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Exploring the organizing and strategic factors of diasporic transnational entrepreneurs in Canada: An empirical study

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Abstract

This paper examines opportunity identification and strategies as well as organizational practices used by diasporic transnational entrepreneurs residing in Canada. The findings indicate that the ability to identify products/services in one context and adapt them to fulfill needs in another context and a choice of appropriate competitive strategies are paramount to success. However, differentiation strategies seem preferred more often than low cost leadership strategies. Learning and creativity are the best means to identify and take advantage of opportunities. Although family and friends play an important role in the identification of opportunities, their importance decreases once a firm is created.

Resumé

Cet article examine l'identification des opportunités, les stratégies et les pratiques organisationnelles utilisées par les entrepreneurs diasporiques transnationaux résidant au Canada. Les résultats indiquent que la capacité d'identifier des produits / services dans un contexte et de les adapter pour répondre aux besoins dans un autre contexte et un choix de stratégies concurrentielles appropriées sont primordiales au succès. Les stratégies de différenciation semblent plus souvent préférées aux stratégies de coûts bas. L'apprentissage et la créativité sont les meilleurs moyens d'identifier et de saisir les opportunités. Bien que la famille et les amis jouent un rôle important dans l'identification des opportunités, leur importance diminue une fois qu'une entreprise est créée

Keywords Diaspora · Entrepreneurship · Internationalization · Strategies · Transnational · Organizational processes

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Summary highlights

Contributions of the paper: This study highlights how diasporic transnational entrepreneurs (DTEs) identify opportunities between home countries and Canada and the strategies and organizational practices that they use.

Research Questions/Purpose/ Literature Gap: The majority of studies on DTEs are case-based, and only a few have examined the determinants of opportunity identification, business organization, and strategic behavior of the entrepreneur embedded in home and host environments. This paper intends to answer three research questions: (1) What are the factors leading to the identification of opportunities for DTE businesses? (2) What are the organizational practices and strategies used by DTEs to be successful? and (3) What are the determinants of these strategies and related organizational practices?

Methods: The study is based on information from an in-depth survey on 59 DTEs resident in Canada. The analysis was carried out using the partial least squares structural equation modeling.

Information/data: Respondents were immigrants or descendants of immigrants who, while residing permanently in Canada, maintained a psychic link with the country of origin (Africa, Asia, and Europe) with which they carried out international activities on a regular basis.

Results/Findings: (a) The majority of DTEs preferred close friends and family members as the best sources to identify business opportunities. Although considering their levels of alertness and systematic sense of observation as determining abilities to identify the opportunities, these qualities did not significantly differentiate the most successful from the less successful DTEs. (b) After identifying the opportunity, successful DTEs relied more on professionals rather than on family and friends to manage their activities. (c) An adequate choice of competitive strategies, choice of partners across borders, entrepreneur abilities in learning and creation, and product/service development/adjustment were important to succeed. Close contacts with customers helped to clarify their needs and facilitate the knowledge transfer across borders. (d) A majority of DTEs exported product/service without modification and targeted a narrow category of customers. This might be due to difficulties they faced about knowledge transfer. The gap in absorptive capacity seemed to be an important barrier that led entrepreneurs to take an important part in the technology transfer between their host and home country activities.

Limitations: The small size of the sample did not allow differentiation of findings between subgroups, for example, the geographic origin of entrepreneurs and the sectors of activities, such as profit-oriented versus nonprofit organizations.

Theoretical Implications and Recommendations: The results of this paper provide a strong theoretical basis that researchers working on DTE entrepreneurial practices and strategies can test with a large sample or through a longitudinal study. Researchers should give a particular attention to the change of the relative importance of family, friends and professionals in the success of DTE firms over time.

Practical Implications and Recommendations: To be successful in their activities between home and host countries, DTEs should (i) carefully identify business opportunities by a close embeddedness in the two environments and examination of the needs and product/service availability to satisfy them; (ii) choose partners on the basis of their competence and reliability rather than on the basis of kinship, friendship, and political position; (iii) be ready to spend time and money to train people in the home country for more competencies; and (iv) develop business competitive strategies by integrating the differentiation of products/services with the low cost leadership strategies.

Public Policy Recommendations: This paper provides some important facts that will help the DTE host and home countries to identify actions or programs to initiate in order to support their activities, which will ultimately benefit both countries. Governments should facilitate DTE integration into the host countries to facilitate the identification of opportunities and provide financial support and advice to DTEs with entrepreneurial potential on organizational and strategic challenges.

Introduction

“Diasporic transnational entrepreneurs” (DTEs) are immigrant entrepreneurs or their descendants residing in host countries but maintaining psychic links with their home countries and doing business between their host and home countries (modified from Rialp et al. 2015; cited by Zucchella and Magnani 2016). Also known as “transnational entrepreneurs” (Portes et al. 1999; Drori et al. 2009), “diaspora international entrepreneurs” (Nkongolo-Bakenda and Chrysostome 2013), or “global diaspora international entrepreneurs” (Cohen 1997; Aikins and White 2011; Sahoo and Pattanaik 2014), DTEs are categorized as ascending if they have moved from low level income countries to high-income ones, as descending if they have moved from high-income economies to low income ones, and as horizontal if they have moved from one country to another in the same level of income (Elo 2016). In this paper, we use the expression “diasporic transnational entrepreneur” (DTE) to avoid confusion between this category of entrepreneurs and other related concepts in business literature (Portes 2001; Suddaby 2010; Waldinger 2015).

DTEs have drawn interest from scholars in anthropology, sociology, economy, and organizational studies (Portes 2001; Drori et al. 2006; Drori et al. 2009). In organizational studies, Drori et al. (2009) consider that they constitute an emergent field of study in international entrepreneurship that lies in the domain of international business. These authors have brought out the differences between DTE and traditional international entrepreneurs, ethnic entrepreneurs, and returnee entrepreneurs. The object of this new subfield pays peculiar attention to entrepreneur’s embeddedness and psychic attachment to the home and host countries instead of leaning on the timeframe to acquire knowledge and experience in the destination country, as was the case in the other three pathways subfields of international entrepreneurship: (1) born-globals, (2) international new ventures, and (3) born-again-globals (Rennie 1993; Oviatt and McDougall 1994, 2003; Madsen and Servais 1997; Bell et al. 2003; Dana 2004, 2017; Osarenkhoe 2009; Etemad et al. 2013; Elo et al. 2018). In addition, the choice of the cross-border business

destination by DTEs might be due to altruist, social, and emotional reasons rather than to economic reasons or market attractiveness (Gillespie et al. 1999; Pruthi et al. 2018; Solano 2019). Some scholars have affirmed that this embeddedness of DTEs in the dual environments (home and host countries) gives them an advantage over other international entrepreneurs (Zou 2007; Zucchella et al. 2007; Drori et al. 2010; Patel and Conklin 2010; Brinkerhoff 2016; Hernandez-Carrion et al. 2017).

In the last two decades, scholars in organizational studies have examined different aspects of the DTE phenomenon. Some have tried to explain the phenomenon itself (e.g., Portes 2001; Drori et al. 2009; Drori et al. 2010; Elo and Riddle 2016; Terjesen et al. 2016), while others have identified the drivers and determinants of success for this particular category of international activities (e.g., Sequeira et al. 2009; Lin and Tao 2012; Nkongolo-Bakenda and Chrysostome 2013; Brzozowski et al. 2017). Still, other studies have focused on certain dimensions of the phenomenon, such as the attributes of the entrepreneur (Lin and Tao 2012; Zolin and Schlosser 2013), their social networks (e.g., Patel and Conklin 2009; Chen and Tan 2009; Mustafa and Chen 2010; Ellis 2011; Brzozowski et al. 2014; Santamaria-Alvarez et al. 2017), or benefits for the entrepreneurs in the home and host countries (Portes et al. 2002; Brinkerhoff 2009, 2016; Turner and Newland 2010; Riddle et al. 2010; Eckstein and Najam 2013; Sahoo and Pattanaik 2014).

The majority of these studies have used case studies. Only a few have used quantitative methods probably due to, as observed by the IOM (2005: 174), challenges in gathering information due to confusion regarding the definition of concepts and “the difficulty of collecting data on diaspora organizations,” the definition and measurement of transnational diaspora flows, and the reluctance of diaspora populations to respond to surveys. Yet, numerous dimensions of DTEs remain to be explored and the suggested frameworks require empirical tests (Brzozowski et al. 2017). Furthermore, little is known about the identification of opportunities, the business organization, and the strategic behavior of the international entrepreneur embedded in the origin and destination environments. The two environments can have very different institutional contexts with regard to formal, informal, and enforcement constraints that shape entrepreneurial activities in different spaces and times (North 1990; Welter 2011). In addition to the influence of these environments, the impact of the behavior and life style of the entrepreneur cannot be entirely disregarded.

The current study intends to overcome these shortcomings by carrying out an exploratory, quantitative study based on an in-depth survey in the Canadian context on DTEs' opportunity identification and strategic actions. The paper contributes to our knowledge on the DTE phenomenon by focusing on how they discover and/or create, evaluate, and exploit opportunities in home and host countries and on how they sustain the value of their goods and services to outwit or at least do better than other companies in these environments. The paper seeks to answer three research questions: (1) What are the factors leading to the identification of opportunities of the successful DTE businesses? (2) What are the organizational practices and strategies used by DTEs to be successful in their business activities between Canada (their country of residence or host country) and their countries of origin (home country)? and (3) What are the determinants of these strategies and related organizational practices?

The remainder of the paper is divided into four parts: (1) the literature review and hypotheses, (2) the methodology, (3) the results, and (4) the conclusion and discussion.

Literature review and hypotheses

Literature review

Diaspora transnational entrepreneurship is at the crossroad of entrepreneurship, ethnic entrepreneurship, and international entrepreneurship theories (Yeung 2004; Nkongolo-Bakenda and Chrysostome 2013). As any organization willing to take advantage of opportunities offered by the global marketplace in recent years, DTEs need to make decisions about the identification of opportunities, the development or choice of products/services, the choice of country or the location of the destination of their activities, the mode of entry in the foreign country, the obstacles that need to be overcome, the strategic structure and competitive strategies in the foreign activities, and the implementation actions with regard to functional areas such as marketing, procurement, human resource management, and finances (Etemad and Wright 2003; Audretsch 2003; Susman 2007).

With regard to opportunity identification, the majority of studies have focused on the contrast between discovery opportunities and creation opportunities (Alvarez and Barney 2010, 2013; Alvarez et al. 2013; Suddaby et al. 2015). However, other scholars have suggested going beyond this contrast to focus on the mechanism of the formation of opportunities (Barreto 2012; Wood and McKinley 2010; Ramoglu and Tsang 2016). In the area of DTEs, the origin of opportunity has not been examined systematically. However, positions taken by some authors to consider diaspora international entrepreneurs as having an advantage over other international entrepreneurs suggest that the discovery perspective is the most privileged. This attitude suggests that the previous knowledge of the country of origin, coupled with the knowledge that the DTEs are acquiring about the host country, will give them an advantage by enabling them to discover opportunities that other entrepreneurs cannot (Drori et al. 2009; Patel and Conklin 2010; Khan et al. 2015).

Considering the development or choice of the product/services between the home and host countries, Drori et al. (2009) recognize that all DTE activities are not low-technology service industries, even if they share a common characteristic in that they must surmount considerable barriers in crossing two or more different institutional structures. This statement suggests the problem of the transfer of knowledge between the home and host countries. Some DTEs choose to focus on low technology products such as food or second-hand product imports, while others focus on high technology products such as electronics and software. Regardless of the type of product, given the different levels of development and technology or the technical and hygienic requirements between home and host countries, the firms will face adjustment problems.

Studies focusing on the location of foreign activities in international firms have different determinants of location choices: financial and time costs, the density of the industry, the availability of resources, psychic distance, and non-pecuniary factors (Rasmussen et al. 2011; Magnani et al. 2018). Previous studies on DTEs have found that the choice of a home country has generally been made for altruistic and emotional reasons rather than risk assessment or attractiveness considerations (Nkongolo-Bakenda and Chrysostome 2013).

With regard to the mode of entry, more focus has been placed on the role of ties and networks that DTEs have in the home and host countries (Singh 2000; Patel and

Conklin 2009; Brzozowski et al. 2014, 2017; Pruthi et al. 2018). For example, Patel and Conklin (2009: 1045) affirm that DTEs “may balance their network scope and network size in dual environments to enhance their ability to operate in both environments.”

Another issue raised in studies about DTEs relates to the impact of the level of assimilation and that of acculturation on DTE international activities (Itzigsohn and Saucedo 2002; Baltar and Icart 2013; Richter and Nollert 2014; Waldinger 2015; Itzigsohn 2015; Solano 2019). For Baltar and Icart (2013: 203), “Social assimilation (for example, shared values, integration into the host society, language, legal status, and so forth) has a great impact on immigrant entrepreneurs’ perceptions of business opportunities, their networking strategies, and their access to resources.”

DTEs cover a large spectrum of areas. Some are engaged in nostalgia trade involving “goods produced in the country of origin or ancestry of the migrant group and marketed to that group in the country of destination” (Newland and Taylor 2010: 112). Others operate in areas of philanthropy or services or in used or new manufactured goods in either their home or host countries (Najam 2007; Newland et al. 2010; Terrazas 2010). Yet, other firms are involved in new technologies and innovations (Riddle and Brinkerhoff 2011; Brinkerhoff 2016; Rana and Elo 2017). It is understandable that such a diversity of firms could not use similar competitive strategies to succeed in their international activities. But this cannot explain the lack of studies on competitive strategies used by DTEs.

Theory and hypotheses

The competitive advantage attributed to DTEs in their international activities between the home and the host country is based on two assumptions: one related to their embeddedness in the host and home countries (Solano 2019) and another related to their individual characteristics that give them an advantage to identify opportunities between the two countries (Baron and Ensley 2006; Baron 2007). The assumption related to the advantage of DTEs due to their embeddedness between the home and host countries finds its theoretical support in the institutional theory (at least in its recent appeal to take into consideration the agency dimension).

According to the institutional theory, “institutions create expectations that determine appropriate actions for organizations, and also form the logic by which laws, rules and taken-for-granted behavioral expectations appear natural and abiding” (Bruton et al. 2010: 422). North (1990) has identified formal and informal constraints as well as the level of their enforcement as the basis of institutions that affect the behaviors of the actors. However, this impact depends on the ability of the actor to process the information from the complex environment. It is therefore understandable that DiMaggio and Powell (1991: 28), speaking about the institutional reproduction of the human behavior, recognized that “institutions resulting from these processes are not only constraints on the human agency, but also and foremost the product of human actions.” Battilana et al. (2009: 67) insisted on the importance of the human agency to change institutions and claimed “to develop a theory of action that accounts for actors’ embeddedness in their institutional environment.” Since the introduction of the concept of transnationalism in the area of migration, scholars have stressed the necessity to take into account the impact of both institutions and human agency. For example, Schiller

et al. (1992: 5) who are among pioneers to introduce the concept of transnationalism to the area of migration, observe that the “hegemonic contexts have an impact on the transmigrant’s consciousness, but at the same time transmigrants reshape these contexts by their interactions and resistance”. Also, Ma (2003: 29) in a study of Chinese migrants, affirms that “the rise of the Chinese business class cannot be understood through either the cultural or political economy (or human agency versus structure) explanation alone. Instead these two perspectives are both valid in some respects and are not mutually exclusive”. As well, in the study of Chinese migrants in Prato, Italy, Guercini et al. (2017: 26) claim that “The structuration theory of Anthony Giddens is a useful middle-range theory – with both economic and sociological implication – for clearly understanding the interaction between structures and individual actors”. An integrative perspective allying institutionalism and human agency’s action is indispensable to better understand this phenomenon when studying DTEs is therefore justified. Cardinale (2018) has recently developed a theoretical explanation of the necessity to consider both human agency and structure in the institutional theory. However, although still an object of controversy (Harmon et al. 2018; Lok and Willmott 2018; Cardinale 2019) that is beyond the scope of this paper, we concur with Battilana and d’Aunno (2009) to just compare this effort with those developed previously by scholars such as Bandura (1986), Giddens (1984), and Bourdieu (1990) to explain the reflexive interaction between structures and actors (Sewell 1992; Kondrat 2002). Bandura (1986: 18), for example, affirms that

“in the social cognitive view, people are neither driven by inner forces nor automatically shaped and controlled by external stimuli. Rather human functioning is explained in terms of a model of triadic reciprocity in which behaviour, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other.”

In the situation of DTE activities, a triadic reciprocity takes place between the institutions in the home country, those in the host country, and the behavior and lifestyle adopted by the migrant in the home and host countries. For example, if the DTE lives in close relationship with members of his/her community of origin, his/her behavior will be different from that of someone who lives in close relationship with members of communities in the host country as demonstrated by studies focusing on the immigrant assimilation and acculturation (Hsing 2003; Bao 2007; Vacca et al. 2018; Solano 2019). Drori et al. (2010) have used Bourdieu’s constructivist approach to examine DTE actions and develop propositions that have not yet been tested.

The consideration of the actor in the institutional theory leads to the second assumption for the DTE advantage in their international activities between home and host countries over other international entrepreneurs. This assumption relates to the actions of the actors themselves and finds a theoretical support in the resource-based view (RBV) theory. The RBV theory suggests that a sustainable competitive advantage is achieved when resources and capabilities are valuable, rare, hard to be imitated and non-substitutable (Barney 1991). It is assumed that the embeddedness of DTEs in the home and host environment gives them a sustainable competitive advantage due to their valuable, rare, hard to be imitated and non-substitutable knowledge of and familiarity with the regulatory, social, and cultural institutions in both host and home

countries where they are doing their activities. Furthermore, in addition to this distinctive knowledge of the two environments, it is believed that DTEs have also some attributes that other immigrants do not have. For example, they are more alert to identify opportunities or they have a higher entrepreneurial orientation than other immigrants.

The two assumptions above might suggest that the success of the DTEs in their international activities between the home and host countries relates positively, all else being equal, to their ability to identify business opportunities between the two environments that they are familiar and have some emotional attachment with, the use of information from the social ties they have built in these environments, their flexibility and ability to develop product/services to fulfill the opportunities identified and to the adoption of appropriate strategies that fit with the two environments and the products/services developed. This suggestion has led us to a theory on a successful behavior of DTEs and related hypotheses as presented in Fig. 1. Several hypotheses represented by the arrows in Fig. 1 could be developed. However, as recommended by Chin (1998: vii), for the kind of causal modeling approach that is used in this study, we have avoided explicitly providing hypothesis statements for each arrow and will limit hypothesis development only to the arrows linking four constructs to the internationalization directly or through the organizing and strategic behavior (depending on the model used as we will see later in this paper). Each hypothesis is limited to the international activities of DTEs between home and host countries when all else stays equal. For space constraints, these limiting contexts will not be repeated below.

Ability to identify opportunities

The DTE embeddedness facilitates the identification of business opportunities in the two environments thanks to personal knowledge gained by having lived in the home country, by living in the host country, or by keeping in contact with family, friends, and other networks as information sources in these environments (Ozgen and Baron 2007). The advantage of the DTE to recognize business opportunities between the host and home countries is thus based on the ability to identify opportunities due to knowledge of the two environments (Portes et al. 1999; Shepherd and Detienne 2005; Drori et al. 2006, 2009; Patel and Conklin 2009; Lin 2010) and access to sources of information.

With regard to knowledge of the two environments, Alvarez and Barney (2013: 160) affirm that “Entrepreneurs that are crossing international borders to engage in poverty alleviation initiatives may be limiting their effectiveness if they are unaware of the wealth creation potential of different opportunities.” The DTE’s skills in perceiving opportunities between home and host countries more clearly than other immigrants or other entrepreneurs in the destination country is one of the prerequisites for their cross-border entrepreneurial activities between the two countries (Astebro et al. 2014). Rather than linking these skills to imagination, belief, and the realization of profits as suggested by Ramoglu and Tsang (2016), we prefer considering them in terms of alertness that is well documented in the extant literature (Kaish and Gilad 1991; Kirzner 1999; Shane 2000; Yu 2001; Baron and Ensley 2006; Corbett 2007; Ucbasaran et al. 2008; McGaffrey 2014).

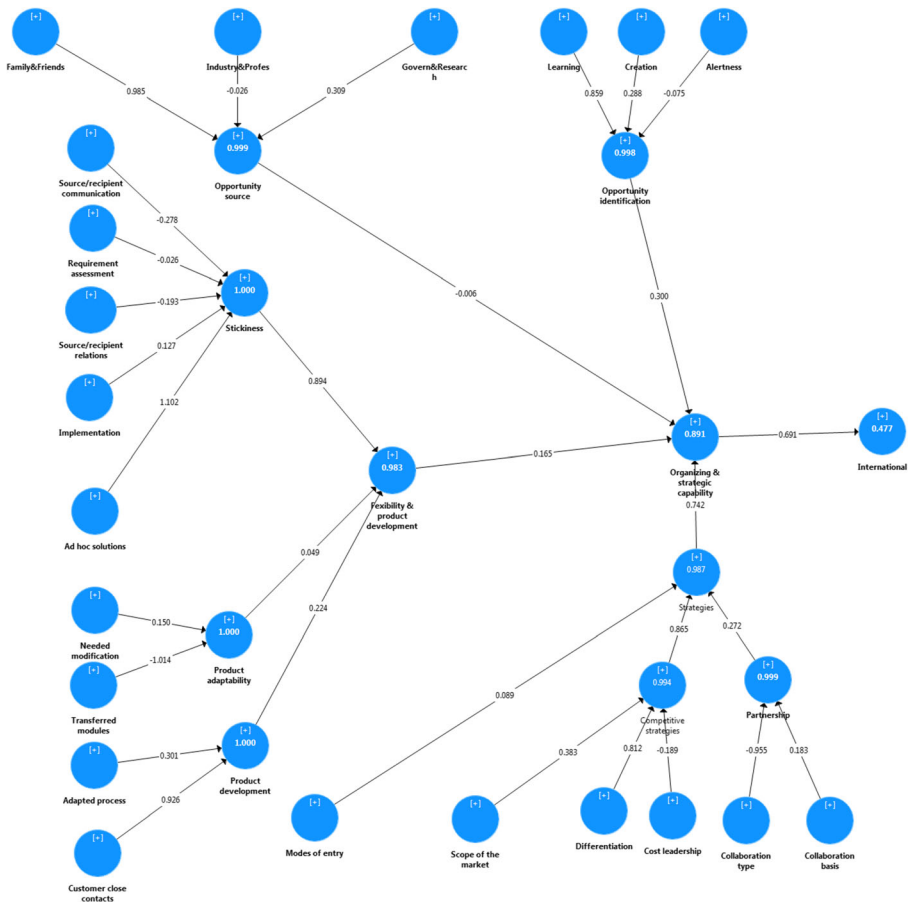


Fig. 1 Path coefficients and R squares of the determinants of the diasporic transnational. N.B. The numbers on this figure are not adjusted and might be slightly different from those in the tables

According to Baron and Ensley (2006: 1331), for their satisfaction, cognitive capacities “help specific persons identify new solutions to market and customer needs in existing information, and to imagine new products and services that do not currently exist.” Therefore, the following hypothesis is proposed:

Hypothesis 1: The greater the diaspora’s ability to identify opportunities between the home and host countries, the higher the level of the performance of the firm.

Access to information sources

Studies on entrepreneurial opportunities recognition have ascertained that access to sources of information gives an advantage to some people or firms to recognize business opportunities in comparison with those who do not have access to the same information sources (Jacobson 1992; Baron and Ensley 2006; Corbett 2007; Fernhaber et al. 2009; Suddaby et al. 2015; Lundberg and Rehnfors 2018). To evaluate opportunity ideas in the

cognitive process that allows the entrepreneur to overcome his/her ignorance and reduce doubt as described by Shepherd et al. (2007), the entrepreneur needs to have the ideas in his/her mind (Baron 2007). Baron and Ensley (2006) list some sources of these ideas: prior knowledge of the field, specific search strategies, social networks, attributions, and intentions. The impact of information sources on the production of opportunities has been examined in previous studies with sometimes mixed findings (Kaish and Gilad 1991; Singh 2000; Ucbasaran et al. 2003; Nkongolo-Bakenda 2003; Baron 2006; Ucbasaran et al. 2008; Li et al. 2009; Fernhaber et al. 2009; Ozgen and Baron 2007; Barreto 2012; Serviere-Munoz et al. 2015; Patel and Terjesen 2011). For example, Ucbasaran et al. (2008) found that the use of publications as sources of information was positively associated with the probability of identifying more opportunities, while information emanating from personal, professional, and business networks was not. Graham (2019) found that diaspora affiliated firms had more and stronger ties and used them more than other foreign firms. These findings suggest that the use of diverse information sources is beneficial to the firm. Due to his/her embeddedness in the home and host countries, an alert DTE is more likely to recognize business opportunities, as he/she has access to the social sources in the two environments. Therefore, Hypothesis 2 is

Hypothesis 2: The higher the use of family, friends, professionals and research information sources by the DTE, the higher the level of performance of the firm.

Flexibility and product development

The DTE's embeddedness in the two environments and individual alertness will allow him/her to identify the needs in one environment and an appropriate product/service in the other environment that could fulfill these needs (Baron 2006; Anderson and Nichols 2007; Ozgen and Baron 2007; Ucbasaran et al. 2003; Ucbasaran et al. 2008; Davidsson 2015). The ability of the DTE to be flexible and to keep, modify, or develop a new product/service for the targeted market change will more likely guarantee the success of international activities between the home and host environments (Barreto 2012; Albino-Pimentel et al. 2018).

The DTE operates in two contextual environments that might differ concerning the level of development, regulation, technology, and socio-cultural and demographic aspects. The gap between the two environments raises the problems of (1) knowledge and technology transfer and (2) absorptive capacity, especially for the DTE belonging to the ascending category (Minbaeva et al. 2014; Khan et al. 2015; Bailey 2017). Szulanski (2000) has examined the process of knowledge transfer within a firm and emphasizes the importance of different barriers (stickinesses) at different stages of transfer. In the areas of international businesses, Ogendo (2017) has highlighted that strategic actions in the areas of product development, market development, market penetration, and diversification have an impact on the modes of knowledge transfer (socialization, externalization, combination, and internalization). The impact of these modes on firm performance is affected by environmental dynamism (Khan et al. 2015). Reus et al. (2016) found that the transfer of non-location specific knowledge such as expertise in management practice, product and process design, and research and development between the acquirer and the acquired firms had a positive or negative

impact on performance if conducted without contextual considerations. These findings suggest that flexibility and product development capabilities are necessary for the success of DTE activities between the host and home countries. Therefore, the following hypothesis is proposed:

Hypothesis 3: The higher the entrepreneur's flexibility to develop product/service for its transfer from one context to another, the higher the performance of the firm.

Strategies

The embeddedness of the DTE in the two environments will give him/her insights to choose the appropriate modes of entry, competitive strategies, scope of activities, and level of partnership that might ensure the success of the international activities between the two environments (Baron and Ensley 2006; Casson and Wadeson 2007). Knight (2001) has identified strategic competence as an important factor for the international performance of a small and medium enterprise (SME). Strategic competence for internationalization might address issues related to the modes of entry in foreign markets, the location of activities, the competitive strategies, the international actions in the firm's functional areas, and the structural arrangements appropriate to the pressures for the cost reduction and local responsiveness. Giarratana and Torrisi (2010) found a positive relationship between international linkages and entry and survival in the U.S. software industry by firms from India, Ireland, and Israel. With regard to the modes of entry, the extant literature on DTE activities has mainly focused on the advantage that DTEs have in the area of social networks compared with other international entrepreneurs to reduce the liability of foreignness and to facilitate the identification of partners (Mort and Weerawardena 2006; Patel and Terjesen 2011; Ciravegna et al. 2014; Pruthi et al. 2018; Santamaria-Alvarez et al. 2017; Solano 2018; Graham 2019). Graham (2019) found that diaspora-affiliated firms viewed social ties as more important to firm performance than did other firms. For their part, Vacca et al. (2018) found that the immigrant's networks with diverse national and geographical personal contacts are a predictor of successful transnational businesses. In fact, DTEs can exploit their insights into local products and resource markets or their superior access to local resources in the home country while treating institutional voids as business opportunities to build strategies used by "emergent giants," and they can be successful in international activities (Dawar and Frost 1999; Khanna and Palepu 2006; Engardio 2006; Jullens 2013).

Concerning the location of activities, Serbaya (2017) has identified from the literature eight categories of factors often considered by entrepreneurial firms to choose the location of their activities in their international activities. However, as mentioned previously, DTE location choices might be determined by emotional, social, patriotic, and altruist motives rather than by rational reasons and uncertainty. DTE-owned firms would then less likely consider, for example, the risk factor in their home countries as a criterion impeding their choice to invest (Jean et al. 2011; Graham 2013).

At first glance, the choice of the destination country based on emotional and altruist motivations of the DTEs would suggest their engagement in, for example, hiring more local labor, paying higher wages, and making contributions to charities (Albino-

Pimentel et al. (2018). However, Graham (2013) and Santamaria-Alvarez et al. (2017) did not find evidence for this more socially responsible behavior by DTEs. Instead, they found that DTEs used their knowledge of both the local and foreign environments strategically while staying more business-oriented rather than altruistic. This suggests that, to succeed in international activities, DTEs adopt profit-oriented or more rational decisions to manage their businesses. They do, to this end, choose appropriate strategies with regard to products and markets (Terjesen and Elam 2009; Honig et al. 2010; Nkongolo-Bakenda et al. 2010). Wiklund and Shepherd (2008) found that the decision of founders to pursue portfolio entrepreneurship was explained by their human capital (education and experience) and social capital (business networks and government support agencies). Furthermore, DTEs, especially those who are ascending, are more likely to benefit from advantages identified by Khanna and Palepu (2006) for “emergent giants” to succeed in developing countries. They are more likely to focus on niche opportunities and build on familiarity with the context by exploiting their knowledge about factors of production and thereby serving customers both at home and in host countries in a cost-effective manner while treating local institutional insufficiencies as a business opportunity. Given the small size of their firms, one would expect DTEs to use the niche strategy based on differentiation, or at least, on an integrated low cost/differentiation leaning more on differentiation (Dimitratos et al. 2004). These considerations suggest the following hypothesis with regard to the choice of strategies:

Hypothesis 4: The higher the use of niche strategies based on differentiation and close social ties, the higher the level of performance of the firm.

Methodology

Sample and data collection

A survey was carried out on Canadian diaspora entrepreneurs from April 2015 to April 2016. As observed by the IOM (2005), research on diasporas entails challenges. Thus, many studies on this topic have adopted the case study method or have used data focusing on selected ethnic groups (Brzozowski et al. 2014, 2017). However, as stressed by Brzozowski et al. (2017: 1–2), studies “including a larger set of surveyed ethnic groups” and quantitative surveys “can partly offset the risk of over-emphasizing the importance of transnational businesses found in case study approaches.” Following this objective to go beyond case studies and given that a database of DTEs was unavailable, we first identified cultural community associations in Canada and then used their executives as informants on entrepreneurs in their communities. Unfortunately, this process did not yield satisfactory results, as the majority of executives in the cultural communities were reluctant to give any information on their members. Therefore, the social media contacts and personal contacts of the interviewers (three students with European, Middle-Eastern, and Chinese backgrounds, respectively) and the two researchers were used to identify DTEs. When an entrepreneur was identified, he or she was contacted by phone to explain the objectives of the research. The entrepreneur was invited to participate in an in-depth survey of at least 40 min in length covering dimensions such as the entrepreneur’s attributes and the dual external business

environments in addition to the strategies and organizational practices of the firms covered in this paper. The respondent was informed of the possibility of withdrawing from the study at any stage, as required by the University Ethics Committee. In the case of acceptance, the interviewee received an e-mail with a link to the questionnaire, and, in some cases, a Microsoft Word version of the questionnaire as an attachment. Sometimes the questionnaire was sent by fax instead of email. Follow-up was made by phone two weeks later, and if a response did not come, another phone call was made one month later. By April 2016, 67 responses were received. Of these, eight were not retained due to a lack of consistency or a straight lining pattern with “the same response for a high proportion of questions” (Hair et al. 2014: 52). Therefore, a usable sample of 59 respondents was retained for analysis. Due to space constraints, details on the profiles of the respondents and their firms are not provided here but can be obtained from the authors upon request.

Slightly more than 80% of the respondents were less than 45 years old at the time of study. Slightly less than 80% had at least a bachelor's degree. Almost 70% of their firms were nine years old or less and 49% started international activities in the two first years of existence and can be considered “born global firms.” Eighty-five percent of the respondents had at least a good level of speaking one of the official languages in Canada. This number is higher than the 73.7% of immigrants that Statistics Canada (2013) found were able to converse in French or English. Fifty-three percent of the respondents came from South Asia, 25% from Africa, and 7% from Eastern Europe and Central Asia. Only 3% came from Western Europe. It is obvious that these percentages do not correspond to the relative importance of Canadian immigrants with regard to their origin.^{1,2} Nevertheless, many regions are represented.

Before coming to Canada, 71% of the respondents had traveled in foreign countries, but only less than one third had lived, worked, or conducted a business in a foreign country. Likewise, only around one third of the respondents had previous business experience. With regard to the international activities of their firms, 71% of the respondents had more than 25% of their sales from abroad, while 69.4% considered that their performance to fulfill their initial objectives was somewhat better, better, or much better. However, only 12% of the respondents stated that they did not feel it necessary to undertake any change in the way they organize their activities.

Measures of variables

The organizing and strategic capacity is measured through the ability to identify opportunities, the sources of opportunities, the sources of opportunities, the entrepreneur's capacity in the product/service development, the product/service adaptability, the stickiness,, and the strategies. The ability to identify opportunities is measured by the entrepreneur's learning, creation, and alertness (Singh 2000; Ellis 2011). The sources of opportunities are grouped into three categories: (1) family and friends, (2) industry and

¹ It is important to give the precision on the origin of the interviewees, as it seemed to affect the rate of response by immigrants. We observed that they were inclined to agree to participate in the study if the interviewee had the same background as them.

² According to Statistics Canada (2013), among the immigrants who arrived in Canada between 2006 and 2011, 56.9% came from Asia, 13.7% from Europe, 12.5% from Africa, 12.3% from the Caribbean, Central, and South America, 3.9% from the USA, and the remainder from Oceania and other regions.

professionals, and (3) government and research (Ozgen and Baron 2007). The capacity in the product/service development is measured by the adaptation process and close contacts with customers (Tu et al. 2004; Lai et al. 2012). The product adaptability is measured by the needed modifications and the transferred modules between home and host countries. The stickiness is measured by the transfer difficulties related to the communication between the operators in the host country and those in the home country, the assessment of requirements of the transfer, the relations between operators in the home country and those in the host country, the quality of the implementation, and ad hoc solutions to emerging issues (Jensen and Szulanski 2004). Strategies are measured by competitive strategies, modes of entry, and partnerships. Competitive strategies are measured by the scope of the market, differentiation strategies, and cost leadership strategies (Li and Dimitratos 2014). The international strategy is measured by the modes of entry (Li and Dimitratos 2014). Partnership is measured by the basis and type of collaboration (Dimitratos et al. 2004).

Finally, the performance in international activities is measured through the subjective estimations of respondents with regard to the importance of sales in foreign countries, the fulfillment of initial objectives, and their satisfaction with the organization (Dimitratos et al. 2004; Mihaela 2017). The use of different indicators is made necessary by the diversity of diaspora immigrant international firms. Some are non-profit, others are profit-oriented, some are economic-oriented, and others are cultural- or political-oriented (Etzioni 1960; Hansen and Wernerfelt 1989; Sullivan 1994; Cohen 1997; Dawes 1999; Van der Stede et al. 2006; Richard et al. 2009; Aikins and White 2011; Ramsey et al. 2012; Van Hear and Cohen 2017).

The questionnaire to collect information from the respondents had five main components corresponding to the dimensions above: (1) processes to identify opportunities (learning, creation, alertness), (2) sources used to identify opportunities (family and friends, industry and professionals, government and research), (3) flexibility (stickiness and product modification), (4) strategies (competitive strategies, international strategies, and partnerships), and (5) performance of international activities (sales from foreign activities, achievement of initial objectives, and satisfaction with organizational practices). All questions were obtained from previous studies and could be obtained from authors upon request.

Data analysis

The data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) (Ringle et al. 2015). This technique of analysis was preferred for its potential to achieve high levels of statistical power with a small sample size, its lack of distribution assumptions, and its applicability to metric data, quasi metric data (ordinal), scaled data, and binary coded variables (Barclays et al. 1995; Hulland 1999; Hair et al. 2012a, b, c; Hair et al. 2014; Astrachan et al. 2016; Henseler et al. 2016; Sarstedt et al. 2016). To comply with the ten times rule requirement for PLS, some of the constructs have been split into high-order constructs to have “10 times the maximum number of arrowheads pointing at a latent variable anywhere in the PLS path model” (Hair et al. 2014: 20). As evident in Fig. 1, all latent variables, except organizing and strategic capability (OSC) receive five arrows or less.

All variables except performance were formative. Before proceeding with the analysis, any item that had at least 15% of non-responses was removed. For all retained items, the

missing values were replaced by the mean of all the valid values for that item (Hair et al. 2014). We decided not to use the casewise deletion given the low number of items with more than 5% of missing values and the risk of losing some groups of respondents.

To assess the measurement model, for formative indicators, we first performed the PLS algorithm and the PLS consistent algorithm on the data (Sarstedt et al. 2014). Then we examined collinearity and removed all items with the variance inflation factor (VIF) value of 5 or higher. The significance and relevance of all the formative indicators has been assessed looking at the outer weight value for each indicator first. If this value was not significant at 10%, we examined the outer loading, which had to be at least equal to 0.5. If this was not the case, we examined if the loading lower than 0.5 was significant before removing the indicator from the analysis. To avoid a higher number of latent variables with single items, we retained some items that had a loading lower than 0.5, but the p value was the highest of the items removed. This was done for “practical consideration” to reduce the inconvenient effect of single-item constructs (Hair et al. 2014: 48). In this study, we did not assess the convergent validity of formative indicators, as all our indicators were already measured in previous studies.

The reflective indicator, the performance, was assessed using the composite reliability for consistency reliability, the outer loading for the indicator reliability, the average variance extracted (AVE) for the convergent validity, and the comparison of the outer loading of the indicator with its cross loadings with other indicators (Table 1).

To assess the structural model, given that collinearity has already been assessed in the previous steps of analysis on the measurement model, we performed a bootstrapping for 500 samples on the remaining indicators and then examined the t values for the significance of path coefficients, the R^2 , the f^2 square effect size (f^2), and the total effect (TE) of constructs for their relevancy.

The analysis was carried out by first linking directly latent variables to internationalization (Model 1), and thereafter linking the latent variables to a composite variable of OSC before linking this to internationalization (Model 2). Each of these two processes was done four times using different measures of performance. First, each of the three measures were done separately (Models 1a and 2a using international sales only, Models 1b and 2b using objectives only, and Models 1c and 2c using the quality of the organizational only) and then the composite measure was done (Models 1d and 2d using all the three internationalization indicators). Of all these eight models, Model 2d has the highest R^2 indicating the best explanation of the variation of internationalization. For the economy of space, only the findings of the analysis on this composite measure of the OSC linked to the composite measure of internationalization will be presented. The details on the other may be obtained from the authors upon request.

Findings

Descriptive statistics

The most frequent responses indicate that 75% of respondents preferred close friends as the best source to identify opportunities, 95% helped customers to clarify their needs through close contacts, and 50% had to do what their customers were supposed to do to facilitate the knowledge transfer across borders. Forty percent of respondents exported

Table 1 R square adjusted, AVE, and composite reliabilities

| Endogenous variables | Direct link to Internationalization Performance (Model 1) | | | | Organization Only (Model 1c) | | | | All Three Indicators (Model 1d) | | | | | | | |
|-------------------------------------|---|----------------------------|------------------------------|---------------------------------|------------------------------|----------|------------|----------|--|----------|------------|------------|---------------------------------|------------|--|--|
| | Sales Only (Model 1a) | Objectives Only (Model 1b) | Organization Only (Model 1c) | All Three Indicators (Model 1d) | R sq. adj. | AVE | Comp. Rel. | 1 | R sq. adj. | AVE | Comp. Rel. | R sq. adj. | AVE | Comp. Rel. | | |
| Collaboration basis | 1 | 1 | 1 | 1 | 0.973*** | 0.990*** | 0.990*** | 1 | 0.990*** | 0.990*** | 0.990*** | 1 | 0.990*** | 0.990*** | | |
| Collaborative type | 0.998*** | 0.998*** | 0.998*** | 0.998*** | 0.991*** | 0.989*** | 0.989*** | 0.991*** | 0.989*** | 0.989*** | 0.989*** | 0.991*** | 0.989*** | 0.989*** | | |
| Competitive strategies | 0.210* | 0.278** | 0.278** | 0.278** | 0.169 | 0.277*** | 0.277*** | 0.169 | 0.277*** | 0.277*** | 0.277*** | 0.277*** | 0.277*** | 0.277*** | | |
| Flexibility and product development | 0.998*** | 0.427*** | 0.643*** | 0.427*** | 0.998*** | 0.428*** | 0.657*** | 0.427*** | 0.998*** | 0.427*** | 0.657*** | 0.998*** | 0.427*** | 0.660*** | | |
| Internationalization | 1.000*** | 1.000*** | 1.000*** | 1.000*** | 1.000*** | 0.999*** | 0.999*** | 1.000*** | 0.999*** | 0.999*** | 0.999*** | 1.000*** | 0.999*** | 0.999*** | | |
| Opportunity identification | 1.000*** | 1.000*** | 1.000*** | 1.000*** | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| Partnership | 0.999*** | 0.991*** | 0.991*** | 0.991*** | 0.998*** | 0.997*** | 0.997*** | 0.998*** | 0.997*** | 0.997*** | 0.997*** | 0.997*** | 0.997*** | 0.997*** | | |
| Product adaptability | 0.996*** | 0.985*** | 0.985*** | 0.985*** | 0.995*** | 0.966*** | 0.966*** | 0.995*** | 0.966*** | 0.966*** | 0.966*** | 0.966*** | 0.966*** | 0.966*** | | |
| Product development | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| Stickiness | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| Strategies | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| Transferred modules | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | | |
| | Link to Internationalization through Business Environment (Model 2) | | | | | | | | | | | | | | | |
| | Sales Only (Model 2a) | | | | Objectives Only (Model 2b) | | | | Organization Effectiveness Only (Model 2c) | | | | All Three Indicators (Model 2d) | | | |
| Collaboration type | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Collaboration basis | 1.000*** | 1.000*** | 1.000*** | 1.000*** | 0.994*** | 0.984*** | 0.984*** | 0.994*** | 0.984*** | 0.984*** | 0.984*** | 0.994*** | 0.984*** | 0.984*** | | |
| Competitive strategies | 0.992*** | 0.992*** | 0.992*** | 0.992*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | 0.981*** | | |
| Flexibility and product development | 0.337*** | 0.337*** | 0.337*** | 0.337*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | 0.430*** | | |
| Internationalization | 1.000*** | 1.000*** | 1.000*** | 1.000*** | 0.994*** | 0.984*** | 0.984*** | 0.994*** | 0.984*** | 0.984*** | 0.984*** | 0.994*** | 0.984*** | 0.984*** | | |

Table 1 (continued)

| | | | | | | | | | | | | |
|-------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Opportunity identification | 0.998*** | 0.427*** | 0.634*** | 0.998*** | 0.425*** | 0.645*** | 0.998*** | 0.428*** | 0.656*** | 0.998*** | 0.426*** | 0.650*** |
| Opportunity source | 1.000*** | | | 0.999*** | | | 0.993*** | | | 0.999*** | | |
| Organizing and strategic capability | 0.949*** | | | 0.885*** | | | 0.957*** | | | 0.883*** | | |
| Partnership | 0.999*** | | | 1.000*** | | | 1.000*** | | | 0.999*** | | |
| Product adaptability | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Product development | 1.000 | | | 1.000 | | | 1.000 | | | 1.000 | | |
| Stickiness | 1.000*** | | | 1.000*** | | | 1.000*** | | | 1.000*** | | |
| Strategies | 0.986*** | | | 0.990*** | | | 0.996*** | | | 0.986*** | | |
| Transferred modules | | 1.000 | 1.000 | | 1.000 | 1.000 | | 1.000 | 1.000 | | 1.000 | 1.000 |

***Significant at 1%; **Significant at 5%; *Significant at 10%

exactly the same product/service without modification and 37% exported goods through offices or organizations in the host country. Fifty-three percent of respondents targeted a specific category of customers or just one or two segments of the market, 88% differentiated themselves on the basis of product quality, and only 34% used the low cost leadership strategy. All the descriptive statistics on the indicators and their VIFs can be sent to readers upon request. They indicated a high outer VIF for some items that have been removed. The weights, loadings, and VIFs of the retained indicators are shown in Exhibit 1.

Table 2 presents the discriminant validity between latent variables of the retained items. The results indicate that the variable OSC has the following correlations, in order of importance, with the four latent variables directly related to it: 0.87 with strategies, 0.54 with flexibility and product development, 0.52 with opportunity identification ability, and -0.17 with opportunity source. As well, the OSC has a higher indirect relationship (0.50 or more) with differentiation strategy (0.71) and learning (0.54). Its relationship with performance in internationalization is also high (0.69).

Among other variables, the findings in Table 2 indicate an association of 0.50 or more between collaboration type and partnership (-0.98), product adaptability and transferred modules (-0.98), stickiness and flexibility and product development (0.97), learning and product development (0.96), customer close contacts and product development (0.96), ad hoc solutions and stickiness (0.95), opportunity sources and family and friends (0.93), ad hoc solutions and flexibility and product development (0.91), differentiation strategies and strategies (0.83), opportunity identification and creation (0.57), strategies and scope of the market (0.54), and finally strategies and partnerships (0.53). However, these findings should be looked at with caution and require in-depth analysis for their significance, which will follow in the next sections of this paper.

Assessment of the measurement model

As mentioned previously, during the process of collinearity treatment and evaluation of indicator importance based on results from the PLS algorithm applied to the data, some formative indicators were removed from the study on the basis of criteria retained. Thereafter, a PLS algorithm was run on the remaining indicators and the findings are presented in Exhibit 1. All the retained indicators have a VIF value lower than 5. In the majority of retained items (22 out of 26 or 85% of all items), the rule of significant outer weight at the level of 10% or an outer loading higher than or equal to .50 is satisfied at least for the first level of the lower-order construct. The other four retained items that do not satisfy this rule (Differentiat4_1, Entrymode4_1, Oppsource6_1, and Partchoice1_1) have been retained due to the “theoretical relevance and potential content” of the constructs (Hair et al. 2014: 129). For the same reason, we made a decision to retain the analysis indicators that did not satisfy our criteria of removal at a higher-order construct. For example, the indicator Entrymode2_1 satisfy the criteria at the first level with a loading value of -0.938 , but not at the higher levels of organizing and strategic capability and strategies where the loadings are 0.091 and 0.109, respectively.

Regarding the reflective indicators of the construct “Internationalization performance” (labeled “international”), findings from the bootstrap indicated loading values of 0.497 ($p = 0.657$), 0.672 ($p = 0.151$), and 0.498 ($p = 0.664$) for bperfmipo-1 (% of foreign sales), perfbj-1 (performance with regard to initial objectives), and perforg-1 (performance of

Table 2 Discriminant validity

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1. Ad hoc solutions | | | | | | | | | | | | | | | | |
| 2. Adapted process | 0.244 | | | | | | | | | | | | | | | |
| 3. Alertness | -0.114 | 0.083 | | | | | | | | | | | | | | |
| 4. Collaboration basis | -0.006 | -0.060 | -0.192 | | | | | | | | | | | | | |
| 5. Collaboration type | -0.257 | 0.169 | -0.021 | -0.155 | 1.000 | | | | | | | | | | | |
| 6. Cost leadership | -0.037 | 0.129 | -0.078 | -0.106 | -0.025 | | | | | | | | | | | |
| 7. Creation | 0.129 | 0.080 | 0.008 | -0.120 | 0.021 | -0.071 | | | | | | | | | | |
| 8. Customer close contacts | 0.299 | 0.091 | 0.051 | -0.045 | -0.176 | -0.086 | 0.141 | | | | | | | | | |
| 9. Differentiation | 0.158 | -0.133 | -0.020 | 0.231 | -0.206 | -0.037 | -0.101 | 0.220 | | | | | | | | |
| 10. Family and Friends | 0.071 | 0.019 | -0.111 | -0.462 | 0.233 | 0.207 | 0.187 | 0.007 | -0.033 | | | | | | | |
| 11. FLEXIBILITY and PRODUCT DEVELOPMENT | 0.913 | 0.199 | -0.010 | -0.078 | -0.257 | -0.129 | 0.174 | 0.500 | 0.243 | 0.057 | | | | | | |
| 12. Government and Research | 0.084 | 0.158 | 0.157 | -0.272 | -0.121 | 0.276 | 0.290 | 0.112 | -0.228 | -0.091 | 0.103 | | | | | |
| 13. Implementation | 0.195 | 0.062 | -0.021 | -0.178 | -0.182 | 0.069 | -0.049 | 0.299 | 0.078 | 0.285 | 0.175 | -0.167 | | | | |
| 14. Industry and Professionals | -0.176 | -0.039 | -0.347 | 0.364 | 0.091 | 0.122 | -0.130 | -0.265 | 0.150 | -0.136 | -0.187 | -0.339 | -0.104 | | | |
| 15. International | 0.253 | 0.151 | 0.039 | -0.056 | -0.180 | -0.143 | 0.070 | 0.033 | 0.375 | -0.116 | 0.286 | 0.034 | -0.241 | 0.114 | | |
| 16. Learning | 0.280 | 0.036 | -0.088 | 0.130 | -0.323 | -0.119 | 0.325 | 0.253 | 0.242 | -0.204 | 0.273 | 0.117 | 0.102 | -0.213 | 0.282 | |
| 17. Modes of entry | 0.096 | -0.280 | -0.102 | -0.215 | 0.051 | 0.100 | 0.060 | 0.092 | -0.150 | 0.011 | 0.177 | 0.121 | -0.107 | 0.048 | -0.137 | 0.021 |
| 18. Needed modification | 0.191 | -0.022 | -0.085 | -0.089 | 0.036 | 0.248 | -0.117 | 0.234 | 0.089 | 0.291 | 0.126 | -0.053 | 0.453 | -0.016 | -0.165 | -0.180 |
| 19. OPPORTUNITY IDENTIFICATION | 0.293 | 0.044 | -0.145 | 0.092 | -0.271 | -0.126 | 0.571 | 0.258 | 0.182 | -0.112 | 0.293 | 0.174 | 0.071 | -0.190 | 0.275 | 0.958 |
| 20. OPPORTUNITY SOURCE | 0.070 | 0.066 | -0.099 | -0.514 | 0.193 | 0.338 | 0.276 | 0.010 | -0.102 | 0.931 | 0.065 | 0.251 | 0.202 | -0.122 | -0.090 | -0.191 |

Table 2 (continued)

| | | | | | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21. ORGANIZING and STRATEGIC CAPABILITY | 0.451 | -0.007 | -0.002 | 0.067 | -0.463 | -0.296 | 0.146 | 0.287 | 0.712 | -0.153 | 0.539 | -0.041 | -0.022 | 0.007 | 0.688 | 0.540 |
| 22. Partnership | 0.242 | -0.170 | -0.021 | 0.342 | -0.981 | 0.005 | -0.045 | 0.159 | 0.242 | -0.311 | 0.230 | 0.057 | 0.138 | -0.006 | 0.165 | 0.330 |
| 23. Product adaptability | -0.156 | -0.222 | 0.147 | -0.204 | -0.107 | 0.034 | 0.027 | 0.089 | 0.073 | 0.134 | -0.008 | 0.246 | 0.144 | 0.006 | -0.016 | -0.156 |
| 24. Product development | 0.351 | 0.383 | 0.072 | -0.060 | -0.112 | -0.042 | 0.155 | 0.955 | 0.164 | 0.012 | 0.523 | 0.151 | 0.296 | -0.258 | 0.076 | 0.246 |
| 25. Requirement assessment | -0.098 | -0.016 | -0.102 | -0.105 | 0.095 | -0.018 | -0.058 | -0.091 | -0.072 | -0.143 | -0.153 | -0.023 | -0.083 | -0.046 | -0.030 | 0.231 |
| 26. Scope of the market | 0.280 | -0.263 | 0.027 | -0.117 | -0.335 | -0.189 | -0.011 | 0.222 | 0.173 | -0.172 | 0.375 | 0.010 | 0.057 | -0.093 | 0.227 | 0.058 |
| 27. Source/recipient communication | 0.398 | 0.135 | -0.135 | 0.134 | -0.070 | 0.004 | 0.094 | 0.188 | -0.074 | -0.019 | 0.152 | 0.004 | 0.397 | -0.179 | -0.083 | 0.332 |
| 28. Source/recipient relations | 0.353 | 0.191 | -0.211 | 0.105 | -0.255 | 0.234 | -0.059 | 0.112 | -0.016 | 0.119 | 0.131 | 0.048 | 0.150 | -0.090 | 0.020 | 0.043 |
| 29. Stickiness | 0.947 | 0.200 | -0.041 | -0.079 | -0.238 | -0.089 | 0.124 | 0.293 | 0.208 | 0.086 | 0.966 | 0.066 | 0.181 | -0.137 | 0.273 | 0.212 |
| 30. STRATEGIES | 0.267 | -0.215 | 0.024 | 0.180 | -0.522 | -0.347 | -0.076 | 0.280 | 0.831 | -0.189 | 0.378 | -0.211 | 0.103 | 0.031 | 0.463 | 0.295 |
| 31. Transferred modules | 0.189 | 0.215 | -0.161 | 0.186 | 0.112 | 0.011 | -0.048 | -0.046 | -0.056 | -0.080 | 0.031 | -0.252 | -0.060 | -0.008 | -0.014 | 0.121 |
| 17. Modes of entry | 17. | 18. | 19. | 20. | 21. | 22. | 23. | 24. | 25. | 26. | 27. | 28. | 29. | 30. | 31. | |
| 18. Needed modification | 0.062 | | | | | | | | | | | | | | | |
| 19. OPPORTUNITY IDENTIFICATION | 0.050 | -0.177 | | | | | | | | | | | | | | |
| 20. OPPORTUNITY SOURCE | 0.073 | 0.264 | -0.074 | | | | | | | | | | | | | |
| 21. ORGANIZING and STRATEGIC CAPABILITY | -0.099 | -0.112 | 0.518 | -0.172 | | | | | | | | | | | | |
| 22. Partnership | -0.090 | -0.052 | 0.274 | -0.283 | 0.456 | | | | | | | | | | | |

Table 2 (continued)

| | | | | | | | | | | | | | | | |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| 23. Product adaptability | 0.155 | 0.016 | -0.130 | 0.234 | -0.001 | 0.062 | | | | | | | | | |
| 24. Product development | 0.001 | 0.211 | 0.253 | 0.030 | 0.265 | 0.097 | 0.016 | | | | | | | | |
| 25. Requirement assessment | 0.086 | -0.270 | 0.191 | -0.157 | -0.063 | -0.111 | 0.010 | -0.089 | | | | | | | |
| 26. Scope of the market | 0.346 | 0.036 | 0.052 | -0.174 | 0.464 | 0.294 | -0.052 | 0.127 | -0.158 | | | | | | |
| 27. Source/recipient communication | -0.136 | 0.238 | 0.327 | -0.052 | 0.024 | 0.092 | -0.308 | 0.214 | -0.004 | -0.027 | | | | | |
| 28. Source/recipient relations | -0.171 | 0.023 | 0.028 | 0.121 | 0.019 | 0.260 | -0.072 | 0.161 | 0.039 | -0.095 | 0.209 | | | | |
| 29. Stickiness | 0.167 | 0.193 | 0.228 | 0.086 | 0.489 | 0.211 | -0.062 | 0.332 | -0.158 | 0.351 | 0.161 | 0.137 | | | |
| 30. STRATEGIES | -0.116 | -0.024 | 0.236 | -0.266 | 0.873 | 0.533 | 0.054 | 0.195 | -0.121 | 0.541 | -0.040 | -0.030 | 0.331 | | |
| 31. Transferred modules | -0.142 | 0.164 | 0.097 | -0.183 | -0.019 | -0.070 | -0.984 | 0.022 | -0.059 | 0.058 | 0.347 | 0.075 | 0.096 | -0.057 | 1.000 |

the quality of organization), respectively. Their VIFs were 1.064, 1.055, and 1.015, respectively: meaning that there was no collinearity. Despite their weak loadings, the three items on the performance have been used in the analysis to facilitate discussion.

Assessment of the structural model

The above step of analysis has indicated that, in the model used for the analysis, all the inner and outer VIFs for the variables and indicators are lower than 5, and there is not collinearity in the model analyzed. Figure 1 presents the path coefficient values of the analysis when the constructs are linked to internationalization through the OSC (Model 2d).

To assess the relationships in the structural models, Table 3 contains significant path coefficients, related F^2 , and total effects of the Model 2d when all three indicators of performance are used (model with the highest R^2 for internationalization) and Table 4 presents path coefficients and F^2 of both model 1 and model 2 with different measures of internationalization. In Table 3, the path coefficients and the F^2 between OSC and internationalization is not significant. However, the path coefficient and the F^2 between strategies and OSC are positive and significant (5%). Only the path coefficient between opportunity identification and OSC is positive and significant (10%). Also, the path coefficients are positive and significant between ad hoc solutions and stickiness (5%), competitive strategies and strategies (5%), creation and opportunity identification (1%), customer close contacts and product development (5%), differentiation and competitive strategies, family and friends and opportunity sources (1%), and learning and opportunity identification (1%). By contrast, the path coefficient is negative and significant between collaboration type and partnership (1%). Total effects in Table 3 for some arrows in Fig. 1 confirm some findings on the path coefficients above. For example, OSC is positively and significantly affected by strategies (10%), especially the competitive ones (5%), and which are themselves significantly impacted by the strategy of differentiation (5%).

With regard to the four components of the OSC, the strategies are significantly affected by the competitive strategies (5%), especially by the strategy of differentiation rather than by partnerships, modes of entry, and the strategy of low cost leadership. Opportunity identification is significantly affected by creation and learning rather than by alertness. Flexibility and product development are more significantly affected by ad hoc solutions and stickiness. No construct seems to have a significant effect on opportunity sources. When looking at the Table 4, the significant paths above are confirmed whatever the indicator for performance for the relationships between competitive strategies and strategies, creation and opportunity identification, and learning and opportunity identification. Also, they confirmed only for some indicators of performance for the following relationships: cost leadership and competitive strategies, customer close contacts and products development, implementation and stickiness, needed modifications and product adaptability, product adaptability and flexibility and product development.

When the four latent variables are directly linked to internationalization (Model 1d), Table 4 shows that the path coefficient between strategies and internationalization are positive and significant when the objective achievements only (5%) and organizational quality only (1%) are used as indicators. The path coefficient is also positive and significant (5%) between opportunity identification and internationalization measured with objective achievement only. But it is negative and significant (10%) between

Table 3 Relationships with at least significant path coefficient, total effect, or F square significant

| Relationships | Path coefficient | Total effects | F squares |
|---|------------------|---------------|-----------|
| Ad hoc solutions -> Flexibility and product development | – | 0.986*** | |
| Ad hoc solutions -> Stickiness | 1.102** | 1.102*** | 4483.792 |
| Collaboration type -> Organizing and strategic capability | – | –0.193* | – |
| Collaboration type -> Partnership | –0.955*** | –0.955 | 1050.400 |
| Collaboration type -> Strategies | – | –0.260 | – |
| Competitive strategies -> Organizing and strategic capability | – | 0.641* | – |
| Competitive strategies -> Strategies | 0.864** | 0.865** | 51.447 |
| Creation -> Opportunity identification | 0.288*** | 0.288*** | 42.114 |
| Customer close contacts -> Product development | 0.926** | 0.926 | – |
| Differentiation -> Competitive strategies | 0.812** | 0.812** | 103.023 |
| Differentiation -> Organizing and strategic capability | – | 0.521** | – |
| Differentiation -> Strategies | – | 0.703** | – |
| Family & Friends -> Opportunity source | 0.985*** | 0.985 | 919.972 |
| Learning -> Opportunity identification | 0.859*** | 0.859*** | 371.775 |
| Opportunity identification -> Organizing and strategic capability | 0.300* | 0.300 | 0.738 |
| Stickiness -> Flexibility and product development | 0.894* | 0.894*** | 42.383 |
| Strategies -> Organizing and strategic capability | 0.742** | 0.742* | 3.965** |
| Transferred modules -> Product adaptability | –1.014*** | –1.0136* | – |

***Significant at 1%; **Significant at 5%; *Significant at 10%

flexibility and product development and internationalization when sales only are used for this variable. All the F^2 corresponding to these paths are not significant.

The paths going to strategies have positive and significant coefficients only when the arrows come from competitive strategies for the internationalization measured by sales only (5%), objective achievements only (10%), organizational quality only (1%), and all three indicators (5%). The paths towards the competitive strategies are significant themselves when they relate to the arrows coming from cost leadership (negative and significant at $p = 5\%$ for sales only and positive and significant at $p = 10\%$ for all three indicators of internationalization). They are also significant for the arrows coming from differentiation (positive and significant at $p = 5\%$ when objective achievements only and all three indicators are used to measure internationalization). The only corresponding f^2 significant (1%) is found between competitive strategies and strategies when internationalization is measured by the organizational quality.

The paths going to opportunity identification are positive and significant (1%) when arrows are coming from creation and learning, and this is consistent for any indicator used to measure internationalization.

For the paths pointing to flexibility and product development, they are positive and significant when they originate from product adaptability. Internationalization is measured with the organizational quality only (10) or all three indicators (1%) and when they originate from stickiness with sales only (5%) or objectives only (10) used to measure internationalization.

Table 4 Path coefficients and F squares

| Paths | Direct link to internationalization performance (Model 1) | | | | | | | | | | | |
|---|---|---------------|---------------|--------------|----------------|-------------------|---------------|--------------|----------------|---------------|---------------|--------------|
| | Path coefficients based on | | | | | F square based on | | | | | | |
| | Sales only (a) | Obj. only (b) | Org. only (c) | All tree (d) | Sales only (a) | Obj. only (b) | Org. only (c) | All tree (d) | Sales only (a) | Obj. only (b) | Org. only (c) | All tree (d) |
| Ad hoc solutions -> Stickiness | 0.865* | 0.870* | 0.655 | 0.448 | 524.047 | 72.144 | 235.131 | 56.185 | - | - | - | - |
| Adapted process -> Product development | 0.275 | 0.648 | 0.566 | -0.522 | - | - | - | - | - | - | - | - |
| Alertness -> Opportunity identification | -0.130 | -0.092 | -0.082 | -0.063 | 10.249 | 4.363 | 3.367 | 1.732 | - | - | - | - |
| Collaboration basis -> Partnership | 0.468 | 0.563 | 1.005*** | 0.860 | - | 1380.188 | 7310.753 | 6052.121 | - | - | - | - |
| Collaboration type -> Partnership | -0.814* | -0.744* | -0.095 | 0.394 | - | 2407.282 | 65.421 | 1269.568 | - | - | - | - |
| Competitive strategies -> Strategies | 1.013** | 1.011* | 0.811*** | 0.936** | 279.847 | 63.203 | 135.0757*** | 23.989 | - | - | - | - |
| Cost leadership -> Competitive strategies | -0.816** | -0.211 | 0.671 | 0.642* | 285.891 | 24.151 | 17.436 | 41.672 | - | - | - | - |
| Creation -> Opportunity identification | 0.362*** | 0.331*** | 0.372*** | 0.352*** | 71.411 | 50.750 | 62.702 | 48.557 | - | - | - | - |
| Customer close contacts -> Product development | 0.937*** | 0.704 | -0.878** | 0.902*** | - | - | - | - | - | - | - | - |
| Differentiation -> Competitive strategies | 0.061 | 0.915** | 0.052 | 0.762** | 1.610 | 458.704 | 0.098 | 59.570 | - | - | - | - |
| Family & Friends -> Opportunity source | 0.705* | 0.144 | -0.949** | 0.493 | 15,182.367 | 1689.638 | 1216.734 | 383.165 | - | - | - | - |
| Flexibility & product development -> International | -0.446* | 0.190 | 0.224 | 0.189 | 0.253 | 0.052 | 0.049 | 0.048 | - | - | - | - |
| Government & Research -> Opportunity source | 0.047 | 0.006 | -0.009 | 0.028 | 71.768 | 3.134 | 0.111 | 1.224 | - | - | - | - |
| Implementation -> Stickiness | -0.119 | -0.174 | 0.713** | 0.841* | 10.517 | 3.060 | 291.609 | 208.335 | - | - | - | - |
| Industry & Professionals -> Opportunity source | 0.582 | 0.960** | 0.177 | 0.777 | 10,429.754 | - | 40.950 | 930.942 | - | - | - | - |
| Learning -> Opportunity identification | 0.800*** | 0.828*** | 0.801*** | 0.819*** | 346.516 | 315.060 | 288.099 | 261.549 | - | - | - | - |
| Modes of entry -> Strategies | -0.065 | -0.085 | 0.405 | 0.225 | 1.139 | 0.481 | 35.548** | 1.470 | - | - | - | - |
| Needed modification -> Product adaptability | 0.581 | 0.522 | 0.957*** | 0.992*** | - | - | - | - | - | - | - | - |
| Opportunity identification -> International | -0.113 | 0.183** | -0.032 | -0.152 | 0.017 | 0.049 | 0.001 | 0.033 | - | - | - | - |
| Opportunity source -> International | 0.048 | -0.169 | 0.046 | 0.130 | 0.003 | 0.042 | 0.002 | 0.023 | - | - | - | - |
| Partnership -> Strategies | -0.132 | -0.117 | 0.087 | -0.153 | 4.670 | 0.837 | 1.589 | 0.673 | - | - | - | - |
| Product adaptability -> Flexibility & product development | -0.026 | 0.051 | 0.700* | 0.791*** | 0.065 | 0.285 | 33.149 | 36.054 | - | - | - | - |

Table 4 (continued)

| | | | | | | | | |
|---|---|---------------|---------------|--------------|-------------------|---------------|---------------|--------------|
| Product development -> Flexibility & product development | -0.194 | 0.138 | -0.006 | 0.012 | 3.324 | 1.980 | 0.004 | 0.012 |
| Requirement assessment -> Stickiness | 0.609** | -0.362 | -0.238 | -0.252 | 330.244 | 15.879 | 38.640 | 22.202 |
| Scope of the market -> Competitive strategies | 0.426 | 0.179 | 0.685 | -0.091 | 75.560 | 16.826 | 16.715 | 0.811 |
| Source/recipient communication -> Stickiness | 0.206 | -0.197 | -0.502 | -0.314 | 31.278 | 3.865 | 128.070 | 25.458 |
| Source/recipient relations -> Stickiness | 0.310 | 0.109 | 0.184 | 0.036 | 65.008 | 1.099 | 20.365 | 0.414 |
| Stickiness -> Flexibility & product development | 0.920** | 0.956* | 0.404 | 0.291 | 74.718 | 92.283 | 11.850 | 5.132 |
| Strategies -> International | 0.146 | 0.407** | 0.371*** | 0.426 | 0.027 | 0.237 | 0.155 | 0.262 |
| Transferred modules -> Product adaptability | 0.724 | -0.942*** | -0.486 | -0.370 | - | - | - | - |
| Paths | Link to internationalization performance through Business Environment (Model 2) | | | | | | | |
| | Path coefficients based on | | | | F square based on | | | |
| | Sales only (a) | Obj. only (b) | Org. only (c) | All tree (d) | Sales only (a) | Obj. only (b) | Org. only (c) | All tree (d) |
| Ad hoc solutions -> Stickiness | 0.774 | 1.111** | 0.655 | 1.102** | 1853.173 | 42,078.720 | 6905.329 | 4483.792 |
| Adapted process -> Product development | 0.048 | 0.225 | -0.484 | 0.301 | - | - | - | - |
| Alertness -> Opportunity identification | -0.158 | -0.085 | -0.085 | -0.075 | 16.465 | 4.501 | 3.599 | 3.150 |
| Collaboration basis -> Partnership | -0.074 | 0.067 | 0.998** | 0.183 | 4.495 | 10.223 | 2070.117 | 38.404 |
| Collaboration type -> Partnership | -1.008*** | -0.987*** | -0.154 | -0.955*** | 835.321 | 2242.702 | 49.552 | 1050.400 |
| Competitive strategies -> Strategies | 0.969** | 0.848*** | 0.903** | 0.864** | 60.161 | 66.981* | 208.897 | 51.447 |
| Cost leadership -> Competitive strategies | -0.198 | -0.092 | 0.545* | -0.189 | 98.630 | 1.509 | 19.790 | 5.562 |
| Creation -> Opportunity identification | 0.349*** | 0.278*** | 0.370*** | 0.288*** | 72.184 | 43.368 | 61.640 | 42.114 |
| Customer close contacts -> Product development | 0.995*** | 0.954*** | 0.920*** | 0.926** | - | - | - | - |
| Differentiation -> Competitive strategies | 0.243 | 0.706** | 0.196 | 0.812** | 145.157 | 89.530 | 2.324 | 103.023 |
| Family & Friends -> Opportunity source | 0.769* | 0.907** | 0.965*** | 0.985*** | - | 1279.961 | 135.738 | 919.972 |
| Flexibility & product dev. -> Organizing & strategic Capability | 0.888*** | 0.154 | 0.320 | 0.165 | 12.704*** | 0.169 | 1.848 | 0.199 |
| Govern. & Research -> Opportunity source | -0.061 | 0.125 | 0.442 | 0.309 | 727.215 | 25.323 | 26.225 | 86.552 |
| Implementation -> Stickiness | 0.253 | 0.113 | 0.725** | 0.127 | 207.068 | 480.288 | 8955.487 | 65.973 |

Table 4 (continued)

| | | | | | | | | |
|---|-----------|-----------|----------|-----------|------------|----------|-----------|---------|
| Industry & Professionals -> Opportunity source | 0.479 | 0.280 | -0.128 | -0.026 | 43,803.141 | 122.642 | 2.164 | 0.621 |
| Learning -> Opportunity identification | 0.803*** | 0.863*** | 0.802*** | 0.859*** | 378.518 | 414.277 | 287.081 | 371.775 |
| Modes of entry -> Strategies | 0.025 | -0.027 | 0.290 | 0.089 | 0.044 | 0.076 | 22.952 | 0.595 |
| Needed modification -> Product adaptability | 0.935** | 0.119 | 0.975*** | 0.150 | - | - | - | - |
| Opportunity identification -> Organizing & strategic capability | -0.142 | 0.305** | -0.132 | 0.300* | 0.398 | 0.786** | 0.427 | 0.738 |
| Opportunity source -> Organizing & strategic capability | 0.015 | -0.104 | -0.097 | -0.006 | 0.004 | 0.095 | 0.188 | 0.000 |
| Organizing & strategic Capability -> International | 0.591*** | 0.662*** | 0.524** | 0.691 | 0.535 | 0.785 | 0.379 | 0.913 |
| Partnership -> Strategies | 0.056 | 0.302 | 0.029 | 0.272 | 0.207 | 8.384 | 0.213 | 5.016 |
| Product adaptability -> Flexibility & product development | 0.034 | 0.059 | 0.567* | 0.049 | 0.150 | 0.190 | 8.501 | 0.146 |
| Product development -> Flexibility & product development | 0.159 | 0.233 | 0.215 | 0.224 | 3.241 | 2.666 | 1.793 | 2.683 |
| Requirement assessment -> Stickiness | -0.667*** | -0.045 | -0.222 | -0.026 | 1734.672 | 90.060 | 989.011 | 3.137 |
| Scope of the market -> Competitive strategies | 0.868** | 0.564 | 0.737* | 0.383 | 1813.433 | 55.298 | 32.777 | 22.126 |
| Source/recipient communication -> Stickiness | -0.269 | -0.306 | -0.590 | -0.278 | 232.891 | 3127.596 | 5096.372 | 277.824 |
| Source/recipient relations -> Stickiness | -0.347 | -0.218 | 0.139 | -0.193 | 355.589 | 1807.415 | 362.444 | 155.920 |
| Stickiness -> Flexibility & product development | 0.943*** | 0.892** | 0.458 | 0.894* | 117.959 | 39.011 | 5.895 | 42.383 |
| Strategies -> Organizing & strategic capability | 0.127 | 0.716*** | 0.816*** | 0.742** | 0.260 | 3.659*** | 11.910*** | 3.965** |
| Transferred modules -> Product adaptability | 0.232 | -1.013*** | -0.433 | -1.014*** | - | - | - | - |

Discussion

Overall, the predictive capability of all the models is significant, except when each latent variable is linked directly to the internationalization measured by organizational quality only. When all the three indicators are used together as a measure of internationalization, all R^2 are significant at 1% with values of 0.88 or higher except for internationalization. They therefore meet the thresholds recommended by Hair et al. (2014: 21).

Organizing and strategic capability is one of the important dimensions that determine an entrepreneur's internationalization activities (Nkongolo-Bakenda and Chrysostome 2013; Prange 2015). In this study, the organizing and strategic capability has significantly explained between 21 and 47% (R^2 between 0.210 and .468) of the variations in the DTE internationalization depending on the indicator used for internationalization. The best model with the highest level of significantly explained variation of internationalization ($R^2 = 0.468$ significant at 1%) was reached when the OSC composite variable was linked to internationalization measured with all three indicators (foreign sales, objective achievement, and organizational quality). This finding supports the suggestion of Lumpkin and Dess (1996) to use multiple performance measures in entrepreneurship studies. A multiple measure of internationalization in the present study was made even more necessary by the diversity of the purposes of the firms examined, including both profit-oriented and nonprofit-oriented organizations. However, it should be kept in mind that each indicator of the firm performance has its strengths and weaknesses (Etzioni 1960, Sullivan 1994; Van der Stede et al. 2006).

The findings of this study have highlighted interesting but mixed responses to the three questions. They aimed to identify the determinants of DTE business opportunities and the DTE organizational practices and strategies and related determinants. Three factors were identified as the most important factors of success for DTE activities: (1) strategies chosen (partially Hypothesis 4), (2) the ability to identify opportunities (Hypothesis 1 partially supported), and (3) flexibility and product development (Hypothesis 3).

First, the strategies used are the most significant factors for the success of internationalization by DTEs. This factor has the highest correlation with the OSC and a significant positive path coefficient with the OSC and internationalization. Among the strategies used, the competitive strategies chosen were the most significant determinants. In contrast, the choice of the mode of entry, partnerships, and scope of the market were not found as significant determinants. The importance of the business-level strategy on performance and the different impacts of cost leadership and differentiation depending on the conditions of the environment have been confirmed in previous empirical studies (Nandakumar et al. 2010). What is surprising at first glance is the lack of significance of the modes of entry, partnership (partially H4), and the scope of the market (partially H4) on the internationalization of DTEs. This result is surprising due to the importance of these factors in studies on internationalization in general (e.g., Ogendo 2017). The weak impact of the mode of entry and scope of the market could be explained by emotional and altruist reasons to undertake activities between the DTE home and host countries rather than traditional economic reasons (Gillespie et al. 1999; Nielsen and Riddle 2009; Newland and Taylor 2010; Nkongolo-Bakenda and

Chrysostome 2013). For the partnership, we could expect that the residence of DTEs in Canada and their high preference for friends and family members as sources of information could make this practice significantly important for the success of internationalization (Patel and Conklin 2009; Ellis 2011; Brzozowski et al. 2017; Santamaria-Alvarez et al. 2017). However, the findings suggest that the collaborative mode to manage the firm is not privileged by the respondents of the current study. Only approximately 15% of respondents use the partnership mode of activities substantially. It would be interesting to know the motives behind the low level of the use of the collaborative mode and its frequency in different regions. The fear of being a victim of the economy of affection or moral economy (Sugimura 2007) could explain this situation for DTEs of African origin, but is this fear also common in DTEs of Asian origin?

Jean et al. (2011) found that the ethnic ties of top managers mattered in facilitating firm FDI location choice, but did not help improve firm performance. In the same vein, Hsing (2003: 223) has observed that “when Chinese firms grow, they transform from the traditional Chinese style to the modern, Western style of business organization and management”. As well, Citing Mackie (1992), Ma stresses (Ma 2003: 29) that “whereas personal relationships are still very important and family ownership and control still dominant, there has been significant “corporatization” of Chinese businesses overseas relying increasingly on professional managers.” For their part, Leppaaho and Pajunen (2017: 522) found that “SMEs were not able to use internal social capital for internationalization”. Despite these interesting findings, the difference between the contexts of their studies with the current one does not allow us to transfer them directly to this DTE situation. We think that research on DTEs with larger samples or longitudinal case studies could further the understanding of this issue. Another possible explanation of the low level of partnership could be found in the usefulness of networks to the DTE firm’s survival and the size of the firms studied. According to Patel and Conklin (2009: 1053), “social networks appear more important in transnational entrepreneurship because they provide access to resources, advice, and support that may result in economic exchanges.” In the current study, we found that DTEs use their social networks (family and friends) more to get information and less to manage their firms. With regard to the size of the firm, Alvarez and Barney (2001) found that although alliances between entrepreneurial and large firms can create economic value, this value can be appropriated by the larger partner if the small firm does not take appropriate actions to protect its own values. Nkongolo-Bakenda (2001) found that, among the globally-oriented SMEs studied, small SMEs were less inclined to use co-operative practices than medium-sized SMEs in a desire to keep their autonomy. As well, Simon (1996) found that the SMEs he had qualified as “hidden champions” were self-trustful and tried to resolve their problems inside, outsourcing only minimal activities to co-operation. Firms observed in the current study were generally small, and the need for self-protection could explain their low level of co-operating with others in the management of their activities.

These findings invite us to raise two questions about the ties built in the country of origin as a source of success and competitive advantage of DTEs. First, “Should DTE networks be based on kinship, friendship, or just on competence with regard to the task to be carried out?” Second, “What is the impact of DTE acculturation on the value and use of these ties?” The findings suggest that, in their networking to manage their businesses, DTEs value professional competence with regard to the task to be carried

out (49% referred to experts to choose partners while only 33% referred to close friends). These findings seem consistent with the conclusion of Hernandez-Carrion et al. (2017: 61) that “economic performance is influenced more by professional and institutional network resources than by other network resources.” However, as observed earlier, to gather information on their environment, DTEs value kinship and friendship relationships (75% considered close friends and siblings as the best source of information). These findings could also partially be a consequence of their acculturation and double identity, which we prefer to consider as the effective integration of their belonging to the two environments (Baltar and Icart 2013; Richter and Nollert 2014; Waldinger 2015; Itzigsohn 2015, 2017). In the light of the findings above, the importance of family and friend networks to the success of transnational firms needs to be re-qualified at least in the advanced stages of the firm’s development.

Second, the ability to identify opportunities is the second most determinant factor of the internationalization of the DTE (H1). This construct has the third highest correlation with OSC and significant and positive path coefficients with internationalization. Among the factors that determine the ability to identify opportunities, learning and creation have significant path coefficients. But alertness does not (mixed support to H1). This suggests that DTEs are well aware of the opportunities in their countries of origin or host countries and their problem is that of transferring products and services they find in the host countries to the home countries and vice versa. However, they seem to prefer products or services that do not require too many modifications. It should be remembered that 40% of respondents exported the product or service without any modification and that the impact of product adaptability on flexibility is very low (the path coefficient is 0.049). By contrast, stickiness (i.e., communication with customers and ad hoc solutions) and product development (i.e., customers’ close relationships and adapted process) seem to be the most important factors. Otherwise, the problem of DTEs is not about what opportunities to satisfy, but how to satisfy the opportunities they know in the destination country of their international activities.

With regard to the previous studies, these findings suggest that the DTE opportunity identification lies between what Alvarez et al. (2013) and Alvarez and Barney (2007, 2010) call “discovery” and “creation.” In the findings above, opportunities identified by DTEs are present in the environment, so they are part of the discovery. But they relate to products and services that will be used in a different context, so they necessitate some adjustments needing ad hoc solutions, and therefore, are part of creation. Consequently, it is understandable why alertness, although an important aspect of discovery in the three studies above, was not found significantly related to internationalization success. This result suggests that the finding of more opportunity-based rather than necessity-based activities by Lundberg and Rehnfors (2018) on horizontal transnational entrepreneurs operating in two developed countries could be extended to the situation of ascending transnational entrepreneurs.

Third, flexibility and product development play a moderate but effectual role (H3). This factor has a strong positive and significant link with the OSC and a moderate and negative link with internationalization. Stickiness (influenced mainly by ad hoc solutions, requirement assessment, and implementation) seems to have a stronger impact on flexibility and product development than the other dimensions of this construct. Stickiness is an expression of the difficulties faced during knowledge transfer. According to Szulanski (2000: 23), “knowledge transfer should be regarded as a process of

reconstruction rather than a mere act of transmission and reception.” In his previous study, Szulanski (1996) found that the major barriers to internal knowledge transfer were related to factors such as the recipient’s lack of absorptive capacity, causal ambiguity, and an arduous relationship between the source and the recipient. Although the context of the current study differs slightly from the context of Szulanski’s study as it is done between different organizations, the observations seem similar. It should be remembered that 95% of the respondents helped customers to clarify their needs and 50% had to do what their customers were supposed to do. This was probably due to the lack of absorptive capacity, and it is not surprising that many DTEs prefer exporting products requiring fewer modifications despite the difference between the contexts in the home and host countries (Ogendo 2017).

Conclusions

The objective of this study is to identify the nature and determinants of organizing and strategic actions used by DTEs in their activities between home and host countries. Data from an in-depth survey of 59 DTEs indicates that the majority of DTEs preferred close friends as the best source to identify business opportunities. They helped customers clarify their needs through close contacts, had to do themselves what their customers were supposed to do to facilitate the knowledge transfer across borders, and differentiated themselves from the competition on the basis of product quality, and sometimes, low cost leadership strategy. A significant number of DTEs exported exactly the same product/service without modification and targeted a narrow category of customers.

The PLS-SEM analysis reveals that the models used are highly predictive as they explain 21% to 47% of the variations in business internationalization despite the difficulty to find a common measure of performance among firms that pursued a diversity of objectives (Harrison and Wicks 2013). The most important factors of success for DTE activities are the strategies chosen, the ability to identify opportunities, and flexibility and product development. The choice of a competitive strategy appropriate to the type of the product/service and the environment context is the most determinant factor, while the choice of the modes of entry and location are not considered important issues by DTEs. These entrepreneurs identify their opportunities through learning and creation processes with a neutral level of alertness. After identifying the opportunity, they rely more on professionals rather than on family and friends to carry out their activities. The gap in absorptive capacity seems to be an important barrier that leads entrepreneurs to take an important part in the technology transfer between their host and home country activities (Harima et al. 2014).

These findings need to be accepted with caution due to the small size of the sample, which does not allow the exploration of subgroups related to the geographic origin of entrepreneurs or their sectors of activities. Despite these limits, the findings have value for researchers and practitioners. Researchers could expand the findings with a larger sample and more longitudinal studies. Practitioners could use them to refine their activities and avoid paths that lead to failures. Both the countries of origin and the host countries of DTEs will benefit from the successful activities of DTEs in terms of job creation, wealth creation, innovation, and technology transfer.

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