

Necessity and Opportunity-driven Entrepreneurs in Canada: An Investigation into their Characteristics and an Appraisal of the Role of Gender

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The past decades have witnessed an increase of the proportion of firms created by women in Canada. However, despite the increasing number of female entrepreneurs, research in the field keeps reporting that women are twice less likely to start a business than men; when they do start a venture, it is smaller in size and shows a lower growth level than male-controlled firms. The purpose of this research was to examine how female and male entrepreneurs participating to the Global Entrepreneurship Monitor (GEM) Canada survey compared in terms of their motives to start a business. Motivations were compared using the “push-pull” dichotomy among a sample of owners of recently created firms across Canada. In general, the results of this study show a relationship between success at launching a business and some characteristics of opportunistic entrepreneurs such as: level of education, skills, self-confidence, income and networking. As men tend to have acquired these characteristics in a higher proportion than women, it would not be surprising to see women obtaining on average lower results than men when these characteristics are measured.

INTRODUCTION

The idea that entrepreneur is at the centre of the economic growth process was described by Schumpeter (1934). Ever since this, there has been a vast and growing literature on various aspects of entrepreneurship and its link to economic growth (Dejardin, 2000; Langowitz and Minniti, 2007; Heertje, 2006; Audretsch et al., 2006). This link has been so well-established that many countries have adopted official policies to promote entrepreneurship as part of the strategy to promote economic growth and development (African Development Fund, 2006; European Commission, 2003; Leitao and Baptista (Eds.), 2009). In order to promote entrepreneurship, an

important issue to understand is what motivates entrepreneurs. This study adds to the literature by developing profiles of necessity and opportunity entrepreneurs in terms of personal and organizational characteristics.

The motivations that underlie the new venture formation are complex and have long been of interest to entrepreneurship researchers (Krueger and Brazeal, 1994; Reynolds and Miller, 1992). Given their relevance to business growth and development, the study of motives continues to be part of the entrepreneurship research agenda.

Early researchers focused on certain personality characteristics or individual traits to explain entrepreneurial behavior. These can be described as internal factors. In the mid-1960s, McClelland (1961) proposed the need to achieve as a key factor. Others proposed a related concept called the 'locus of control' (Chen, Green and Crick, 1998; Mueller and Thomas, 2000).

Entrepreneurs are also seen as risk-takers, problem-solvers and innovators. An additional approach that is taken to explain entrepreneurial behavior is the relationship between an individual and the social environment. Some of these external factors considered are: work experience, role models, education, culture and environment. Entrepreneurship is said to be the result of the interaction between the internal and external factors (Smith-Hunter, Kapp and Yonkers, 2003).

Not all those who become entrepreneurs respond to their environment in a uniform way. Some respond to a perceived market opportunity. Others are forced into starting a business due to unfavorable circumstances. These forces have been categorized as the 'pull' and 'push' factors (Buttner and Moore, 1997; Harding et al., 2006; McClelland and Swail, 2005; Stevenson, 1986). The 'pull' perspective associates venture initiation with the notion of seizing an opportunity and making a deliberate choice to become self-employed. Conversely, others may be 'pushed' into becoming entrepreneurs by such external factors as losing a job, hitting a glass ceiling or having to juggle work with family responsibilities. In recent years, the 'push'/'pull' terminology has given way to necessity- and opportunity-driven entrepreneurship. This is the result of many published works associated with the Global Entrepreneurship Monitor (GEM) database (Harding, et al., 2006; Maritz, 2004; Minniti et al., 2006; Smallbone and Welter, 2004). GEM was launched in 1997. Since then it has grown to become the largest research project in the field of entrepreneurship. Based in Babson College, Massachusetts and London Business School, London, U.K., GEM now covers a large number of countries around the world, from the developed Western countries and many Third World countries to the transition economies in Eastern Europe.

Within the field of entrepreneurship, where do females fit in? Are they the same as men entrepreneurs or are they different in significant ways? These questions were not taken up until Schwartz (1976) published her landmark paper on women entrepreneurs. Since then there is a growing literature on women entrepreneurship as well as great interest in promoting women entrepreneurship as part of growth strategy in many parts of the world (Brush et al., 2006b; Brush et al., 2006c). Studies have shown that while men and women share some attributes and motivations, they are different in terms of education, types of business, size and growth objectives and management style (Brush, 1992; Brush, 2006a; Kepler and Shane, 2007; Nagarajan and Porter, 2000).

The purpose of this paper is to investigate the characteristics of Canadian Necessity- (NE) and Opportunity- (OP) driven entrepreneurs who participated in the GEM survey of 2002-2004 and assess the influence of gender on the necessity/opportunity motivational categories. The GEM

data allowed for a detailed analysis of the personal as well as the organizational characteristics of entrepreneurs belonging to the NE (push) and OP (pull) categories.

LITERATURE REVIEW

The small and medium size enterprise (SME) literature identifies a wide range of entrepreneurial motivations. These motivations include both economic (additional source of income) and non-economic (desire for independence or work-family balance) factors. An impetus that is frequently identified by researchers is the need for autonomy and independence (Adrien, Kirouac and Sliwinsky, 1999; Carter and Cannon, 1992; Fillion, 1997; Holmquist and Sundin, 1988; Statistics Canada, 1997). Kirkwood (2003) distilled the array of reasons for business start-ups into four broad groupings: a desire for independence, financial motivations, factors relating to family and factors related to work.

While studying entrepreneurial motivations has its own merit, they have also been found to be useful in predicting SME performance and in explaining entrepreneurial behavior. Entrepreneurial motivation as a key element in predicting SME performance has been studied by several authors (Blawatt, 1995; Herron and Robinson, 1993; Lefebvre et al., 1993; Man et al. 2002; Morris et al., 2006; Naffziger et al. 1994). Similarly, the relationship between motivation and behavior has spawned a large a number of theoretical and empirical studies. While early theorists focused attention on personality traits, recent research holds these as “untenable” (Ajzen, 1985). New work in this area suggests a pathway of motivation to action intermediated by intention (Bagozzi, 1981; Bagozzi,, Baumgartner and Yi, 1989, Ajzen, 1991). Specifically, Ajzen (1991) has proposed the theory of planned behavior. According to this theory, achievement has to be preceded by attitudes towards behavior, subjective norm, perceived behavioral control as well as intention.

As Ajzen puts it:

.....[A] “central factor in the theory of planned behavior is the individual’s *intention* to perform a given behavior. Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance. It should be clear, however, that a behavioral intention can find expression in behavior only if the behavior in question is under volitional control i.e. if the person can decide at will to perform or not perform the behavior. Although some behaviors may in fact meet this requirement quite well, the performance of most depends at least to some degree on such non motivational factors as availability of requisite opportunities and resources (e.g., time, money, skills, cooperation of others) Collectively, these factors represent people’s *actual* control over the behavior. To the extent that a person has the required opportunities and resources, and intends to perform the behavior, he or she should succeed in doing so.” (Ajzen, 1991, pp. 181-182. Italics in the original)

These ideas are of relevance in understanding entrepreneurial behavior. They suggest that one should consider, in addition to personal traits, the intentions as well as resources (personal and

environmental) that are available. In a recent model developed by Morris et al. (2006), it is posited that the relative growth orientation of women entrepreneurs is a function of motivations, obstacles, goals and aspirations, women's identity and personal and venture descriptors. Growth orientation ultimately leads to actual venture growth. Moreno and Castillas (2008) relate growth to entrepreneurial orientation. Using a database of Spanish firms, they found that the relationship between entrepreneurial orientation and growth was not direct but mediated through strategy and resource availability.

In terms of the role of gender, several studies have focused on distinguishing between motivations of male and female entrepreneurs. While men are more likely to strive for monetary rewards (Manolova, Brush and Edelman., 2008; Brush and DeMartino and Barbato, 2003; Kent et al., 1982; Lee, 1997; Marlow, 1997; Stevenson and Gumpert, 1985), women have a tendency to balance social and economic goals (Cadieux et al., 2002; Holmquist and Sundin, 1988; Kaplan, 1988). Some of the more recent studies also note that women tend to put more emphasis on intrinsic goals (Manolova, Brush and Edelman, 2008; Cornet, Constantinidis and Asendei, 2003; Kirkwood, 2003; McGregor and Tweed, 2000). That is, women seek non-financial goals such as independence and work-family balance (Borgas, Fillion and Simard, 2008; DeMartino and Barbato, 2003; Birley, 1989; Brush, 1990; Ducheneault and Orhan, 2000; Holmquist and Sundin, 1990). Others have noted that female entrepreneurs tend to pursue self-oriented goals. That is, women pursue goals such as personal growth, control over their destinies and so on. This, in turn, helps to explain why businesses owned by women tend to be small and less geared towards growth than those owned by males (Orser, Riding and Manley, 2006; Anna et al., 2000; Du Rietz and Henrekson, 2000; Minniti, 2004; Orser, Hogarth-Scott and Wright, 1997; Rooney et al., 2003).

Another organizing concept of entrepreneurial motivation is the 'push/pull' or NE/OP categorization. Noorderhaven et al. (2004) noted that the level of self-employment differed widely among 15 European countries between 1978 and 2000. They attempted to explain the differences in terms of dissatisfaction with life, dissatisfaction with the functioning of democracy and the level of economic development. They hypothesized that dissatisfaction with life and the function of democracy will be positively associated with self-employment and the level of economic development will be negatively associated with self-employment. Their statistical results provide support for their hypotheses and they interpret these to mean that the 'push' factors predominate as explanation for self-employment.

In a recent study, Kirkwood and Campbell-Hunt (2006) report that 'push' factors were sometimes the only one driver for women, whereas men tended to be influenced by both 'pull' as well as 'push' factors. In their review of women entrepreneurship in Canada, Jennings and Cash (2006) note that some of the motivating factors among men and women entrepreneurs were similar. Both groups reported control over their own destinies as well as desire for challenging work and a positive work environment as important motivations. However, other studies found some unique set of motivators among women. For example, they cite Belcourt (1990) who reported that women entered entrepreneurship due to their inability to fit into the corporate world and gender discrimination in organizations. Another unique motivation among women is the need to balance the demands of work and family (Lee-Gosselin and Grise, 1990). Jennings and Cash (2006) went on to review five recent Canadian studies all of which point to the 'push' factors as predominant among women entrepreneurs. In these studies, they note "the relative silence regarding such motivations as the desire for financial gain or the pursuit of identified market opportunities" (Jennings and Cash, 2006, p. 68).

In Table 1 below, we summarize a series of papers which report finding women choose self-employment as a result of necessity or ‘push’ factors. These studies reinforce the review findings of Jennings and Cash (2006).

TABLE 1
“PUSH” MOTIVATIONS CITED BY FEMALE START UP ENTREPRENEURS

Authors	Reasons Mentioned
Kirkwood and Campbell-Hunt (2006)	Flexibility, family reasons and dissatisfaction with job
Baines and Wheelorks (1998)	Difficult economic conditions
MacDonald (1996)	Difficult economic conditions
Green and Cohen (1995)	Family reasons and organizational barriers
Hisrich and Brush (1985)	Boredom and frustration at work
Stokes <i>et al.</i> , (1995)	Hostile work environment

Research Questions

The brief review of literature points to a number of research questions that need further investigation. The research questions addressed in this paper are as follows:

1. What are the personal characteristics of the NE and OP entrepreneurs?
2. What are the organizational characteristics of the NE and OP entrepreneurs?
3. What are the personal characteristics of the NE and OP entrepreneurs in terms of gender?
4. What are the organizational characteristics of the NE and OP entrepreneurs in terms of gender?

METHODOLOGY

This study is based on the Canadian segment of the GEM database. GEM is dedicated to the measurement of global entrepreneurial activities and their contribution to economic growth. This initiative involves a comprehensive, longitudinal, empirical analysis of the entrepreneurial activities in various countries.

To enable researchers to have access to uniform, comparable and reliable data, the same data collection method is used in all participating countries. In Canada, an annual survey reaching a minimum of 2,000 respondents is conducted by a private research firm. The sample is then balanced so that each of the country’s ten provinces is weighted according to its demographic significance. Women represent half of the GEM sample. For this study, GEM data for Canada from 2002 to 2004 were combined. A sample of 693 was generated, consisting of 269 female and 424 male entrepreneurs. The proportion of females in the sample is about 39 percent, which is consistent with OECD data (Baygan, 2000).

The research firm that conducted the Canadian survey used stratified sampling software called “Canada Survey Sampler”. This software randomly selects participants based upon a random digit dialing methodology. The program generates a sample that takes all Canadian telephone directories into account. To prevent non-response bias, potential participants who cannot be reached after two attempts are dropped from the list and replaced by similar candidates from the general population.

Interviews were conducted from three centers (Toronto, Peterborough and Montreal) between Wednesday and Sunday during the evening hours. All interviews used Computer-Assisted Telephone Interviewing (CATI) software which enables reading the questions and saving the answers directly on the computer. CATI gives interviewers complete control over the process, including the ordering of questions. Interview duration was limited to a maximum of 25 minutes.

The questionnaire developed by the GEM consortium was used as the survey instrument for this study. It encompasses a wide array of variables for which the response rates vary considerably; those variables with a response rate of at least 80 percent were considered satisfactory and were retained for this study. The selected variables include demographic items (age, gender, education, occupation, work status, work status of partner, ownership of residence); personal traits and attitudes (possession of necessary knowledge/skills for start-up, perception of a business opportunity over the next six months, knowledge of an entrepreneur over the past two years); and organizational characteristics (economic sector, expected number of owners, expected level of competition, planned number of employees in five years, business-related income, export activity, technology available in previous year, product/service novelty).

The following item was used to measure entrepreneurial motivation:

“Were you involved in starting-up a business to seize a business opportunity or because you had no other choice for finding work?” (nominal variable)

The analysis and statistical tests include frequencies and contingency table analyses (Chi-square test of independence between variables). For those variables with expected cell frequencies of less than five, the number of categories was diminished to correct this problem.

The following sections present a general profile of Canadian entrepreneurs and their firms by gender, using various personal and organizational characteristics as descriptors. Analysis of gender differences follows, based upon the “NE-OP” distinction.

Results

Descriptive Results

Tables 2 and 3 below compare the profiles of the sample entrepreneurs and their firms, respectively, using the “NE-OP” dichotomy. It is important to recognize the high percentage of entrepreneurs (85 percent) who consider themselves to be in the opportunity category. This proportion of 5.7:1 is consistent with that of other industrialized countries (for instance, in 2005, the ratio of opportunity to necessity entrepreneurs in the U.K. was 7.4) and is typically at these high levels in higher-income nations (Minniti, Bygrave and Autio, 2006). It is noteworthy that there was no significant difference in the proportion of females and males across the NE and OP categories (Table 2).

The descriptive analysis presented in Table 2 yields some noteworthy results. Respondents in the necessity or “push” category were older than their opportunity or “pull” counterparts (45 percent being over 45 years of age), were less educated (only 58 percent had a postsecondary education) and were less likely to have known an entrepreneur during the past two years. Not surprisingly, the necessity group tended to lack the necessary skills to start up a business (19 percent versus 10 percent of the OP entrepreneurs) and had a lower propensity to perceive business opportunities in the next six months (47 percent versus 61 percent). Finally, those who had been forced into entrepreneurship were less likely to be professionals (44 percent versus 59 percent).

TABLE 2
COMPARISON OF PERSONAL CHARACTERISTICS BY MOTIVATING CATEGORY
(NECESSITY [NE] VERSUS OPPORTUNITY [OP])

Characteristics	NE (n = 103) (%)	OP (n = 590) (%)	Sample (n = 693) (%)
% of the sample	15	85	100
Gender			
• Male	55	62	61
• Female	45	38	39
Age***			
18-34	22	33	31
35-44	33	30	31
45-64	45	37	38
Education****			
High school and less	42	26	28
Postsecondary	58	74	72
Marital status*			
No partner	43	33	34
Live with a partner	57	67	66
Necessary knowledge/skills for start-up***			
• No	19	10	11
• Yes	81	90	89
Work status			
• Part time	24	17	18
• Full time	76	83	82
Work status – partner			
• Not employed	16	18	18
• Part time	22	14	15
• Full time	62	68	67
Residence ownership			
Yes	69	76	75
No	31	24	25
Family size*			
1	20	11	12
2	21	29	28
3+	59	60	60
Business opportunities perception for next 6 months***			
• No	53	39	41
• Yes	47	61	59

Knowledge of an entrepreneur over the past 2 years***			
• No	47	34	36
• Yes	53	66	64
Occupation***			
• Professional	44	59	57
• Technical work	20	21	21
• Skilled worker (trade)	36	20	22

*: p<0.10 ; **: p<0.05 ; ***: p<0.01 ; ****: p<0.001 (Chi-square test)

As illustrated in Table 3, organizational characteristics are somewhat similar for both the NE and OP groups. There was no significant difference for the following variables: planned number of owners, technology available in previous year, novelty of the product/service, and expected level of competition.

The notable exceptions were the higher income levels attributable to the OP group (55 percent report business income in excess of \$50,000 versus only 36 percent of the NE respondents) as well as the more robust expectations of OP entrepreneurs in terms of job creation. In addition, small business owners within the NE category were less likely to be operating in primary sector industries such as forestry or agriculture (7 percent compared to 14 percent for OP entrepreneurs), and were somewhat more prone to engage in exporting (although less inclined to have such activity account for more than one-quarter of their revenues).

TABLE 3
COMPARISON OF ORGANIZATIONAL CHARACTERISTICS BY MOTIVATING
CATEGORY
(NECESSITY [NE] VERSUS OPPORTUNITY [OP])

Characteristics	NE (n = 103) (%)	OP (n = 590) (%)	Sample (n = 693) (%)
% of the sample	15	85	100
Planned number of owners			
• 1	60	55	56
• 2	30	27	28
• 3+	10	18	16
Exports ***			
• 0 %	31	26	27
• 1-24 %	40	55	52
• 25 %+	29	19	21
Technology available a year before			
• No	12	10	11

• Yes	88	90	89
Novelty of product/service			
• No	64	58	59
• Yes	36	42	41
Economic sector#			
Primary sector**	14	7	8
Secondary sector	20	21	21
Business services	24	25	25
Consumer services	25	28	27
Expected level of competition			
None	14	14	14
Limited	39	39	39
Many competitors	47	47	47
Expected number of employees in 5 years***			
• No employees	35	22	24
• 1 to 5 employees	39	41	41
• 6 employees and more	26	37	35
Business related income****			
• 0 - \$ 30 000	39	20	23
• \$ 30 001 - \$ 50 000	26	25	25
• \$ 50 000 +	36	55	52

*: p<0.10; **: p<0.05 ; ***: p<0.01 ; ****: p<0.001 (Chi-square test)

The overall chi-square for the Economic Sector variable was not significant. Since this variable has four heterogeneous categories, within-variable comparisons were made, testing each category against a 50-50 split.

The second round of the analysis involved subdividing the two motivational categories into male and female groups. The results of this analysis are summarized in Table 4 below (personal characteristics) and Table 5 below (organizational characteristics).

For males, consistent with the aggregate results of Table 2, necessity entrepreneurship is associated with weaker tendency to possess the necessary skills for start-up (p=0.01), to perceive business opportunities in the next six months (p=0.009) and or to have known another entrepreneur during the past 2 years (p=0.01). Further, the male small business owners in this NE category reported smaller families than did those who classified themselves as OP entrepreneurs (p=0.04).

TABLE 4
PERSONAL CHARACTERISTICS OF THE ENTREPRENEUR
(BY GENDER AND MOTIVATING CATEGORY)

Characteristics	Male		Female	
	NE (N=57) (%)	OP (N=366) (%)	NE (N=46) (%)	OP (N=224) (%)

Age				
18-34	26	35	15	29
35-44	28	29	39	34
45-64	46	37	46	37
Education				
High school and less	40	30	44	20
Postsecondary	60	70	56	80
			p=0.001	
Marital status				
No partner	51	36	31	26
Live with a partner	49	64	69	74
	p=0.06			
Necessary knowledge/skills for start-up				
• No	18	8	21	13
• Yes	82	92	79	87
	p=0.01			
Work status				
• Part time	10	13	40	25
• Full time	90	87	60	75
			p=0.05	
Work status – partner				
• Part time	47	42	28	14
• Full time	53	58	72	86
Residence ownership				
Yes	64	72	76	83
No	36	28	24	17
Family size				
1	26	12	12	7
2	18	31	27	25
3+	56	57	61	68
	p=0.04			
Business opportunities perception for next 6 months				
• No	54	35	53	47
• Yes	46	65	48	53
	P=0.009			
Knowledge of an entrepreneur over the past 2 years				
• No	49	32	44	37
• Yes	50	68	56	63
	p=0.01			
Occupation				
• Professional	44	56	45	64
• Technical work	15	19	26	24
• Skilled worker (trade)	41	25	29	12
	p=0.09		p=0.03	

With respect to the female group, the comparison on the basis of personal variables revealed few differences between the NE and OP categories. It was found that the NE entrepreneurs were more likely to have less education ($p=0.001$) and less likely to dedicate themselves to their business on a full-time basis ($p=0.05$). Neither of these variables was significant for the men in this sample (Table 4).

With respect to organizational descriptors, the Chi-square analyses indicated that there were more significant differences within the female sample (NE versus OP) than was the case for males (Table 5). For the latter group, the only significant variable was business-related income, which mirrored the results for the total sample, with OP entrepreneurs reporting relatively higher earnings.

Within the female sub-set, business-related income also helped to differentiate the NE category from the OP category: 45 percent of the latter group earned more than \$50,000 compared to 28 percent for the necessity-driven females ($p = 0.02$). Furthermore, the OP group demonstrated more aggressive hiring plans: 33 percent expected to employ more than 6 people in 5 years compared to only 17 percent of the push entrepreneurs. In examining these two variables, it is of particular interest that, even within each of the NE and OP motivational categories, the men in this sample report higher income levels and more ambitious hiring expectations than do the women. Similarly, the men reported a higher level of full time dedication to their business (Table 4).

TABLE 5
ORGANIZATIONAL CHARACTERISTICS
(BY GENDER AND MOTIVATING CATEGORY)

Characteristics	Male		Female	
	NE (N=57) (%)	OP (N=366) (%)	NE (N=46) (%)	OP (N=224) (%)
Planned number of owners				
• 1	64	59	54	49
• 2	25	22	37	36
• 3+	11	19	9	15
Exports				
• 0 %	26	23	36	30
• 1-24 %	43	55	36	54
• 25 %+	30	22	29	16
			$p=0.04$	
Technology available a year before				
• No	9	12	16	7
• Yes	91	88	83	93
			$p=0.05$	
Novelty of product/service				
• No	66	57	62	60
• Yes	34	43	38	40

Economic sector #				
Primary sector	9	8	19	7
			p =0.008	
Secondary sector	21	23	20	17
Business services	30	28	16	21
Consumer services	18	23	35	35
Expected level of competition				
None	12	15	16	13
Limited	36	39	44	39
Many competitors	52	47	40	48
Expected number of employees in 5 years				
• No employees	25	19	49	26
• 1 to 5 employees	42	41	34	41
• 6 employees and more	33	40	17	33
			p=0.01	
Business related income				
• 0 - \$ 30 000	34	17	44	24
• \$ 30 001 - \$ 50 000	24	21	28	32
• \$ 50 000 +	42	61	28	45
	p=0.01		p=0.02	

The overall chi-square for the Economic Sector variable was not significant. Since this variable has four heterogeneous categories, within-variable comparisons were made, testing each category against a 50-50 split.

Finally, consistent with the overall NE-OP comparisons, the opportunity-driven females were found to have a lower propensity to export at a level beyond the 25 percent of revenue threshold, and were less likely to be operating a business in the primary sector (p=0.008). In addition, they tend to utilize more recent technology than do their counterparts in the NE category.

DISCUSSION

The overarching goal of this research has been to develop a profile of the small firm based on the extant NE-OP categorization, while also isolating the impact, if any, of gender. The salient findings and their implications are discussed below.

The results show that compared to necessity-driven entrepreneurs, those who have launched their venture in the pursuit of an opportunity are:

1. younger,
2. more educated,
3. better equipped vis-à-vis relevant skills,
4. greater propensity to perceive business opportunities in the near term,
5. have had some recent contact with an entrepreneur,
6. earn more business-related income, and
7. expect to have more employees within five years.

These results portray a more confident, perhaps even professional, approach by OP entrepreneurs and tend to reinforce previous research findings. For instance, Solymossy (1997) reported that OP or “pull” entrepreneurs were more confident and engaged in networking to a

greater degree than those who were “pushed” into small business ownership - these findings are corroborated by items #4 and #5 above. Although this paper does not go into networking behavior in any detail, given that OP entrepreneurs were in touch with other entrepreneurs indicates that they are engaged in networking activity. The importance of networking is widely considered key to entrepreneurial performance (Lerner *et al.*, 1997; McGregor and Tweed, 2000; St-Cyr and Gagnon, 2004; Cantzler and Svante, 2007).

In addition, the identification of links between the OP entrepreneurs and 1) the perception of new opportunities and 2) the expected number of employees may be indicative of more aggressive growth intentions, thus providing support for previous research identifying a relationship between a growth orientation and the “pull” category (Morris *et al.*, 2006). It has been proposed that growth-oriented entrepreneurs will tend to undertake a variety of strategies, including increasing staff, introducing new products, entering new markets, opening new offices and increasing export activity (LeBrasseur, Zanibbi, and Zinger, 2003). In this way, the enterprise may insulate itself from business risk beyond the initial start-up phase.

The combination of the aforementioned factors and the higher business-related incomes (item #6) suggest the likelihood of a superior financial performance among companies owned by OP entrepreneurs. Similarly, recent studies (Hughes, 2003; Hughes, 2006; Morris *et al.*, 2006) have determined that small business owners in the OP category report higher incomes than do their necessity-driven counterparts. As example, Hughes (2003) has reported that people who have been forced into self-employment have a lower income and display a lower level of satisfaction than their counterparts who started a business deliberately.

With respect to the gender perspective, a number of scholars, including Hisrich and Brush (1985), and Stokes *et al.* (1995) have proposed that such “push” factors as low family income, job dissatisfaction, difficulties in finding employment, as well as the need for greater flexibility related to family responsibilities would be at the root of females’ involvement in small business. However, the overwhelming proportion of opportunity entrepreneurs in the current study’s female group lends support to the opposite view which is that women entrepreneurs are typically driven by the need for independence, autonomy and self-actualization (Adrien, Kirouac and Sliwinski, 1999; Buttner and Moore, 1997; Hughes, 2003). Our findings, while not conclusive, points to the need to be cautious in generalizing about the motivations of women entrepreneurs.

While the 2004 GEM report (Minniti, 2004) has suggested that women who are acquainted with other entrepreneurs would be more likely to start a business, the current analysis of the Canadian segment of the GEM database shows that it was the males for whom the ‘contact with an entrepreneur’ variable was a distinguishing trait for the OP category. This variable, along with ‘necessary skills for start-up’ and ‘perceived business opportunities’ emerge as the strongest “pull” (versus “push”) discriminators for men. Conversely, females in the “pull” category were less likely to be operating a business in the primary sector ($p=0.008$) and had a greater tendency to utilize more recent technology than did their counterparts in the “push” category. Our overall observation is that the opportunity-driven males appear to better fit our expectations of growth orientation than do the female OP entrepreneurs.

Only one variable – higher business-related income – emerged as a discriminator for both males and females (higher for the opportunity entrepreneurs in both cases). The higher performance of OP entrepreneurs across gender may reflect the business dynamics of creating a fit between a business opportunity and the entrepreneurial efforts focused upon it.

In summary, the current findings confirm that, in the Canadian context, OP or “pull” forces are more prominent, and furthermore this is the case for both females and males. A number of

insights emerging from this study are also noteworthy. For instance, it is surprising that opportunity entrepreneurship is not linked to novelty of products or greater commitment to export activity (the results for this latter variable are mixed). Further, as gender is factored into the NE versus OP comparisons, it is also surprising that the impact of family size and acquaintance with another entrepreneur are relevant to the males, rather than the females. Finally, compared to men, the pull forces for women entrepreneurs are associated with a wider range of variables: education level (demographic), full-time commitment to the enterprise (personal), and job creation plans, industry sector and utilization of recent technology (organizational).

There are two main limitations to this study. Firstly, this study is based on a single item from the GEM questionnaire. This item allowed us to distinguish between NE and OP entrepreneurs. While the categorical distinction between “push” and “pull” entrepreneurs ensures a uniform interpretation of responses, this dichotomy represents an oversimplification of the factors responsible for new venture creation: there may well be a combination of motives that coalesce at the pre-start phase; also there is an inherent assumption of mutual exclusivity between the specific drivers within these categories (Brush, 1990; Granger *et al.*, 1995; Williams, 2007). To that effect, Janssen (2006), Hughes (2003) and Williams, Round and Rodgers (2006) propose to develop a more nuanced typology which would go beyond the simplistic “push-pull” motivations dichotomy. This new typology would allow for a better categorization of those cases which cannot be classified into one of the two categories. However, although the need for a nuanced typology is recognized, one is yet to emerge in the literature. Further research to develop and validate categories of motivations that would go beyond necessity- and opportunity-driven entrepreneurship is needed.

The second limitation pertains to the generalization of the results. These findings cannot be generalized to all the participating countries in the GEM database, but only to other industrialized countries where social, political and economic factors are similar to those in Canada. As a follow-up, it will be useful to make a cross-country comparison of the profiles of NE and OP entrepreneurs.

CONCLUSION

The purpose of this paper has been to investigate the personal and organizational characteristics of Canadian necessity- (NE) and opportunity- (OP) driven entrepreneurs and assess the influence of gender on the necessity/opportunity motivational categories. Our sample was drawn from entrepreneurs who participated in the GEM survey of 2002-2004. The profile that emerged from this study paints a complex picture of Canadian necessity- and opportunity-driven entrepreneurs. In terms of personal characteristics, the NE entrepreneurs tended to be older, less educated, lacking in skills and with a lower propensity to foresee future business opportunities. In terms of organizational characteristics, the differences were minor. The OP entrepreneurs tended to report higher business income. Overall, the profile shows that in the Canadian context, opportunity-driven entrepreneurs are predominant. This observation applies to both men and women. However, not all opportunity-driven entrepreneurs were alike. We found that women OP entrepreneurs differed from men OP entrepreneurs in terms of growth orientation. Men are more growth-oriented than women. These findings point to the need for further research in understanding the reasons for these characteristics and their implications for entrepreneurial development policies.

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