

Transnational entrepreneurs: Characteristics, drivers, and success factors

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Abstract Recent literature considers the significance and determinants of transnational entrepreneurship arising from the immigrant communities. However, empirical evidence remains fragmented, largely due to the contextual diversity of the phenomenon. Using data collected from the Chinese Canadian community, the current study examines the transnational entrepreneurs' characteristics, drivers, and factors affecting their successes. The results portray a typical transnational entrepreneur as a 45-year-old or older man who is married with one child, has completed Master's or higher education programmes, and does not have a full-time job. For these transnational entrepreneurs, seeking business opportunities is an important reason for their migration to Canada in the first place and, subsequently, business expansion by drawing resources from dual locations becomes the primary driver toward a transnational mode of economic adaptation. The findings highlight the importance of context-specific determinants of transnational entrepreneurship and provide important implications for practice and policy making.

Keywords Transnational entrepreneurship · Immigrant adaptation · Canada · China

Introduction

Transnational entrepreneurs (TEs) are immigrants who are engaged in border-crossing business activities involving their country of origin and destination (Portes et al. 2002; Saxenian 2002; Ley 2006). By leveraging resources from both locations, enterprising immigrants serve as agents of international business in the promotion and facilitation of bilateral trade and investment (Yeung 2002; Chen 2007). While

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transnational practice can be found throughout the history of human movement (Light 2007), the scope and scale of contemporary transnational migration are unmatched by its ancient precedence, particularly due to deepened globalization and technological advancements during recent decades (Tung 2008). Saxenian (1999, 2002) described how immigrants from Silicon Valley, predominantly those of Chinese and Indian origin, have created successful technology ventures in their home countries. However, this type of research remains limited up to date. While focusing on their macro-level impact (e.g. on homeland development), we know little about the unique characteristics of TEs, for example, in comparison to others who are not involved in transnational entrepreneurial activities. Particularly, it is not clear whether TEs are necessity-based, opportunity-driven, or largely motivated by patriotic sentiments (Biao 2006). Transnational business practice is embedded within diverse social and historical contexts and is thus difficult to be captured in a universal profile (Portes et al. 2002).

The objective of this exploratory study is to help build the foundation for the emerging TE literature by examining the demographic and business characteristics of TEs in the Chinese community in Canada, a country currently witnessing a momentum of transnational activities among its immigrant communities. The paper is drafted in four parts. First, we review the existing literature concerning immigrant economic adaptation and transnational entrepreneurship, which is used to identify research gaps. Second, we describe our research methodology, which involved a questionnaire survey. Third, we present and discuss our findings, following an introduction of our analytical tool, the *CHAID* Tree technique. In the last part, we consider implications of this research and conclude with a discussion of our limitations and future research directions.

Conceptualizations and research questions

Immigrant economic adaptation

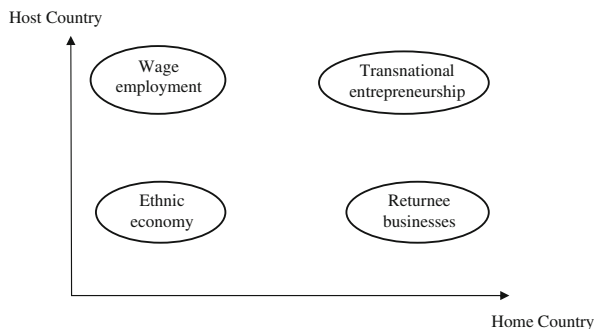
It is often suggested that ethnic minorities are more likely to become self-employed or to participate in the entrepreneurial sector (Aldrich and Waldinger 1990). From a structural perspective, they enter this sector because of their inability to participate in the mainstream economy for reasons such as social exclusion, and/or their unique ability to mobilize ethnic resources in actuating a protected market (Light 1972). The advantages derived from ethnic resources are further informed by a cultural perspective that considers certain cultural practices as conducive to entrepreneurial endeavours (Sanders and Nee 1996), and by a social capital perspective that emphasizes the usefulness of ethnic ties and networks in securing other forms of capital, particularly monetary capital, for ethnic minority groups who otherwise lack access to such resources in their adopted society (Portes 1998).

Most people are familiar with the ethnic enclaves such as Chinatown in San Francisco or other ethnic business owners within segregated co-ethnic neighbourhoods (Light et al. 1994). Although arguably the classic form, the enclave is only one type of ethnic economy. Prior research has distinguished ethnic entrepreneurs by their level of involvement within their ethnic community (Chaganti and Greene 2002;

Menzies et al. 2007). Extending this perspective to the international arena and focusing on social embeddedness in host versus former home countries, Lin (2010a) distinguishes four contemporary modes of immigrant economic adaptation as shown in Fig. 1.

Ethnic economy refers to various types of businesses that are either owned or controlled by co-ethnic owners (Light 2004). Although no longer necessarily confined geographically, ethnically sheltered businesses continue functioning on the basis of ethnic cohesion and cultural distinctiveness which afford them privileged access to a low-cost immigrant labour pool and to an ethnically based consumer market (Li and Dong 2007). As such, the ethnic economy maintains only limited interactions with the larger host society as well as their original home country. *Wage employment* refers to an immigrant's employment in a mainstream business. In most of the Western world, particularly those countries witnessing little population growth, there is a publicly proclaimed policy for embracing immigrants in the labour market. From a socio-psychological point of view, wage employment represents a mode of assimilation as immigrants are oriented to the host countries only (Berry et al. 1988). A *returnee business* is run by returned immigrants who have re-settled in their country of origin. While it is nothing new for immigrants to return and conduct business in their original country, there is a more exciting and relatively more contemporary type of returnee entrepreneurs—those who have obtained higher education overseas and return to set up new ventures in technology-intensive industries in the motherland (Liu et al. 2010). Returnee businesses are largely oriented towards their original country's markets even though they could adopt an international orientation given their experience and affiliation with former host countries (Lin 2010b). Finally, transnational entrepreneurs are immigrant business owners whose business activities span adopted host country and former home country (Portes et al. 2002). Transnationalism has been found in a large portion of immigrant businesses and is considered a unique mode of economic adaptation (Light and Gold 2000; Portes et al. 1999). Compared to their ancient predecessor, the middlemen traders (Light and Gold 2000), contemporary transnational entrepreneurs are more likely to interact with both home and host countries given the nature of their businesses and networks (Wong and Ng 2002; Saxenian 1999). On the other hand, TEs are different from returnee entrepreneurs who largely focus on their origin countries to guide their business strategy (Fuller 2010). Since TEs tend to keep their primary home in the host

Fig. 1 Immigrant economic adaptation and social embeddedness



Source: adapted from Lin (2010)

country, they remain committed to host countries while engaging their origin countries in business (Lin et al. 2008).

Transnational entrepreneurs: Necessity or opportunity driven?

While immigrants engaging their origin country in cross-border business can be traced back to the very early days of international migration, the scale and scope of transnational entrepreneurship have recently grown at an unprecedented pace with deepened globalization, technological advancements in transportation and telecommunications, and accelerated human mobility (Tung 2008). International migration is considered the most noticeable example of globalization (Bourne 2001). Circumstances in both host and home countries, political and economic, significantly mould the transnational field wherein immigrants identify unique opportunities (Levitt and Glick-Schiller 2003). According to Aldrich and Waldinger (1990), ethnic entrepreneurship emerges from the interaction of opportunity structures and group characteristics. The changing face of the “ethnic” community, through skilled migration (Meyer 2001), has exerted a significant impact on the recent shift of ethnic businesses from inner city enclaves to the transnational milieu (Greve and Salaff 2003).

It was in the 1990s that sociologists started debating whether contemporary TEs should be considered a legitimate research field and hence the discipline began to investigate the significance and characteristics of TE groups (Chen 2007). In the first quantitative and probably most influential research on the subject to date, Portes et al. (2002) confirmed transnationalism as a unique mode of immigrant economic adaptation as substantially different from other segments of the immigrant community. Considering three Latin American migrant populations in the US, these authors identified the following key characteristics of transnational entrepreneurs: high income, acquisition of US citizenship, and simultaneous maintenance of several ties with the home country. They also found three determinants of TE—being a married male, being educated, and having professional/executive experience. While these factors also had effects on domestically oriented immigrant entrepreneurs included in the same comparative study, the effects were stronger on the transnational entrepreneurs. Interestingly, those who had spent a longer period of time in their host country and were professionally better established, were more likely to engage as TEs. Put together, transnational entrepreneurs, in contrast to other modes of immigrant economic adaptation (waged employment and ethnic economy), are an elite group who are better qualified, more experienced, and more successfully established.

Saxenian (1999, 2002) has been credited for the recently renewed scholarly interest in TEs, but her work is focused on a rather different type of transnational migrants, that is, US-educated immigrants who are returning to their home countries to set up technology ventures. According to Saxenian, these transnational entrepreneurs draw on ethnic resources such as shared language and culture in spanning national borders. However, unlike older generations of ethnic businesses, these technology-oriented entrepreneurs also draw upon shared roots in Silicon Valley’s professional experience and networks in pursuit of transnational opportunities. Importantly, although China and India have long boasted the two largest diasporas worldwide, it was not until recently, when unprecedented economic opportunities opened up, that these countries started witnessing the return of sizable US-educated

technology entrepreneurs. In China, the ongoing economic reforms have gradually moved the country away from an anti-entrepreneurial ideology. Thus, when Western educated professionals return to make contributions, they do not have to be on a philanthropic mission, but can come back as profit-driven business owners (Wang 2007; Lin 2010a).

While both Portes et al. and Saxenian portray TEs as largely the better-off and more resourceful segments in immigrant communities, others paint the picture rather differently. Research has claimed that there are different ways of being transnational and that transnationalism affects people in different ways (Grillo 2007). From his extensive field work in California, Rouse identifies a border-crossing community wherein Mexican migrants, in facing economic and/or political uncertainty, lack confidence to commit to long-term residence in the US, but need this residency to earn incomes to support the fragile, small-scale, family-run business in Mexico (Rouse 1991, 1992). In such a situation, transnational migration is not a way for the ethnic elite to self-empower, but for “transnational semiproletariat” to meet the basic needs for survival at both origin and destination. Likewise, the transnational economic practice of Salvadoran immigrants in the US represents a case “transnationalism from below” as opposed to “transnationalism from above”, that is, the transnational responses from elites (Landolt et al. 1999). According to Landolt and colleagues, Salvadoran immigrants entered the transnational realm for reasons related to both their exit from Salvador and their entrance into the US. On the one hand, there was a sense of social obligation towards their home country experiencing violence, chaos, and poverty facing their families that they had to leave behind. The economic difficulties as well as political and legal uncertainty convinced the Salvadoran immigrants that they needed to build a safety net by investing considerable resources in Salvador. Finally, even Portes and Rumbaut (2006) recognized that immigrants in the USA may adopt transnational business practices involuntarily as a reaction to barriers in the general labour markets.

Research gap and questions

The above literature reveals the diversity of what is often referred to as transnational entrepreneurship, and the danger of de-contextualizing players’ motivations and characteristics. According to Grillo (2007), we could benefit from a dichotomy popularized by the GEM project, that is, the classification of entrepreneurship into necessity based and opportunity driven (Minniti et al 2006). While necessity entrepreneurship is need-based, opportunity entrepreneurs start a business in order to pursue an opportunity. Although it is debatable whether opportunity-driven entrepreneurship is always more desirable, the ratio of opportunity-driven to necessity-based business owners is greater in higher-income countries (Harding 2003). Clearly, social contexts, in addition to individual characteristics, matter in formation of TEs. Circumstances in both host and home countries can be influential (Faist 2000). While recent literature tends to celebrate the TE phenomenon as an opportunity-driven economic adaptation, such opportunities are shaped by the institutional/economic conditions in the origin country as well as the characteristics of the specific immigrant community (Portes et al. 2002; Grillo 2007). According to Smith (2003), the standing of origin countries in the world system influences their diaspora’s

transnational practice. It is thus understandable that emerging market countries such as India and China have witnessed proliferating transnational businesses from returned diaspora but less developed regions such as the Sub-Saharan region of Africa have not (Patterson 2006).

If transnational entrepreneurship is a context-embedded phenomenon, the demographic and business characteristics of TEs should vary across diverse national contexts (Portes et al. 2002; Grillo 2007). To add to the emerging literature on transnational entrepreneurship, the current study is focused on Canada, a country where TE is likely to be more prevalent due to favourable circumstances. Our target population are recent immigrants from the People's Republic of China (hereafter, mainland China or simply China), a group that scholars have not distinguished from other segments of the "Chinese" immigrant community (Teo 2007). Following Portes et al. (2002), we compare and contrast TEs with a non-TEs group consisting of entrepreneurs or people who are interested in entrepreneurship. Keeping in mind the necessity-opportunity dichotomy, we address three interrelated questions: (1) What are the key characteristics of TEs in comparison to non-TEs? (2) Why do these immigrants choose to become TEs? In other words, what are the main determinants and motives of involvement in TE activities? (3) What are the factors contributing to a TE's success?

Methodology

Research context

Canada is a country that has recently witnessed a substantive transnational movement among its immigrant populations (DeVoretz and Ma 2002). Historically known as an immigration country, Canada has found itself in a position where it will have to rely on immigration to maintain its current level of population growth. For sustaining its population and economic growth, the country has instituted an immigration policy with a focus on the so-called economic class composed of skilled professionals, entrepreneurs, and investors (Clydesdale 2008). Despite its promises, however, this policy and efforts at various levels of governments have not been successful in putting talented immigrants in the fields and/or positions for which they are trained and accepted into Canada. In Ontario, for example, skilled immigrants are found to need more time to obtain a professional licence, to earn less, and to have a higher unemployment rate than do their Canadian-educated counterparts. As a result, many of them have simply given up trying to get a professional licence (Office of the Fairness Commissioner 2010). To survive and perhaps to thrive, many skilled immigrants have chosen two alternative modes to adapt to the harsh reality. One is to "move down" into service and general labour work, most likely within the confines of the ethnic economy; and the other is to "move away", most likely back to the migrants' original country (Jones 2004; Lin et al. 2008). To follow the second route requires certain conditions, especially those that promise economic prospects in the original country; for example, the opportunities that China is currently offering to its diasporic communities.

In Canada, contemporary migration from mainland China heightened around the mid-1990s when China's economic transformation produced new middle-class affluence and thus the level of human capital among prospective immigrants on the one hand, and Canada's greater emphasis on attracting business-class immigrants with substantial human capital on the other (Li 2005). Having recently become the largest source of immigrants to Canada, the mainland Chinese immigrant community is dominated by the economic class, particularly the skilled immigrants therein (Citizenship and Immigration Canada 2004). Although the mainland immigrants are likely to be rich in human capital (i.e. education credentials, see Statistics Canada 2008), they also bear certain weaknesses (even compared to the Chinese immigrants from Hong Kong). For example, they tend to have deficiencies in cultural capital (e.g. English language capability and Western business protocol), which has made them less employable in the general labour market. On the other hand, they also tend to possess less financial and social capital, especially for those who came under the skilled worker category (Salaff et al. 2001), which has created difficulties for them to pursue entrepreneurship in a conventional mode. However, such settlement experience does not necessarily "push" the Chinese immigrants into a transnational mode; for that to happen we need certain "pull" factors at the immigrants' country of origin.

Indeed, the circumstance in China plays a major part in the development of TE among the Chinese Canadian communities (Teo 2007; Chen 2007). As is known, China's burgeoning economy has brought about unprecedented business opportunities. Significantly, the largest "foreign" group that has taken advantage of these opportunities is China's diasporic communities: At the top are major overseas Chinese businesses which have commanded the majority share of China's inward foreign direct investment and at the bottom are numerous ethnic Chinese entrepreneurs who have tapped into China's enormous market opportunities (Lever-Tracy et al. 1996). To a large degree, those TEs who have recently immigrated to Canada are an integral part of the transnational move among the Chinese diasporic community in responding to the ongoing economic transformation in China. Another key "pull" factor is Chinese government's policies and programmes that are specifically designed for attracting overseas Chinese (Wang 2007). As an example, designated industrial incubators for returnee entrepreneurs have been established, accompanied by favourable programmes and policies that provide seed monies, tax breaks, and expedited government services. Take as another example, working alongside the diplomatic units and overseas offices of various government agencies, the Chinese government at various levels has frequently sent recruitment missions abroad or has invited overseas Chinese to visit China on business tours (Zweig et al. 2006). Equally important are the changes in the government's orientation toward the diaspora's homeland engagement. In the earlier years of this shift, permanent return was emphasized, which made it unrealistic for certain people. Recently, the government has taken a more pragmatic approach and has encouraged alternative ways of "serving the country" to returnee entrepreneurship (Biao 2006).

In the context discussed thus far, one would assume that TEs should become trend-setters among recent mainland Chinese immigrants in Canada. Although supported by anecdotal evidence, such an assumption has not been confirmed by scholarly research. There also lacks recognition of the distinct characteristics of the mainlanders from those from elsewhere (e.g. Hong Kong) in light of their socio-economic background, human

capital endowments, and emigration trajectory, which should exert impact on their adaptation strategies in Canada (Teo 2007; Li 2005).

Data collection

In 2009, we collected the data from two public forums in Toronto's Chinese community. These forums were targeted at people interested in technology entrepreneurship. The final sample used for analysis consists of 185 completed responses, representing a combined response rate of 60%. To make sure that the respondents were clear about what we mean by transnational entrepreneurs, we also provided a definition in the questionnaire: "who reside in Canada and frequently travel between Canada and China for the purpose of business" before asking them to indicate whether they were a transnational entrepreneur. Among the 185 respondents, 73 identified themselves as transnational entrepreneurs; the rest were either entrepreneurs whose business was limited to Canada or those who were interested in becoming an entrepreneur in a technology field.

Since attendance in the events required pre-registration, we were able to compare the respondents with those who chose not to participate in the survey. Using information such as postal codes and employment status, our comparison revealed no significant differences between the two groups. Our sample was drawn from the mainland Chinese community and most of the survey participants came to Canada as skilled workers. It is thus important to distinguish them from the Chinese immigrants of Hong Kong origin in Vancouver, whose businesses are less likely to be technology-oriented. In our sample, all the transnational entrepreneurs' businesses were involved with technologies in industries including IT, clean energy, bio-tech, and new materials.

Instrument

This study employed a survey methodology to collect data. A questionnaire was designed for this study based on existing literature and extensive fieldwork. Questions are segmented into four sections: demographics; work and personal experiences in Canada; perceptions of China's environment for business, personal, and family lives; and transnational experience. The pre-tests indicated that many Chinese immigrants were not accustomed to or felt burdened filling out such surveys (for example, placing numbers in Likert scales). We thus decided to use many closed-ended questions with fixed response categories. As explained below, the *CHAID Tree*, a decision tree technique, enabled us to perform the intended analyses with data collected in this way. To accommodate most respondents' language preference, the questionnaire was written in Chinese. About 15 min was required to complete the questionnaire. The questionnaire variables and associated coding are presented in Table 1.

Analytical technique

One of the biggest challenges in survey studies is how to handle answers with discrete values, which are difficult to process for most statistical tools. To meet this challenge,

Table 1 Questionnaire variables and coding

Variable	Description
TE	1 - The respondent claimed to be a TE; 0—Not a TE
Gender	1—Male, 2—Female
Age	1—34 or younger, 2—35~44, 3—45~54, 4—55~64, 5—65+
Education	Highest education level. 1—PhD, 2—MBA, 3—MA, 4—BA, 5—Diploma, 6—High school or less
EMP_STAT	Employment status. 1—Full time, 2—Part time, 3—Self-employed, 4—Employer, 5—Not working
Job match	1—Match with the training, 2—Not matched with the training
HHSIZE	Household size. 1—One person, 2—Two persons, 3—Three persons, 4—Four or more persons
HHINC	Household income. 1—\$30K or less, 2—\$30~60K, 3—\$60~80K, 4—\$80~100K, 5—\$100K+
FCT2CDN1	Factor moving to Canada—income difference
FCT2CDN2	Factor moving to Canada—business opportunities
FCT2CDN3	Factor moving to Canada—personal career development
FCT2CDN4	Factor moving to Canada—environment and health
FCT2CDN5	Factor moving to Canada—social security and benefits
FCT2CDN6	Factor moving to Canada—child education
FCT2CDN7	Factor moving to Canada—family reunion
FCT2CDN8	Factor moving to Canada—others
HAIUO_R1	Reason becoming TE—not satisfied with previous job
HAIUO_R2	Reason becoming TE—lack of promotion opportunity at previous job
HAIUO_R3	Reason becoming TE—seek new business opportunity
HAIUO_R4	Reason becoming TE—extend existing business
HAIUO_R5	Reason becoming TE—required by the employer
HAIUO_R6	Reason becoming TE—try to make a change
HAIUO_R7	Reason becoming TE—self-challenge
HAIUO_R8	Reason becoming TE—homesick, want to be close to contacts in China
HAIUO_R9	Reason becoming TE—cannot adapt to life in Canada
HAIUO_R10	Reason becoming TE—chase freedom
HAIUO_R11	Reason becoming TE—others
IPV_CDN1	Canadian governments should improve the immigration policies.
IPV_CDN2	Canadian governments should improve the tax policies.
IPV_CDN3	Canadian governments should improve the multi-culture environment
IPV_CDN4	Canadian governments should recognize the profession certificates issued by the origin countries
IPV_CDN5	Canadian governments should recognize immigrants' work experience in the origin countries
IPV_CDN6	Others
IPV_CHN1	Chinese governments should solve TE's ID problem
IPV_CHN2	Chinese governments should solve TE's child education problem
IPV_CHN3	Chinese governments should improve TE's living conditions
IPV_CHN4	Chinese governments should improve TE's working environment
IPV_CHN5	Chinese governments should help TEs find the positions matching with their background
IPV_CHN6	Others

we used a decision tree technique. The key advantage of this technique is that it can accept nominal, ordinal or continuous data. Decision trees can identify discrete groups of respondents and can, by taking their responses to explanatory variables, find the most important factors and relationships that explain the dependent variable.

There are different decision tree algorithms. The decision tree we used is based on algorithm *CHAID* or Chi-Square Automatic Interaction Detector (Kass 1980). *CHAID* builds a decision tree by choosing its splits. In choosing optimal splits, it relies on the chi-square tests to recursively partition (or split) a population into separate and distinct segments. These segments, called nodes, are split in such a way that the variation of the response variable (categorical) is minimized within the segment and maximized with other segments (Ramaswami and Bhaskaran 2010).

An important advantage of the *CHAID* algorithm is in tree generating. Instead of generating only binary trees, *CHAID* algorithm can generate multiple-branch trees. We hoped that by using this algorithm, *CHAID* Tree can find multiple splits for variables such as categorized age, education level, and employment status. By means of chi-square metrics, *CHAID* Tree is able to effectively segment the respondents into groups (nodes) by their level of relations.

Discussions of findings

Profiling transnational entrepreneurs

Who are the TEs and what are the differences between TEs and non-TEs? Table 2 presents the profiles from the respondents. Several contrasts are instructive and interesting. First, significantly fewer females than males (35.6% versus 58.9%) are found in the TE group. This finding is consistent with both Portes et al. (2002) and Chen (2007) but contradicts evidence from the more conventional ethnic economy, where the incidence of women-owned small businesses is high (Puryear et al. 2008). Second, the probability of becoming a TE in a four or more person household significantly falls. In other words, families with more than one child are less likely to be involved in transnational entrepreneurship. Put together, a TE seems to represent as much a lifestyle as a business type which gives rise to demands, pressures, and associated roles between husband and wife. In conventional family business, self-employment provides women with the flexibility to take care of young children (DeMartino et al. 2006). By contrast, being a TE entails frequent international travel which presents difficulties for women involved in taking care of business and children at the same time. However, with the man being an “astronaut”, the family size is constrained. In Teo’s (2007) terminologies, transnational strategy of the mainland Chinese immigrants is “familial” arrangement and brings to light both the flexibility and limitations.

Third, employment status matters. Our results show that 61.3% of the non-TE immigrants have a full-time job compared to 35.6% among the TEs. Further insights can be gained from the other categories: self-employment, employer, and not-working. For example, the percentage of TEs who are self-employed is double that of non-TEs (28.8% versus 14.4%). The Chinese TEs thus are more similar to those in Portes et al.’s (2002) sample who are more fully dependent on the transnational

Table 2 Demographic profile

	All respondents		TEs		Non-TEs		No answer
Total	185		73		111		1
Age							
No answer	1	0.5%	1	1.4%	0	0.0%	
34 or younger	32	17.3%	15	20.5%	17	15.3%	
35~44	116	62.7%	39	53.4%	77	69.4%	
45~54	32	17.3%	16	21.9%	15	13.5%	1
55~64	1	0.5%		0.0%	1	0.9%	
65+	3	1.6%	2	2.7%	1	0.9%	
Gender							
No answer	4	2.2%	4	5.5%	0	0.0%	
Male	103	55.7%	43	58.9%	60	54.1%	
Female	78	42.2%	26	35.6%	51	45.9%	1
Household size							
No answer	7	3.8%	5	6.8%	2	1.8%	
One person	21	11.4%	9	12.3%	12	10.8%	
Two persons	30	16.2%	14	19.2%	16	14.4%	
Three persons	96	51.9%	39	53.4%	56	50.5%	1
4+ persons	31	16.8%	6	8.2%	25	22.5%	
Employment status							
No answer	4	2.2%	2	2.7%	2	1.8%	
Full time	94	50.8%	26	35.6%	68	61.3%	
Part time	14	7.6%	5	6.8%	8	7.2%	1
Self-employed	37	20.0%	21	28.8%	16	14.4%	
Employer	4	2.2%	4	5.5%	0	0.0%	
Not working	32	17.3%	15	20.5%	17	15.3%	
Education level							
No answer	7	3.8%	5	6.8%	2	1.8%	
PhD	13	7.0%	7	9.6%	5	4.5%	1
MBA	19	10.3%	7	9.6%	12	10.8%	
MA	49	26.5%	16	21.9%	33	29.7%	
BA	85	45.9%	36	49.3%	49	44.1%	
Diploma	9	4.9%	2	2.7%	7	6.3%	
High school or less	3	1.6%	0	0.0%	3	2.7%	

business than those in Landolt et al.'s (1999) "return migrant microenterprises" who must seek wage work in the host country on a regular basis to compensate for the inadequacy of their transnational business. Fourth, education matters. It appears that a higher level of education is associated with a higher rate of TE involvement but a lower level of education is associated with a lower rate of TE involvement. For example, PhD holders represented 9.6% of TEs but only 4.5% of non-TEs. In contrast, people who had only a diploma or lower levels of education accounted for

2.7% of TEs versus 9.0% of non-TEs. Again, these findings confirm those from Portes et al.'s (2002) and Chen (2007) that TEs possess a greater level of educational attainment compared to other segments of the immigrant community.

Finally, age makes a difference. Both the TE and non-TE sub-samples exhibited a normal distribution whereby the 35–44 age group represented the largest portion of each. However, moving up to the next age bracket, people 44–54 years old accounted for 21.9% of TEs, but only 13.59% of non-TEs. To a certain degree, this result points to an important characteristic of the TEs, particularly in contrast to the returnee group. Prior research suggests that the majority of returnee entrepreneurs in China are around 35-year old (Wang 2007, p.180). Older immigrants choose a transnational mode because they have already made the host country as primary home or because they are better able to draw on host country resources than their younger and less established returnee counterparts (Lin et al. 2008).

Determinants of transnational entrepreneurship

CHAID was used to address our research questions (2) and (3), and generated four distinct models. Models 1–3 investigate the determinants and motives of TEs and Model 4 examines success factors in transnational entrepreneurship. In a tree format, *CHAID* prioritizes the “predictors” (i.e., determinants, motives, and success factors) in terms of their contribution. Figure 2 provides an example of our results in the tree format.

According to the results, employment status is the most important factor that differentiates TEs from non-TEs. Among the 91 without full-time employment, 47 (51.6%) respondents are TEs, whereas among the 94 with full-time employment, only 26 (27.7%) are TEs. In other words, respondents who do not work full-time have almost twice the possibility of becoming a TE. Among the respondents without a full-time job, *education level* is the next most important factor. Particularly, about 85% (i.e., six out of seven) of PhDs are TEs, compared with about 50% out of those without a PhD. In short, an immigrant is more likely to become a TE when he or she does not have a full-time job, particularly if he or she has high educational credentials. These findings might reflect a reality facing international educated professionals in Canada, that is, many of them cannot find wage employment in their trained professions or in positions matching their level of education. As a result, the pursuit of a transnational business by engaging origin country has become a way of overcoming these obstacles (Teo 2007).

For people with full-time employment, *age* is the next important predictor for transnational entrepreneurship. The results show that 17 out of 80 (21.3%) at 44 or younger are TEs, compared with nine out of 14 (64.3%) age 45 or older. Finally, among 14 TEs who are 45 or older, “job match” (i.e., the matching of current employment with education/training background) significantly affects their chances of becoming TEs. While only two out of seven respondents whose jobs do not match their training claimed to be TEs, the other seven respondents with job-training matches became TEs. It thus seems to suggest the existence of a different class of TEs who have been able to work in their trained professions and have now reached a career plateau, or rather, the proverbial glass ceiling (Klie 2006). This finding, while important, is incomplete since we still must explain

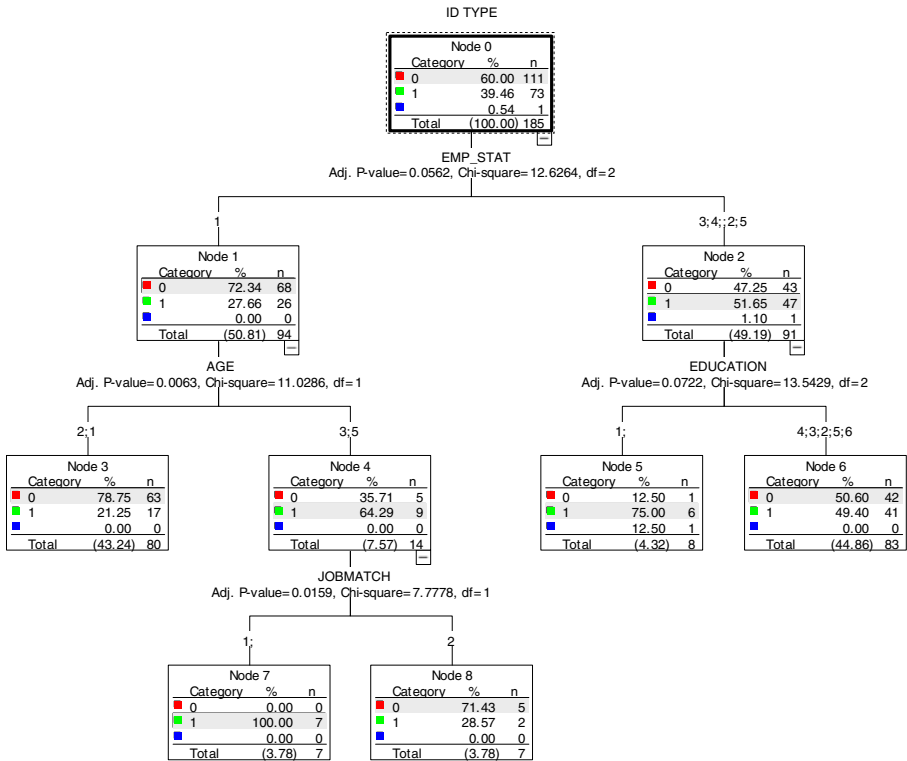


Fig. 2 Determinants of transnational entrepreneurship

why immigrants are driven toward their country of origin in entrepreneurial pursuit, which leads us to explore the motives for immigrants to get involved in transnational entrepreneurship.

Note that the descriptive statistics suggest a significant association of being TE and gender. Interestingly, the decision tree does not pick up gender as an important driver of transnational entrepreneurship. This implies that gender is associated with other, perhaps more important variables in differentiating TEs from non-TEs.

Motives of transnational entrepreneurs

Recent literature on immigrant business engagement with origin countries has been inconclusive with regards to their motivations. While the list of motivations could be very long, a major distinction can be made between business opportunity and some sort of homeland sentiments. Some researchers indicate that immigrants, referred as to diaspora, return to home countries for their patriotism whereas others believe that enterprising immigrants return to their home countries chiefly because more promising opportunities are to be found there (Biao 2006). The debate has been carried onto the contemporary Chinese context where the evidence remains inconsistent (Wang 2007). The decision tree technique with CHAID allows for a clearer picture. According to our results, extending current business is the primary reason for the Chinese immigrants to become a TE, followed by the desire of being close to

family members/relatives/friends in China. Together, the results portrayed the TEs first as businessperson; however, the transnational lifestyle allows for the added satisfaction of engaging with the motherland.

To eliminate ambiguity in our conclusion, we further examined the characteristics brought by immigrants from their home countries. Our findings show that, for the TE-oriented Chinese immigrants, seeking more business opportunities is the second most important reason, only after better environment and social security. Note that more than 60% of the immigrants enter Canada under the economic category (Office of the Fairness Commissioner 2010). Canada is usually considered a nice place to live but not a place to grow entrepreneurs. Many of the immigrants are pursuing a transnational entrepreneurial path because they were already entrepreneurial when they landed on Canadian soil. There are also cases in which talented immigrants hit so-called glass ceilings in corporate Canada and thus contemplate moving to China to take advantage of its booming economy; however, they have also decided to give up the prospect of far more promising business opportunities, in exchange for a transnational lifestyle that Canada can offer. Put together, the TEs in our sample are a class of worldly and entrepreneurial-minded professionals who migrate for a better living and conducting business at the same time that allows for leveraging resources at dual localities (Clydesdale 2008) and for taking care of both economic and personal needs (Teo 2007).

Factors affecting success in transnational entrepreneurship

According to our results, employment status is the most important factor in deciding whether the TEs' businesses are profitable or not. Those TEs who did not have a full time job had a much higher possibility of becoming profitable (53.1% versus 19.5%). It seems that successful transnational entrepreneurship requires commitment. Recall that employment status is also the primary differentiator between TE and non-TE. Apparently, a qualified TE is the one who engages in transnational activities not on a casual basis but relies on them as his or her primary livelihood (Portes et al. 2002). Our finding thus helps further open the "black box" with regards to the reason why TEs tend not to have a full time job: it suggests that the Chinese immigrants in our sample become TEs not because they do not have the wage labour alternative, but because they voluntarily give up the opportunity to work full-time for others in order to pursue the more promising, transnational opportunity for themselves.

Furthermore, among the respondents without full-time employment, gender is the next most important factor: males are more successful than females. It is commonly known that there are many difficulties involved in transnational living such as demands for travel and separation from family. It is then easy to understand why male TEs would have a greater chance to succeed than their female counterparts. In recent years, major Canadian cities (e.g. Toronto and Vancouver) have witnessed a significant number of "astronaut's families", that is, families in which the husband travels back and forth between China and Canada on business, whereas the non-working wife and grown-up children reside in their permanent home in Canada (Teo 2007). Without the male TE's dedication and sacrifice (as well as those of his wife) it would not be possible to sustain such a lifestyle.

Necessity or opportunity: Verification from case studies

While our analysis so far suggests that Chinese immigrants were drawn into transnational practice by a promising business opportunity, whether the Chinese TEs were largely opportunity or need based is not unambiguously confirmed with our survey data. For example, we found that participation and success in transnational entrepreneurship are more likely for immigrants who did not have full-time job, but the causal direction remained unclear: Did they choose to not have a full-time in order to pursue the transnational business opportunities, or did they enter the transnational sphere because they had to live on it for the lack of options, particularly wage employment? To eliminate such ambiguities, we conducted a series of case studies with selected Chinese immigrants who had participated in the survey. By and large, these case studies confirm our aforementioned speculation. Take, for example, an interviewee who recently became one of the three founding owners of a start-up in China. The entrepreneur immigrated to Canada with his family about 5 years ago and was immediately hired by a Toronto-based IT company. Thanks to his experience (a university professor with start-up experience in China) and hardwork, he was promoted to the position of chief engineer within 2 years. However, “Life’s getting bored, and I didn’t have enough to do”, he said. Just about that time, two friends called and invited him to launch a business venture together in China’s burgeoning online gaming industry. He had travelled back a few times before he decided to formally join his friends. When he submitted his letter of resignation, the owner of the Canadian IT firm wanted to keep him. They eventually agreed that he would stay in the firm on a part-time basis. “I have told him that I’d spend lots of time in China, but he didn’t see that as a problem, given internet etc. I appreciate his trust; and my family (wife and daughter of college age) will stay anyway”, explained the Chinese entrepreneur.

Another respondent, who had a research position in a bio-tech firm, was not that lucky. He had to give up the job entirely in order to launch his own venture in China. “I was living comfortably with my (prior) job, and there has been times when I questioned why I am so hard on myself (with regards to constant travel between Canada and China, etc.) I haven’t made a penny from my own firm up to date. But here is my thinking—I have this great idea, which I believe is big; and I give myself 5 years to try it out in China; the worst scenario would be closing the business and coming back to find a job in Canada—hopefully still wanted”, he explained.

We also talked to one immigrant who worked as a software engineer in a Toronto-based firm. Outside of work he had developed a software product that he believed would help fill a void in China’s industry design sectors. Because of the full-time job, his travel time was limited and he had to rely on a partner in China to carry out the marketing tasks there. “Progress has been slow”, according to the soft-spoken entrepreneur, “and I am not sure if this is the way to do it. Maybe the job I have now is a bad thing, but I can’t quit as yet—I need to feed myself.”

In short, the stories from the Chinese immigrants varied, but one thing seemed to be consistent that the skilled immigrants did not have to live on the transnational activities; they chose to engage in China for its emerging market opportunities. And the reason that they did not return and permanently re-settle in China is that they wanted to keep Canada as primary home (Lin et al. 2008).

Conclusion and implications

The current study contributes to the emerging literature on transnational entrepreneurship by taking a step towards examining the TEs' personal and family characteristics, important motives, and factors responsible for their ventures' success. In the context of Chinese immigrants in Canada, we find a typical TE to be a man who is at least 45 years old and is married with one child, has completed a Master's or higher education programme, and does not have a full-time job. This portrait stands in contrast to what we know about other segments of the "ethnic economy". For instance, both the Chinese TEs and returnee entrepreneurs tend to be associated with a higher level of education, but the former are likely to be older (see Wang 2007 for a profile of the Chinese returnee entrepreneurs). On the other hand, compared with traditional ethnic minority-owned small businesses, the ratio of females appears low among the Chinese TEs. However, such a difference is not inconsistent with the contention that "lifestyle issues" are critical in a woman's decision to become an entrepreneur (DeMartino et al. 2006). Due to the absence of extended family and affordable childcare, one parent in the Chinese Canadian household often has no choice but to stay home to take care of children. While conventional businesses may allow women the flexibility to enter an entrepreneurial path without giving up the child-care responsibilities, the demanding nature of transnational business, such as frequent travel, would prevent a female TE with children from fulfilling such a responsibility. Thus, for the newly emigrated mainland Chinese, transnational entrepreneurship is undertaken as a household strategy that optimizes the family's resources and opportunities (Teo 2007). On the whole, our findings suggest that immigrant transnationalism amounts to a distinctive form of economic adaptation in the Canadian context. Although we are unable to get a detailed picture of their family incomes, we know that the Chinese TEs tend not to have a full-time wage job, meaning not only that they must rely on transnational activities as a significant part of their livelihood, but also that such employment status afford them to engage in these activities on a regular basis (Portes et al. 2002).

The study offers an opportunity to explore both the legendary and more contemporary contexts for immigrant economic adaptation (Portes et al. 2002; Light 2004). Consistent with the GEM project, we ask if Chinese transnational entrepreneurs in Canada are largely necessity-based or opportunity-driven. Our findings suggest that the familiar factors of "pushing" ethnic minorities into a co-ethnic owned or controlled business (barriers in the general labour market in particular) may still exert an impact on immigrant economic adaptation. However, contemporary transnational entrepreneurship has primarily evolved as a response to an emerging "opportunity structure" conditioned by new developments occurring internationally, including a growing interdependence between national economies, reduced barriers to migration, and accelerated technological advancements (Tung 2008). For those who have emigrated from emerging markets such as China, a decisive factor "pulling" the immigrants into the transnational path has been the unprecedented business opportunities. Seeking to understand the motives of entrepreneurs, recent literature differentiates between the "necessity" type who is pushed into entrepreneurship because other options are absent or unsatisfactory and the "opportunity" type who is pulled into entrepreneurship by novel business opportunities (Minniti et al. 2006). In our

study sample, the Chinese immigrants seem to have chosen not to pursue full-time job in order for them to engage more fully in transnational business. In a way, this finding is consistent with the experience of Otavalan entrepreneurs who have foregone wage employment in host societies because they can make a good living from their transnational activities (Kyle 2001). In other words, China enabled opportunities in the transnational space could be assumed to be a principal reason underpinning the Chinese immigrants' decision to go transnational, given their human capital endowments and ability to draw resources from dual locations into a high-growth course (Saxenian 2002; Chrysostome and Lin 2010).

Prior research has stressed the importance of immigrants' experience with both the exit from origin country and the reception at the destination (Landolt et al. 1999; Portes et al. 2002). According to our results, seeking business opportunities is an important reason for many mainland Chinese to migrate to Canada and expanding current business is the primary driver toward a transnational lifestyle after they have settled in the host country. This finding is especially interesting because the homeland engagement by the Chinese diaspora has often been attributed to their unique emotional attachment to their motherland. However, contemporary economic transnationalism has to be viewed as part of the "capitalist expansion" fuelled by increased connectivity across national markets (Portes et al. 1999, p. 228), which coincides with the arrival of a new generation of immigrants among whom there is no lack of entrepreneurial spirit or potential. Statistics has shown that Chinese immigrants to Canada are dominated by an economic class composed of many highly skilled professionals and an increasing number of investors and entrepreneurs (Li 2005). They migrate to increase their personal and familial resources and belong to an "international capitalist class" which exploits a liberal immigration regime (Harrison 1996, p. 10).

While the finding that business opportunities overshadow "motherland sentiments" (such as being close to family and relatives) as motivators of transnational entrepreneurship justifies the entrepreneurial approach to engage diaspora of professionals by immigrants' former home country (Lin 2010a), it also implies that host countries could profit from such transnationalism (Chen 2007). Importantly, the benefits for the host countries could go beyond the trade and investment spheres to include enhanced innovation performance, an almost untapped territory in the extant literature (Lin et al. 2008). For international entrepreneurs without an immigrant-background, TEs can help break cultural and linguistic boundaries and facilitate access to sources in the TEs' origin countries (Saxenian 2002). For large corporations contemplating entering an unfamiliar market, TEs may be used as intermediaries to mitigate cultural and legal challenges (Terjesen and Elam 2009).

Our findings could inform policy makers in Canada. As widely recognized, the objectives of Canada's immigration policies have not met expectations. Economic-class immigrants, skilled immigrants in particular, are still faced with significant barriers in the general labour markets. If contemporary transnational entrepreneurship, as a mode of immigrant economic adaptation, may offer the greatest potential for upward mobility (Portes et al. 2002), policy makers should seriously consider measures to facilitate its development. The problem is that the government is not very informed at present. There is no distinction between "astronauts" who merely take advantage of Canada's liberal immigration policy without contributing to the country's

economy and transnational entrepreneurs of positive influence on bilateral trade and investment (Chen 2007; Zhang 2007). To make transnational entrepreneurship a win–win strategy for Canada and China, as well as for the immigrants and their families, there is a need for innovative, joint initiatives to deal with border-crossing issues such as residency, taxation as well as intellectual properties between the two governments and between government agencies and the immigrant community (Lin et al. 2008).

The current study was conducted in a unique context, which bears limitations as well as merits. Canada is unique in light of its heavy reliance on immigration and liberal migration regime, whereas the Chinese immigrants arrive from a country witnessing unprecedented economic growth while sending emigrants at a historically record level. Although the transnational experience of Chinese Canadians adds to the diverse profiles of TEs, it may not be readily generalizable in other social and economic contexts. For comparison purposes, an immediate step may be extending the current study to other societies facing a similar immigrants and entrepreneurship nexus such as New Zealand (Clydesdale 2008). The current study is based on a relatively small sample, which prevents us from taking full advantage of the CHAID Tree technique. In several cases, we had to allow for relatively high p values in order to split the node, which indicates the exploratory nature of the current study. Third, the focus of current study is rather narrow, omitting some factors of potential influence on entrepreneurial intentions such as national culture. For example, there is evidence that certain elements of the Chinese culture are conducive of entrepreneurship (Zapalska and Edwards 2001).

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