

# **Entrepreneurial Motives and Performance: Evidence from North America**

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*This study examined Intrinsic and Extrinsic Entrepreneurial Motives vs. Performance in the three countries forming North America. The Motives included: Independence, Job security, Monetary gain, and Intrinsic rewards. Mexican respondents rated their success lower than their Canadian and U.S. counterparts, and were less satisfied; they were more centered on Extrinsic Motives, while Canadian and U.S. respondents had a tendency to be primarily driven by Intrinsic Motives, particularly the desire to be independent. While economic survival was an overarching Motive among Mexican business people, intrinsic rewards came out as most important behind the perceptions of success among Canadian and U.S. respondents.*

## **INTRODUCTION**

The purpose of this article was to report on two research issues. The first issue was to verify empirically in which aspects entrepreneurial motives and performance expectations and subjective evaluations were similar or different between Canada, Mexico, and the United States of America. The second issue was to verify if the instrument previously developed by Benzing, Chu and Kara (2009) and by Robichaud (2011) and Robichaud, Cachon, and Haq, (2010) would be reliable when used in these three different countries.

The originality of the present research lies in the use of an instrument already proven to have worked satisfactorily in Asian countries (Benzing, Chu and Kara, 2009) and in Canada (Robichaud, 2011; Robichaud, Cachon, and Haq, 2010). Another original aspect of this research is the size of the sample, which includes a total of 1,272 respondents, of which 375 were from Canada (the four Atlantic Provinces

and Ontario), 278 from Mexico (states of Jalisco and Nuevo Leon), and 619 from the U.S.A. (Illinois, Kentucky, and Tennessee). It is particularly noteworthy to acknowledge that empirical studies of entrepreneurs are not as abundant in Mexico as they are in the U.S. or Canada. As the literature review will show, most of the research relevant to entrepreneurial motivation in Latin America is based on macroeconomic data and government surveys.

The data gathering process involved six teams of researchers from the three countries. These researchers were involved in a five-year consortium funded by the governments of the three NAFTA countries. One objective of the project was to research entrepreneurs identified with particular minority situations, such as women, Indigenous peoples, immigrants, and minorities specific to some countries such as French Canadians and rural business people. Results regarding these groups are expected to be presented separately, as the present report deals only with the motives of the general groups.

As the literature review will indicate, previous research on entrepreneurial motives had identified the necessity to investigate in further detail various contexts in which business creation was occurring (Carsrud and Brannback, 2011). In terms of motives, the dichotomy between intrinsic and extrinsic motives had proven of particular interest in the literature (Robichaud and McGraw, 2008).

The theoretical framework for this research includes six components, of which four are measured by the instrument, i.e. the Motives of the entrepreneurs, the Barriers they faced, the Success Factors involved, and the Performance Expectations and Evaluations entrepreneurs were contemplating.

## **LITERATURE REVIEW**

The review below starts by examining the fundamental psychological aspects of Motivation as a general human behavior research problem. A second section reviews experimental psychology and links motivation theories to the literature in organizational behavior, management, and entrepreneurship. The third part reviews motivational aspects specific to entrepreneurship.

### **Psychological Foundations of Motivation Theory**

Psychologists define the study of motivation as the inquiry into human thought and behavior. The purpose of motivation research is to identify why people think and act the way they do, given a number of external factors that affect them.

Psychological theory considers motivation as a problem divided into two parts, the first one being triggering the activation of behavior, the second one being the direction of behavior. Psychologists have recognized that all the complexities related to motives and their interactions amongst organisms are not a completely understood phenomenon (Deese, 1967). These observations were considered as being particularly true for human motivation.

Behavior activation involves the satisfaction of biological needs, while cognitive needs give behavior a direction. Behavior activation is described as a response of the cells in the central nervous system to either a) internal or external stimuli or, b) to internal central nerve cell activity. Biological needs such as hunger also provoke arousal. Such arousal to activity contrasts with a previous state of rest. Physiological needs and instincts have been documented by psychologists to produce specific responses (Beach, 1948, 1955; Tinbergen 1951; Lorenz, 1966).

Explaining the activation of behavior was only able to describe its physiological triggers. Explaining the direction of behavior, however, is the most complex part as it involves cognitive needs or motives. These motives, which form Motivation as a general construct, derive in part from 1) physiological stimuli or variables (genes, hormones, brain and other stimuli) and 2) from psychological variables which are dependent from experience and learning. These psychological variables are learned and include social learning, cultural learning, expectancies of outcomes, as well as negative and positive reinforcers (incentives or disincentives to act in a specific way).

Zimbardo (1985) summarizes the role of motivation as a set of intervening variables between a range of stimuli inputs belonging to the two categories of variables mentioned above (physiological and psychological), and a number of possible actions, «response outputs», or «behavioral responses». These

behavioral responses include, according to Zimbardo, activity within the nervous system, goal-directed or instrumental actions, unrewarded persistence, goal-reaching actions such as consumption, as well as actions which are displaced, disguised, or disruptive. These latter actions can be fantasies and dreams but also accidents, or substitute target actions which are performed in replacement of a course of action that may appear more desirable but is not perceived as being within reach for whatever reason.

Psychological theories of motivation have been, for several decades, tested by experimental psychologists. The concepts used as components of these theories have been operationalized into laboratory experiments using animals. Results obtained so far from these experiments are showing the complexity of the decisions relative to motives and expected outcomes from actions.

### **Experimental Psychology and Applied Aspects of Motivation**

Experimental psychologists have always been testing their theories on laboratory animals such as rats. In doing so, they have successfully demonstrated that actions (often also labeled as «behavioral responses», Bartoshuk, 1971) are a function of a degree of deprivation. For example, studies were conducted on water deprived rats (Stellar and Hill, 1952, Collier, 1964), as well as food deprived rodents (Miller, 1956, 1957) and pigeons (Megibow and Zeigler, 1968). Conclusions from this body of research were that, on an experimental basis, each deprivation procedure was resulting in a unique type of action. While the degree or the intensity of the response to the stimuli varied, researchers did conclude that deprivation was a powerful trigger for action. Recent research related to food deprivation is showing that complex brain processes are involved among rodents such as rats and mice, where, for example, animals decide whether they are satisfied with a «good enough», rather than a «perfect» outcome (Kay, Beshel, Martin, 2006). In other words, scientists had previously worked with the assumption that rodents aimed at perfect accuracy when identifying a potential food source's odor. A study by Rinberg, Koulakov and Gelperin (2006) found that laboratory mice allowed to decide how long they would sample an odor chose to reduce the duration to the lapse of time sufficient to make what was labeled as a “good enough” decision, i.e. a reward level corresponding to a lesser amount of effort.

In conclusion, it appears that Experimental Psychology has empirically verified two important aspects of motivation, one being the importance of deprivation as a cause for action, the other being that action, or behavioral response, is not a simple reaction to a stimulus or its absence, but rather the result of a decision-making process relative to the nature and the extent of the desired outcome.

### **General Theories of Motivation**

During the twentieth century, a number of theories of motivation were developed by psychologists to explain human behavior in general. When researchers tried to explain managers and employees behavior at work, they resorted to several of these theories, in particular the following: A need hierarchy by Maslow (1943), Herzberg's (1968) two-factor model, as well as McClelland's theory of the needs for achievement (NAch), affiliation, and power (1961, 1962, 1965, 1968, 1969, 1986), Skinner's positive reinforcement theory (1953, 1976), and expectancy models related to goal attainment (Vroom 1964, Porter and Lawler, 1968; Campbell et al., 1970). Not surprisingly, researchers in entrepreneurship rapidly adopted these theories as potential explanations for an individual's choice to become self-employed. In an extensive review of the literature on organizational behavior as it applies to entrepreneurial behavior, Gartner, Bird, and Starr (1992) found that the different categories of motivation theories used to describe organizational behavior came far from addressing the variety of motivational situations involved in the creation of organizations (p. 25). Since then, empirical research on entrepreneurial motives has led to a number of converging conclusions.

### **Motives Specific to Entrepreneurs**

Young (1983) and several others (Begley and Tan, 2001) concluded empirical studies of entrepreneurs in various countries across the world with similar conclusions. According to them, people went into self employment for motives which were the result of an interaction with their environment

(Feesser & Dugan, 1989; Scott and Anderson, 1992) and related to personal or economic outcomes (Freytag and Thurik, 2007).

Interactions leading to entrepreneurship are social ones, generally revolving around family and work, both often being intertwined: this is the case when the workplace is also a family dwelling or family-owned business, as found in over half of work settings according to a wide array of studies (Stewart, 2003). Strictly work-related social interactions lead to outcomes such as job satisfaction which, not differently from family workplaces, yield both personal and economic outcomes.

Personal outcomes have been labeled as self-oriented goals, humane (Freytag and Thurik, 2007), or intrinsic goals. They include the desire to achieve autonomy by taking control of one's life, an increased sentiment of making personal choices for oneself, and a mix of psychological rewards related to personal satisfaction, personal improvement and growth, doing something you enjoy, or proving yourself to others. Working along with siblings and family members also are expressions of desires driven by the entrepreneur's work and family environment. Related to this latter intrinsic goal are altruistic goals such as providing jobs for their family, as well as securing as much as possible the long-term existence of employment for its members, for example by transmitting the business to them after retirement or securing the longevity of the business. Altruistic motives may also be directed towards non-family members when entrepreneurs decide to pass on the firm to associates and employees. Family business statistics have shown an attrition rate of about fifty percent for each generation, therefore creating a vast amount of family businesses that either disappear or become owned by non-family members.

Economic outcomes have been described as external, performance, or extrinsic goals. They comprise various levels of monetary rewards. The most basic one is improving one's income or personal gain, often where someone becomes self-employed as the result of a social situation of necessity such as losing employment or having a divorce. At a higher level, obtaining some form of economic security in the longer term is a natural extension of the first level similar to the security need in Maslow's hierarchy. To pursue the analogy, maintaining a level of income that keeps the entrepreneur from being dependent upon a boss leads to the need for independence or personal freedom. In the entrepreneurial situation, this latter motive is directly related to a successful outcome for the business itself, which is growing a business and making it more profitable.

Table 1 summarizes both categories of entrepreneurial motives by presenting them according to three stages. The first stage, or basic stage, is related to the motivation of the entrepreneur at the time where the business was created. The second stage, or secure stage, describes the motives in a longer term, i.e. the desire to maintain or secure the durability of the successful outcome achieved by going into business. The perennial stage aims at ensuring the viability of the business beyond the entrepreneur's desired working life span, or after retirement.

**TABLE 1**  
**ENTREPRENEURIAL MOTIVES LITERATURE: LEVELS**  
**BY CATEGORY - INTRINSIC VS. EXTRINSIC**

Level of motive	Intrinsic	Extrinsic
Basic – immediate stage	Take control of one's life, do something you enjoy, and prove yourself to others (obtain social status desired)	Improve or secure income Secure business ownership
Secure stage	Provide for yourself and (when perceived as necessary) for your family in the longer term	Secure long term cash flows Secure long term business viability
Perennial stage	Pass the business on to others (may be family or not)	Business growth and profits Equity building

## **Comparing Motivational Differences Between Countries**

### *General Notions*

Engelen, Heinemann and Brettel (2009) have reviewed an extensive body of research on cross-cultural entrepreneurship. Similarly, Begley and Tan (2001), as well as Freytag and Turik (2007) have compared the environments and determining factors of venture creation in different country settings. The common characteristic of this body of research is that it focuses on a macro-economic orientation. This perspective has indeed confirmed that business creation was a major contributor to job creation, to economic growth (more specifically by high-growth firms), and that it could effectively be encouraged via specific policy measures. However, as Hessels, van Gelderen and Turik (2008) noted, these are not the reasons business people invoke for starting a company. In that respect, the macro approach does not address the micro issue of why people engage into self-employment as individuals, whether they start a venture alone or as part of a team. As observed earlier, entrepreneurial motives are the result of individual psychological processes. In that respect, authors have often cited attitude models such as Ajzen and Fishbein's (1980), as explanatory of people's intentions (Krueger and Carsrud, 1993).

A number of studies conducted since the turn of the century have tried to compare entrepreneurial motives across various countries and cultures. Results showed that extrinsic economic motives played a major role for becoming self-employed. In Nigeria, Kenya, and Ghana (Benzing, Chu, 2009; Chu, Benzing and McGee, 2007), the necessity to increase the family income was the dominant motivation observed despite ethnic and cultural differences. In a communist country in transition such as Vietnam, Benzing, Chu and Callanan (2005) found entrepreneurs motivated by the need to secure a safer income in the northern region of Hanoi, while those in the more prosperous southern region of Ho Chi Minh City were more likely to pursue personal needs related to achievement and business growth.

Studies within countries or regions in transition from communism such as the former Soviet Union and Eastern Europe, as well as some limited areas of China, have shown the importance of the past and present context (Roberts and Zhou, 2000). In particular, past business experience within a given society was suggested to play an important role in the success of post-transition businesses, on a macro level. On a micro level, social networks, previous management experience and informal connections were cited by several researchers as an important set of factors (Kusnezova, 1999; Ledeneva, 1998; Yan and Manolova, 1998), while traditional intrinsic and extrinsic motives were cited across various former communist countries (Smallbone and Welter, 2001; Smallbone et al. 1996, 1999).

### *Latin America*

Other countries have been studied where entrepreneurship was seen as the only available option for one's survival, such as the Philippines (Chu, Leach, and Manuel, 1998), as well as Nicaragua during economic downturns (Pisani and Pagan, 2004). Latin American countries have been cited for entrepreneurial activities both in the formal and informal economic sectors (Pisani and Patrick, 2002; Portes and Schaufli, 1993). In Latin America, the informal sector is often labeled as involving low labor standards and poor working conditions (Galli and Kucera, 2004). As compared to industrialized countries, where on average 10.5% of the population was involved in a formal business in 2008, the proportion in Latin America was 7.7% (Klapper, Amit, and Guillen, 2010). Data regarding the informal sector were much higher in Latin America: Galli and Kucera (2004) reported that informal employment among fourteen Latin American countries increased from 51.8% to 57.7% from 1990 to 1997, while Fajnzylber, Maloney, and Montes-Rojas (2009) considered 50% as the average proportion of micro businesses across Latin America.

There is no universal definition of the informal sector (Maloney, 2004). In the Latin American context, the informal sector is generally defined as comprising primarily the self-employed (or single person firms, often family businesses) and microenterprises (also labeled as micro firms or micro businesses with five or fewer workers). Both types of firms are being used as proxy measures of the informal sector (Fiess et al., 2010). A typical feature associated with work in the informal sector is the absence of social and labor protection; hence the dualistic view of a labor market divided into two homogeneous blocs, the formal sector and the informal. In this perspective, the informal sector is

described as stagnant, unproductive and undesirable (Fajnzylber, Maloney and Rojas, 2006), and pervasive across developing countries as well as industrialized ones. For example, sociologists have described self-employed ethnic minorities comprising individuals with insufficient skill sets (illiteracy, lack of numeracy, computer use, and planning skills) and long term unemployment (Li and Dong, 2007; Carrasco, 1999). To the opposite, de Soto (1989) argued that efficient and profitable informal sector businesses were being established to flee from over regulations. In his view, this phenomenon represented a surge of real market forces in Latin America, where governments were described as allowing only privileged elites to partake into the economy under the guise of markets regulation.

A growing body of research based upon empirical findings by Fields (1990) confirmed at least in part de Soto's theory: a somewhat more complex informal sector was uncovered, composed of several differing segments, where most business actors were there voluntarily, particularly during expansion periods of the economy within urban settings (Perry et al., 2007; Fajnzylber, Maloney, and Rojas, 2006; Maloney, 2004 and 1999). Studying four Latin American countries (Argentina, Brazil, Colombia, and Mexico), Fiess and al. (2010) did confirm an expansion of informal business activity during recessions. They also found that a large part of the informal sector had developed due to increased external market demand and internal productivity within the informal sector itself. Comparing the formal and informal sectors in Brazil, Mexico, and South Africa, Bargain and Kwenda (2010) found the upper-tier self-employed earnings from the informal sector significantly higher than those obtained by formal sector workers. However, at the lower end, informal sector earnings were significantly below those from the formal sector.

## **Motivational Similarities and Differences Between the Three NAFTA Countries**

### *Cultural Aspects*

While there is an absence of literature on the specific topic of comparing entrepreneurial motives across the three NAFTA countries, there is evidence of the presence of two dominant cultures among these countries. In the case of Canada and the United States, the dominant culture is what can be labeled as the North American culture, while, for Mexico, the dominant culture is the Latino-American one, which is common to all continental countries situated south of the Rio Grande. These three countries share in common the fact that they also harbor a variety of minority cultures associated with over a hundred Indigenous peoples, as well as over a hundred and fifty minorities resulting from waves of immigration since European contact in 1492. Despite descriptions of these societies as «multicultural» or as «ethnic mosaics», the reality is that the dominant culture is imposing its modes of thinking and behaving upon society in each country (Guerra, 2005).

Mitchell et al. (2000) observed that, while the context of entrepreneurship varies from one country to another, researchers keep finding similarities in the decision making process leading to business creation. In terms of context, Eversole (2003) observes that poverty is a strong motive for people to become self-employed in Latin America. Several researchers such as anthropologists studying peasants have made a distinction between self-employed peasants in rural cities and villages and urban business owners: while the former are viewed as motivated by subsistence (Cook and Binford, 1990; Wolf, 1966), the latter pursue the maximization of their profits, and urban small business owners act as entrepreneurs reinvesting profits (Buechler and Buechler, 1992). In terms of ultimate objectives whether entrepreneurs pursue a growth in their business as opposed to just provide for themselves and their family, Eversole (2003) concludes that such a question may be irrelevant due to the constraints micro entrepreneurs are facing.

### *Comparisons Between the U.S. and Latin America*

Zimmerman and Chu (2009) have found many similarities between entrepreneurs in Venezuela and the U.S., including gender proportions, age distribution and average longevity of the firm, as well as differences such as the level of education and a lesser important desire for independence among Venezuelan entrepreneurs. Zimmerman and Chu (2010) also reported that both intrinsic and extrinsic factors came as strong motivators among Venezuelan entrepreneurs. However, these results were based only upon differences between mean scores. Comparisons between Mexico and the U.S. were reported by

Fajnzylber, Maloney and Montes-Rojas (2006) for microenterprises and their patterns of entry, survival and growth. Variables such as age, education and marital status were significantly similarly distributed and the dynamics of the businesses were the same in both countries. Fairlie and Woodruff (2007) obtained the same results, where education was negatively correlated to being self-employed, but positively correlated to being an employer. In other words, in both countries people with a higher education tend to create businesses that are larger and beyond the mere level of self-employment. Moreover, self-employment was viewed very positively in Mexico, even among salaried workers, particularly those with a high education level. Maloney (2004) concluded that, in general terms, the patterns of entry and exit to and from microenterprise were similar between Mexico and the U.S.

### *Entrepreneurship and Small Business in Mexico*

There is an abundant recent literature about entrepreneurship and small business in Mexico. Fairlie and Woodruff (2007) describe the country as highly entrepreneurial, with 25% of the workforce being a “self-employed business owner” (see also Reynolds *et al.*, 2002). Not surprisingly, issues observed across Latin America were also present in this country. The poverty phenomenon is, however, unequally distributed across regions and economic sectors. McKinley and Alarcon (1995) reported a wider prevalence of poverty in the states of Oaxaca, Chiapas and Guerrero, in rural areas as opposed to urban, and among agricultural workers and small farmers or “campesinos”. While the agricultural sector contributed 53.4% of the poverty headcount ratio (HCR) for Mexico, in manufacturing, industrial workers contributed to 5.1%, while self-employed workers contributed to only 1.9%. In services, street vendors and domestic workers were the occupations ranked as the poorest by McKinley and Alarcon. A more recent study by Popli (2010) concurred to these conclusions, stressing that self-employed unskilled workers have seen their situation deteriorate further after 1994.

As elsewhere in Latin America, where unemployment protection does not exist, self-employment in Mexico often happens as a result of an increase in forced unemployment (Galli and Kucera, 2008; Alarcon and Zepeda, 2004), particularly in rural areas. Using data from Hernandez and Velasquez (2002), Alarcon and Zepeda (2004) reported an increase from 38.4% to 39.2% per cent of the informal (i.e. unskilled self-employed) labor force in the country between 1990 and 2000, a period marked by deteriorating employment conditions. Klapper, Amit, and Guillen (2010) added to the aforementioned (see preceding section) definition of the informal sector that it represented a “shadow economy”. In it, firms can stay small and informal, while evading high marginal tax rates, registration and regulations compliance, but also renouncing the benefits provided to the formal sector: judicial protection, access to formal credit, to government programs, to foreign markets and other elements of the environment likely to help growing the firm.

### *The Motives of Mexican Entrepreneurs*

In terms of entrepreneurial motives, Cunningham and Maloney (2001) found that a large majority of entrepreneurs in Mexico were voluntarily in business for two main reasons, one intrinsic (the desire for greater independence), the other extrinsic (seeking higher income). Only a “small minority” were found to be older workers who could not be hired again once they had suffered a job loss for various reasons. More recently, a study by Kantis, Ishida and Komori (2002) which included 700 business people from Mexico, (as well as Argentina, Brazil and Peru) found the following: extrinsic motives cited by more than 50% of the respondents were contributing to society (57.7%), and improving one’s income, while the intrinsic motives most cited were self-actualization (89%) and being one’s own boss (Mexico had the highest proportion for that motive at 80.5 per cent). The Mexican samples were gathered mainly within the two largest urban centers of Mexico City and Guadalajara (Kantis, Ishida and Komori (2002). Other motives reported (all by less than 35% of the sample) were as follows: to become wealthy, to achieve social status, to become a role model (in the media, among friends, within the city or within the family), to follow a family tradition, because of an impossibility to pursue a higher education, and because of being unemployed. Samaniego (1998) found motivational differences between self-employed people with employees and own-account workers. Individuals who created businesses as employers cited insufficient

remuneration as their motive in the highest proportion (40%). The second motive was mentioned by 25% and included business closure, end of contract, dismissal or pension. A third category of motives mentioned were more intrinsic: seeking flexibility, not being subordinated, shorter work hours, being with family. For those who started a business as a sole proprietor and worker, one third reported involuntary reasons such as job termination, but extrinsic factors such as insufficient income still represented 25% of the responses, followed by intrinsic factors. Both the Kantis, Ishida and Komori (2002) and the Samaniego (1998) studies reported higher than average levels of business owners aged above 30, married, male and with a higher education, similarly to the comparisons mentioned earlier between Mexico and the U.S. Kantis, Ishida and Komori (2002) also reported that Latin American entrepreneurs were venturing into entrepreneurship on average at the age of 26, as compared to 33 for East Asians.

## THEORETICAL FRAMEWORK

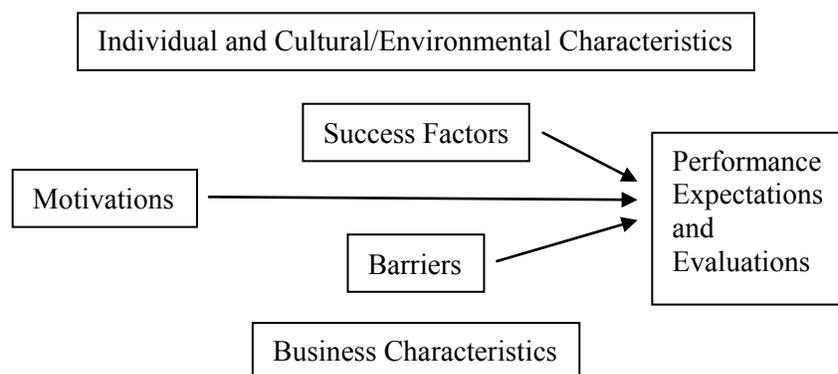
Figure one summarizes the theoretical framework used for this study, which is largely based upon the one developed in Robichaud, Cachon, and Haq (2010). It includes six components, of which four have been measured empirically, both previously and within this study.

Two of the components were not measured directly but were inferred from various models in the literature (Ucbasaran, Westhead, Wright, 2001): they are the Business Characteristics specific to each firm, while the Individual and Cultural/Environment Characteristics are specific to people involved with that firm in all the dimensions of their social context.

The four components measured in this study are Motivations, Success Factors, Barriers, and Performance. These four sets of factors are consistently reported as being closely related as they form important components of the entrepreneurial process. While some models view Motivations as separate in time from the entrepreneurial process, or “antecedents” (Ucbasaran, Westhead, Wright, 2001), there is evidence that Motivations are related to how entrepreneurs view the performance of their business, in particular what type of outcome they expect on an on-going basis. Several studies have linked motives to business performance in a significant way, particularly in the case of extrinsic motives as opposed to intrinsic ones (Morris et al., 2006; Kuratko, Hornsby and Naffziger, 1997; Naffziger, Hornsby and Kuratko, 1994).

The framework presented in this study does not attempt to presuppose what is the level of contribution of each component to business performance. The framework only postulates that it is possible to measure Motivations, Success Factors, and Barriers as contributors or in relation to Performance expectations and subjective evaluations of success.

**FIGURE 1**  
**THEORETICAL FRAMEWORK: MOTIVATIONS, SUCCESS FACTORS, AND BARRIERS TO ENTREPRENEURSHIP**



## **HYPOTHESES**

The first research question was about the similarity of motives among business people in the three countries. The literature review led to the following hypotheses about Entrepreneurial Motives. The first hypothesis is that both intrinsic and extrinsic motives will be displayed by entrepreneurs in the three countries.

The second hypothesis is that entrepreneurs in Canada and the U.S. will display more similar motives than entrepreneurs in Mexico.

The third hypothesis is that there is a relation between the performance expectations considered as important by entrepreneurs and their motives in the three countries.

The second research question was about the reliability of the instrument itself across the three countries. As a consequence, a reliability analysis was used to verify it. Both the Motivation and Performance Expectations scales were tested for reliability, which results are reported below.

## **METHOD**

### **Instrument**

The instrument is based upon former research by Benzing, Chu and Kara (2009), Robichaud, Cachon and Haq (2010), and Robichaud (2011). It was tested after having been translated into Spanish (the English and French language versions had already been used and tested). The Motivation scale was modified for the purpose of the present study by the deletion of one item from the twelve-item scale used for Robichaud, Cachon and Haq (2010) – “To be able to use my past experience and training”, and by the addition of seven items from Robichaud (2011) aiming at better measuring other facets of both extrinsic, intrinsic and other motives, bringing the total number of items to eighteen. New extrinsic items were “To acquire a comfortable living”, “To build up equity for retirement”, “To maximize business growth”, “To create my own job”, and “To increase sales and profits”. One item was related to the need for independence: “To make my own decisions”, while “To meet the challenge” was related to intrinsic needs. These statements were based upon a literature review and validated with qualitative interviews by Robichaud (2011).

The motivation scale of the instrument could be considered as statistically reliable in terms of internal consistency. The Cronbach Alpha coefficient was .895 and the Guttman Split-Half coefficient was .823. The Motivation scale comprised eighteen variables measured with a five-point Likert scale. An answer of 5 would rate the variable as “extremely important”, 4 as “very important”, 3 as “mildly important”, 2 as “not very important”, 1 as “unimportant”. The extent to which expected performance outcomes were rated by respondents were measured by six variables rated with the same five-point Likert scale described above. These variables are listed in the results section below.

Business performance evaluations and expectations were measured with two sets of questions using a five-point Likert scale. Two questions were on Performance Evaluations in general, asking respondents to subjectively rate the level of success of their business (“Unsuccessful”, “Below Average”, “Average”, “Very Successful”, or “Extremely Successful”) and to what extent they were satisfied with their business success (“Very dissatisfied”, “Dissatisfied”, “Somewhat Dissatisfied”, “Very Satisfied”, or “Extremely Satisfied”). Another six questions (also developed and validated by Robichaud, 2011) asked about the Expected Performance criteria preferred by respondents, using the same ratings as the Motivation scale described above. Four of the criteria were intended to be reflective of intrinsic motives (personal satisfaction, achieving a work-family balance, reaching goals, and recognition), the other two, Financial returns and Money drawn from the business, resulted from extrinsic motives. The Expected Performance items formed a scale of six statements which had a Cronbach Alpha coefficient of .72, which represents an acceptable level of reliability.

### **Samples Selection and Interviews**

The total number of 1,272 respondents was obtained as follows. In Canada, business lists were obtained from InfoCanada, 3,000 for the Atlantic provinces and 3,000 for Ontario, where 1,002 and 2,544 were contacted by telephone respectively to secure interview participation: 154 agreed to participate in the Atlantic (15.4%), and 221, or 8.4%, agreed to participate in Ontario, for a Canadian total of 375 respondents. Data were collected in May-June 2010 via the Internet in the Atlantic, with «SurveyMonkey», and by telephone in Ontario.

In the U.S., 3,530 businesses were contacted in Western Kentucky and the Northern Nashville area of Tennessee, of which 395 participated (11%) in the mail and web survey administered in July-August 2010. Business lists were provided by Chambers of Commerce and local Small Business Development Centers. 2,000 Illinois businesses located outside the Chicago metro area were contacted via a Dun and Bradstreet source, with 224 questionnaires completed (11.2%) by mail in the summer 2010. The total number of U.S. respondents was 619.

In Mexico, businesses were visited in person and listings obtained from the local Chambers of Commerce. 278 respondents participated from Mexico: There were 78 respondents in the Guadalajara (state of Jalisco) city area, and 200 in the Monterrey (state of Nuevo Leon) area. Guadalajara had a population of approximately 4.5 million, and Monterrey 3.8 million, when the interviews were conducted in 2010 and 2011.

### **Data Analyses**

Data were first coded at each of the six participating institutions then sent to Western Kentucky University for integration, formatting, and final verification. For the purpose of this article, data were analyzed using the SPSS package.

## **RESULTS**

### **Characteristics by Country**

Table 1 shows the distribution of respondents by personal and business characteristics for each country. In the three countries, a majority of the respondents had completed a formal higher education, a result consistent with previous research. Age distributions show a higher proportion of younger entrepreneurs in Mexico. In terms of business creation, most of the respondents had started their business, with a higher proportion in Mexico: this might explain the lower experience average among Mexican businesses (10 years as compared to 14 years in Canada and 20 years in the U.S.). The higher proportion of young entrepreneurs in Mexico explains why the average number of years of previous business experience is lower there. Mexican businesses also were more concentrated in large urban areas (Guadalajara and Monterrey). A final question asked respondents was: “In your opinion, what percentage of your sector’s activity is done “underground” or not reported (for income tax purposes for example)”. Table 2 shows that more than half of the Mexican respondents reported some level of underground activity in their sector, more than double the proportions in the two other countries.

**TABLE 2  
CHARACTERISTICS BY COUNTRY**

	<b>Canada</b>		<b>U. S. A.</b>		<b>Mexico</b>		<b>Total sample</b>	
	No.	%	No.	%	No.	%	No.	%
<b>Gender:</b> female	147	40.1	118	20.8	84	30.4	349	28.8
male	220	59.9	450	79.2	192	69.6	862	71.2
<b>Education:</b>								
High school not completed	33	9	8	1.4	27	9.8	68	5.6
High school diploma	119	32	155	27.4	49	17.8	323	26.7
College/university degree	219	59	403	71.2	199	72.4	821	67.7
<b>Age:</b> 20-29	4	1.1	8	1.4	60	22.6	72	6.0
30-39	44	12.0	46	8.1	51	19.2	141	11.7
40-49	135	36.7	104	18.3	84	31.7	323	26.9
50-59	126	34.2	217	38.2	54	20.4	397	33.1
60 and over	59	16.0	193	34.0	16	6.0	268	22.3
<b>City size:</b> under 25,000	121	32.8	222	39.8	15	6.1	358	30.6
25,000 to 99,999	86	23.3	260	46.5	23	9.4	369	31.5
Over 100,000	162	43.9	76	13.7	208	84.5	446	38.0
<b>Business creation:</b>								
Respondent	261	69.6	373	65.3	229	82.7	863	70.6
Acquisition	86	22.9	125	21.9	27	9.7	238	19.5
Inheritance	16	4.3	36	6.3	10	3.6	62	5.1
Franchise	12	3.2	17	3.0	11	4.0	40	3.3
Other			20	3.5			20	1.6
<b>Proportion who started for economic necessity</b>	68	18.3	167	29.4	128	34.6	363	29.9
Years in business	14.2 years		19.9 years		10.0 years		15.9 years	
Prior management experience	6.9 years		6.7 years		5.6 years		6.5 years	
Prior experience in sector	12.7 years		7.6 years		6.3 years		8.9 years	
<b>Sector:</b>								
Retail	104	27.7	111	19.9	59	21.2	274	22.6
Wholesale	15	4.0	27	4.8	71	25.5	113	9.3
Other Services	195	52.0	308	55.2	114	41.0	617	51.0
Manufacturing	38	10.1	56	10.0	21	7.6	115	9.5
Construction	23	6.1	56	10.0	13	4.7	92	7.6
<b>Proportion of unreported or underground activity in your sector:</b>								
1 percent to 9%	29	10.0	49	10.1	17	7.1		
10-19%	18	6.2	37	7.6	33	13.9		
20-49%	19	6.4	33	6.8	46	19.3		
50% and over	6	2.0	10	2.0	42	17.7		
<b>Total</b>	72	24.6	129	26.5	138	58.0	339	33.5
<b>Total responding</b>	291	100.0	483	100.0	238	100.0	1012	100.0

## Motivation Scale

Table 3 presents mean scores by each of the eighteen items of the scale by country. Four motivational variables showed no significant mean difference across the three North American countries: “To meet the challenge”, “To increase sales and profits”, “For my own satisfaction”, and “To maintain my personal freedom”. It is notable that three of these variables represent intrinsic motives, while increasing sales and profits is an extrinsic one.

In terms of differences between countries, scores obtained in Mexico significantly differed from those obtained in both Canada and the U.S. only with four variables. In three cases, Mexican scores were lower: “Making my own decisions”, “Build up equity for retirement”, and “To have fun”, while in one case the mean score was higher: “Build a business to pass on”. There were ten variables where scores in Mexico were significantly different from those in one of the other countries, four in the case of Canada, eight as compared to the U.S.

**TABLE 3**  
**MOTIVATION SCALE MEANS AND STANDARD DEVIATIONS BY COUNTRY**

Motivation variables	Canada		U.S.A.		Mexico	
	Mean	Std. D.	Mean	Std. D.	Mean	Std. D.
Make my own decisions	4.46	.793	4.30	.780	<b>4.01</b>	1.067
Acquire a comfortable living	<b>4.33</b>	.800	<b>4.11</b>	.771	<u>3.95</u>	1.001
Build up equity for retirement	4.09	1.067	3.99	.963	<b>3.35</b>	1.246
Maximize business growth	3.87	1.061	3.73	.964	<i>4.07</i>	1.045
Meet the challenge	4.01	.980	3.96	.922	3.90	1.105
Prove I can succeed	<b>4.06</b>	1.043	<b>3.79</b>	1.084	<u>3.77</u>	1.212
Create my own job	<b>4.37</b>	.955	<b>3.89</b>	1.027	<u>4.14</u>	1.077
Increase sales and profits	4.07	1.026	3.95	.918	4.16	.932
Be my own boss	<b>4.42</b>	.885	<b>4.19</b>	.895	<u>4.07</u>	1.126
Increase my income	4.15	1.016	4.06	.842	4.33	.881
Gain public recognition	<b>3.20</b>	1.282	<b>2.57</b>	1.097	2.98	1.274
Provide jobs for family	<b>2.99</b>	1.437	<b>2.46</b>	1.233	3.23	1.234
For my own satisfaction	4.07	.981	4.06	.860	4.25	.959
To always have job security	<b>3.96</b>	1.139	<b>3.61</b>	1.135	<i>4.07</i>	1.019
Build a business to pass on	3.04	1.463	2.89	1.262	<b>3.50</b>	1.236
Maintain my personal freedom	4.07	1.057	4.09	.934	3.93	1.116
Be closer to my family	3.58	1.331	3.40	1.207	<i>3.75</i>	1.284
Have fun	3.71	1.295	3.51	1.173	<b>2.76</b>	1.416
<b>Number of respondents</b>	364		527		261	

**Mexico:** Bolded means represent a significant difference with both Canada and the U.S.; underlined means represent a significant difference with Canada only; italicized means represent a significant difference with the U.S. only.  
**Canada and U.S.:** Bolded and italicized means represent a significant difference between these two countries only. Significance levels are all at  $p < .001$  (t-tests for equality of means, 2-tailed).

## Motivations – Factor Analyses

### General Comments

Results from the factor analyses for each country appear on tables 4 to 6. Four factors were extracted for each of the three countries. The tables below present results obtained via the principal components analysis method (PCA). Factor loadings considered as strong enough to be included in a factor were those equal to .5 or more. As this method has been contested for not being a “true” method of factor analysis

(Costello and Osborne, 2005), computations were processed with one of the widely accepted FA methods. Results were confirmed with the maximum likelihood (ML) procedure, a classical factor analysis method (Nie et al., 1975). While Costello and Osborne (2005) suggest a threshold of .3 for acceptable loadings, a level of .4 was used here. Results for Canada identified the same variables as components of the four factors. The U.S. data also resulted in identical component variables except for one, "Recognition", which had a loading of .356 after the ML procedure, as compared to a loading of .491 under the PCA method. This suggested that it could either be kept under less stringent threshold assumptions, or be rejected, at least for the time being. The same set of variables was extracted for Factor 1 within the data from Mexico. Factor 2 retained three of the PCA variables and excluded two ("Be closer to my family" .391 loading; "Have fun" .299 loading); Factor 3 included the four variables found in the PCA solution, as well as Factor 4, with the addition of the "Be closer to my family" variable (.468 loading).

Given the existence of previous research using the same scales, it was relatively easy to label the factors obtained. The four factors were labeled as follows: The Extrinsic/Income Factor represented the set of motivational variables associated with monetary gain, either business or personal. The Intrinsic Motives Factor included cognitive variables related to personal motivators. The Independence Factor was made of variables associated with the need for ownership and internal control. Finally, the Family/Security Factor addressed the basic needs related to providing for oneself and one's entourage.

#### *Comparison Between the Three Countries*

Among the Canadian respondents, the first factor, which explained almost 44% of the total variance, was the Family/Security Factor, while the Extrinsic/Income Factor came in second place, and explained only 7.6% of the variance. The two other factors explained respectively 7.3% for Independence, and 6.9% of the variance for Intrinsic Motives. Factors 1 and 4 included four variables each, while five variables formed Factors 2 and 3, all loadings being above .5. These groupings confirm those obtained by previous research (Robichaud, McGraw and Roger, 2001; Kuratko, Hornsby and Naffzinger, 1997), except for the prevalence of the Family/Security factor.

One variable, "To always have job security" failed to meet the threshold of a .5 level of loading in both the cases of the U.S. (.442) and Mexico (.440); moreover, the variable was crossloading at low levels of .26 to .44 over three factors in both country groupings. In the U.S., two other variables had lower loadings than expected, "Gain public recognition" (.491 and not crossloaded), and "Have fun" (.464 but crossloaded over two other factors at .23 and .33). In Mexico, "Create my own job" was crossloaded on three factors, with a highest loading of .478 on Factor 1, .469 on Factor 2, and .321 on Factor 3. As a result, the U.S. data comprised 15 variables included in the factors, while the Mexican data had 16, as compared to 18 in Canada.

In the U.S. and Mexico the first factor was the Extrinsic/Income one, with almost 34% of the total variance explained in the U.S., and 32% in Mexico. While both countries included the same four variables in this factor ("Acquire a comfortable living", "Increase my income", "Maximize business growth", and "Increase sales and profits"), results from the U.S. also included "Build up equity for retirement" as part of this factor, as did the Canadian groups.

Independence was the second factor in the U.S. (9.97% of total variance, four variables) and in Mexico (9.49% of total variance, five variables), but the mix of variables was slightly different between the two countries. The three variables with the strongest factor loadings were the same for both countries: "Maintain my personal freedom", "Make my own decisions", and "Be my own boss". In the U.S., a fourth variable which loaded on this factor was "Create my own job"; in Mexico, a fourth variable was "Be closer to my family", plus a fifth one, "Have fun".

When a first factor analysis eliminates variables from a model due to lower than expected loadings, it is customary to attempt another analysis with only the remaining variables in order to find out which loadings are remaining the same and which ones may have shifted between factors, particularly where there are crossloaded variables. As a result, new principal component analyses were performed with the remaining fifteen variables with the U.S., and sixteen variables with Mexico. The U.S. data revealed the same factors as previously extracted, as well as the same variables, but with slightly higher loadings for

the strongest variables in each factor: for example, loadings for “Acquire a comfortable living” increased from .795 to .803, and from .816 to .833 for “Be my own boss”, in Factors 1 and 2 respectively. The explained variance levels had also increased; up to 35.19%, 11.80%, 10.43%, and 8.70% respectively for Factors 1 to 4 (total up to 66.12% from 60.7%).

For Mexico, a new principal component analysis also showed the same variables loading on the same factors, but with one difference as compared with the previous analysis: Factors 2 and 3 now appeared in the reverse order, the Intrinsic factor being now in second position, while the Independence factor was in second position. The explanation for the shift is that a factor’s importance is represented by the total variance it accounts for in the data (Nie et al., p. 477): in the case of Mexico, the variance explained by the Independence factor increased from 9.49% in the previous model to 9.53% in the new model. However, the Intrinsic factor increased its proportion of explained variance from 8.95% to 10.81%. As the proportion of the variance explained by a given factor results from dividing its eigenvalue by the number of variables, it is noticeable here that it is the eigenvalues of both factors that shifted, from 1.611 to 1.729 for the Intrinsic factor, and from 1.709 to 1.524 for the Independence factor.

**TABLE 4**  
**MOTIVATIONS – FACTOR ANALYSIS FOR CANADA**

<b>Variables</b>	<b>Factor 1 Family/Security</b>	<b>Factor 2 Extrinsic/Income</b>	<b>Factor 3 Independence</b>	<b>Factor 4 Intrinsic</b>
Be closer to my family	<b>.840</b>	.217	.136	.079
Build a business to pass on	<b>.772</b>	.194	.105	.146
Provide jobs for family	<b>.655</b>	.226	.165	.284
Have fun	<b>.643</b>	.107	.213	.234
Increase my income	.120	<b>.770</b>	.312	.091
Increase sales and profits	.128	<b>.765</b>	.038	.392
Acquire a comfortable living	.247	<b>.661</b>	.278	.024
Build up equity for retirement	.345	<b>.650</b>	.220	.112
Maximize business growth	.198	<b>.643</b>	.116	.488
Be my own boss	.087	.198	<b>.833</b>	.135
Make my own decisions	.142	.166	<b>.718</b>	.275
Create my own job	.198	.248	<b>.650</b>	.223
Maintain my personal freedom	.479	.116	<b>.578</b>	.255
To always have job security	.450	.412	<b>.551</b>	.110
Meet the challenge	.145	.177	.158	<b>.842</b>
For my own satisfaction	.247	.049	.210	<b>.716</b>
Prove I can succeed	.153	.237	.300	<b>.702</b>
Gain public recognition	.424	.285	.203	<b>.510</b>
Eigenvalues	7.913	1.368	1.313	1.242
Explained variance	43.96%	7.60%	7.29%	6.90%
Cronbach’s Alpha	.817	.848	.843	.761

**TABLE 5**  
**MOTIVATIONS – FACTOR ANALYSIS FOR THE UNITED STATES**

<b>Variables</b>	<b>Factor 1 Extrinsic/Income</b>	<b>Factor 2 Independence</b>	<b>Factor 3 Intrinsic</b>	<b>Factor 4 Family/Security</b>
Acquire a comfortable living	<b>.795</b>	.321	.008	.105
Build up equity for retirement	<b>.780</b>	.136	.005	.107
Increase my income	<b>.706</b>	.331	.129	.135
Maximize business growth	<b>.693</b>	-.068	.423	.072
Increase sales and profits	<b>.641</b>	-.011	.455	.136
Be my own boss	.112	<b>.816</b>	.213	.002
Maintain my personal freedom	.114	<b>.761</b>	.170	.199
Make my own decisions	.215	<b>.695</b>	.106	-.033
Create my own job	.186	<b>.531</b>	.475	.147
To always have job security	.356	.442	.258	.359
Meet the challenge	.220	.054	<b>.786</b>	.058
Prove I can succeed	.149	.251	<b>.773</b>	.019
For my own satisfaction	-.014	.456	<b>.596</b>	.096
Gain public recognition	.188	.146	.491	.169
Have fun	-.079	.226	.464	.330
Build a business to pass on	.117	.034	.153	<b>.815</b>
Provide jobs for family	.097	-.053	.099	<b>.777</b>
Be closer to my family	.164	.233	.064	<b>.733</b>
Eigenvalues	6.113	1.795	1.656	1.362
Explained variance	33.96%	9.97%	9.20%	7.57%
Cronbach's Alpha	.835	.806	.756	.738

**TABLE 6**  
**MOTIVATIONS – FACTOR ANALYSIS FOR MEXICO**

<b>Variables</b>	<b>Factor 1 Extrinsic/Income</b>	<b>Factor 2 Independence</b>	<b>Factor 3 Intrinsic</b>	<b>Factor 4 Family/Security</b>
Increase my income	<b>.840</b>	.187	.011	.008
Increase sales and profits	<b>.807</b>	.008	.177	.122
Acquire a comfortable living	<b>.594</b>	.275	.116	.262
Maximize business growth	<b>.537</b>	-.096	.340	.391
Create my own job	.478	.469	.321	.040
Maintain my personal freedom	.195	<b>.770</b>	.154	.157
Make my own decisions	.405	<b>.611</b>	.244	.116
Be my own boss	.535	<b>.587</b>	.217	-.099
Be closer to my family	.041	<b>.584</b>	-.047	.486
Have fun	-.233	<b>.543</b>	.362	.099
Meet the challenge	.050	.085	<b>.772</b>	.159
Prove I can succeed	.163	.208	<b>.760</b>	.015
For my own satisfaction	.207	.195	<b>.619</b>	-.076
Gain public recognition	.078	.078	<b>.600</b>	.288
Provide jobs for family	.043	.073	.182	<b>.762</b>
Build a business to pass on	.037	.099	.087	<b>.733</b>
Build up equity for retirement	.427	.084	.006	<b>.521</b>
To always have job security	.336	.317	.054	.440
Eigenvalues	5.759	1.709	1.611	1.290
Explained variance	31.99%	9.49%	8.95%	7.16%
Cronbach's Alpha	.780	.780	.722	.685

### *Comparing Factors and Scores*

While eigenvalues represent the importance of each factor in explaining the total variance related to the variables included in the model, the relative importance of the factors has to be distinguished from the actual importance given by entrepreneurs to the actual motive which is associated to each factor. This level of importance can be computed by calculating the mean scores of the variables that are forming each factor: these results are summarized in table 7. As can be seen, Independence has the highest score in both Canada and the U.S., while Extrinsic/Income motives receive the highest score in Mexico. This is very consistent with the fact that a higher proportion of Mexican respondents have declared they went into business by necessity. The second most important motive for both U.S. and Canadian respondents were Extrinsic/Income reasons, which is consistent with previous studies. In terms of scores, intrinsic motives arrive in second position in Mexico, and in third position in Canada and the U.S., while Family and Security motives are in fourth position in the three countries.

Looking at the frequencies histogram for the Family/Security Factor scores, it was found that, while the three distributions displayed an almost perfect Gaussian pattern, except for the Canadian one, which was bimodal: it included a group of 55 respondents with a mean score of 5. There is no doubt that it is this relatively large group of respondents which was the source of the large factor loadings obtained by the variables associated with the Family/Security Factor.

### **Hypotheses Verification – Motives**

Two hypotheses were about motives. The first hypothesis was that both intrinsic and extrinsic motives would be displayed by entrepreneurs in the three countries. The data have shown that this was the case, albeit in different ways. Extrinsic/Income motives came with the highest scores among Mexican respondents before Intrinsic motives, while Intrinsic and Extrinsic motives ranked second and third among Canadian and American entrepreneurs.

The second hypothesis was that entrepreneurs in Canada and the U.S. would display more similar motives than entrepreneurs in Mexico. This hypothesis was confirmed despite the fact that Canadian respondents displayed a pattern of motives which was slightly different from the two other countries in the factor analysis. In Canada, the first factor was the one labeled as “Family/Security”, which explained 44% of the total variance, as compared to 8.70% and 7.96% in the U.S. and Mexico respectively. However, the data also demonstrated that Canadian entrepreneurs had scored the Family/Security Motive last, as did their counterparts in the two other countries. Canadians were similar to U.S. entrepreneurs in terms of motives by putting Independence first, while Mexicans put Extrinsic Motives first. The Extrinsic/Income factor came a distant second in Canada (7.60%), while it came first in the U.S. (35.19% of the variance) and in Mexico (31.51%). The level of variance explained by the two other motivational factors, Independence and Intrinsic, did not differ greatly among the three countries as compared to the first two factors. Readings were as follows, for Independence, 11.80% for the U.S., 9.53% for Mexico, and 7.29% for Canada; for Intrinsic, 10.43% (U.S.), 10.81% (Mexico), and 6.90% (Canada).

The similarity of the results between the U.S. and Mexico also contradict those from an earlier study by Kantis, Ishida and Komori (2002, p. 16), which identified the desire for independence to be extraordinarily high in Mexico as compared to other regions in the world.

**TABLE 7**  
**MEAN SCORES FOR MOTIVATION FACTORS**

Factors	Canada		U.S.		Mexico	
	Mean	St. D.	Mean	St. D.	Mean	St. D.
Independence	4.25	0.76	4.12	0.71	3.70	.84
Intrinsic	3.84	0.86	3.94	0.78	3.72	.84
Family	3.33	1.11	2.91	1.01	3.37	.93
Extrinsic	4.10	0.78	3.97	0.69	4.12	.74

**Performance Expectations and Evaluations**

Table 8 summarizes the Performance Expectations and Evaluations mean scores obtained within the three countries. Financial returns in terms of profits and sales were the only item showing no significant difference of mean score between any of the three countries. The scores obtained were between 4.24 and 4.37 on a scale maximum of 5; in Canada and the U.S. these scores were the highest among those for the eight performance variables.

There were two variables where Mexico differed significantly from the two other countries, with significantly lower scores: “How would you describe your business success?” and “To what extent are you satisfied with your business success?” While results in Mexico were only slightly above the “average” and “somewhat dissatisfied” marks, scores in Canada and the U.S. express more generalized satisfaction (“very successful” and “very satisfied”).

**TABLE 8**  
**PERFORMANCE EXPECTATIONS AND EVALUATIONS:**  
**MEANS AND STANDARD DEVIATIONS**

Variables	Canada		U.S.A.		Mexico	
	Mean	Std. D.	Mean	Std. D.	Mean	Std. D.
<b>Performance Evaluations</b>						
Business level of success	3.75	.825	3.73	.691	<b>3.43</b>	.769
Satisfaction with bus. level/success	3.94	.898	3.86	.847	<b>3.64</b>	.887
<b>Performance Expectations</b>						
Financial returns (profits, sales)	4.37	.880	4.25	.730	4.24	.836
Money drawn from the business	<b>3.95</b>	1.100	<b>3.68</b>	.896	<u>3.61</u>	1.111
Achieving work-family balance	3.78	1.131	3.93	.988	<u>4.09</u>	.964
Reaching personal or org. goals	4.12	.932	3.97	.883	<i>4.34</i>	.801
Being recognized by clients	<b>3.84</b>	1.104	<b>3.36</b>	1.209	<i>3.74</i>	1.149
Personal satisfaction	<b>4.30</b>	.894	<b>4.05</b>	.906	4.21	.907
Number of respondents		374		563		272

**Mexico:** Bolded means represent a significant difference with both Canada and the U.S.; underlined means represent a significant difference with Canada only; italicized means represent a significant difference with the U.S. only. **Canada and U.S.:** Bolded and italicized means represent a significant difference between these two countries only. Significance levels are all at  $p < .001$  (t-tests for equality of means, 2-tailed).

The third hypothesis was that there would be a relation between the performance expectations considered as important by entrepreneurs and their motives in the three countries. In order to test this hypothesis, principal components analyses were performed for the six variables measuring the entrepreneurs' performance expectations in order to examine how they would be distributed between Intrinsic and Extrinsic expectations of performance on the part of the entrepreneurs in each country. Correlations were also computed between the Motive factors and the performance measures as well as the two Performance Evaluation variables that were part of the instrument. These results appear in tables 9 and 10.

**TABLE 9**  
**FACTOR ANALYSES ON PERFORMANCE EXPECTATIONS**

Performance Expectations	Canada		U.S.		Mexico	
	Extrinsic	Intrinsic	Extrinsic	Intrinsic	Extrinsic	Intrinsic
Financial returns - profits and sales	.878		.807		.683	
Money drawn from the business	.896		.816		.832	
Work-Family balance		.544	.479	.349	.660	
Personal or organizational goals		.798		.779		.767
To be recognized		.851		.777		.694
Personal satisfaction		.841		.792		.842
Eigenvalues	1.808	2.387	1.131	2.453	1.129	2.383
Explained variance %	30.14	39.78	18.85	40.89	18.81	39.71
Cronbach alpha	.77	.77	.56	.71	.59	.67

Two factors have appeared in each country, one associated with extrinsic or financial expectations, the other with intrinsic ones. While every country group had both extrinsic variables ("Financial returns" and "Money drawn") loading together, the "Work-Family balance" variable loaded differently across countries: in Canada, it loaded as expected with the group of intrinsic variables; in Mexico, it loaded with the extrinsic variables, while in the U.S. it was crossloaded below the acceptable threshold on both factors. The factorial model was effective, as it explained 69.9% of the total variance in Canada, 59.7% in the U.S., and 58.5% in Mexico.

### **Hypothesis Verification – Motivation and Performance**

In order to verify the third hypothesis, it is necessary to compare results obtained with both Motivation and Performance factors. The comparison is based upon the three correlation tables computed for each country. Positive significant correlations between the four Motivation Factors (Independence, Intrinsic, Family, Extrinsic), the two Performance Expectations Factors (Intrinsic and Extrinsic), and the two Performance Evaluation variables (Subjective Success Evaluation and Subjective Satisfaction Level) would show that the groupings of variables they represent move in the same direction. The verification of this hypothesis had to be conducted in three stages: first, correlations between Motivation Factors and Performance Expectations Factors were examined; secondly, correlations between Motivation Factors, Performance Expectations Factors, and the Subjective Success Evaluation Variable were examined, and third, Correlations between Motivation Factors, Performance Expectations Factors, and the Subjective Success Evaluation Variable were examined.

### *Correlations Between Motivation Factors and Performance Expectations Factors*

In the three countries, the four Motivation Factors were positively related to both Intrinsic and Extrinsic Performance Expectations. The only exception was for the U.S., where the correlation between Intrinsic Motives and Extrinsic performance Expectations was close to zero. As it can be expected, in the three countries the correlations ranked highest or second-highest between Intrinsic Motives and Intrinsic Performance Expectations on one side, and between Extrinsic Motives and Extrinsic Performance Expectations on the other (from .355 to .547). In the three countries, correlations with Extrinsic Performance Expectations were much lower with the Independence, Family, and Intrinsic Motivation Factors. Conversely, correlations between these three Motivation Factors were higher with Intrinsic Performance Expectations, except in the case of Mexico, where the Independence and Family Motivation Factors were more strongly correlated with Extrinsic Performance Expectations than with Intrinsic Performance Expectations.

### *Correlations Between Motivation Factors, Performance Expectations Factors, and the Subjective Success Evaluation Variable*

In terms of Performance Evaluations, a positive correlation between a Motivation Factor or Performance Expectation Factor and the Subjective Success Evaluation variable would suggest that respondents evaluate their performance positively, or feel more successful, in relation to each category of Motivation Factor or Performance Expectation Factor. In the three countries, respondents motivated by Independence as well as those with an Intrinsic Performance Expectation showed a positive correlation with their evaluation of Success. This indicates that in both cases, these factors were related to feeling more successful. Correlations with the Success Evaluation variable included the Extrinsic Motive in the U.S. and Mexico (.21 and .18), the Family Motive (.19 and .21) in Canada and Mexico, the Intrinsic Motive in the U.S. (.15), and Extrinsic Performance Expectations in Mexico (.24).

### *Correlations Between Motivation Factors, Performance Expectations Factors, and the Subjective Satisfaction Level Variable*

The second aspect of Performance Evaluations that was measured was through the Subjective Satisfaction Level variable. A positive correlation between a Motivation or Performance Expectation Factor and the Subjective Satisfaction Level variable would suggest that respondents were more satisfied with their level of success in relation to each category of Motivation Factor or Performance Expectation Factor. In the three countries, respondents with an Intrinsic Performance Expectation showed a positive correlation with their Subjective Satisfaction Level. This indicates that in the three countries business people trying to reach intrinsic goals had a tendency to be more satisfied with their business performance. To the contrary in Canada and the U.S., respondents with an Extrinsic Performance Expectation showed a small negative correlation (-.018 and -.057) with their Subjective Satisfaction Level. Correlations with the Subjective Satisfaction Level variable included the Independence Motive in the U.S. and Mexico (.14 and .15), the Extrinsic Motive in the U.S. (.14), the Family Motive (.18 and .16) in Canada and Mexico, the Intrinsic Motive in the U.S. and Mexico (.16 and .18), and Extrinsic Performance Expectations in Mexico (.19).

While the above results do verify the third hypothesis, it is important to determine to what extent and how respondents converged and differed on the relations between their motives and their performance expectations and evaluations. These issues are discussed in the following section.

**TABLE 10A**  
**CORRELATIONS BETWEEN MOTIVATION FACTORS, PERFORMANCE EXPECTATIONS**  
**AND EVALUATIONS FOR CANADA**

Motivation and Performance Factors	Intrinsic Performance Expectations	Extrinsic Performance Expectations	Subjective Success Evaluation	Subjective Satisfaction Level
Independence	.399**	.399**	.129*	.098
Extrinsic	.382**	.537**	.067	.061
Family	.496**	.374**	.186**	.177**
Intrinsic	.489**	.329**	.080	.084
Intrinsic Performance Expectations			.201**	.177**
Extrinsic Performance Expectations			.037	-.018

\*\*Significant at p<.01. \*Significant at p<.05.

**TABLE 10B**  
**CORRELATIONS BETWEEN MOTIVATION FACTORS, PERFORMANCE EXPECTATIONS**  
**AND EVALUATIONS FOR THE UNITED STATES**

Motives and Performance Factors	Intrinsic Performance Expectations	Extrinsic Performance Expectations	Subjective Success Evaluation	Subjective Satisfaction Level
Independence	.341**	.121**	.155**	.138**
Extrinsic	.286**	.355**	.208**	.142**
Family	.311**	.141**	.082	.069
Intrinsic	.467**	.073	.147**	.161**
Intrinsic Performance Expectations			.094*	.153**
Extrinsic Performance Expectations			.081	-.057

\*\*Significant at p<.01. \*Significant at p<.05.

**TABLE 10C**  
**CORRELATIONS BETWEEN MOTIVATION FACTORS, PERFORMANCE EXPECTATIONS**  
**AND EVALUATIONS FOR MEXICO**

Motives and Performance Factors	Intrinsic Performance Expectations	Extrinsic Performance Expectations	Subjective Success Evaluation	Subjective Satisfaction Level
Independence	.333**	.344**	.142*	.149*
Extrinsic	.246**	.446**	.184**	.071
Family	.264**	.405**	.207**	.159**
Intrinsic	.502**	.247**	.108	.182**
Intrinsic Performance Expectations			.128*	.165**
Extrinsic Performance Expectations			.245**	.189**

\*\*Significant at p<.01. \*Significant at p<.05.

## DISCUSSION

### **Similarities and Differences Between Canada, Mexico, and the U.S.**

#### *Subjective Perceptions of Motives and Performance Among Entrepreneurs*

It is worthy to note that respondents were consistent in their answers by indicating a preference for financial or extrinsic financial expectations when they had extrinsic motives. Conversely, those who had intrinsic financial expectations were also those with intrinsic motives. These results suggest that using subjective measures to evaluate the performance of small and medium-sized businesses can be a way of obtaining conclusive results when trying to compare and match motivational to performance variables. As owners and managers of their firms, for researchers to recognize that entrepreneurs' real or achieved success may be more subjective than objective, could be the key to unlock the mechanisms of their motives/rewards cognitive system.

#### *Mexico*

The above results lead to a number of observations about the motives and the attitudes of business respondents in the three countries considered. Mexican respondents rated their success lower than their Canadian and U.S. counterparts, and were also satisfied at a significantly lesser level. Not surprisingly, their performance expectations were not as strictly primarily extrinsic but were a mix of personal or intrinsic as well as extrinsic expectations. This is consistent with the fact that 34.6% of them had started their business due to economic necessity, and that Mexican respondents had significantly stronger motives than their Canadian and/or U.S. counterparts in areas directly or indirectly contributing to secure an income and maintain it. Particularly important for them were Motivation variables such as increasing one's income, creating one's job, always have job security and provide jobs for one's family. Other strong motives of increasing sales and profits and maximizing business growth were consistent with these personal and family-oriented extrinsic motives among Mexican respondents. The burden related to economic survival in an environment devoid of job assistance has the effect of setting aside motives factors such as Independence and Intrinsic, which is also very consistent with the Maslowian hierarchy of needs (basic needs must be satisfied in the long term before one can contemplate satisfying higher-level ones).

In terms of performance as it is related to motives, Mexican business people with intrinsic motives did not see themselves as successful as compared to those who were pursuing other motives, whatever they were. To confirm what has been observed above, those with Extrinsic Performance Expectations had the highest association with being successful, as well as those who were motivated by family reasons. These two groups also had the highest association in terms of satisfaction levels.

An interesting statistic comparison can be made for Mexico between this research and a previous one (Samaniego, 1998): while the proportion of entrepreneurs motivated by economic necessity was 65% in the late Nineties, the proportion observed in Mexico in 2010-2011 was down to 34.6% in Guadalajara and Monterrey. This comparison must, however, be considered with caution as, like most other studies on Mexican entrepreneurs, the Samaniego (1998) one is based upon macroeconomic statistics (in that case, the 1996 *National Survey of Micro-Enterprises* and the *National Employment Survey* for cities of over 100,000 population).

#### *Canada and the U.S.*

Not surprisingly, Canadian and U.S. respondents rated the Independence Motive as highest and the Extrinsic Motive as second, followed by the Intrinsic and Family Motives. However, in the U.S. the Family Motive appeared unrelated to both their evaluation of success and their level of satisfaction, while in Canada it was the Extrinsic Motive that had no such correlation. These diverging results are consistent with the factor analysis. The Independence Motive was positively related to Success Evaluation, meaning that people motivated by a desire of independence had more of a tendency to feel successful, however only the U.S. respondents also had a tendency to express more satisfaction with their success. In both countries, Extrinsic Performance Expectations were not seen related to actual performance perceptions,

which is consistent with the idea that they represent an obligation if one wishes to remain in business. In both countries, respondents put a positive association between Intrinsic Performance Expectations and their feeling of both having achieved success and being satisfied by it. In other words, extrinsic expectations are a given, while intrinsic ones are the real bonus for being in business.

#### *Instrument*

Regarding the instrument, it is notable that while reliability levels were highest for Canada, they had a tendency to be lower in the U.S. and Mexico. Factor groupings obtained were very similar to those from previous studies (Kuratko, Hornsby, Nafzinger, 1997; Robichaud, McGraw & Roger, 2001; Benzing, Chu, and Kara, 2009) using the same instrument or similar instruments. This is very encouraging for researchers in the field of entrepreneurial motivation across various countries and cultures.

#### *Other Considerations*

It must be noted that data from each country comprised sub-samples from two distinct regions. Time and space constraints prevented from reporting on each of the six regions, particularly on specific contextual aspects such as urban as opposed to rural areas (in Canada and the U.S., as most of the Mexican respondents were located in large cities), necessity and opportunity entrepreneurs, gender aspects, and other characteristics such as poverty and other social and demographic descriptors. As most of the published studies about Mexico deal with macroeconomic measures, it will be interesting to examine if new realities are appearing among entrepreneurs in that country through the empirical data obtained in Guadalajara and Monterrey through this study. Several of these potential aspects will be reported upon separately by various teams of researchers from the participating institutions. The data bank obtained through this project is very promising and should provide more fruitful results in the near future.

## **CONCLUSION**

In conclusion this study contributes to the burgeoning and impressive research on entrepreneurial motivation. Our multicounty research endeavor was guided by the need to better understand the multidimensional nature of motivation for business ownership. Findings suggest that entrepreneurial motivation is indeed complex although the motivational constructs of extrinsic, independence, intrinsic and family security were consistently displayed by small business owners across Mexico, Canada, and the United States, similarly to entrepreneurs from other parts of the world. Perhaps more interesting is that the degree of motivation exhibited as well as the linkages to business performance appears to systematically vary across country contexts. Findings underscore and illustrate the importance of multicounty studies in deepening our understanding of motivation and the relationship to business performance in management research.

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## REFERENCES

- Ajzen, I., Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behavior*. Englewood-Cliffs, NJ: Prentice-Hall.
- Alarcon, D., and Zepeda, E. (2004) "Economic Reform or Social Development? The Challenges of a Period of Reform in Latin America: Case Study of Mexico" *Oxford Development Studies*, 32, 1, 59-86.
- Bargain, O., Kwenda, P. (2010) "Is Informality Bad? Evidence from Brazil, Mexico and South Africa" Bonn: IZA Discussion Paper No. 4711, 26 p.
- Bartoshuk, A.K. (1971) "Motivation" in J.W. Kling and L.A. Riggs, *Woodworth and Schlossberg's Experimental Psychology* New York: Holt, Rinehart and Winston, 793-845.
- Beach, F.A. (1955) "The Descent of Instinct" *Psychological Review*, 62, 401-410.
- Beach, F.A. (1948) *Hormones and Behavior*. New York: Hoeber.
- Begley, T.M., Tan, W.L. (2001) "The Socio-cultural Environment for Entrepreneurship: A Comparison Between East-Asian and Anglo-Saxon Countries" *Journal of International Business Studies*, 32, 3, 537-553.
- Benzing, C. and H.M. Chu, (2009). A comparison of the motivations of small business owners in Africa. *Journal of Small Business and Enterprise Development*, 16, 1, 60-77.
- Benzing, C., Chu, M., and Callanan, G. (2005) 'Regional comparison of the motivation and problems of Vietnamese entrepreneurs.' *Journal of Developmental Entrepreneurship*, 3, 3-27.
- Benzing, C., Chu, H.M., and Kara O. (2009). "Entrepreneurs in Turkey: A Factor Analysis of Motivations, Success Factors, and Problems," *Journal of Small Business Management* 47, 1, 58-91.
- Buechler, H.C. and Buechler J.M. (1992) *Manufacturing Against the Odds: Small-Scale producers in an Andean City*. Boulder: Westview Press.
- Campbell, J.P., Dunnette, M.D., Lawler, E.E., Weick K.E. (1970) "Expectancy Theory" in Campbell J.P. et al. *Managerial Behavior and Effectiveness*. McGraw Hill.
- Carrasco, R. (1999) "Transitions to and from Self-Employment in Spain: An Empirical Analysis" *Oxford Bulletin of Economics and Statistics*, 61, 3, 315-341.
- Carsrud, A., and Brannback, M. (2011) "Entrepreneurial Motivations: What Do We Still Need to Know?" *Journal of Small Business Management*, 49 (1), 9-26.
- Chu, H. M., Benzing, C., and McGee, C. (2007). 'Ghanaian and Kenyan entrepreneurs: Analysis of their motivations, success characteristics and problem.' *Journal of Developmental Entrepreneurship*, 6, 17-31.
- Chu, HM, Leach, E & Manuel, R. (1998) 'Cultural effect and strategic decision among Filipino entrepreneurs', Proceedings from the International Conference for Small Business, <http://www.sbaer.uca.edu/research/1998/ICSB/j010.htm>.

- Collier, G. (1964) "Thirst as a Determinant of Reinforcement" in M.I. Wayner (Ed.), *Thirst*. Oxford: Pergamon, 287-303.
- Cook, S. and L. Binford. (1990). *Obliging Need: Rural petty industry in Mexican capitalism*. Austin: University of Texas Press
- Costello, A.B., and Osborne, J.W. (2005) "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most From Your Analysis". *Practical Assessment Research and Evaluation*, 10, 7. Available online: <http://pareonline.net/pdf/v10n7.pdf>
- Cunningham, W.V., Maloney, W.F. (2001) "Heterogeneity among Mexico's Microenterprises: An Application of Factor and Cluster Analysis" *Economic Development and Cultural Change*, 5, 131-156.
- Deese, J. (1967) *General Psychology*. Boston: Allyn and Bacon.
- De Soto, H. (1989) *The Other Path: The Invisible Revolution in the Third World*. New York: Harper Row.
- Engelen, A., Heinemann, F., Brettel, M. (2009) "Cross-cultural entrepreneurship research: Current status and framework for future studies". *Journal of International Entrepreneurship*, 7, 163-189.
- Eversole, R. (2003) "My Business Pays Me: Labourers and Entrepreneurs Among the Self-Employed Poor in Latin America" *Bulletin of Latin American Research* 22, 1, 102-116.
- Fairlie, R.W., and Woodruff, C. (2007) "Mexican Entrepreneurship: A Comparison of Self-Employment in Mexico and the United States" in Borjas, G.J. (ed.) *Mexican Immigration to the United States*, p. 123-158. Chicago: University of Chicago Press.
- Fajnzylber, P., Maloney, W.F., and Montes-Rojas, G.V. (2009) "Releasing Constraints to Growth or Pushing on a String? Policies and Performance of Mexican Micro-Firms" *Journal of development Studies*, 45, 7, 1027-1047.
- Fajnzylber, P., Maloney, W.F., and Montes-Rojas, G.V. (2006) "Microenterprise Dynamics in Developing Countries: How Similar are They to Those in the Industrialized World? Evidence from Mexico" *World Bank Economic Review*, 20, 3, 389-419.
- Feeser, H.R., Dugan, K.W. (1989) "Entrepreneurial Motivation: A Comparison of High and Low Growth High Tech Founders" in R. H. Brockhaus, N.C. Churchill, J.A. Katz, B.A. Kirchoff, K.A. Vesper, and W.E. Wetzel, *Frontiers of Entrepreneurship Research*, Wellesley, MA: Babson College and Saint Louis University, 13-27.
- Fields, G.S. (1990) "Labor Market Modelling and the Urban Informal Sector: Theory and Evidence." In D. Turnham, B. Salomé, and A. Schwarz, (eds.) *The Informal Sector Revisited*. Paris: OECD.
- Fiess, N.M., Fugazza, M., and W.F. Maloney (2010) "Informal Self-Employment and Macroeconomic Fluctuations" *Journal of Development Economics*, 91, 211-226.
- Freytag, A., Thurik, R. (2007) "Entrepreneurship and Its Determinants in a Cross-Country Setting". *Journal of evolutionary Economics*, 17, 2, 117-131.
- Galli, R.; Kucera, D. (2008) "Gender, Informality and Employment Adjustment in Latin America" Working Paper No. 85. Geneva: International Labour Office, 51 p.

- Galli, R.; Kucera, D. (2004) "Labor Standards and Informal Employment in Latin America", in *World Development*, 42, 5, 809-28.
- Gartner, W.B., Bird, B.J., and A.J. Starr (1992). "Acting as if: Differentiating entrepreneurial from organisational behaviour". *Entrepreneurship Theory and Practice*, 16, 3, 13-32.
- Guerra, E. (2005) "La Aneregogia de la Voluntad, propuesta Educativa Sociointercultural de la Universidad Autonoma Indigena de Mexico". *Ra Ximbai*, 1, 1, 15-38.
- Hernandez L., E. and Velazquez R.J. (2002) Globalizacion, desigualdad y pobreza: lecciones de la experiencia mexicana, Universidad Auto'noma Metropolitana and Plaza y Valde's, Mexico City.
- Herzberg, F. (1968) "One more time: How do you motivate employees?" *Harvard Business Review*, 46, 2.
- Hessels, J., van Gelderen, M., Thurik, R. (2008) "Entrepreneurial aspirations, motivations, and their drivers". *Small Business Economics*, 31, 323-339.
- Kantis, H., Ishida, M., and Komori, M. (2002) *Entrepreneurship in Emerging Economies: The Creation and Development of New Firms in Latin America and East Asia*. Washington, DC: Inter-American Development Bank - Sustainable Development Department Private Enterprise and Financial Markets Subdepartment Micro, Small and Medium Enterprise Division.
- Kay, L.M., Beshel, J. and Martin, C. (2006) "When Good Enough is Best" *Neuron*, 51, 3, 351-8.
- Klapper, L., Amit, R., Guillen, M.F. (2010) "Entrepreneurship and Firm Formation Across Countries". in Lerner, J. and A. Schoar (eds.) *International Differences in Entrepreneurship*, p. 129-158. Chicago: University of Chicago Press.
- Krueger, N.F., Carsrud, A.L. (1993) "Entrepreneurial Intentions: Applying the Theory of Planned behaviour" *Entrepreneurship and Regional Development*, 5, 315-330.
- Kuratko, D.F., Hornsby, J.S., and Naffziger, D.W. (1997) "An examination of owner's goals in sustaining entrepreneurship," *Journal of Small Business Management* 35, 1, 24-33.
- Kusnezova, N. (1999) "Roots and Philosophy of Russian Entrepreneurship". *Journal for East European Management Studies*, JEEMS, 4, 1, 45-72.
- Ledeneva, A.V. (1998) *Russia's Economy of Favours: Blat, Networking and Informal Exchange*. Cambridge: Cambridge University Press.
- Li, P.S., and C. Dong (2007) "Earnings of Chinese Immigrants in the Enclave and Mainstream Economy" *Canadian Review of Sociology and Anthropology*, 44, 1, 65-99.
- Lorenz, K. (1966) *On Aggression*. New York: Harcourt, Brace and World.
- Maloney, W.F. (2004) "Informality Revisited" *World Development*, 32, 7, 1159-1178.
- Maloney, W.F. (1999) "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico". *World Bank Economic Review*, 13, 2, 275-302.

- Maslow, A.H. (1943) "A Theory of Human Motivation". *Psychological Review*, 50, 370-396.
- McClelland, D.C. (1986). "Characteristics of successful entrepreneurs". *Journal of Creative Behavior*, 21, 219-33.
- McClelland, D.C. (1968). *The Achieving Society*. (Second ed.) New York, NY: Van Nostrand.
- McClelland, D.C. (1965). "Achievement motivation can be developed". *Harvard Business Review*, 43, 6, 178.
- McClelland, D.C. (1962) "Business Drive and National Achievement". *Harvard Business Review*, 40, 4, 99–112.
- McClelland, D.C. (1961). *The Achieving Society*. New York, NY: Van Nostrand.
- McClelland, D.C., and D.G. Winter (1969). *Motivating Economic Achievement*. New York, NY: Free Press.
- McKinley, T., and Alarcon, D. (1995) "The Prevalence of Rural Poverty in Mexico" *World Development*, 23, 9, 1575-1585.
- Megibow, M. & Zeigler, H.P. (1968) "Readiness to Eat in the Pigeon". *Psychonomic Science*, 12, 17-18.
- Miller, N.E. (1957) "Experiments on Motivation" *Science*, 126, 1271-1278.
- Miller, N.E. (1956) "Effects of Drugs on Motivation: The Value of using a Variety of Measures". *Annals of the New York Academy of Sciences*, 65, 318-333.
- Mitchell, R.K., Smith, J.B., Seawright, K.W., Morse, E.A. (2000). Cross-cultural cognitions and the venture creation decision. *Academy of Management Journal* 43, 5, 974-993.
- Morris, M.H., Miyasaki, N.N., Watters, C.E., and Coombes, S.M. (2006). "The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs," *Journal of Small Business Management* 44(2), 221-244.
- Naffziger, D.W., Hornsby, J.S., Kuratko, D.F., (1994). "A proposed research model of entrepreneurial motivation," *Entrepreneurship Theory and Practice* 18, 3, 29-41.
- Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., and Bent, D.H. (1975) *Statistical Package for the Social Sciences*, Second Edition. New York: McGraw-Hill.
- Perry, G.; Maloney, W.; Arias, O.; Fanjzilber, P.; Mason, A.; Saavedra-Chanduvi, J. (2007) *Informality: Exit and Exclusion*. The World Bank Latin American and Caribbean Studies.
- Pisani, M.J., and Pagan, J.A. (2004) "Self-Employment in the Era of the New Economic Model in Latin America: A Case Study from Nicaragua". *Entrepreneurship and Regional Development*, 16, 4, 335-350.
- Pisani, M.J. and Patrick, J.M. (2002) "A conceptual model and propositions for bolstering entrepreneurship in the informal sector: The case of Central America". *Journal of Developmental Entrepreneurship*, 7, 95-111.

- Popli, G.K. (2010) "Trade Liberalization and the Self-Employed in Mexico" *World Development*, 38, 6, 803-813.
- Porter, L.W., Lawler E.E. (1968) *Managerial Attitudes and Performance*. Dorsey-Irwin.
- Portes, A., and Schauffler, R. (1993) "Competing perspectives on the Latin American informal sector", *Population and Development Review*, 19, 33-60.
- Reynolds, P.D., Camp, S.M., Bygrave, W.D., Autio, E. & Hay, M. (2002). *GEM Global Entrepreneurship Report*, 2001 Summary Report, 1-126.
- Rinberg, D., Koulakov, A. and A. Gelperin. (2006) "Speed accuracy trade-off in olfaction". *Neuron*, 51, 3, 351-358.
- Roberts, K, and Zhou, C. (2000) "New Private Enterprises in Three Transitional Contexts: Central Europe, the Former Soviet Union and China". *Post-Communist Economies* 12, 2, 187-199.
- Robichaud, Y. (2011). *Les facteurs explicatifs de la performance des petites entreprises*, Sarrebruck, Allemagne : Editions universitaires européennes, 192p.
- Robichaud, Y., Cachon, J.-C., Haq, R. (2010) "Motives, Success Factors, and Barriers among Canadian Female Entrepreneurs: The Case of Greater Sudbury" *Entrepreneurial Practice Review*, 1, 2, 36-64.
- Robichaud, Y. et E. McGraw, (2008). "Les motivations entrepreneuriales comme facteur explicatif de la taille des entreprises," *Journal of Small Business and Entrepreneurship* 20, (1).
- Robichaud, Y., E. McGraw, and A. Roger (2001). "Towards the development of a Measuring Instrument for Entrepreneurial Motivations," *Journal of Developmental Motivation* 6, 1, 189-202.
- Samaniego, N. (1998). Urban self-employment in Mexico recent trends and policies. Paper presented at the Canadian International Labor Network Conference, Burlington, ON, 24–26 September 1998, 35 p.
- Scott, M.G., Anderson, A. (1992) "The Environment for Rural Entrepreneurship: The Commodification of the Countryside" Working Paper, Stirling University: Scottish Enterprise Foundation, 14 p.
- Skinner, B. F. (1976) *About Behaviorism*. Knopf.
- Skinner, B.F. (1953) *Science and Human Behavior*. New York: Free Press.
- Smallbone, D., Piasecki, B., Venesaar, U., Rumpis, L., and Budreikaite, D. (1996) *The Survival, Growth and Support Needs of Manufacturing SMEs in Poland and the Baltic States*. Final Report for Phare (ACE) project (contract no. 94-0743R), Middlesex University: Centre for Enterprise and Economic Development Research.
- Smallbone, D., and Welter, F. (2001) "The Distinctiveness of Entrepreneurship in Transition Economies" *Small Business Economics*, 16, 4, 249-262.
- Smallbone, D., Welter, F., Isakova, N., Klochko, I., Aculai, E., and Slonimski, A. (1999) *Identifying the Support Needs of Small Enterprises in Ukraine, Belarus and Moldova to Develop an Agenda for Policy at*

*National and Regional Levels*. Final Report for Tacis ACE project (contract no. T 95-4139R), Middlesex University: Centre for Enterprise and Economic Development Research.

Stellar, E. & Hill, J.H. (1952) "The Rat's Rate of Drinking as a Function of Water Deprivation". *Journal of Comparative and Physiological Psychology*, 45, 96-102.

Stewart, A. (2003) "Help One Another, Use One Another: Toward an Anthropology of Family Business" *Entrepreneurship Theory and Practice*, 27, 383-396.

Tinbergen, N. (1951) *The Study of Instinct*. London: Oxford University Press.

Ucbasaran, D., Westhead, P., and Wright, M. (2001) "The Focus of Entrepreneurial Research: Contextual and process Issues". *Entrepreneurship Theory and Practice*. 25, 4, 57-80.

Vroom, V.H. (1964) *Work and Motivation*. Wiley.

Wolf, E.R. (1966) *Peasants*. Englewood-Cliffs, NJ: Prentice-Hall.

Yan, A., and Manolova, T.S. (1998) "New and Small Players on Shaky Ground: A Multicase Study of Emerging Entrepreneurial Firms in a Transforming Economy". *Journal of Applied Management Studies*, 7, 1, 139-143.

Young, D.R. (1983). "Models of entrepreneurs". in *If Not For Profit, for What? A Behavioural Theory of the Non-Profit Sector Based on Entrepreneurship*, Toronto: Lexington Books, 55-74.

Zimbardo, P.G. (1985) *Psychology and Life*. 12<sup>th</sup> ed. Glenview, IL: Scott, Foresman and Company.

Zimmerman, M.A., and Chu, H. (2010) "Motivations, Success and Problems of Entrepreneurs in Venezuela." *USASBE Conference Proceedings*.

Zimmerman, M.A., and Chu, H. (2009) "The Motivations of and Problems Faced by Entrepreneurs: A Comparative Study of Entrepreneurs in Venezuela, Vietnam, Turkey, Nigeria, and the U.S.A." *Frontiers of Entrepreneurship Research*. 29, 4, Article 13.