) achieve higher rates of revenue growth than firms owned by non-immigrants.
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### *3.2.3. Profitability growth*

In terms of profitability IBVs may be negatively affected by their operating sectors. As previously mentioned, the literature suggests that IBVs are typically concentrated in service-based industries. McGahan and Porter (1997) have reported that industry membership accounts for a significant proportion of variance in profitability of firms. This impact is even more significant in the lodging and entertainment, services, wholesale and retail trade, and transportation. In addition, service firms tend to emphasize service delivery quality to enhance client satisfaction and ensure higher levels of loyalty. However, this characteristic of service sectors is unlikely to increase profit margins because employees responsible for delivering services with higher standards are at a hazard of producing less efficiently. Furthermore, some of the profits generated by IBVs may be funnelled into various trusts or

back towards their countries of origin in order to support immediate and extended family members.

Despite this IBVs present other attributes that are likely to have a positive impact on their profitability levels. First, services are consumed and produced simultaneously. Consequently, IBVs would not have to build certain costs (e.g., inventory carrying costs) into their pricing structures. Labour cost also influences the profitability of service firms. IBVs, therefore, have an additional advantage over firms owned by non-immigrants because of their low-cost labour. However, for this same reason it is important to consider that employees of IBVs may be less productive, relatively speaking. The extent to which exporting generates additional sales might also lead to increased profits.

It would be possible to expect, therefore, that profit growth could be either positively or negatively influenced by immigrant ownership. In order to explore this balance, the following hypothesis is forwarded<sup>20</sup>:

Hypothesis 3:	Immigrant-owned business ventures (IBVs) achieve lower profitability growth than firms owned by non-immigrants.
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#### *3.2.4. Growth in employment mass and salary mass*

IBV owners are noted for being active within their immigrant social networks and to demonstrate a propensity to participate in enclaves. For example, the OECD reports that at least 22 out of the 100 fastest growing companies<sup>21</sup> in Los Angeles had a migrant founder (OECD, 2010). This suggests that creation of social value, through hiring within their own communities, might be of significant importance to IBVs. IBVs might be predisposed, therefore, to hiring more employees (in order to improve the economic situation of their compatriots) and present the means having access to less expensive labour pools than firms

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<sup>20</sup> It should also be mentioned that for small firms, profits might not be a reliable metric for performance. Profits are often partially determined by tax arbitrage that reflects the overall tax situations of the primary owner(s) and the business entity. Profits also reflect the somewhat arbitrary draw that owners might receive from the business. Ideally, though, profitability provides insight as to the sustainability of business activities.

<sup>21</sup> High growth was defined by an annualized employment growth rate of at least 20 percent a year, over a three-year period.

owned by non-immigrants. IBVs are also likely to grow faster because they start smaller in comparison to firms owned by non-immigrants (Cooper et al., 1989). Consequently, it would be expected that IBVs would demonstrate higher levels of employment growth than firms owned by non-immigrants. However, because of their documented reliance on immigrants and family members as primary, low cost labour sources, salary mass would not necessarily be expected to grow at the same rate as employment mass.

On the other hand, 'necessity entrepreneurship' of immigrant owners can be associated with the growth prospects of their businesses. Therefore it might be expected that IBV owners would be content with simple firm survival. In other words, the salary substitution provided by the firm for a given immigrant's family would be too valuable to risk in pursuing aggressive growth strategies. As noted previously, lack of financial flexibility may also hinder the ability of IBVs to hire more personnel in their early years. Moreover, immigrant owners' propensity to engage in self-exploitation could also alleviate a need to hire more employees because owners could be substitutes for employee production. It might be expected, therefore, that IBVs are less likely attain growth in employment rates comparable to firms owned by non-immigrants.

Overall, it is expected that IBVs would demonstrate higher growth rates of employment because they are smaller firms in comparison to firms owned by non-immigrants. They may also feel obligated to create employment for fellow immigrants. However, it might be expected that IBVs would demonstrate lower employment growth rates because firm growth would not preclude the owner's need for salary substitution. Insofar as salary mass is concerned, it would be expected that the reliance on immigrants and family members as inexpensive sources of labour would see growth in salary mass be lower for IBVs than for firms owned by non-immigrants. Hence, the following hypotheses are advanced:

Hypothesis 4:	Immigrant-owned business ventures (IBVs) achieve higher employment mass growth than firms owned by non-immigrants.
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Hypothesis 5:

Immigrant-owned business ventures (IBVs) achieve lower salary mass growth than firms owned by non-immigrants.

### 3.3. Summary of Study Propositions

Table 3 presents a summary of the main measures used to conceptualize performance: export propensity, revenue growth, profitability growth, and growth in employment mass and in salary mass. The arguments made previously pertaining to the expected influence of IBV related attributes on the performance measures are also included, as are the research hypotheses.

**Table 3. Summary of study propositions**

<b>Performance Measure(s)</b>	<b>Positive IBV Characteristics</b>	<b>Negative IBV Characteristics</b>	<b>Hypotheses</b>
Export Propensity	<ul style="list-style-type: none"> <li>• Network composition</li> <li>• International orientation and experience</li> <li>• Lower barriers to internationalization</li> <li>• Commitment to internationalization</li> </ul>	<ul style="list-style-type: none"> <li>• Concentrated in service sectors</li> <li>• Smaller firm size</li> </ul>	Immigrant-owned business ventures (IBVs) are more likely to be exporter firms than firms owned by non-immigrants.
Revenue Growth	<ul style="list-style-type: none"> <li>• Exporter firm</li> <li>• Owner experience</li> <li>• Owner industriousness</li> </ul>	<ul style="list-style-type: none"> <li>• Resource and size constraints</li> <li>• Owner less educated</li> </ul>	Immigrant-owned business ventures (IBVs) achieve higher revenue growth than firms owned by non-immigrants.
Profitability Growth	<ul style="list-style-type: none"> <li>• Low-cost labour</li> </ul>	<ul style="list-style-type: none"> <li>• Concentrated in service sectors</li> <li>• Less productive workforce</li> </ul>	Immigrant-owned business ventures (IBVs) achieve lower profitability growth than firms owned by non-immigrants.
Employment Growth	<ul style="list-style-type: none"> <li>• Smaller firm size</li> <li>• Creating employment</li> <li>• Low-cost labour</li> </ul>	<ul style="list-style-type: none"> <li>• ‘Necessity entrepreneurship’</li> <li>• Concentrated in service sectors</li> </ul>	Immigrant-owned business ventures (IBVs) achieve higher employment growth than firms owned by non-immigrants.
Salary Mass Growth	<ul style="list-style-type: none"> <li>• Smaller firm size</li> </ul>	<ul style="list-style-type: none"> <li>• Financial constraints</li> <li>• Low-cost labour</li> </ul>	Immigrant-owned business ventures (IBVs) achieve lower salary mass growth compared to firms owned by non-immigrants.

## 4. Data

The following section describes the data and methodologies that are to be employed for testing the hypotheses stated previously. The empirical portion of this thesis is based on two sources of data. First, data are drawn from the *Survey on Financing of Small and Medium Enterprises* conducted by Statistics Canada between September 2004 and March 2005 on behalf of Industry Canada (Industry Canada, 2006). The population of interest comprised 1,300,000 Canadian enterprises listed on the Business Register maintained by Statistics Canada<sup>22</sup>. A sampling frame of 34,509 firms was randomly drawn from the target population. Eligible firms had fewer than 500 full-time-equivalent employees and annual gross revenues of less than \$50 million. Financing and leasing companies, co-operatives, subsidiaries, non-profit organizations, government offices, schools, hospitals and other public sector organizations were excluded in the sampling frame. Computer-assisted telephone interviews were used to collect extensive firm demographic data along with attributes of the primary owners of the firms<sup>23</sup>. Telephone follow-up was used to increase response rates and reduce non-response bias. Valid responses were received from 12,047 SMEs, a response rate of 47 percent of in-scope potential respondents. Sampling weights were applied in compiling the estimates. To this end, the individual businesses were weighted according to region, size, and sector.

The second source of data was income tax information for the respondent firms spanning the 2003–2008 period. These data were linked to the survey responses. This work focuses on the 2,915 firms that had been started between 2000 and 2004 (the five-year period preceding administration of the survey). Of these, 132 primary owner respondents had immigrated to Canada within the same five-year period.

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<sup>22</sup> Registration on the Business Register is mandatory for all Canadian firms reporting a minimum of \$30,000 in revenues during any 12-month period.

<sup>23</sup> Because most firms are small and because the respondent was the primary owner, the key informative problem is not salient.

## 4.2. Data Description

Table 4 provides a comparison of salient attributes of firms owned by immigrants who had arrived in Canada within the five-year period preceding the survey with firms started by non-immigrants during the same period. Table 4 shows population estimates based on weighted data.

**Table 4. Population estimates of attributes of sample firms**

	<b>Immigrant- Owned (N = 104)</b>	<b>Benchmark new firms (N = 2,057)</b>	<b>Chi-Square p-value</b>
<b>Size distribution of firm</b>			0.642
< 5 employees	0.825	0.858	
5 to 9.9 employees	0.087	0.083	
10 to 19.9 employees	0.039	0.031	
20 or more employees	0.049	0.029	
<b>Sectoral distribution</b>			0.775
Goods	0.214	0.223	
Services	0.709	0.681	
Knowledge based	0.078	0.096	
<b>Exporter propensity</b>	24.3%	8.0%	0.000
<b>Growth intention</b>	68.9%	56.2%	0.000
<b>Start-up (&lt; 2 years)</b>	58.3%	40.0%	0.000
<b>Urban (versus rural)</b>	88.3%	76.9%	0.007
<b>R &amp; D expenditures</b>	57.3%	32.6%	0.000

Based on the information provided in Table 4, there appears to be no significant difference between IBVs and firms started by non-immigrants as to firm size or sectoral distribution. Owners of IBVs were significantly more likely to express the intention of growing the size and scope of the business in the next two years, invest in R & D, and to be exporters. IBVs were also more likely to be situated in urban locations (urban locations have larger immigrant populations). Although statistically insignificant, it is important to note that a larger proportion of IBVs demonstrate a workforce in excess of 20 or more employees in comparison to firms owned by non-immigrants with 20 or more employees. This suggests that some of the IBVs may have grown more rapidly than firms owned by non-immigrants (prior to 2004). It should also be noted that relative to counterpart firms, a higher proportion of IBVs were start-ups, having been launched within two years prior to the survey

administration. This result, together with exporters being more growth oriented and showing higher export propensity, could be suggestive relatively higher levels of performance among IBVs.

## **5. Findings**

### **5.1. Export Propensity**

Table 5 summarizes the results of the hierarchical binary logistic regression employed to compare export propensity of IBVs with that of counterpart young firms. This technique was appropriate because the nature of the dependant variable was dichotomous: the firm exported or not. Logistic regression is particularly useful for mapping decision-related outcomes and it does not assume linearity between the dependant and independent variables (Hosmer & Lemeshow, 1989). Furthermore, because logistic regression makes use of maximum likelihood to map the decision process, it provides the odds ratio that allows for evaluation of the relative importance of various factors that might pertain to immigrant status influence on export propensity (Lattin, Carroll, & Green, 2003). Finally, this modelling technique also allowed for control of systemic differences between IBVs and firms owned by non-immigrants. Here, the dependent variable was a binary variable corresponding to whether (= 1) or not (= 0) the firm reported exporting on the 2004 survey. The 'reduced model' comprises only the control variables: sector (goods producers versus services firms); firm size (number of full-time employee equivalents); growth intention (binary variable = 1 if owner's reported growth intention); gender of owner (binary variable = 1 if firm was majority women-owned); location (binary variable = 1 if rural location); and whether or not the firm invested in R & D. The full model augments the reduced model by the addition of a binary variable corresponding to whether (= 1) or not (= 0) the owner had reported immigrating to Canada within the five-year period prior to the 2004 survey.

**Table 5. Export propensity of young firms**

	Reduced Model				Full Model			
	Coefficient Estimate	Standard Error	Sig.	Exp(B)	Coefficient Estimate	Standard Error	Sig.	Exp(B)
Sector			0.035				0.02	
Goods producers	0.594	0.229	0.010	1.811	0.641	0.23	0.005	1.899
Knowledge-based firms	0.129	0.196	0.511	1.138	0.1	0.198	0.614	1.105
Invests in R&D	1.283	0.167	0.000	3.607	1.226	0.168	0.000	3.408
Rural location	-0.127	0.205	0.537	0.881	-0.075	0.207	0.718	0.928
Female-controlled	-0.477	0.587	0.416	0.621	-0.448	0.589	0.447	0.639
Intends to Grow	0.623	0.190	0.001	1.865	0.627	0.191	0.001	1.871
Full-time equivalent employees	-0.002	0.008	0.758	0.998	-0.004	0.008	0.629	0.996
Primary owner is recent immigrant					1.048	0.256	0.000	2.851
Constant	-3.426	0.193	0.000	0.033	-3.489	0.195	0.000	0.031
Goodness of fit measures								
-2 Log likelihood	1175.10				1160.5			
Cox & Snell R Square	0.048				0.055			
Nagelkerke R Square	0.108				0.122			
Hosmer/Lemeshow p-value	0.007				0.059			
p-values								
Step	0.000				0.000			
Block	0.000				0.000			
Model	0.000				0.000			

The information in Table 5 indicates that the reduced model is statistically significant (p-value of 0.000), with Cox and Snell and Nagelkerke  $R^2$  values<sup>24</sup> of 0.048 and 0.108, respectively. While  $R^2$  values in this range are common with social science and cross-sectional data (Lattin, Carroll, & Green, 2003) and even though the reduced model did have an in-sample prediction accuracy of 91.3 percent, the Hosmer-Lemeshow goodness-of-fit test<sup>25</sup> indicated a significant difference between predicted and observed values (p-value of 0.007). This implies that the reduced model's estimates did not fit the actual data particularly well. Based on the Hosmer-Lemeshow test, the reduced model, overall, was not reliable in predicting export propensity.

Notwithstanding the relatively poor fit of the model, based on *commonly* held statistical standards, the reduced model indicated that goods producers were almost twice as likely to export as were firms in the services sector (p-value of 0.01 and an Exp (B) value of 1.811); and firms in which the owner articulated an intention to grow his or her firm were also more

<sup>24</sup> It is important to note that Hosmer and Lemeshow (1989) explain that *pseudo*  $R^2$  of this nature are based on various comparisons of the predicted values from the *fitted model* to those from the *intercept model*. As a result, these measures do not assess goodness-of-fit of the logistic regression model as well as a measure based strictly on a comparison of observed to predicted values from the fitted model.

<sup>25</sup> The Hosmer-Lemeshow goodness-of-fit test tests the null hypothesis that predicted and observed values are not identical. Therefore, it is desirable for this test to yield a p-value larger than 0.05 to allow for the null hypothesis to be rejected.

likely to export (demonstrated by an Exp (B) value of 1.865 and p-value of 0.001). Firm size presented a non-significant correlation with exporting propensity (p-value of 0.758). In addition, both the gender of ownership and firm location (e.g., rural or urban) were not significantly associated with export propensity in the reduced model (p-values of 0.621 and 0.881, respectively). Finally, firms that invested in R & D were more likely to be exporters (p-value = 0.000 and Exp (B) = 3.607).

The second step in the modelling process was to re-estimate the model described above, but with the addition of a variable representing whether or not the primary owner of the firm had immigrated to Canada within the five years prior to 2004 (the year the survey was administered). The results of the full model are presented in the right-hand panel of Table 5. The full model was seen to be a better fit to the data, as indicated by the statistically significant increases to both the Cox and Snell and Nagelkerke  $R^2$  (0.055 and 0.122<sup>26</sup>, respectively). This was further confirmed by the Hosmer-Lemeshow goodness-of-fit test indicating only a weakly significant difference between predicted and observed values (p-value = 0.059). Consequently, the full model was deemed to be more reliable than the reduced model in predicting export propensity.

In comparison to the reduced model results, higher levels of export propensity were again strongly and significantly correlated with goods producing firms, firms whose owners had expressed an intention to grow and firms that had invested in R & D. Firm size, gender of ownership, and location were again non-significant correlates of export propensity.

The addition of the variable corresponding to whether or not the firm owner was an immigrant significantly improved the goodness-of-fit of the model. The results also indicated that firms owned by immigrants were almost three times as likely to be exporters in comparison to counterpart firms (demonstrated by Exp (B) = 2.581) — after controlling for other potential correlates of export propensity. These results offer support to Hypothesis 1.

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<sup>26</sup> Although an  $R^2$  value of 0.122 is likely seen to be *low* by commonly held standards, the fit is still seen to be adequate for statistical interpretation, given the nature of the study data (Lattin, Carroll, & Green, 2003).

## 5.2. Business Venture Growth and Performance

In order to evaluate growth and performance, four measures of performance were employed. The four measures were based on differences between 2003 and 2004, as well as differences between 2004 and 2008, in: revenues, profits, employment, and salary mass. These differences were expressed, as alternative specifications, in absolute terms and on a per (2004) employee basis, the latter in order to control for differences in firm size during the base year. These data were derived from values reported for tax purposes between 2003 and 2008. Table 6A presents univariate differences in these measures over the 2003–2004 time period.

**Table 6A. 2003–2004 Differences in performance measures: IBVs and non-IBVs**

	Non-IBVs			IBVs			Sig.	
	N	Mean	Std. Error	N	Mean	Std. Error	t-value	p-value
<b>Differences</b>								
2004–2003								
FTE*	1,504	-0.32	0.15	70	0.27	0.85	-0.85	0.397
Pay mass	1,504	\$13,805	\$2,856	70	\$42,115	\$28,509	-1.99	0.046
Revenues	1,017	\$42,954	\$18,272	42	\$116,897	\$91,098	-0.83	0.408
Profits	1,211	\$10,264	\$4,772	49	\$19,957	\$9,820	-0.40	0.689
<b>Differences</b>								
<b>per employee</b>								
2004–2003								
Pay mass	1,504	\$2,544	\$464	70	\$7,283	\$3,063	-2.17	0.030
Revenues	668	\$690	\$6,250	25	\$20,826	\$11,377	-0.66	0.507
Profits	766	\$1,358	\$1,688	31	\$1,742	\$1,413	-0.05	0.963

\*FTE: full time equivalent employees

Based on the information provided in Table 6A, it is seen that between 2003 and 2004, IBVs increased the number of full –time –equivalent (FTE) employees by 0.27 employees, compared to a decrease of 0.32 employees for non-IBVs. However, this difference was not statistically significant. The mean pay mass for IBVs was approximately \$42,000. This was more than three times the mean pay mass for non-IBVs, a difference that was statistically significant (p-value = 0.046). Revenues were more than twice as high for IBVs, on average, than for non-IBVs. Profits were almost twice as high for IBVs, on average, than for non-IBVs. However, high variances in the sample resulted in these differences being statistically

non-significant. Similar results were obtained when calculating the mean differences on a per –2004 employee basis.

Table 6B presents the mean differences in the four performance measures (again in absolute terms and on a per employee basis) for the 2004–2008 interim. The information provided in Table 6B displays corresponding results to those presented in Table 6A but measures performance between the base year of the survey (2004) and 2008. Between 2004 and 2008, IBVs decreased the number of full –time equivalent employees by an average of 0.1 employees, compared to an increase of 0.26 employees for non-IBVs. Again, the high standard errors associated with the large variances in the relatively small sample of IBVs, caused this difference to be statistically insignificant. In addition, the mean pay mass for IBVs was approximately \$58,000 and this is roughly 20 percent higher than the mean pay mass for non-IBVs. Yet, this difference was also statistically insignificant. Revenues were almost twice as high for IBVs, on average, than for non-IBVs. Profits, on the other hand, were approximately 36 percent lower for IBVs, on average, than for non-IBVs. Again, these results were statistically non-significant. Similar results obtained when calculating the mean differences on a per –2004 employee basis.

**Table 6B. 2004–2008 Differences in performance measures: IBVs and non-IBVs**

	Non-IBVs			IBVs			Sig.	
	N	Mean	Std. Error	N	Mean	Std. Error	t-value	p-value
<b>Differences 2008–2004</b>								
FTE*	1,409	0.26	0.1281	71	-0.109	0.9899	0.66	0.511
Pay mass	1,409	\$47,785	\$5,186	71	\$57,636	\$32,601	-0.44	0.659
Revenues	1,401	\$124,737	\$28,752	60	\$210,432	\$52,825	-0.65	0.517
Profits	1,768	\$25,686	\$9,637	76	\$16,404	\$16,778	0.20	0.842
<b>Differences per employee 2008–2004</b>								
Pay mass	1,409	\$5,040	\$459	71	\$1,937	\$4,402	1.47	0.142
Revenues	1,062	\$29,302	\$14,233	46	\$51,400	\$40,054	-0.34	0.731
Profits	1,188	\$5,199	\$2,154	53	\$1,557	\$2,727	0.39	0.698

\*FTE: full time equivalent employees

It is important to note that the information presented in Tables 6A and 6B reflect disproportionate sample sizes and high standard errors in the data. The high standard errors presented within the IBV sample can be problematic. Also, because the sample was relatively small, the high standard errors were arguably indicative of outliers in the data when estimating the results for growth and performance of firms. For these reasons, and to control for other systemic sources of variation in the data, robust regression techniques were employed to estimate models of performance, as outlined in the methodology section and as further specified in the following sub-section. Because sample sizes between non-IBVs and IBVs were disproportionate, there of course remains a risk that the data could yield some confounding results such that differential results between the two groups may not be due to ownership immigrant status but other unobservable variables that interact with the owner variables.

#### *5.2.1. Individual regression models of growth and performance*

Accordingly, the next step in the analysis was to estimate robust regression models (as outlined in the methodology section) of performance. Linear regression was particularly useful in achieving the study's objectives because it lends to predicting future outcomes on the dependent variables, and determining the relative influence of each of the independent variables on changes in the dependent variable (Weisberg, 1985). Four models were estimated, one for each of the four measures of performance as dependent variables (annual revenues, number of employees, salary mass and annual after-tax net income). For example, the dependent variable in the first model was set as the change in annual revenues (according to the firm's tax records) between 2004 (when the baseline survey was taken) and 2008. This was expressed on a per-employee basis so as to abstract from initial firm size differences. In each case, control variables included:

- Age of the firm (number of years for which the firm had been trading).
- Gender composition of the ownership (this was accomplished by including two binary variables, one set equal to 1 if the majority control of the firm rested with women (0 otherwise) and a second binary variable set equal to 1 if ownership of the firm was shared equally (0 otherwise)).

- Age and experience of the primary owner. Age was expressed as a binary variable set equal to 1 if the primary owner was less than 39 years of age (0 otherwise). Experience was expressed as a binary variable set equal to 1 if the primary owner reported more than 10 years of experience (0 otherwise).
- Sector was represented by a binary variable set equal to 1 if the firm was in the services sector (0 otherwise).
- Financing history was represented by two binary variables set equal to 1 (0 otherwise) if the firm had sought external financing or trade credit, respectively.
- The growth aspiration of the primary owner was represented as a dummy variable set equal to 1 if the owner had reported an intention to expand the scale or scope of the business.

As reported, it was found in the previous section that immigrant business owners were significantly more likely to also be exporters. Therefore, in order to disentangle the potential correlation between immigrant status and exporter status, an interaction variable between immigrant status and exporter status was also introduced into the regression models. The interaction term was defined as follows:

- A binary variable was set equal to 1 (0 otherwise) if the primary owner was an *immigrant* whose *firm also exported* as of the year of survey administration (2004).
- A second binary variable was introduced and set equal to 1 (0 otherwise) if the primary owner was an *immigrant* whose *firm did not report exports* as of the year of survey administration (2004).
- A third binary variable was introduced and set equal to 1 (0 otherwise) if the primary owner was an *not an immigrant* but whose *firm did report exports* as of the year of survey administration (2004).
- With these three variables defined as described above, the ‘base case’ comprises firms that do not export and where the primary owner is not an immigrant.

The results of the regression models are summarized in Tables 7A (revenues), 7B (employees), 7C (salary mass), and 7D (profits).

The model for which the results are presented in Table 7A (2004–2008 changes in revenues), yielded an  $R^2$  of 0.088<sup>27</sup>. As mentioned previously, considering the nature of the data in the study, this value is not uncommon (Lattin, Carroll, & Green, 2003) and is therefore seen to be adequate for statistical interpretation of the results.

**Table 7A. Performance of young firms, revenues**

<b>Parameter</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Chi-Square</b>	<b>p-value</b>	
<b>Intercept</b>	14058.7	9043.1	2.42	0.120	
<b>Age of firm</b>	-2168.0	1749.2	1.54	0.215	
<b>Female majority-owned firm</b>	-39899.9	6742.1	35.02	0.000	***
<b>Jointly-owned firm</b>	-20229.4	5042.6	16.09	0.000	***
<b>Owner &lt; 39 years old</b>	4415.2	4835.9	0.83	0.361	
<b>Owner has more than 10 years of experience</b>	18874.9	4605.6	16.80	0.000	***
<b>Services sector</b>	-7147.0	5313.0	1.81	0.179	
<b>Sought external financing</b>	22444.7	5731.3	15.34	0.000	***
<b>Sought trade credit</b>	29265.4	6635.9	19.45	0.000	***
<b>Owner intended to grow</b>	13326.7	4482.0	8.84	0.003	***
<b>Immigrant status</b>					
<b>Immigrant, exporter</b>	154063.1	17790.0	75.00	0.000	***
<b>Immigrant, non-exporter</b>	-24083.7	11930.6	4.07	0.044	**
<b>Non-immigrant, exporter</b>	25254.7	7842.8	10.37	0.001	***
<b>R-Square</b>	0.088				

Table 7A demonstrates that the majority of the variables in the model were significantly correlated with changes in revenues between the years 2004 and 2008. However, age of the firm, age of the primary owner, and whether the firm operated in the services sector were all non-significant correlates of revenue growth (p-values of 0.215, 0.361, and 0.179, respectively).

Firms that were either majority-owned by a female or jointly owned were negative and highly significant correlates of changes in revenues (p-values of 0.000). In addition, firms where the owner had more than 10 years of experience were positively and significantly

<sup>27</sup> The  $R^2$  indicates that approximately nine percent of the variation in the dependant variable (2004–2008 changes in revenues) can be explained by the set of independent variables.

correlated with revenue growth (p-value = 0.000) and firms where the primary owner had articulated an intention to grow his or her firm as of 2004, were also positive and highly significant correlates of growth in revenues (p-value = 0.003).

Financing also correlated with growth in revenues. Specifically, firms that had sought external financing in 2004, as well as firms that had sought trade credit in 2004, were highly significant and positive correlates of growth in revenues (p-values of 0.000).

The variable representing the presence of an immigrant owner and exporter status exhibited a highly significant and positive correlation with changes in revenues (p-value = 0.000).

However, the variable representing firms with immigrant owners but with no export sales presented a significant and negative correlation with changes in revenues (p-value = 0.044).

Finally, the variable representing the presence of a non-immigrant owner and an absence of export sales was positively and significantly correlated with changes in revenues (p-value = 0.001).

Based on the information provided in Table 7B (2004–2008 changes in employment), it is possible to observe that the model estimating changes in employment yielded an  $R^2$  value of 0.098. Again, this value is not unexpected, given the nature of the data (Lattin, Carroll, & Green, 2003) and is therefore seen to be adequate for statistical observations and conclusions.

**Table 7B. Performance of young firms, number of employees**

<b>Parameter</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Chi-Square</b>	<b>p-value</b>	
<b>Intercept</b>	-0.074	0.077	0.93	0.335	
<b>Age of firm</b>	-0.008	0.015	0.29	0.591	
<b>Female majority-owned firm</b>	-0.265	0.051	27.57	0.000	***
<b>Jointly-owned firm</b>	0.119	0.044	7.29	0.007	***
<b>Owner &lt; 39 years old</b>	-0.024	0.043	0.32	0.572	
<b>Owner has more than 10 years of experience</b>	0.143	0.040	12.61	0.000	***
<b>Services sector</b>	-0.072	0.045	2.63	0.105	
<b>Sought external financing</b>	0.265	0.048	29.99	0.000	***
<b>Sought trade credit</b>	0.053	0.057	0.85	0.357	
<b>Owner intended to grow</b>	0.145	0.038	14.41	0.000	***
<b>Immigrant status</b>					
<b>Immigrant, exporter</b>	0.476	0.165	8.34	0.004	***
<b>Immigrant, non-exporter</b>	-0.256	0.091	7.95	0.005	***
<b>Non-immigrant, exporter</b>	-0.323	0.067	23.58	0.000	***
<b>R-Square</b>	0.098				

Table 7B shows that the majority of the variables in the model were significantly correlated with 2004 to 2008 changes in employment. However, age of firm, age of the primary owner, whether the firm operated in the services sector, and whether the firm had sought trade credit in 2004, were all statistically non-significant correlates of changes in the number of employees (p-values of 0.591, 0.572, 0.105, and 0.357, respectively). These results were consistent with those obtained in the model that estimated changes in revenues (Table 7A) (except for the instance of firms that sought trade credit).

The variable representing a female-majority ownership exhibited a negative and highly significant correlation with changes in employment (p-value = 0.000). However, firms that were jointly owned had a positive and highly significant correlation with growth in employment (p-value = 0.007). Furthermore, firms whose primary owner had more than 10 years of experience were positive and highly significant correlates of changes in the number of employees (p-value = 0.000). Finally, firms where the primary owner articulated an intention to grow his or her firm as of 2004 exhibited a positive and highly significant correlation with growth in employment (p-value = 0.000). The significance and directionality

of this set of results was also consistent with that obtained when estimating changes in revenues (Table 7A) (except for the instance of firms that were jointly-owned).

In terms of financing, firms that sought external financing in 2004, were positive and highly significant correlates of growth in employment (p-value = 0.000), a result that was also consistent to that obtained when estimating changes in revenues (Table 7A).

The variable representing the presence of an immigrant owner and exporter status (as of 2004) exhibited a positive and highly significant correlation with changes in employment (p-value = 0.004). However, the variable representing the presence of an immigrant owner and no export sales was negatively and significantly correlated with changes in employment (p-value = 0.005). The variable representing firms with immigrant owners but with no export sales had a positive and highly significant correlation with changes in employment (p-value = 0.000). The results for changes in the number of employees — related to the set of variables representing an immigrant owner within the firm (exporter and non-exporter firms) — were consistent with the results obtained for the same set of variables when estimating changes in revenues (Table 7A). However, the result related to the variable representing a non-immigrant owner with no export sales was not consistent with that obtained when changes in revenues had been estimated (Table 7A).

The model, for which the results are presented in Table 7C (changes in salary mass 2004–2008), yielded an  $R^2$  of 0.089. Again, given the nature of the data in the study, this value is not uncommon (Lattin, Carroll, & Green, 2003) and is therefore seen to be adequate for statistical interpretation of the results.

**Table 7C. Performance of young firms, salary mass**

<b>Parameter</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Chi-Square</b>	<b>p-value</b>	
<b>Intercept</b>	5506.6	3181.7	3.00	0.084	*
<b>Age of firm</b>	-353.8	621.2	0.32	0.569	
<b>Female majority-owned firm</b>	-4945.9	2089.5	5.60	0.018	**
<b>Jointly-owned firm</b>	6390.0	1817.5	12.36	0.000	***
<b>Owner &lt; 39 years old</b>	-3470.3	1789.2	3.76	0.052	*
<b>Owner has more than 10 years of experience</b>	3396.7	1661.0	4.18	0.041	**
<b>Services sector</b>	-2463.2	1847.1	1.78	0.182	
<b>Sought external financing</b>	2270.6	2004.8	1.28	0.257	***
<b>Sought trade credit</b>	8177.0	2360.7	12.00	0.001	***
<b>Owner intended to grow</b>	10034.2	1581.3	40.26	0.000	***
<b>Immigrant status</b>					
<b>Immigrant, exporter</b>	83668.3	6829.0	150.11	0.000	***
<b>Immigrant, non-exporter</b>	-12663.8	3750.1	11.40	0.001	***
<b>Non-immigrant, exporter</b>	-12599.6	2753.4	20.94	0.000	***
<b>R-Square</b>	0.089				

Table 7C shows that the majority of the variables in the model presented statistically significant correlations with changes in salary mass from the years 2004 to 2008. Age of firm, age of the primary owner, whether the firm operated in the services sector, and whether the firm sought external financing were non-significant correlates of changes in salary mass (p-values of 0.569, 0.52, 0.182, and 0.257, respectively). These results were largely consistent with those obtained in the models that estimated changes in revenues, and employment mass (Tables 7A and 7B) (with exception of the instance of firms that sought financing).

The variable indicating the presence of a female-majority ownership had a negative and significant correlation with changes in salary mass (p-value = 0.018). However, firms that were jointly-owned were positively and significantly correlated with changes in salary mass (p-value = 0.000). Furthermore, firms presenting an owner who had more than 10 years of experience were positively and significantly correlated with changes in salary mass (p-value = 0.041). Additionally, expressed growth intention as of 2004 was positively and significantly correlated with changes in salary mass (p-value = 0.000). This set of results was also largely consistent to that obtained when estimating changes in revenues and

employment mass (Tables 7A and 7B). However, the result related to the relationship between jointly-owned firms and changes in salary mass was inconsistent with that obtained when estimating changes in revenues (Table 7A).

In terms of financing, firms that sought trade credit in 2004, were positively and significantly correlated with growth in salary mass (p-value = 0.001), a result that was also consistent with that obtained when estimating changes in revenues (Table 7A).

The variable representing the presence of an immigrant owner and exporter status (as of 2004) was positively and significantly correlated with changes in salary mass (p-value = 0.000). However, the variable representing the presence of an immigrant owner but no export sales was negatively and significantly correlated with changes in salary mass (p-value = 0.001). The variable representing the presence of a non-immigrant owner and no export sales exhibited a negative and highly significant correlation with changes in salary mass (p-value = 0.000). The results for changes in salary mass — related to the set of variables indicating the presence of an immigrant owner within the firm (exporter and non-exporter firms) — were consistent with the results obtained for the same set of variables when estimating changes in revenues and employment mass (Tables 7A and 7B). Likewise, the result related to the variable representing the presence of a non-immigrant owner with no export sales had been consistent with that obtained when changes in revenues were estimated (Table 7A). However, the results obtained for this same variable were not consistent with the results obtained when changes in employment were estimated (Table 7B).

The model, for which the results are presented in Table 7D (changes in profits 2004–2008), yielded an  $R^2$  of 0.057. Although somewhat low, given the nature of the data in the study, this value is not uncommon (Lattin, Carroll, & Green, 2003) and is therefore seen to be adequate for statistical interpretation of the results.

**Table 7D. Performance of young firms, profits**

<b>Parameter</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Chi-Square</b>	<b>p-value</b>
<b>Intercept</b>	-1558.9	2459.1	0.40	0.526
<b>Age of firm</b>	-1547.9	476.0	10.58	0.001 ***
<b>Female majority-owned firm</b>	2868.6	1851.1	2.40	0.121
<b>Jointly-owned firm</b>	7048.3	1405.1	25.16	0.000 ***
<b>Owner &lt; 39 years old</b>	4073.3	1331.8	9.35	0.002 ***
<b>Owner has more than 10 years of experience</b>	11483.4	1276.1	80.98	0.000 ***
<b>Services sector</b>	-2285.1	1433.4	2.54	0.111
<b>Sought external financing</b>	3101.7	1545.5	4.03	0.045 **
<b>Sought trade credit</b>	-732.7	1808.1	0.16	0.685
<b>Owner intended to grow</b>	5134.6	1233.5	17.33	0.000 ***
<b>Immigrant status</b>				
<b>Immigrant, exporter</b>	13329.4	4916.7	7.35	0.007 ***
<b>Immigrant, non-exporter</b>	-7084.7	3367.8	4.43	0.035 **
<b>Non-immigrant, exporter</b>	4284.2	2151.1	3.97	0.046 ***
<b>R-Square</b>	0.057			

Table 7D shows that the majority of the variables in the model again presented significant correlations with changes in profits between the years 2004 to 2008. However, female majority-ownership, whether the firm operated in the services sector and whether the firm sought trade credit in 2004, were all non-significant correlates of changes in profits (p-values of 0.121, 0.111 and 0.685, respectively). The non-significance of the services sector variable was consistent with its non-significance when estimating changes in revenues, employment mass, and salary mass (Tables 7A, 7B, and 7C). However, the non-significance of female majority-ownership was inconsistent with its significance when estimating changes in revenues, employment, and salary mass (Tables 7A, 7B, and 7C). In addition, the non-significance of firms that sought trade credit in 2004, was only consistent with its non-significance when changes in employment were estimated (Table 7B)

Firm age presented a negative and highly significant correlation with changes in profits (p-value = 0.001). This result was largely inconsistent with those obtained when changes in revenues, employment mass, and salary mass were estimated (firm age was not statistically significant in any of the other models). However, firms that were jointly-owned correlated positively and significantly with changes in profits (p-value = 0.000). This result was

consistent with those obtained for changes in employment and salary mass (Tables 7B and 7C) but was inconsistent with that obtained for changes in revenues (Table 7A).

Furthermore, firms presenting an owner who had more than 10 years of experience exhibited a positive and highly significant correlation with changes in profitability (p-value = 0.000). Likewise, firms in which the owner had expressed growth intentions were positively and significantly correlated with changes in profits (p-value = 0.000). Both of these results were consistent with those obtained when estimating changes in revenues, employment mass, and salary mass (Tables 7A, 7B, 7C).

In terms of financing, firms that sought external forms of financing in 2004 were positive and highly significant correlates of growth in profits (p-value = 0.045). This result was also consistent to that obtained when estimating changes in revenues, employment mass, and salary mass (Tables 7A, 7B, and 7C).

The variable representing the presence of an immigrant owner and exporter status (as of 2004) was positively and significantly correlated with changes in profits (p-value = 0.007). However, the variable representing the presence of an immigrant owner and no export sales had a negative and significant correlation with changes in profits (p-value = 0.035). The variable representing the presence of a non-immigrant owner and no export sales exhibited a positive and significant correlation with changes in profits (p-value = 0.046). The results for changes in profits — related to the set of variables representing an immigrant owner within the firm (exporter and non-exporter firms) — were consistent with the results obtained for the same variable when estimating changes in revenues, employment, and salary mass<sup>28</sup> (Tables 7A, 7B, and 7C). Likewise, the result related to the variable representing the presence of a non-immigrant owner and export sales was consistent with that obtained when changes in revenues were estimated (Table 7A). However, the results obtained for this same variable were not consistent with the results obtained when changes in employment mass and salary mass were estimated (Tables 7B and 7C).

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<sup>28</sup> Immigrant exporters positively and significantly correlated with all other growth metrics. Immigrant non-exporters negatively and significantly correlated with all other growth metrics.

In light of the results presented throughout all of the analyses above, it is useful to synthesize a portion of the analysis that focuses on the association between firm exporting and immigrant status.

### 5.3. New Venture Exporting and Immigrant Status

Table 9 presents the synthesis of the results with respect to the interaction of variables that sought to disentangle immigrant status from export activity. Table 9 reports the estimates (and p-values) of the differences between each category of firm and the base case, which represented non-exporters ventures whose primary owner is not an immigrant.

**Table 8. Firm performance by exporting status**

		<b>Exporters</b>		<b>Non-exporters</b>	
		Estimate	p-value	Estimate	p-value
<b>Immigrant owners</b>	Revenues	\$154,063	0.000	-\$24,083	0.044
	Profits	\$13,329	0.007	-\$7,084	0.035
	Employment mass	0.476	0.004	-0.256	0.005
	Salary mass	\$83,668	0.000	-\$12,663	0.001
<b>Non-immigrant owners</b>	Revenues	\$25,254	0.001	Base case	
	Profits	\$4,284	0.046		
	Employment mass	-0.323	0.000		
	Salary mass	-\$12,599	0.000		

The information provided in Table 8 demonstrates that exporter-IBVs presented relatively higher and highly significant growth metrics than the other categories of firms. These results offer partial support to Hypothesis 2 and Hypothesis 4. More specifically, during the years 2004 to 2008 changes in revenues, profits, employment, and salary mass differed significantly (p-values of 0.000, 0.007, 0.004, and 0.000, respectively) from firms in the base case category. Non-exporter IBVs, however, presented relatively lower and significant growth metrics in comparison to enterprises in the base case category — offering partial support to Hypothesis 3 and Hypothesis 5. Moreover, growth metrics of non-exporter IBVs were significantly smaller (p-values of 0.044, 0.035, 0.005, and 0.001, respectively) than those of exporter IBVs, non-exporting non-IBVs, and firms in the base case category. Non-IBV exporters, however, did appear to present significantly higher performance metrics than

did firms in the base case (p-values of 0.001, 0.046, 0.000, and 0.000, respectively), though these measures were significantly lower than exporter IBVs.

On average, it may not appear that IBVs presented either higher or lower performance metrics than firms owned by non-immigrants. This is because, on balance, one group of IBVs (exporters) presented relatively high performance metrics (in comparison to firms in the base case category) and one group of IBVs (non-exporters) presented relatively low performance metrics (again, in comparison to firms in the base case category). Moreover, exporting IBVs presented higher growth measures than all other groups and non-exporting IBVs presented lower performance metrics than all other groups. In addition, the results indicated that exporting firms, overall, presented relatively higher performance metrics (especially from a financial standpoint) than non-exporting firms.

In light of these findings, the following section summarizes the study findings as a basis for discussion.

#### 5.4. Summary of Study Findings

In light of the findings reported above, Table 9 summarizes the hypotheses initially put forth for testing and the resultant findings.

**Table 9: Research hypotheses and related findings**

	<b>Hypotheses</b>	<b>Findings</b>
H1:	Immigrant-owned ventures (IBVs) are more likely to be exporter firms than firms owned by non-immigrants.	<i>Supported.</i> Firms owned by immigrants are almost three times more likely to be exporters than counterpart firms
H2:	Immigrant-owned business ventures (IBVs) achieve higher rates of revenue growth than firms owned by non-immigrants.	<i>Partially supported.</i> The variable representing an immigrant owner had a positive and highly significant influence on revenue growth — among exporting IBVs
H3:	Immigrant-owned business ventures (IBVs) achieve lower profitability growth than firms owned by non-immigrants.	<i>Partially rejected.</i> The variable representing an immigrant owner presented positive and significant influence on profit growth — among exporting IBVs
H4:	Immigrant-owned business ventures (IBVs) achieve higher employment growth than firms owned by non-immigrants.	<i>Partially supported.</i> The variable representing an immigrant owner presented a positive and significant influence on employment growth — among exporting IBVs
H5:	Immigrant-owned business ventures (IBVs) achieve lower salary mass growth than firms owned by non-immigrants.	<i>Partially rejected.</i> The variable representing an immigrant owner presented a positive and highly significant influence on salary mass growth — among exporting IBVs

On the basis of the information provided in Table 9, further discussion is indicated in relation to its relevance for advancement of theory, policy development, implications for practice, and future research.

## **6. Discussion of Findings**

This section examines linkages among the study findings and perspectives advanced at the outset of the thesis. Implications for research, policy and practice are considered. The section closes with a discussion about the study's limitations. The findings inform the literature about the relative influence of firm- and owner-level factors on internationalization of small- and medium-sized enterprises (Fernhaber, Gilbert, & McDougall, 2008; Fischer & Reuber, 2008; Macmillan, 2009; OECD, 2009; Shaw & Darroch, 2004). The results also lend support to arguments that owner-level factors influence the process of internationalization among SMEs and that, compared to non-immigrant business owners, immigrant business owners retain entrepreneurial acumen that is conducive to the internationalization of young ventures.

As noted, in estimating the performance and growth of small- and medium-sized enterprises (SMEs), the study sought to respond to concerns raised by Shepherd and Wicklund (2009). Recall that Shepherd and Wicklund (2009) have emphasized that not all measures typically used to estimate SME growth demonstrate sufficient concurrent validity. Therefore, by measuring performance through longitudinal changes in four consistent measures of growth (revenues, profits, employment mass, and salary mass), the reliability of the study's conclusions are considerably enhanced relative to those studies that have relied on limited sets of measures, or that have used cross-sectional data. In addition, these measures were expressed on a per 2004 employee basis in order to mitigate the influence of initial firm size differences between both study groups. Finally, use of longitudinal data reflected the dynamic and evolutionary nature of firm performance.

Table 10 presents a summary of the observed relationships among the independent variables used in the study and the four key performance measures.

**Table 10. Synthesis of relationships between key study variables**

	Revenues	Employment	Salary Mass	Net Income
Age of firm	Non-sig.	Non-sig.	Non-sig.	-
Female majority-owned firm	-	-	-	Non-sig.
Jointly-owned firm	-	+	+	+
Owner < 39 years old	Non-sig.	Non-sig.	-	+
Owner has more than 10 years of experience	+	+	+	+
Services sector	Non-sig.	-	Non-sig.	Non-sig.
Sought external financing	+	+	+	+
Sought trade credit	+	Non-sig.	+	Non-sig.
Owner intended to grow	+	+	+	+

On the basis of the above information, it is observed that four of the independent variables — gender (female majority-ownership), owner experience, external financing, and growth intention — display consistent and significant associations with the four performance measures. Moreover, the variables demonstrate similar directionality in terms of their respective relationships with the growth measures. Not being ‘majority female-owned’, owner experience, intention to grow and intent to secure external financing were positively associated with growth. These findings provide empirical evidence about the possibility that growth measures are indeed correlated with each other — as originally reported by Shepherd and Wicklund (2009). At the same time, it is acknowledged that measures employed in the present study were expressed on a per employee basis. This is likely one reason why the significant relationships in the data correlated well with each other. Using the findings reported in the previous section as a basis for discussion, the following section expands on theoretical linkages, limitations of the study, policy implications, practical implications, and suggestions for future research.

## 6.2. Summary

### 6.2.1. Observations about export propensity

The study employed a large and representative data to examine the export propensity of immigrant and non-immigrant business owners. A primary finding is that Canadian immigrant-owned business ventures (IBVs) were approximately three times more likely to export compared to non-immigrant owned enterprises, after controlling for a variety of

salient other determinants of export propensity. Several reasons for this finding have been advanced in the literature. Drawing on resource-based and network theory, scholars have observed that compared to non-immigrant entrepreneurs, immigrant entrepreneurs are more likely to report international management experience; retain business and personal relationships in their countries of origin and with other diasporas; perceive lower barriers to internationalization of the firm; report higher risk tolerance in regards to international opportunities; and retain more diverse and widespread networks (Kariv et al., 2009; Miera, 2008; Portes et al., 2002).

Firms for which the primary owner articulated an intention to grow the firm, were almost twice more likely to engage in exporting. This latter finding indicates that some entrepreneurial firms employ exporting as a means to achieve growth and that export propensity, among younger firms, may be less ‘serendipitous’ than previously reported (Chetty & Agndal, 2007; Crick & Spence, 2005; Kontinen & Ojala, 2011; McAuley, 1999; Meyer & Skak, 2002). It should be noted that the majority of studies that have reported on the prevalence of serendipitous internationalization employed European data. Hence, European SMEs might present higher instances of serendipitous exporting given geographic proximity to multiple international clients and the shorter geographic distances among nations. For example, firm founded in France could easily be approached about selling their products or services to clients operating in Spain, Belgium, Italy, Croatia, etc. leading to serendipitous exports of products or services. In contrast, the current study surveyed business owners operating in Canada. Canadian business owners may proactively export as a means to establish a market presence and to exploit growth opportunities within the United States, the largest consumer market in the world. This rationale is supported by the observation that the vast majority of Canadian exports (roughly 75 percent as of 2009) are destined to the United States (Central Intelligence Agency, 2011). Alternatively, it is possible to envision a scenario in which a growth-oriented Canadian SME exports as a means to establish an American market presence in order to access growth capital and to stimulate interest from venture capitalists. This is because the United States is home to the most developed venture capital industry in the world, which would indirectly lead to growth through external venture capital investment (Metrick & Yasuda, 2011; Thomson Reuters, 2011).

Analysis of owner attributes revealed that owner gender was not statistically correlated with export propensity, at least among young firms (defined as firms that were five years or younger). This latter finding conflicts with Canadian (Orser et al., 2004) and international (Shih & Wickramasekera, 2011; Welch, Welch, & Hewerdine, 2008) research that has suggested otherwise. One reason for the difference between the current and previous studies is sampling. The current study employed a sample of firms that were exclusively five or fewer years old. It may be that in today's global marketplace, growth-oriented women business owners are aware of the importance and opportunities to export and, therefore, more likely to engage in exporting early in the firm's evolution.

The analysis of firm level influences suggested that, compared to service-based enterprises, goods producing firms were significantly more likely to export. This finding is consistent with the existing literature (Fischer & Reuber, 2010). Firm size, as measured by the number of full-time equivalent employees, was an insignificant predictor of export propensity. Again because firms included in the analysis were relatively young, there was limited variability in the size of firms (the majority presenting fewer than five full-time equivalent employees). Thus, the results appear to offer some measure of support to the conceptual argument that larger firms are relatively more likely to export — an argument that has dominated the international business and entrepreneurship literature (Calof, 1993; Crick & Jones, 2000; Johanson & Wiedersheim-Paul, 1975; Shaw & Darroch, 2004; Wagner, 1995; Wolff & Pett, 2000). Moreover, the full and reduced models revealed that firm location (rural versus urban) was not associated with export propensity. The insignificance of firm location on export propensity provides support to arguments that most Canadian business owners have increasing access to international markets, regardless of geographical location (Etemad, 2004).

#### *6.2.2. Observations about new venture growth and performance*

Owner experience was positively and significantly associated with all four measures of growth (e.g., revenues, employment mass, salary mass, and profits). Owners' expressed growth intentions were also positively and significantly associated with the four proxies of

growth and performance. Collectively, the findings are consistent with the literature that has conceptualized an association between social psychological factors such as intention and venture growth and performance (Brush & Chaganti, 1999; Orser & Hogarth-Scott, 2002; Roper, 1998; Shrader & Siegel, 2007; Storey, 1994).

Contrary to the above observations about gender and export propensity, the findings revealed gender-related effects with respect to enterprise growth and performance. Relative to a comparable sample of male business owners, 'being female' was negatively and significantly correlated with changes in revenues, employment, and salary mass. The results are consistent with previous Canadian (Cliff, 1998; Fischer, Reuber, & Dyke, 1993; Orser, 2007) and international evidence (Boden Jr. & Nucci, 2000; Carter, Williams, & Reynolds, 1997; Verheul & Thurik, 2001; Verheul, Carree, & Thurik, 2009) that have suggested that gender is strongly associated with entrepreneurial performance and growth, particularly within the early periods of firm evolution (Cliff, 1998). Hence, this set of findings was also to be expected as the literature has reported that female entrepreneurs tend to weigh personal rather than economic factors when evaluating the growth expectations and strategies. As Such, it has also been reported that, among a sample of Canadian business owners, women established lower business size thresholds — in comparison with male counterparts — beyond which they would have preferred not to expand (Cliff, 1998). Likewise, the results echoed those reported in the work by Fisher et al. (1993), that women owners to have less experience overall (e.g., managing employees, previous work experience in comparable firms, or previous start-up experience); resulting in women-owned firms being smaller than men's, presenting lower rates of growth, and presenting lower sales per employee.

The findings inform about the relationship between internationalization and firm growth over time. As noted, exporters significantly outperformed non-exporting firms with respect to growth. In addition, exporting IBVs outperformed all other sample cohorts, including non-exporting IBVs. These are important observation for several reasons. Previous empirical evidence has suggested that export firms, on average, perform better than non-exporter firms (Daniels & Bracker, 1989; Lu & Beamish, 2001; McDougall & Oviatt, 1996; Shrader & Siegel, 2007). However, most studies have not reported on causality within the relationship

between internationalization and firm growth. For example, did firms do better because they exported, or did they engage in exporting because they had grown and this was the natural course of action? In response, the current study employed longitudinal performance data to examine firm growth subsequent to the point at which firms recorded export sales. The study also sought to disentangle associations between internationalization and growth, and hence to undertake robust analysis to examine the effect that exporting had on growth and performance, among young firms.

The findings inform about the relationship between firm operating sector and growth. The analysis revealed the association between sector and growth to be largely non-significant (goods producing versus service-based firms). More specifically, sector did not correlate with changes in revenues, employment, salary mass, or profits. This finding was somewhat unexpected because the literature has extensively reported sectoral influences on firm performance (Buenstorf & Guenther, 2011; Gu, Guan, & Wu, 2010; Hawawini, Subramanian, & Verdin, 2003; Lumpkin & Dess, 2001; McGahan & Porter, 1997; Sandberg & Hofer, 1987; Short, Ketchen Jr., Palmer, & Hult, 2007). As with other conflicting study results, sampling was likely a primary reason for findings: unfortunately, the limited number of immigrant-owned enterprises in the sample prohibited sectoral breakdowns more specific than distinguishing between goods and services producers. However, the literature has reported sector and external factors to be less important for firm performance than internal factors (Calantone, Cavusgil, & Zhao, 2002; Galbreath & Galvin, 2008; Lin, 2011; Pelham, 2000). Therefore, it may be that during the start-up phases of business, other owner and firm factors carry a greater influence over firm growth compared to sector-related factors.

It was interesting that findings about the association between firm age and performance metrics were inconsistent with theoretical and empirical evidence cited in the literature (Durand & Coeurderoy, 2001; Henderson, 1999; Lundvall & Battese, 2000; Majumdar, 1997; Song, Podoyntsyna, Van Der Bij, & Halman, 2008). As noted, firm age was not significantly associated with changes in revenue, employment mass, and salary mass and firm age was negatively and significantly associated with profit growth. However, again it is noteworthy that firms employed in this analysis were exclusively young firms (five years or

younger). Therefore, in a sample comprised of young firms, it is possible that there is insufficient variation to reveal an association with firm growth.

Other inconsistencies between the current study and perspectives advanced in the literature about growth and performance of IBVs were noted. It was observed here that IBVs were more likely to demonstrate higher revenue growth than that of firms owned by non-immigrants. It is assumed that this is because IBVs are more likely to leverage international networks, demonstrate higher levels of resourcefulness and work ethic, and present intangibles such as higher risk tolerance (Waldinger et al., 1990). It was also expected that IBVs would demonstrate lower levels of growth in profitability than comparable firms owned by non-immigrant entrepreneurs<sup>29</sup>. Furthermore, it was anticipated that IBVs would demonstrate relatively high levels of employment growth and low levels of growth in salary mass, compared to firms owned by non-immigrant entrepreneurs. Based on the literature, these results were expected because IBVs were observed to be comparatively smaller to firms owned by non-immigrants (Fairlie, 2008; Kushnirovich & Heilbrunn, 2008). It has also been argued that immigrant business owners feel more obligated to create employment for co-immigrants (OECD, 2010), and that because of the reliance on immigrant and family members, labour costs are relatively lower (Portes & Jensen, 1989).

This research found that one group of immigrant business owners, exporters, performed extremely well while another group, immigrant-owned non-exporters, performed extremely poorly. These findings help to reconcile inconsistencies advanced in the literature. One stream of literature has suggested reasons why immigrants may outperform other firms (Dalziel, 2008; Daniels & Bracker, 1989; Kariv et al., 2009; Lu & Beamish, 2001; Miera, 2008; OECD, 2010; Shrader & Siegel, 2007; Waldinger et al., 1990). Another research stream has suggested reasons why immigrant entrepreneurs underperform compared to other entrepreneurs (Fairlie, 2008; Kloosterman et al., 1998; OECD, 2010; Portes & Jensen, 1989). By exporting, immigrants may be able to take advantage of their particular forms of managerial acumen and social capital. Those who do not (or cannot) export may experience

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<sup>29</sup> It is important to note that Hypothesis 3 was formulated in a more exploratory fashion, as the literature did not clearly demonstrate any directionality as to what might have been expected for growth in profitability of immigrant-owned firms.

all the challenges of operating in an alien environment of a new country. In other words, export-oriented immigrant entrepreneurs may leverage unique strengths while immigrant business owners who do not export are disadvantaged relative to their domestic competitors.

Finally, while outside the scope of the current study, the relationship between financing of young firms and enterprise growth was of interest. Specifically, owners who sought external financing were more likely to report relatively positive and significant growth in revenue, employment mass, salary mass, and profit. This is consistent with resource-based entrepreneurship theory. The results lend support to arguments that: external sources of financing are the most important sources of financing during a firm's initial years of operation (Robb and Robinson, 2009); that access to start-up capital facilitates rapid expansion; and that the development of the firm's resource base leads to superior growth and performance, compared to firms with less access to capital and a smaller resource-base (Barney, 1991; Conner & Prahalad, 1996).

### 6.3. Limitations

In spite of the rich data set, the following study limitations are noted. Arguably, the most important limitation of this work is attributable to how immigrant owners were defined within the data. According to the data collection method and coding undertaken by Statistics Canada, *immigrant owners* were restricted to those individuals who had immigrated to Canada within the five-year period ending in 2004 (the initial survey date). This limitation presented the study with two consequences. First, there was no way of identifying firm owners who were, in fact, immigrants but who had been residing in Canada for longer than five years. This led to a second consequence: a sub-sample of only 104 firms that were said to be immigrant-owned and for which complete data records were available. However, the statistically significant results do speak to a reliable interpretation. Finally, the data do not disclose country of origin of the immigrants, ethnicity, nor destination of firm export sales. Accordingly, the work could not address the potential influence of factors such as country of origin.

## 6.4. Implications for Public Policy

Based on the findings related to export propensity, this study informs commercial and trade policies. It appears that exporters achieve superior levels of growth in comparison to firms that did not export. Moreover, it was found that exporting IBVs outperformed all other study cohorts and that non-exporting IBVs underperformed all other groups. These findings might encourage policymakers to consider yet more effective ways to stimulate international trade among SMEs and immigrant-owned enterprises in particular. For example, it might be beneficial for economic and foreign trade personnel to establish support services targeted at growth-and export-oriented immigrant entrepreneurs. Agencies tasked with supporting international trade such as Canada's Export Development Canada and the Department of Foreign Affairs and International Trade as well as the United States Department of Commerce International Trade Administration might be encouraged to consider cross-border initiatives targeted at immigrant entrepreneurs. Such initiatives might employ multiple languages to inform new immigrants about business start-up and the merits of export on enterprise performance. Employing multiple languages, training resources about existing services such as export financing and insurance, country documentation, and consultative services might also be useful.

Additionally, it was mentioned that anecdotal evidence has suggested that some of the most successful growth-oriented firms have been started and managed by immigrant entrepreneurs. Likewise, some of the literature offered evidence to the effect that some immigrant owners bring the following characteristics to the host-country enterprise: experience, substantive working capital, and an intention to grow the firm (and this is particularly true for those immigrants who enter the host country through business start-up programs). However, the findings of the present study revealed that only certain types of IBVs, those that export, experienced superior performance levels (as measured through changes in revenues, profits, employment mass, and salary mass). Additionally, IBVs that did not export dramatically underperformed all other groups of firms in the study. Therefore, these findings motivate examination of the effectiveness of immigration-related start-up programs. Perhaps policy makers have wrongfully assumed that meeting the strenuous requirements of the start-up programs (intuitively, these requirements ought to be reflective

of an owner who, by all appearances, should have the ability to start and grow a business) was sufficient to ensure the growth of these same IBVs. Hence, from a policy standpoint, it might be justified to modify business start-up programs in order to offer immigrant entrepreneurs the necessary resources and support mechanisms that contribute the growth and performance of their ventures. More specifically, resources should be directed towards IBVs where the owner is not intent on internationalizing certain firm transactions or able to export some of his or her firm's sales (as the study results demonstrated that these firms would stand to benefit the most from such support).

## 6.5. Implications for Research

The study findings suggest that immigrant status is associated with export propensity and enterprise growth and performance. Canadian immigrant entrepreneurs retain a particular acumen that is conducive to the internationalization of the firms compared to non-immigrants. Research is required to learn about early export development strategies employed by immigrant entrepreneurs, including strategy formulation and the process by which IBVs undertake export. For example, it is not yet clear if IBVs are more likely to export products or services to home countries or other countries where a diaspora is located, such as in the United States. It would be beneficial for research to explore internationalization with respect to country of destinations, over time among immigrant and non-immigrant business owners. It would be useful to examine the network composition of immigrant and other business owners who do and do not export. Given that the study found exporting IBVs to outperform all other firm cohorts, understanding whether exporting firms also import (a relevant issue for trade balance), and if importing is also associated with firm growth are suggested areas of future inquiry.

The theoretical and empirical inconsistencies that were evidenced in the study create areas of further research. The most notable was that on balance IBVs did not outperform firms owned by non-immigrants. This is, in large part, because one group (IBV exporters) performed extremely well while IBV non-exporters performed poorly. Future research might focus on identifying those factors that help to explain differential performance between these two groups of IBVs. It would also be helpful to examine whether gaps in growth and

performance are attributable to the fact that some IBV export, and some do not (or attributable to other potentially more influential factors). To further disentangle the association among factors such as firm size, owner attributes (including experience, age, immigrant status, gender), access to capital, firm internationalization (or exporting), and subsequent firm growth, research might consider the usage of structural equation modelling (SEM) in order to conceptualize a model that still remains complex.

Finally, the study findings suggest the need to understand further the process of acquisition and diffusion of social capital by entrepreneurs. Moreover, practitioners could benefit from understanding how IBV owners leverage social capital endowments in order to export products or services — leading to superior levels of growth for their firms. To better transfer theory to practice, establishing collaborative partnerships between academic institutions, key public stakeholders, and practitioners is argued to be a desired course of future action. One example of such a partnership is the Telfer School of Management *India Forum*. This annual event is a collaborative initiative among the University of Ottawa, the Indo-Canada Ottawa Business Chamber (ICOBC), the Ottawa Chamber of Commerce, and Ottawa Centre for Regional Innovation (OCRI). Of note, one of the purposes of this initiative is to continue developing and improving an *India Readiness Assessment* model<sup>30</sup>, as well as delivering an ongoing executive training program about doing business in India (Telfer School of Management, 2011).

## 7. Conclusion

The study sought to examine the performance of immigrant-owned business ventures in comparison to that of firms owned by non-immigrants by employing a representative sample of Canadian small- and medium-sized enterprises — placing a particular focus on the relationship between firm internationalization and performance. The motivation for exploring this topic lay in anecdotal evidence that suggested many growth-oriented firms

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<sup>30</sup> The model comprises various aspects seen to be important for conducting business in India such as: executive commitment to the market, appropriate business development budgets, Indian cultural awareness, a network of advisors/partners in Canada and in India, a clear position with respect to technology transfer, and well thought out risk mitigation strategies.

have been started and managed by immigrant entrepreneurs. Furthermore, immigrant business owners were thought to bring to start-up a unique managerial acumen and social capital derived from diverse experiences and international networks. To the best of this author's knowledge, this is the first study to employ a representative sample of business owners to examine the performance of IBVs and other SMEs.

Following a survey of the salient literature pertaining to immigrant entrepreneurship, firm internationalization and growth, five study hypotheses were advanced by this thesis. The study then employed two expansive data sources. The first data source was drawn from the *Survey on Financing of Small and Medium Enterprises*, data collected by Statistics Canada on behalf of Industry Canada between September 2004 and March 2005. The population of interest comprised 1,300,000 Canadian small- and medium-size enterprises listed in the Business Register maintained by Statistics Canada. A sampling frame of 34,509 firms was randomly drawn from the target population. Valid responses were received from 12,047 SMEs, a response rate of 47 percent of in-scope potential respondents and sampling weights were applied in compiling the estimates. To this end, the individual businesses were weighted according to region, size, and sector. The second source of data was income tax information for the respondent firms spanning the 2003–2008 period. These data were linked to the survey responses. Overall, this work focused on the 2,915 firms that were started between 2000 and 2004 (the five-year period preceding administration of the survey). Of these, 132 primary owner respondents had immigrated to Canada within the same five-year period.

IBVs were seen to be more export-oriented compared to non-immigrant owned enterprises. Exporter IBVs outperformed all other groups of firms. Also of note was the observation that non-export IBVs performed extremely poorly compared to all other comparator groups. These results lend support to arguments that owner-level factors influence the process of internationalization among SMEs and that, compared to non-immigrant business owners, many immigrant business owners retain entrepreneurial acumen that is conducive to the internationalization of young ventures and, to the extent that those immigrants do engage in international entrepreneurship activities, the growth and performance of their firms.



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