

EXPLORING THE INFLUENCE OF SOCIAL AND STRUCTURAL SUPPORT ON ENTREPRENEURIAL INTENTIONS AMONG SOUTH ASIAN CANADIAN IMMIGRANTS

Nadeem Akhtar^{1*}, Syed Mohammad Azeem², Abdullah Faisal Basiouni¹, and Ghulam Mustafa Mir³

¹*Management Sciences Department, Yanbu Industrial College, 41912, Yanbu, Saudi Arabia*

²*Department of Human Resources and Organizational Behavior, University of Saskatchewan, Saskatoon, Canada*

³*Department of Management Sciences, University of Gujrat, Gujrat, Pakistan*

*Corresponding author: abasiouni@rcjy.edu.sa

Published online: 6 December 2023

To cite this article: Akhtar, N., Azeem, S. M., Basiouni, A. F., & Mir, G. M. (2023). Exploring the influence of social and structural support on entrepreneurial intentions among South Asian Canadian immigrants. *Asian Academy of Management Journal*, 28(2), 179–206. <https://doi.org/10.21315/aamj2023.28.2.7>

To link to this article: <https://doi.org/10.21315/aamj2023.28.2.7>

ABSTRACT

The focus of this paper is on the perspectives people hold towards starting their businesses. An investigation was conducted on recent immigrants to Canada, the majority of whom were from South Asian nations. Subsequently, the SmartPLS 3.2.8 analysis tool was used to examine the collected data. According to the findings of the analysis, the perception of having structural support is a poor predictor of entrepreneurial intentions. Conversely, individual characteristics, such as self-efficacy and self-control, are significant predictors of entrepreneurial intentions. The results call into question immigration policies and regulations that select immigrants based on their potential for financial success rather than the businesses they intend to start themselves. The research suggests that if immigrants with high self-efficacy were provided support from their immigrant communities, they could more easily launch new businesses. This information can serve as a guide for immigration policymakers.

Keywords: immigrant, entrepreneurial intentions, social support, structural support, Canada

INTRODUCTION

The small business sector has been treated as an issue virtually separate from mainstream economic development. Canadian small business sector contributes a significant share in job-creation and economic growth. Despite its substantial contribution to the economy, the failure rate of startups is alarming (Cho et al., 2016; Shane, 2018). It is estimated that half of the startups in Canada cannot survive their first five years of operation (Fischer & Reuber, 2010). Entrepreneurs exist in every society. Their intention to start a new business is affected by their perceptions of social, structural, and personality traits (Díaz-casero et al., 2012; Sesen, 2013; Turker & Senem Sonmez, 2009). In developed countries like Canada, economic prosperity and innovation are led by new startups.

The majority of immigrant entrepreneurship literature reveals that immigrants are more likely to start a new business than natives (Kerr & Kerr, 2016). There is a consensus that small businesses can fuel economic growth and reduce unemployment by creating new jobs (Kordsmeyer et al., 2022). However, there is no conclusive evidence of what makes the immigrants start a new business instead of looking for a job (Kerr & Kerr, 2016). Researchers have made their effort to establish an individual's entrepreneurial profile by looking at internal factors like creativity, innovation, risk-taking attitude (Kaushik & Walsh, 2018; McClelland, 1967) to external factors like social support of family and friends and structural support by the government (Díaz-casero et al., 2012; Goel et al., 2007; Hai et al., 2022; Liñán & Chen, 2009; Turker & Senem Sonmez, 2009; Valsiner, 2022).

As per the 2016 Canadian census, 21.6% of the population consists of immigrants (Statistics Canada, 2016). In 2019, the unemployment rate among Canadian immigrants who reached Canada in the last five years was observed at 9.5%, whereas the unemployment rate among Canadian-born is 5.5% (Patterson et al., 2019). Research and data published in the last two decades reveal that immigrants coming through skill worker programs face significant barriers to employment (Ahmed et al., 2020). Promoting entrepreneurship among immigrants can yield positive economic growth (Vandor & Franke, 2016).

Entrepreneurs contribute a significant share in the local growth of any country (Acs, 2006). Startups help to generate new job opportunities and may even be the source of innovation in technology. A study of Canadian entrepreneurs suggested that Canadians lack entrepreneurial ambitions (Industry Canada, 2008). This was also discussed in an older report of the World Bank, "Doing Business 2018," where Canada ranks 18th to start a new business (World Bank, 2017). This is not encouraging for the new immigrants to create a new business. Structural support

for entrepreneurial activity is directly related to the intentions (Turker & Senem Sonmez, 2009). Immigrants who are provided with structural support and other necessary resources are more likely to start their own businesses rather than seek employment. This, in turn, becomes the engine of innovation and job creation (Colleret & Gingras, 2022; Kelliher et al., 2022). Entrepreneurship can play a pivotal role during the downtime Canada is experiencing.

The research on immigrant's intention to start a business has gotten critical universal scholastic consideration over the years, covering areas from investigating the motivation to start a business (Chreim et al., 2018), moving towards the factors influencing their success (Edelman et al., 2016). There has been a surge of research on the topic since 2000. Still, it tends to focus on a segment of societies like ethnicity (Zhang & Chun, 2018) or who migrated to the business class category (Bauder, 2008; Rahman, 2018), or how ethnic migrant entrepreneurs from South Asia can take advantage of cultural distance in developed countries (Abd Hamid et al., 2018). However, lesser is known about the entrepreneurship intentions of the immigrants from South Asia arriving in Canada. The study is an effort to learn more about the factors, i.e., personal attributes, structural or social factors, that influence new immigrants' entrepreneurial intentions.

The outcome is required to reveal some insight into various issues. It will test Canadian immigrants' entrepreneurial intentions. Likewise, it will fill in as an explanation of connections between entrepreneurial intentions and social and structural support and personality traits such as self-efficacy, locus of control, and risk-taking. Moreover, education and family background will be assessed. Finally, policymakers could discover valuable bits of knowledge from the study.

LITERATURE REVIEW

Entrepreneurship in general and immigrant entrepreneurship in particular have been instrumental in accelerating productivity growth-stimulating innovations and encouraging competition, particularly in high-income countries (Acs, 2006; Jones & Hegarty, 2011). According to Awotoye and Singh (2018), immigrant entrepreneurs have played a vital role in promoting economic development directly through new venture creation, and indirectly through information flows between the native and host countries, thus stimulating international trade and investment. Moreover, immigrants bring fresh perspectives, dynamism, and an enterprising essence to the economy (Savino, 2014).

As discussed in Kushnirovich et al. (2018), in many countries, the rate of entrepreneurship is only slightly lower in immigrants than that in the native population. Given the limited opportunities in the labour market for immigrants compared to natives because of language and other barriers, there is a high participation rate of immigrants in entrepreneurship in developed countries (Bird & Wennberg, 2016). Hence, immigrant entrepreneurship remains an exciting area of research in the entrepreneurship literature. The extant literature has examined various antecedents of immigrants' entrepreneurial intentions (Vinogradov & Jørgensen, 2017).

Entrepreneurship Intention

Entrepreneurship intention is defined as an individual's passion for being indulged in self-employment, starting a new business venture, and continuing to work to make it successful (Engle et al., 2010). The literature on entrepreneurship intentions has primarily relied on two conceptual models: Entrepreneurship Event Model proposed by Shapero and Sokol (1982) and Ajzen (1991)'s Theory of Planned Behaviour (TPB). Shapero, in his seminal work with Sokol, presented a model of "entrepreneurship event (EE)," which focused on two perceptions of individuals, namely desirability and feasibility needed to start a new venture (Shapero & Sokol, 1982). They considered judgments critical for entrepreneurship behaviour and suggested that certain life-changing events such as immigration or a job loss can instigate entrepreneurship. Another major work in entrepreneurship literature is Ajzen (1991) TPB, which provided a conceptual design to understand the complexities of individuals' social behaviours in society. TPB has highlighted three main behavioural precursors of entrepreneurship intentions, namely attitude towards behaviour, social norm, and perceived behavioural control. Both EE and TPB assumed that exogenous events are unable to directly influence "intention" or behaviour somewhat these events can alter the perceptions of an individual. Research in later years has lent strong support to both these theories (Engle et al., 2010; Iakovleva et al., 2011; Liñán & Chen, 2009).

Research in entrepreneurs has empirically explored the personality traits that develop entrepreneurial intentions in the past four decades (Fayolle & Liñán, 2014). These studies strived to determine whether certain personality traits make it more likely for a person to start his own business or the role of the personality traits in increasing the chances of success for an entrepreneur. Researchers used the Big 5 personality trait model to explain entrepreneurship intentions (Yang & Ai, 2019). The studies suggested that in comparison to managers, entrepreneurs are more open to challenges, are more extroverted, have higher conscientiousness but are less agreeable and neurotic (Envick & Langford, 2000; Zhao & Seibert, 2006).

However, the Big 5 model has been criticised for being too general, lacking a particular channel through which personality traits affect entrepreneurial outcomes, and its inability to predict the circumstantial-specific attitude of the entrepreneur (Rauch et al., 2014). Consequently, researchers extended the Big 5 personality trait model and incorporated additional traits such as self-efficacy, locus of control, the tendency of risk-taking, need for autonomy, uncertainty avoidance, etc. to offer a comprehensive multidimensional personality framework (Asma et al., 2019; Díaz-garcía & Jiménez-moreno, 2010; Ojiaku et al., 2018).

Table 1 shows the literature review results and sets the basis for our hypothesis. It is an essential insight for understanding entrepreneurial intentions paying little heed to social contrasts. In any case, the inquiry is whether it will fill in as an appropriate psychological model to the entrepreneurial intentions of the Canadian immigrant sample. Based on the literature scan, the authors consolidated the determinants of entrepreneurial intentions into a model of seven dimensions: (1) perceived structural support, (2) perceived social support, (3) personality traits, (4) primary education, (5) family background, (6) locus of control, and (7) risk averse.

Table 1
Literature review of model construct

Variable	Source
<i>Dependent variable</i>	
Entrepreneurship intention	Díaz-García & Jiménez-Moreno (2010); Liñán & Chen (2009); Ooi Yeng et al. (2011)
<i>Independent variables</i>	
Personality traits	Sesen (2013)
Risk averse	Wang & Wong (2004)
Self-efficacy	Díaz-casero et al. (2012); Díaz-García & Jiménez-Moreno (2010); Liñán & Chen (2009)
Locus of control	Díaz-García & Jiménez-Moreno (2010)
Self-confidence	Turker & Senem Sonmez (2009)
Perceived education support	Turker & Senem Sonmez (2009); Ooi Yeng et al. (2011)
Perceived structural support	Turker & Senem Sonmez (2009)
Family business	Goel et al. (2007); Wang & Wong (2004)

Hypothesis Development

Perceived social support (PSoS)

Perceived social support alludes to people seeing companions, relatives, and others as sources accessible to help during critical crossroads. Social support is

integral for entrepreneurship as it provides valuable knowledge of markets' needs and demands, access to more venture capitalists and potential customers (Chia & Liang, 2016). Social support comes in instrumental support (tangible resources), emotional support, and financial support (Levesque, 2011). Earlier studies have found evidence that the help of friends and family has a critical effect on starting a new venture (Aldrich & Cliff, 2003), particularly in young entrepreneurs (Nielsen & Lassen, 2012). In their study, Edelman et al. (2016) found that emotional support of the family and social capital accessible in terms of their prior social ties with the entrepreneur world is critical for starting a new business. Neneh (2022) found a positive and significant effect of social support on entrepreneurship intention. We predict that individuals who enjoy a higher amount of social support will have a higher chance of running their own business. Thus, the hypothesis of the study is:

H1: Perceived social support is positively related to the Canadian immigrant's entrepreneurial intentions.

Perceived structural support (PStS)

Researchers and policymakers in entrepreneurship have highlighted the importance of perceived structural support in establishing new ventures (Otchengco Jr & Akiate, 2021; Turker & Senem Sonmez, 2009). Entrepreneurship is likely to flourish in a suitable environment that includes various economic, political, and technological factors. These factors tend to become gateways or barriers which may instigate or deter entrepreneurship activity. The economic factors include the availability of venture capital and easy credit conditions. If there are barriers to entry, it will suppress the tendency for entrepreneurship.

In contrast, an ideal environment for businesses such as subsidies, tax rebates, and low barriers to entry will instigate entrepreneurship. Henrekson and Stenkula (2010) suggested that state policies aimed at providing support mechanisms and infrastructures enhanced the creation of new ventures. Mas-Verdú et al. (2015) found that public infrastructures and governmental support were imperative for entrepreneurial activity. Stephan et al. (2015) found that institutional factors, including national culture, social support, and government activism, are imperative for creating new business ventures. Canadian migrants who receive more structural support will have better chances of starting their business entities. Thus, the present study hypothesises that:

H2: Perceived structural support is positively related to the Canadian immigrant's entrepreneurial intentions.

Self-efficacy (SE)

One of the main antecedents of entrepreneurial intention receiving strong theoretical and empirical support is self-efficacy. Self-efficacy is a person's belief that they can perform any task, fulfill any responsibility, and succeed in a given scenario by a psychologist, Albert Bandura. Individuals with higher levels of self-efficacy think that they can control their thoughts and actions and can affect change (Bandura, 2000; Gielnik et al., 2020). Thus, persons having high self-efficacy are more likely to start new ventures (Wang et al., 2016). Puni et al. (2018) suggested that self-efficacy helps build confidence in one's abilities to undertake entrepreneurial tasks and influence entrepreneurial intentions. More recently, Ahmed et al. (2020) confirmed a positive and significant self-efficacy on entrepreneurship intention.

H3: Self-efficacy is positively related to entrepreneurial intentions.

Locus of control (LoC)

Locus of control is related to where an individual places the responsibility to an event. There are two types of loci of control – internal and external. Those with an internal locus of control believe that success and failure come from one's efforts. They accept responsibility for their actions and choices with a positive attitude. The locus of control construct was initially developed by Rotter (1966) and has been widely used in organisational and management studies after modifications and adaptations (Mueller & Thomas, 2001). Locus of control affects entrepreneurial intention as it affects an individual's audacity to carry out their plans. Earlier studies in entrepreneurship literature have found a strong association between locus of control and a person's likelihood of starting a business. According to Ndofirepi (2020), locus of control has accounted for the significant variation of entrepreneurial intentions. Internal locus of control has also been found to affect other dimensions of entrepreneurship, such as entry and exit decisions in a business venture (Caliendo et al., 2014), business growth (Lee & Tsang, 2002), and entrepreneurial success (Rauch & Frese, 2007). Asante and Affum-Osei (2019) found that locus of control significantly affected the opportunity recognition of young entrepreneurs, which consequently affected entrepreneurial intentions. Tentama and Abdussalam (2020) suggested that internal locus of control could predict entrepreneurial intention among students.

H4: The locus of control is positively related to entrepreneurial intentions.

Risk-taking attitude (RT)

It is known that people are different in their willingness to take risks and vary across individuals in different situations. Risk-taking is a controlled behaviour with perceived uncertainty. The relationship between risk attitude and entrepreneurial intentions is a century old, dating back to Knight (1921). Kihlstrom and Laffont (1979) believed that risk tolerance affected one's career choice where risk-averse people choose to be employees, and risk-takers were more likely to become entrepreneurs. Several studies provided evidence that high-risk tolerance increased the likelihood of venturing into business (Hall & Woodward, 2010; Lazear, 2004). Nasip et al. (2017) found that propensity to take more risk was positively related to entrepreneurial intentions among undergraduate students. More recently, Ibidunni et al. (2020) found that propensity to risk increased entrepreneurial intentions among aspiring student entrepreneurs. Therefore, the present study hypothesises that:

H5: The high risk-taking trait is positively related to entrepreneurial intentions.

Family background

Research has highlighted the positive role of having an entrepreneurial family background in an individual's decision to start a business venture (Matthews & Moser, 1995). The children of entrepreneurs are better exposed to running a business and consider a new business as a natural career choice option. Entrepreneurial family background also allows gaining valuable skills and knowledge in operating a business. Individuals belonging to entrepreneurial families are even more confident to start a new business because they get better access to capital and assets, free consultancy, and a good reputation in the business community and prospective customers (Van Praag & Cramer, 2001).

Alsos et al. (2011) proved that family business could significantly enhance family members' entrepreneurship development. Similarly, Chaudhary (2017) confirmed that self-employed family background had a positive effect on entrepreneurial intent. Ayalew and Zeleke (2018) also provided similar evidence. Nurhayati (2018) believed that the family's business background provided an indirect experience to have entrepreneurial intent because such individuals had a better knowledge of starting a business venture, marketing their products and services, and better exposure to deal the problems arising in business. More recently, Georgescu and Herman (2020) confirmed the positive effect of a family's entrepreneurial background on entrepreneurial intentions.

H6: Family background (someone in the family doing their own business) is positively relate to entrepreneurial intentions.

Education

Many studies have found evidence that education stimulates entrepreneurship, such as Sánchez (2011), who found that entrepreneurial education increased entrepreneurial intentions among students. Ohanu and Ogbuanya (2018) found strong evidence that students can be motivated to become entrepreneurs by imparting entrepreneurial education. Vodă and Florea (2019) found that entrepreneurial education had a substantial impact on entrepreneurial intentions. It provided youth with the necessary skills, knowledge, and capacities to embark on various challenges in starting new ventures.

H7: Entrepreneurship education is significantly related to entrepreneurial intentions.

METHODOLOGY

The study's target population consists of South-Asian Canadian immigrants who moved to Canada under the Federal Skill Worker (FSW) program and have settled there for at least three years. Canada is ranked among the top 10 peaceful countries globally, and being the second largest, it is seeking peoples' attention to immigrate. The government policies on immigration are quite flexible and varied; that is the reason why researchers selected Canada for this study. The rationale for focusing on South Asian immigrants was that they are among Canada's most significant overall immigrants. Yet less has been known about their entrepreneurial intentions. The target population was 6,280 members of WhatsApp and Facebook groups for newly arrived Canadian immigrants. To determine the sample size, the authors used Cohen's statistical power analysis formula. Ultimately, the authors collected data from 387 respondents, more than the proposed sample size of 362. The study objective was to determine the entrepreneurial intentions factors among the immigrants apart from their cultural background (see Figure 1). Participants were selected based on their willingness to take part in the study. Thus, convenient sampling was used to collect the data. The data collection took place over three months, from April 2019 to June 2019. All the participants were immigrants who moved to Canada in the last three years.

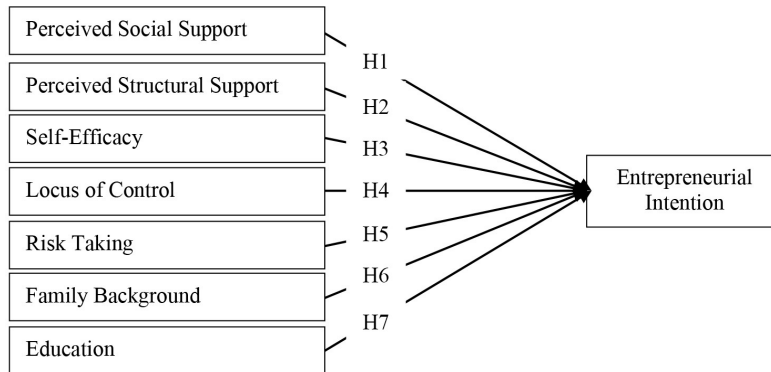


Figure 1. Hypothetical model of the relationships

Measurement

A survey questionnaire of 27 items was designed after extensive literature review and advice from content experts in entrepreneurial intentions (EI). Twenty-five items of the survey were measured using a 5-point Likert scale. Participants were requested to agree or disagree with the statement ranging from 1 to 5.

Entrepreneurial intentions (EI): EI was assessed using six items (Liñán & Chen, 2009). Participants were presented with short statements (e.g., I will make every effort to start and run my firm) to show an agreement on a 5-point Likert-type scale.

Perceived social support (PSoS): The level of PSoS was measured using two items (Turker & Senem Sonmez, 2009). PSoS items include family and friends' support (e.g., If I decided to be an entrepreneur, my family members would support me).

Perceived structural support (PStS): To assess PStS, a four-item scale was used (Turker & Senem Sonmez, 2009). Items on the scale were presented to the respondents and requested to provide their best response by following a range of 1 to 5, from strongly agree to strongly disagree [e.g., The Canadian laws (rules and regulations) are friendly to run a business].

Personality traits (PT): PT were assessed by extracting 13 items to measure the 3 most essential traits of personality, such as (1) self-efficacy (SE) – things were adopted from the scale used by Chen et al. (2001) (e.g., I think that I can obtain outcomes that are important to me); (2) locus of control (LoC) – three items were adopted from the scale used by Chung and Ding (2002) (e.g., It is my firm belief that I can solely overcome the obstacles in doing a business); and (3) risk-taking attitude (RT) – four items were chosen, in which three items were adopted from

Chen et al. (2012) and one item from Wang and Wong (2004) (e.g., In uncertain conditions, I prefer to be passive and reactive).

Other two items were also included in the questionnaire to ask the respondents about the engagement of their family/family members in business and whether they have done any course/training in entrepreneurship or somewhat related to it. A brief literature review is shown in Table 1 to construct the present research model.

Data Analysis

The data were gathered through several reminders to selected respondents, and eventually, 387 of them completed the questionnaire. All items in the questionnaire were compulsory to respond to, and out of the collected response, none of the items were missed by the respondents. The authors chose SmartPLS 3.2.8 to analyse the data as it has better predictive power (Ringle et al., 2015). The core objective of the study is to predict the immigrants' behaviour of starting a new business and what factors contribute the most to their intention in this regard. The partial least square (PLS) is believed to be the better predictor when the study focuses on prediction and decision making (Lai et al., 2013; Venaik et al., 2005).

The proposed model was assessed by applying the validity and reliability of the variables being used in the study. Many scholars recommend composite reliability (CR) as a measure of reliability compared to other reliability measures, i.e., Cronbach's alpha (Hair et al., 2011). Moreover, partial least square-structural equation modeling (PLS-SEM) was preferred over the covariance-based structural equation modeling (CB-SEM) because it obtains the solution with small sample sizes, and technically, it is programmed in such a way that the relationships between several independent and dependent variables can be calculated simultaneously (Ahmed et al., 2019; Venaik et al., 2005).

HYPOTHESIS TESTING

Measurement Model Evaluation

All the items about the variables used in the study have displayed an outer loading of above 0.70 to determine the reliability. None of the items is removed as the minimum required value (0.5) of item loading is met (Hulland, 1999). In addition to that, all the items have shown above 0.8 value for CR. The obtained CR values range between 0.870 and 0.975, which are sufficient to confirm reliability.

All items loading > 0.5 indicates indicator reliability (Hulland, 1999). All average variance extracted (AVE) > 0.5 as indicates convergent reliability (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). All CR > 0.7 indicates internal consistency (Gefen et al., 2000). All of Cronbach's alpha > 0.7 indicates indicator reliability (Nunnally, 1994). As recommended by Hair et al. (2011), the convergent and discriminant validity was calculated to assess the construct validity (see Table 2).

Table 2
Measurement model (convergent validity and construct reliability)

	Items	Loadings	Rho_A	CR	AVE
Entrepreneurial intention	EI1	0.869	0.967	0.973	0.857
	EI2	0.921			
	EI3	0.935			
	EI4	0.943			
	EI5	0.951			
	EI6	0.933			
Perceived social support	PSoS1	0.941	0.859	0.927	0.863
	PSoS2	0.917			
Perceived structural support	PStS1	0.882	0.913	0.889	0.669
	PStS2	0.894			
	PStS3	0.647			
	PStS4	0.825			
Self efficacy	SE1	0.924	0.970	0.975	0.886
	SE2	0.966			
	SE3	0.951			
	SE4	0.972			
	SE5	0.892			
Locus of control	LoC1	0.807	0.779	0.870	0.690
	LoC2	0.870			
	LoC3	0.813			

Note: Items removed = indicator items are below Cronbach alpha 0.5: - RT1(risk-taking); latent variable rho_A is below 0.7: RT (0.659)

The minimum acceptable value of the AVE was kept as 0.5 to determine the construct validity (Fornell & Larcker, 1981). The results indicate that all the constructs' value is more than 0.5 and ranged between 0.669 and 0.886, thus confirming convergent validity. The Fornell-Larcker and heterotrait-monotrait (HTMT) criteria were applied to assess discriminant validity (see Tables 3 and 4) (Henseler et al., 2015). The rho_A value for the items related to risk-taking was found below 0.7 and eventually eliminated for further analysis.

Table 3
Discriminant validity (Fornell and Larcker criterion)

	EI	LoC	PSoS	PStS	SE
EI	0.926				
LoC	0.683	0.831			
PSoS	0.629	0.526	0.929		
PStS	0.585	0.514	0.624	0.818	
SE	0.784	0.783	0.664	0.709	0.941

Note: The diagonal is the square root of the AVE of the latent variables and indicators the highest in any column or row

Table 4 indicates that the HTMT value between the two reflective constructs is below 0.90, the discriminant validity is confirmed. The applicable criteria are that to confirm the discriminant validity, the HTMT value between the two constructs must be significantly different from 1.

Table 4
Discriminant validity (HTMT)

	EI	LoC	PSoS	PStS	SE
EI					
LoC	0.787				
PSoS	0.694	0.658			
PStS	0.591	0.575	0.733		
SE	0.806	0.899	0.734	0.75	

Cohen's (1998) effect size impact indicator was used as a reference f^2 values: 0.35 (strong), 0.15 (moderate), and 0.02 (weak). Standardised root mean squared residual (SRMR) value is 0.078, which is less than 1. It shows the fitness of the model (Henseler et al., 2015; Hu & Bentler, 1998).

R^2 values were calculated for each variable included in the study to assess and interpret the proposed model. In addition to that, bootstrap techniques were used to determine the significance of the structural model (Hair et al., 2011). In this technique, the main focus is on the importance of path coefficient values and the effect size. A two-tailed test was also used due to the hypothesised relationships among the selected variables in the theoretical model. For this investigation, bootstrapping was done at 5,000 samples to obtain standard errors and t -values (Hair et al., 2013).

The f^2 values in Table 5 represent and explain the interaction effect size among the variables in the proposed structural model. R^2 values define the extent of variance in the response variable produced by the independent variables. To find out the significance level of R^2 values, the recommended reference values are as follows: 0.67 (large), 0.33 (moderately strong), and 0.19 (poor/weak) (Hair et al., 2011).

Path coefficient values and the R^2 variance in EI are shown in Table 5 which also indicates the values for f^2 , which explain the relationship path between the independent and response variables. PSoS ($f^2 = 0.051$), LoC ($f^2 = 0.019$), family ($f^2 = 0.076$), and education ($f^2 = 0.032$) are found to have very low interaction with EI due to low f^2 values. The f^2 value between $0.02 \leq 0.15$ is interpreted to be weak effect, values between $0.15 \leq 0.35$ moderate effect, and ≥ 0.35 strong effect (Cohen, 1988).

The effect size between SE and EI is found to be moderate ($f^2 = 0.217$). The strongest interaction term was obtained between SE and EI, with a moderate f^2 value of 0.217. The other R^2 values confirm that the variance in the response variable is attributed to the selected independent variables in this study.

Hypothesis Testing

This study was designed to examine the influence of personality traits (self-efficacy and locus of control), perceived social support, and perceived structural support on the entrepreneurship intention of Canadian immigrants. The results revealed that all hypotheses, except H2, are supported significantly (see Table 5).

Table 5
Structural model hypothesis testing: Bootstrapping direct effect result

	Relationship	Std. beta	Std. error	<i>t</i> -value	Decision	f ²	95% CI LL	95% CI UL
H1	PSoS → EI	0.190	0.057	3.357**	Supported	0.051	0.1	0.285
H2	PStS → EI	-0.005	0.036	0.153	Rejected	0.000	-0.061	0.056
H3	SE → EI	0.577	0.07	8.248**	Supported	0.217	0.449	0.682
H4	LoC → EI	0.135	0.051	2.668**	Supported	0.019	0.057	0.226
H6	Family → EI	-0.171	0.033	5.201**	Supported	0.076	-0.225	-0.118
H7	Education → EI	0.115	0.036	3.188**	Supported	0.032	0.056	0.175

Note: ** $p < 0.01$, * $p < 0.05$; H5 is not considered for further processing in the table as the items related to risk-taking (RT) were excluded due to below Cronbach alpha 0.5 (see Table 2). R^2 (EI = 0.670), adjusted R^2 = 0.665; LL: lower limit; UL: upper limit

Hypothesis 1: Perceived social support is positively related to the Canadian immigrant's entrepreneurial intentions

Table 5 reveals that PSoS is significantly related to EI with a β -value = 0.190 and t -value = 3.357 ($p < 0.01$). The findings of the study suggest that perceived social support enables the entrepreneurial intentions of the immigrants. The study's finding is consistent with some prior studies (Aldrich & Cliff, 2003; Edelman et al., 2016; Nielsen & Lassen, 2012; Neneh, 2022). The results of previous studies confirmed the significant contribution of family support, emotional support from friends and relatives, family capital support, and family connections with business ventures in starting up a new business.

Hypothesis 2: Perceived structural support is positively related to the Canadian immigrant's entrepreneurial intentions

Table 5 demonstrated no significant relationship between PStS and EI with a β -value = -0.005 and a t -value = 0.153 ($p < 0.01$). The value of t is below 1.96, and that is why this relationship is not considered significant. The result contradicts the previous studies (Henrekson & Stenkula, 2010; Mas-Verdú et al., 2015; Otchengco Jr & Akiate, 2021; Stephan et al., 2015;). Though the relationship between PStS and EI revealed insignificant or weak, but it shows a connection between the two. In this study, participants reported a less critical factor in their intention to start up a business.

Hypothesis 3: Self-efficacy is positively related to entrepreneurial intentions

Table 5 shows the most vital relationship between SE and EI among the respondents with a β -value = 0.577 and a t -value = 8.248 ($p < 0.01$). The result of the study is consistent with previous findings (Ahmed et al., 2020; Gielnik et al., 2020; Markman et al., 2002; Wang et al., 2016). The previous studies show that persons having high SE are more likely to start new ventures.

Hypothesis 4: The locus of control is positively related to entrepreneurial intentions

The LoC is significantly related to EI with a β -value = 0.135 and a t -value = 2.668 ($p < 0.01$). The result supports the previous findings (Asante & Affum-Osei, 2019; Levine & Rubinstein, 2017; Ndofirepi, 2020; Rauch & Frese, 2007; Tentama & Abdussalam, 2020). The LoC is a crucial personality trait for initiating a business. People who are high on LoC are most likely to take the initiative to start a business venture.

Hypothesis 6: Family background is positively related to entrepreneurial intentions

It is quite apparent from Table 5 that family background is significantly related to entrepreneurial intentions EI with a β -value = 0.171 and a t -value = 5.201 ($p < 0.01$). The result aligns with the previous research findings (Georgescu & Herman 2020; Herman, 2019; Oluwafunmilayo et al., 2018). Someone in the family who is already doing business provides guidance and support to collect required information, which eventually builds up confidence to initiate an entrepreneurial venture.

Hypothesis 7: Entrepreneurial education will be positively related to entrepreneurial intentions

The result shows that education is significantly related to EI with a β -value = 0.115 and a t -value = 3.188 ($p < 0.01$). The previous studies supported the hypothesis (Ohanu & Ogbuanya, 2018; Sánchez, 2011; Vodă & Florea, 2019). In light of prior research, the role of entrepreneurial education is proven to be essential for EI as it is found to have a substantial impact on EI as it familiarises the youth with the required knowledge, competencies, resources, challenges, and difficulties in starting a new business.

DISCUSSION

The study's findings reported that perceived social support, self-efficacy, locus of control, family background, and prior education on entrepreneurship are essential factors in building up immigrants' confidence for starting a new business. The immigrants feel much more confident when a large population with a similar cultural background in the area they reside. Cultural similarities can help in perceiving the need for products and services in demand.

Based on the study results, it has been confirmed that perceived social support influences the immigrants' intention to start up a new business (Edelman et al., 2016). However, the results could not establish the significance of structural support in entrepreneurial intention. The role of certain personality traits such as locus of control has also been found significant to entrepreneurial intention and supports the prior research findings (Levine & Rubinstein, 2017). Other factors used in the study, i.e., family background and education, are also significant to entrepreneurial intentions and support previous research findings (Herman, 2019).

The results show no significant relationship between perceived structural support and entrepreneurial intention which contradicts the literature (e.g., Otchengco Jr & Akiate, 2021; Turker & Senem Sonmez, 2009). Entrepreneurship is more likely to thrive in an environment that incorporates a variety of economic, political, and technical aspects. Further, a perfect business environment, such as subsidies, tax breaks, and minimal barriers to entry will encourage entrepreneurship. According to Henrekson and Stenkula (2010), governmental policies focused at providing support mechanisms and infrastructures aided in the formation of new companies.

The results also suggest that self-efficacy plays a vital role in realising an individual's capacity and faith to perform various circumstances. Firmer entrepreneurial self-efficacy beliefs are critical in increasing attitudes towards entrepreneurial acts, leading to higher intentions for new venture creation. Earlier studies on the subject, Izquierdo and Buelens (2011) have asserted that an individual with a high degree of self-efficacy for a particular work or assignment has a high probability to follow and continue the task until he achieves the targeted results. Self-efficacy is essential to the ability to act innovatively and look for appropriate opportunities at the right time. If self-efficacy is increased, then there would be a reduced level of fear of entrepreneurship intention. People migrate to another country with the planned intention to have better chances to settle down for life, and they are more likely to experience more pressure because of their need to adapt to a new environment (Gielnik et al., 2020). The government has a significant role

in providing flexible laws, rules, and infrastructure to promote entrepreneurship activities, which will turn the fear of entrepreneurship into increased risk-taking behaviour.

It is also confirmed that there is a significant relationship between the locus of control and entrepreneurial intentions as mentioned in the literature (e.g., Asante & Affum-Osei, 2019; Levine & Rubinstein, 2017; Ndofirepi, 2020; Rauch & Frese, 2007; Tentama & Abdussalam, 2020). Thus, the locus of control is an important personality attribute to have while starting a business. People who are high on locus of control are more likely to take the initiative to establish their own business.

The results confirmed the relationship between family background and EI which is in line with literature (e.g., Chaudhary, 2017; Georgescu & Herman, 2020; Matthews & Moser, 1995; Nurhayati, 2018). So that a family member who is already in business would provide better advice and assistance in acquiring the necessary expertise needed to establish an entrepreneurial venture. This ultimately builds confidence and enables the individual to take the plunge into entrepreneurship.

The relationship between entrepreneurial education and entrepreneurial intentions was found legitimate and in line with literature (e.g., Ohanu & Ogbuanya, 2018; Sánchez, 2011; Vodă & Florea, 2019). As such, the function of entrepreneurial education has demonstrated to be vital for entrepreneurial ambitions since it familiarises the young with the requisite information, competences, resources, obstacles, and problems in beginning a new enterprise.

CONCLUSION

Our study finds that specific personality attributes such as self-efficacy, locus of control, and friends and family support significantly contribute to the entrepreneurial intentions of immigrants in Canada. Self-efficacy, which refers to one's belief in their ability to succeed in specific situations or accomplish a task, was found to be the most significant factor influencing immigrant entrepreneurial intentions. Locus of control, or the degree to which individuals believe that they can control events that affect them, was also found to positively predict entrepreneurial intentions among immigrants. Perceived social support from friends and family was also a relevant factor influencing entrepreneurial intentions.

However, perceived structural support was not found to significantly impact immigrant entrepreneurial intentions, conflicting with some previous research. These results suggest that policies and programs targeting the development of

entrepreneurial self-efficacy, an internal locus of control, and strong social support systems may be effective ways to foster immigrant entrepreneurship in Canada. Providing opportunities for skill development, networking, and mentorship could help build the confidence and skills of immigrant entrepreneurs. Changes to bureaucratic processes may also help give immigrants a greater sense of control over their ability to navigate the system.

Further research is needed to identify the barriers that hinder immigrant entrepreneurship and understand ways to improve policies and infrastructure to better support entrepreneurship in this population. Studies exploring the challenges immigrant entrepreneurs face in more depth could shed light on the reasons behind the high failure rate of new immigrant start-ups and help design appropriate interventions. Exploring the lived experiences of immigrant entrepreneurs may also yield valuable insights to guide more tailored policy and program recommendations.

Entrepreneurship has an essential role in fostering economic growth, job creation, and innovation. Policies and programs that effectively promote immigrant entrepreneurship can have valuable social and economic benefits. Our findings provide guidance for policies and interventions aimed at unleashing the entrepreneurial talents of Canada's immigrant communities. With the increasing importance of entrepreneurship for well-being and prosperity, support for immigrant entrepreneurs' merits ongoing attention and development.

Recommendations and Limitations

Canada is a popular destination for immigrants looking for a better life and job opportunities. However, many immigrants struggle to find suitable jobs in their new environment. This study aims to provide recommendations to policymakers that can help overcome the supply gap in entrepreneurship support services and encourage immigrant entrepreneurship to contribute to the economy.

To encourage immigrant entrepreneurship, the study recommends that policymakers take the following steps: Firstly, incorporate the study's findings into developing strategies and policies for the business sector. Secondly, include a specific class of economic immigrants specified by trade policy objectives in Canadian immigration policy, based on geographical or commodity-related factors. Thirdly, initiate research projects to facilitate the entrepreneurial culture within the country. Fourthly, offer flexible laws and regulations to attract

potential entrepreneurs from outside. Lastly, provide entrepreneurial support service initiatives to immigrants, such as short courses, training, legal advice, and settlement support organisations.

While the study provides useful insights, it also has some limitations that policymakers should consider. Firstly, the sample size could have been larger and more diverse to provide more insights. Secondly, the selection of variables/factors might have been limited in providing a comprehensive understanding of immigrants' entrepreneurial intentions. Thirdly, the exclusion of gender and years spent in Canada might have limited the study's ability to provide a nuanced understanding of immigrant experiences and perspectives. Lastly, risk-taking attitude was not found to be a good determinant of entrepreneurial intentions. This is a common limitation in studies on immigrant entrepreneurship.

The limitations are due to the following reasons. Firstly, the authors believed that the current sample size was appropriate for analysing and interpreting the data, but a larger and more diverse sample could have provided more insights. Secondly, the selection of variables/factors was based on the research question and objectives, but other factors could have also influenced immigrants' entrepreneurial intentions. Thirdly, the exclusion of gender and years spent in Canada might have been due to limitations in resources and time. Lastly, risk-taking attitude might not have been a good determinant because immigrants might have different motivations due to a lack of alternative options.

The limitations might have affected the study's generalisability and robustness. For example, the sample size limitation might have affected the generalisability of the findings, while the exclusion of gender and years spent in Canada might have limited the study's ability to provide a nuanced understanding of immigrant experiences and perspectives. The risk-taking attitude limitation might have limited the study's ability to provide insights into the motivations and challenges of immigrant entrepreneurs.

To address the limitations, future research could expand the sample size to include more diverse populations and geographic locations. Additionally, including additional variables/factors, such as gender and years spent in Canada, could provide a more comprehensive understanding of immigrant entrepreneurship. Finally, exploring other influential factors that could be more crucial in measuring entrepreneurial intentions and developing new strategies by the government could be a fruitful avenue for future research.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the support brought by Yanbu Industrial College, Royal Commission for Yanbu Project, Saudi Arabia.

REFERENCES

- Abd Hamid, H., Everett, A. M., & O’Kane, C. (2018). Ethnic migrant entrepreneurs’ opportunity exploitation and cultural distance: A classification through a matrix of opportunities. *Asian Academy of Management Journal*, 23(1), 151–169. <https://doi.org/10.21315/aamj2018.23.1.7>
- Acs, Z. (2006). How is entrepreneurship good for economic growth? *Innovations Technology, Governance Globalization*, 1(1), 97–107. <https://doi.org/10.1162/itgg.2006.1.1.97>
- Ahmed, F., Qin, Y. J., & Martínez, L. (2019). Sustainable change management through employee readiness: Decision support system adoption in technology-intensive British e-businesses. *Sustainability*, 11(11), 2998. <https://doi.org/10.3390/su11112998>
- Ahmed, I., Islam, T., & Usman, A. (2020). Predicting entrepreneurial intentions through self-efficacy, family support, and regret. *Journal of Entrepreneurship in Emerging Economies*, 13(1), 26–38. <https://doi.org/10.1108/JEEE-07-2019-0093>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), 573–596. [https://doi.org/10.1016/S0883-9026\(03\)00011-9](https://doi.org/10.1016/S0883-9026(03)00011-9)
- Alsos, G. A., Carter, S., & Ljunggren, E. (2011). *The handbook of research on entrepreneurship in agriculture and rural development*. Edward Elgar Publishing.
- Asante, E. A., & Affum-Osei, E. (2019). Entrepreneurship as a career choice: The impact of locus of control on aspiring entrepreneurs’ opportunity recognition. *Journal of Business Research*, 98, 227–235. <https://doi.org/10.1016/j.jbusres.2019.02.006>
- Asma, Peng, X., Hassan, S., Akhtar, S., Sarwar, A., Khan, M. A., & Khan, B. U. (2019). Determinants of social entrepreneurial intentions for educational programs. *Journal of Public Affairs*, 19(2), e1925. <https://doi.org/10.1002/pa.1925>
- Awotoye, Y. F., & Singh, R. P. (2018). Immigrant entrepreneurs in the USA: A conceptual discussion of the demands of immigration and entrepreneurial intentions. *New England Journal of Entrepreneurship*, 21(2), 123–139. <https://doi.org/10.1108/NEJE-08-2018-0017>
- Ayalew, M. M., & Zeleke, S. A. (2018). Modeling the impact of entrepreneurial attitude on self-employment intention among engineering students in Ethiopia. *Journal of Innovation and Entrepreneurship*, 7(1), 1–27. <https://doi.org/10.1186/s13731-018-0088-1>

- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94. <https://doi.org/10.1007/BF02723327>
- Bandura, A. (2000). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Lock (Ed.), *The Blackwell handbook of principles of organization behavior* (pp. 0011–0021). Blackwell Publishing Ltd.
- Bauder, H. (2008). Explaining attitudes towards self-employment among immigrants: A Canadian case study. *International Migration*, 46(2), 109–133. <https://doi.org/10.1111/j.1468-2435.2008.00446.x>
- Bird, M., & Wennberg, K. (2016). Why family matters: The impact of family resources on immigrant entrepreneurs' exit from entrepreneurship. *Journal of Business Venturing*, 31(6), 687–704. <https://doi.org/10.1016/j.jbusvent.2016.09.002>
- Caliendo, M., Fossen, F., & Kritikos, A. S. (2014). Personality characteristics and the decisions to become and stay self-employed. *Small Business Economics*, 42(4), 787–814. <https://doi.org/10.1007/s11187-013-9514-8>
- Chaudhary, R. (2017). Demographic factors, personality and entrepreneurial inclination. *Education + Training*, 59(2), 171–187. <https://doi.org/10.1108/ET-02-2016-0024>
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62–83. <https://doi.org/10.1177/109442810141004>
- Chen, S., Su, X., & Wu, S. (2012). Need for achievement, education, and entrepreneurial risk-taking behavior. *Social Behavior and Personality*, 40(8), 1311–1318. <https://doi.org/10.2224/sbp.2012.40.8.1311>
- Chia, C. C., & Liang, C. (2016). Influence of creativity and social capital on the entrepreneurial intention of tourism students. *Journal of Entrepreneurship, Management and Innovation*, 12(2), 151–168. <https://doi.org/10.7341/20161227>
- Chreim, S., Spence, M., Crick, D., & Liao, X. (2018). Review of female immigrant entrepreneurship research: Past findings, gaps and ways forward. *European Management Journal*, 36(2), 210–222. <https://doi.org/10.1016/j.emj.2018.02.001>
- Cho, M., Bonn, M. A., & Kang, S. (2016). A nonlinear approach to the congruence of perceived uncertainty and information sharing with suppliers: Effects upon startup and established restaurants. *International Journal of Hospitality Management*, 58, 82–94. <https://doi.org/10.1016/j.ijhm.2016.08.002>
- Chung, Y. Y., & Ding, C. G. (2002). Development of the sales locus of control scale. *Journal of Occupational and Organizational Psychology*, 75, 233–245. <https://doi.org/10.1348/09631790260098514>
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Laurence Erlbaum Associates Inc.
- Colleret, M., & Gingras, Y. (2022). Out of the ivory tower: The patenting activity of Canadian university professors before the 1980s. *Minerva: A Review of Science, Learning and Policy*, 60(2), 1–20. <https://doi-org.sdl.idm.oclc.org/10.1007/s11024-021-09458-1>

- Díaz-Casero, J. C., Ferreira, J. J., Hernández Mogollón, R., & Barata Raposo, M. L. (2012). Influence of institutional environment on entrepreneurial intention: A comparative study of two countries university students. *International Entrepreneurship and Management Journal*, 8(1), 55–74. <https://doi.org/10.1007/s11365-009-0134-3>
- Díaz-García, M. C., & Jiménez-moreno, J. (2010). Entrepreneurial intention: The role of gender. *International Entrepreneurship and Management Journal*, 6(3), 261–283. <https://doi.org/10.1007/s11365-008-0103-2>
- Edelman, L. F., Manolova, T., Shirokova, G., & Tsukanova, T. (2016). The impact of family support on young entrepreneurs' start-up activities. *Journal of Business Venturing*, 31(4), 428–448. <https://doi.org/10.1016/j.jbusvent.2016.04.003>
- Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*, 16(1), 35–57. <https://doi.org/10.1108/13552551011020063>
- Envick, B. R., & Langford, M. (2000). The five-factor model of personality: Assessing entrepreneurs and managers. *Academy of Entrepreneurship Journal*, 6(1), 6–17.
- Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5), 663–666. <https://doi.org/10.1016/j.jbusres.2013.11.024>
- Fischer, E., & Reuber, R. (2010). *The state of entrepreneurship in Canada*. Industry Canada Ottawa. [https://www.ic.gc.ca/eic/site/061.nsf/vwapj/sec-ccc_eng.pdf/\\$file/sec-ccc_eng.pdf](https://www.ic.gc.ca/eic/site/061.nsf/vwapj/sec-ccc_eng.pdf/$file/sec-ccc_eng.pdf)
- Fornell, C., & Larcker, D. F. (1981). *Structural equation models with unobservable variables and measurement error: Algebra and statistics*. SAGE Publications.
- Gefen, D., Straub, D., & Boudreau, M. C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(1), 7. <https://doi.org/10.17705/1CAIS.00407>
- Georgescu, M.-A., & Herman, E. (2020). The impact of the family background on students' entrepreneurial intentions: An empirical analysis. *Sustainability*, 12(11), 4775. <https://doi.org/10.3390/su12114775>
- Gielnik, M. M., Bledow, R., & Stark, M. S. (2020). A dynamic account of self-efficacy in entrepreneurship. *Journal of Applied Psychology*, 105(5), 487–505. <https://doi.org/10.1037/apl0000451>
- Goel, A., Vohra, N., Zhang, L., & Arora, B. (2007). Attitudes of the youth towards entrepreneurs and entrepreneurship: A cross-cultural comparison of India and China. *Journal of Asia Entrepreneurship and Sustainability*, 3(1), 1–35. <http://www.asiaentrepreneurshipjournal.com/AJESIII1Goel.pdf>
- Hai, B., Yin, X., Xiong, J., & Chen, J. (2022). Could more innovation output bring better financial performance? The role of financial constraints. *Financial Innovation*, 8(1). <https://doi.org/10.1186/s40854-021-00309-2>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>

- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1–2), 1–12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Hall, R. E., & Woodward, S. E. (2010). The burden of the nondiversifiable risk of entrepreneurship. *American Economic Review*, 100(3), 1163–1194. <https://doi.org/10.1257/aer.100.3.1163>
- Henrekson, M., & Stenkula, M. (2010). Entrepreneurship and public policy. In Z. J. Acs, & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research* (pp. 595–637). Springer. https://doi.org/10.1007/978-1-4419-1191-9_21
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Herman, E. (2019). Entrepreneurial intention among engineering students and its main determinants. *Procedia Manufacturing*, 32, 318–324. <https://doi.org/10.1016/j.promfg.2019.02.220>
- Hu, L.-T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424. <https://doi.org/10.1037/1082-989X.3.4.424>
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204. [https://doi.org/10.1002/\(sici\)1097-0266\(199902\)20:2<195::aid-smj13>3.0.co;2-7](https://doi.org/10.1002/(sici)1097-0266(199902)20:2<195::aid-smj13>3.0.co;2-7)
- Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education and Training*, 53(5), 353–370. <https://doi.org/10.1108/00400911111147686>
- Ibidunni, A. S., Mozie, D., & Ayeni, A. W. A. A. (2020). Entrepreneurial characteristics amongst university students: Insights for understanding entrepreneurial intentions amongst youths in a developing economy. *Education and Training*, 63(1), 71–84. <https://doi.org/10.1108/ET-09-2019-0204>
- Industry Canada. (2008). *Competition Policy Review Panel, Compete to Win: Final Report June 2008*. <http://www.ic.gc.ca/eic/site/cprp-gepmc.nsf/eng/00057.html>: Industry Canada
- Izquierdo, E., & Buelens, M. (2011). Competing models of entrepreneurial intentions: The influence of entrepreneurial self-efficacy and attitudes. *International Journal of Entrepreneurship and Small Business*, 13(1), 75–91. <https://doi.org/10.1504/IJESB.2011.040417>
- Jones, C., & Hegarty, C. (2011). Exploring the role of entrepreneurial marketing in entrepreneurship education. *Journal of Small Business and Entrepreneurship*, 24(1), 125–138. <https://doi.org/10.1080/08276331.2011.10593530>
- Kaushik, V., & Walsh, C. A. (2018). A critical analysis of the use of intersectionality theory to understand the settlement and integration needs of skilled immigrants to Canada. *Canadian Ethnic Studies*, 50(3), 27–47. <https://doi.org/10.1353/ces.2018.0021>

- Kelliher, F., Mellett, S., & Harrington, D. (2022). Enablers of green innovation in the micro-firm: Perspectives from Ireland and Canada. *Journal of Small Business & Entrepreneurship*, 34(1), 74–93. <https://doi-org.sdl.idm.oclc.org/10.1080/08276331.2020.1789826>
- Kerr, S. P., & Kerr, W. R. (2016). *Immigrant entrepreneurship* (Working paper 17-011). https://www.hbs.edu/ris/Publication%20Files/17-011_da2c1cf4-a999-4159-ab95-457c783e3fff.pdf
- Kihlstrom, R. E., & Laffont, J. J. (1979). A general equilibrium entrepreneurial theory of firm formation based on risk aversion. *Journal of Political Economy*, 87(4), 719–748. <https://doi.org/10.1086/260790>
- Knight, F. (1921). *Risk, uncertainty, and profit*. Houghton Mifflin Company.
- Kordsmeyer, A. C., Efimov, I., Lengen, J. C., Flothow, A., Nienhaus, A., Harth, V., & Mache, S. (2022). Balancing social and economic factors: Explorative qualitative analysis of working conditions of supervisors in German social firms. *Journal of Occupational Medicine and Toxicology*, 17(1), 4. <https://doi.org/10.1186/s12995-021-00342-y>
- Kushnirovich, N., Heilbrunn, S., & Davidovich, L. (2018). Diversity of entrepreneurial perceptions: Immigrants vs. native population. *European Management Review*, 15(3), 341–355. <https://doi.org/10.1111/emre.12105>
- Lai, J. Y., Kan, C. W., & Ulhas, K. R. (2013). Impacts of employee participation and trust on e-business readiness, benefits, and satisfaction. *Information Systems and e-Business Management*, 11(2), 265–285. <https://doi.org/10.1007/s10257-012-0193-9>
- Lazear, E. P. (2004). Balanced skills and entrepreneurship. *American Economic Review*, 94(2), 208–211. <https://doi.org/10.1257/0002828041301425>
- Lee, D. Y., & Tsang, E. W. K. (2002). The effects of entrepreneurial personality, background and network activities on venture growth. *Journal of Management Studies*, 38(4), 583–602. <https://doi.org/10.1111/1467-6486.00250>
- Levesque, R. J. R. (2011). *Encyclopedia of adolescence*. Springer Science & Business Media.
- Levine, R., & Rubinstein, Y. (2017). Smart and illicit: Who becomes an entrepreneur and do they earn more? *The Quarterly Journal of Economics*, 132(2), 963–1018. <https://doi.org/10.1093/qje/qjw044>
- Liñán, F., & Chen, Y. W. (2009). Development and crosscultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593–617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Markman, G. D., Balkin, D. B., & Baron, R. A. (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship Theory and Practice*, 27(2), 149–165. <https://doi.org/10.1111/1540-8520.00004>
- Mas-Verdú, F., Ribeiro-Soriano, D., & Roig-Tierno, N. (2015). Firm survival: The role of incubators and business characteristics. *Journal of Business Research*, 68(4), 793–796. <https://doi.org/10.1016/j.jbusres.2014.11.030>

- Matthews, C. H., & Moser, S. B. (1995). *The impact of family background and gender on interest in small firm ownership: A longitudinal study*. Proceedings of the ICSB 40th World Conference, 18–21.
- McClelland, D. C. (1967). *Achieving society* (vol. 92051). Simon and Schuster.
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1), 51–75. [https://doi.org/10.1016/S0883-9026\(99\)00039-7](https://doi.org/10.1016/S0883-9026(99)00039-7)
- Nasip, S., Amirul, S. R., Sondoh Jr, S. L., & Tanakinjal, G. H. (2017). Psychological characteristics and entrepreneurial intention. *Education and training*, 55(8/9), 763–780. <https://doi.org/10.1108/ET-06-2013-0085>
- Ndofirepi, T. M. (2020). Relationship between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, 9(1), 2. <https://doi.org/10.1186/s13731-020-0115-x>
- Neneh, B. N. (2022). Entrepreneurial passion and entrepreneurial intention: The role of social support and entrepreneurial self-efficacy. *Studies in Higher Education*, 47(3), 587–603. <https://doi.org/10.1080/03075079.2020.1770716>
- Nielsen, S. L., & Lassen, A. H. (2012). Identity in entrepreneurship effectuation theory: A supplementary framework. *International Entrepreneurship and Management Journal*, 8(3), 373–389. <https://doi.org/10.1007/s11365-011-0180-5>
- Nunnally, J. C. (1994). *Psychometric theory 3E*. Tata McGraw-Hill Education.
- Nurhayati, M. (2018). The effect of several demographic factors on entrepreneurial intention. *Journal of Resources Development and Management*, 50, 47–54. <https://iiste.org/Journals/index.php/JRDM/article/view/45119>
- Ohanu, I. B., & Ogbuanya, T. C. (2018). Determinant factors of entrepreneurship intentions of electronic technology education students in Nigerian universities. *Journal of Global Entrepreneurship Research*, 8(1), 1–17. <https://doi.org/10.1186/s40497-018-0127-1>
- Ojiaku, O. C., Nkamnebe, A. D., & Nwaizugbo, I. C. (2018). Determinants of entrepreneurial intentions among young graduates: Perspectives of push-pull-mooring model. *Journal of Global Entrepreneurship Research*, 8(1), 24. <https://doi.org/10.1186/s40497-018-0109-3>
- Oluwafunmilayo, A. M., Olokundun, M. A., Moses, C. L., & Grace, A. C. (2018). The role of prior family business background on entrepreneurial intentions. *Covenant Journal of Entrepreneurship*, 1(3). <https://journals.covenantuniversity.edu.ng/index.php/cjoe/article/view/965>
- Ooi Yeng, K., Selvarajah, C., & Meyer, D. (2011). Inclination towards entrepreneurship among university students: An empirical study of Malaysian university students. *International Journal of Business and Social Science*, 2(4), 206–220.
- Otchengco Jr, A. M., & Akiate, Y. W. D. (2021). Entrepreneurial intentions on perceived behavioral control and personal attitude: Moderated by structural support. *Asia Pacific Journal of Innovation and Entrepreneurship*, 15(1), 14–25. <https://doi.org/10.1108/APJIE-08-2020-0124>

- Patterson, M., Hazel, M., & Saunders, D. (2019). Annual review of the labour market, 2018. Retrieved from <https://www150.statcan.gc.ca/n1/pub/75-004-m/75-004-m2019002-eng.htm>
- Puni, A., Anlesinya, A., & Korsorku, P. D. A. (2018). Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa. *African Journal of Economic and Management Studies*, 9(4), 492–511. <https://doi.org/10.1108/AJEMS-09-2017-0211>
- Rahman, M. M. (2018). Development of Bangladeshi immigrant entrepreneurship in Canada. *Asian and Pacific Migration Journal*, 27(4), 404–430. <https://doi.org/10.1177/0117196818810096>
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. <https://doi.org/10.1080/13594320701595438>
- Rauch, A., van Doorn, R., & Hulsink, W. (2014). A qualitative approach to evidence-based entrepreneurship: Theoretical considerations and an example involving business clusters. *Entrepreneurship Theory and Practice*, 38(2), 333–368. <https://doi.org/10.1111/etap.12093>
- Ringle, C., Wende, S., & Becker, J. (2015). *SmartPLS 3. SmartPLS GmbH*. Boenningstedt.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International Entrepreneurship and Management Journal*, 7(2), 239–254. <https://doi.org/10.1007/s11365-010-0156-x>
- Savino, D. M. (2014). The DREAM Act and the reality of setting an informed agenda for immigration. *Journal of Management Policy & Practice*, 15(1), 86–91. http://digitalcommons.www.na-businesspress.com/JMPP/SavinoDM_Web15_1_.pdf
- Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education & Training*, 55(7), 624–640. <https://doi.org/10.1108/ET-05-2012-0059>
- Shane, S. A. (2018). *Is entrepreneurship dead? The truth about startups in America*. Yale University Press. <https://doi.org/10.12987/9780300235098>
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In A. Basu, M. Casson, N. Wadson, & B. Yeung (Eds.), *The Oxford handbook of entrepreneurship* (pp. 511–539). Oxford University Press.
- Statistics Canada. (2016). Canadian census. <https://www12.statcan.gc.ca/census-recensement/2016/rt-td/imm-eng.cfm>
- Stephan, U., Uhlaner, L. M., & Stride, C. (2015). Institutions and social entrepreneurship: The role of institutional voids, institutional support, and institutional configurations. *Journal of International Business Studies*, 46(3), 308–331. <https://doi.org/10.1057/jibs.2014.38>
- Tentama, F., & Abdussalam, F. (2020). Internal locus of control and entrepreneurial intention: A study on vocational high school students. *Journal of Education and Learning*, 14(1), 97–102. <https://doi.org/10.11591/edulearn.v14i1.13999>

- Turker, D., & Senem Sonmez, S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142–159. <https://doi.org/10.1108/03090590910939049>
- Valsiner, J. (2022). We are all migrants. *Comparative Migration Studies*, 10(1). <https://doi.org/10.1186/s40878-021-00276-8>
- Van Praag, C. M., & Cramer, J. S. (2001). The roots of entrepreneurship and labour demand: Individual ability and low risk aversion. *Economica*, 68(269), 45–62. <https://doi.org/10.1111/1468-0335.00232>
- Vandor, P., & Franke, N. (2016). Why are immigrants more entrepreneurial. *Harvard Business Review*.
- Venaik, S., Midgley, D. F., & Devinney, T. M. (2005). Dual paths to performance: The impact of global pressures on MNC subsidiary conduct and performance. *Journal of International Business Studies*, 36(6), 655–675. <https://doi.org/10.1057/palgrave.jibs.8400164>
- Vinogradov, E., & Jørgensen, E. J. B. (2017). Differences in international opportunity identification between native and immigrant entrepreneurs. *Journal of International Entrepreneurship*, 15(2), 207–228. <https://doi.org/10.1007/s10843-016-0197-5>
- Vodă, A. I., & Florea, N. (2019). Impact of personality traits and entrepreneurship education on entrepreneurial intentions of business and engineering students. *Sustainability*, 11(4), 1192. <https://doi.org/10.3390/su11041192>
- Wang, C. K., & Wong, P. K. (2004). Entrepreneurial interest of university students in Singapore. *Technovation*, 24(2), 163–172. [https://doi.org/10.1016/S0166-4972\(02\)00016-0](https://doi.org/10.1016/S0166-4972(02)00016-0)
- Wang, J. H., Chang, C. C., Yao, S. N., & Liang, C. (2016). The contribution of self-efficacy to the relationship between personality traits and entrepreneurial intention. *Higher Education*, 72(2), 209–224. <https://doi.org/10.1007/s10734-015-9946-y>
- World Bank. (2017). *Doing business 2018: Reforming to create jobs*. The World Bank. <https://doi.org/10.1596/978-1-4648-1146-3>
- Yang, J., & Ai, D. (2019). Effect of the Big Five personality traits on entrepreneurial probability: Influence of China's household registration system. *Journal of Labor Research*, 40(4), 487–503. <https://doi.org/10.1007/s12122-019-09294-z>
- Zhang, Z., & Chun, D. (2018). Becoming entrepreneurs: How immigrants developed entrepreneurial identities. *International Journal of Entrepreneurial Behavior & Research*, 24(5), 947–970. <https://doi.org/10.1108/IJEBR-07-2016-0214>
- Zhao, H., & Seibert, S. E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2), 259. <https://doi.org/10.1037/0021-9010.91.2.259>