



# Entrepreneurial orientation and international entrepreneurial business venture startup

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## Abstract

**Purpose** – This study seeks to examine the interrelationships among three elements of an entrepreneurial orientation (proactiveness, innovativeness, and risk-taking), age and education of the entrepreneur, and the international entrepreneurial business venture (IEBV) start-up decision.

**Design/methodology/approach** – Data were collected from a sample of 539 individuals from dynamic internationally focused South African firms. Since the dependent variable is non-metric and the independent variables associated with the IEBV new entry decision are metric, multiple discriminant analysis was used to test new entry decisions.

**Findings** – Results indicate that the start-up decision is positively related to the proactiveness and risk-taking components of an entrepreneurial orientation and the age of the lead entrepreneur and negatively related to the education of the lead entrepreneur. As predicted, the innovativeness component of entrepreneurial orientation is not a factor in the start-up decision.

**Practical implications** – Investors can determine the likelihood of venture start-up by examining the proactiveness and risk-taking dimensions of entrepreneurial orientation and the age and education of the lead entrepreneur. Since older and less educated entrepreneurs have a greater likelihood of starting ventures, entrepreneurial training programs may provide greater returns by targeting this age and education group.

**Originality/value** – This is the first examination of the role of entrepreneurial orientation, age, and the IEBV start-up decision. It examines South Africa, a more dynamic, changing and hostile business environment. Managers and financiers can enhance their probability of success by developing the proactiveness and risk taking entrepreneurial orientation dimensions.

**Keywords** Entrepreneurialism, Business formation, International business

**Paper type** Research paper



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## Introduction

This study examines the role of entrepreneurial orientation and key demographic characteristics of nascent entrepreneurs, age, education and gender, in the start-up decision of international entrepreneurial business ventures (IEBVs). After briefly discussing IEBVs, we examine the role of entrepreneurial orientation and age in the IEBV start-up decision. Four hypotheses are developed and tested. In addition, we control for education and gender exploring the importance of these variables. IEBVs are high-growth-oriented businesses that operate across international borders in order to exploit opportunities to create goods and services (Oviatt and McDougall, 1994a, b). Though entrepreneurial firms typically tend to take greater risks than non-entrepreneurial firms, IEBVs may try to mitigate these risks by operating in other countries (Coviello and McAuley, 1999). Entrepreneurial firms use proactive opportunity search strategies (Khandwalla, 1977; Mintzberg, 1973), and readily embrace product/market innovation (Miller, 1983; Miller and Friesen, 1984). Entry into new countries, an inherent part of an IEBV, can also be described as innovation (Jones and Coviello, 2003).

The role of the lead entrepreneur is especially important to new start-ups or to smaller dynamic EBVs (Lumpkin and Dess, 1996; Covin and Slevin, 1991; Miller, 1983). The approach and vision of the founder or lead entrepreneur shape the firm (Kropp and Zolin, 2005). There is great overlap between the individual entrepreneurial orientation of the lead entrepreneur and the entrepreneurial orientation of the firm, especially in an early stage EBV. The organizational processes, methods, styles, practices, and decision-making activities employed by EBVs are related to the lead entrepreneur's entrepreneurial orientation (Lumpkin and Dess, 1996, 2001; Stevenson and Jarillo, 1990). In turn, the lead entrepreneur's entrepreneurial orientation can influence the start-up or new entry decision (Lumpkin and Dess, 2001). The salient beliefs of an entrepreneur, especially in the early stages of an EBV, play an important role in the decision to start an entrepreneurial business venture (Kolvereid and Isaksen, 2006).

Over the past decade, numerous studies have examined factors that can precipitate the entrepreneurial startup decision. Factors include the entrepreneur's intentions and perceptions of risk and control (Krueger *et al.*, 2000). Goals, personal growth, expectations, culture, and other internal factors, as well as factors in the external environment, can potentially influence the start-up decision (Shaver *et al.*, 2001). Although studies have examined relationships between entrepreneurial orientation and performance (e.g., Lumpkin and Dess, 1996, 2001; Wiklund, 1999; Wiklund and Shepherd, 2005), less is known about the relationship between entrepreneurial orientation (EO) and the startup decision. In addition, little research has focused on the start-up decision of IEBVs, especially those in developing countries.

We examine the impact of three EO dimensions – proactiveness, risk-taking, and innovativeness – on the new entry decision. Additionally, we examine IEBVs in a dynamic, hostile and changing business environment of a developing country, South Africa. Virtually all of the firms we studied have an international focus. Internationalization can provide increased opportunities through by creating opportunities in new markets (Bloodgood, 2006). Approximately 20 percent of the firms in this study were “born global” as they began exporting products from the inception of their businesses (see Oviatt and McDougall, 1994a, b). The remaining 80

percent of EBVs either began exporting between one to three years after their businesses were established or planned to export between one to three years, which would make them “born global” by more lenient standards.

### Conceptual foundation and hypotheses

Entrepreneurial orientation (EO) refers to the processes, practices, and decision-making activities used by entrepreneurs that lead to the initiation of an entrepreneurial firm (Lumpkin and Dess, 1996). Although Lumpkin and Dess (1996) identify five dimensions of entrepreneurial orientation, typical conceptualizations of EO include three dimensions: proactiveness, risk taking, and innovativeness (Covin and Slevin, 1986, 1989, 1991; Miller, 1983; Zahra, 1991). Proactiveness refers to an opportunity-seeking, forward-looking perspective that involves introducing new products ahead of the competition (Lumpkin and Dess, 1996). Risk-taking involves a tendency to take bold actions, such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or heavy borrowing (Lumpkin and Dess, 1996). Innovativeness refers to a willingness to support creativity and experimentation in introducing new products, becoming technological leaders, and developing new processes (Lumpkin and Dess, 1996). A literature review confirmed that these three dimensions are the most commonly used in entrepreneurial research. In the domain of international entrepreneurship, McDougall and Oviatt (2004) used the three-component approach of proactiveness, risk-seeking behavior, and innovativeness for firms that operate in multiple countries.

Krueger and Carsrud (1993) argued that entrepreneurial intentions predict entrepreneurial behaviors. Kolvereid and Isaksen (2006) found that perceived behavioral control, which can be likened to some aspects of entrepreneurial orientation, can be viewed as an antecedent of intentions and behaviors. Given the theoretical linkages between entrepreneurial orientation and behavior, this study hypothesizes that the proactiveness and risk-taking dimensions of entrepreneurial orientation will be associated with new entry and that the innovativeness dimension is not associated with the start-up decision.

Lumpkin and Dess (2001) conceptualize proactiveness as a mindset that focuses on introducing new products or services in anticipation of future demand and shaping the environment. Some of the activities associated with proactiveness include new opportunity identification and evaluation, identification and monitoring of market trends, and new venture team formation. Opportunity recognition is one of the key elements of the entrepreneurial process (Schwartz *et al.*, 2005). A proactiveness mindset leads to developing a vision for a new business idea to capitalize on a business opportunity (Bird, 1989; Schumpeter, 1954). Part of making the new entry decision involves actively monitoring the environment, researching the market, arranging finance, and writing a business plan.

Proactiveness enhances the probability that a prospective entrepreneur will undertake the requisite tasks leading into establishing an IEBV. Moreover, there is a positive relationship between attitude toward establishing a business venture, interest (which are both dependent on proactiveness) and actually starting a business (Long *et al.*, 1995). Entrepreneurs have a pre-existing preparedness and implement their salient intentions to start their businesses (Kouriloff, 2000). In sum, new entry will be precipitated by proactiveness. Therefore:

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*H1.* Proactiveness is positively related to the IEBV new entry decision.

Risk taking is a component of entrepreneurial orientation (Lumpkin and Dess, 2001) and a distinctive facet of entrepreneurial behavior (Das and Teng, 1997; Lee and Peterson, 2000). Risk taking can be an individual level (Sitkin and Pablo, 1992; Brockhaus, 1980) or a firm-level trait (Baird and Thomas, 1985) that differs by a firm's stage of development (Lumpkin, 2002). Palmer and Wiseman (1999) distinguished between managerial risk, which relates to choices associated with uncertain outcomes, and organizational risks, which involves volatile income streams. Forlani and Mullins (2000, p. 304) describe entrepreneurs' perception of risk as the "uncertainty and potential losses associated with the outcomes which may follow from a given set of behaviors." Defined as substantial variance in important outcomes (MacCrimmon and Wehrung, 1986), risk represents the likelihood that an individual will forego a safe alternative with a known outcome in favor of a more attractive choice with a more uncertain reward (Brockhaus, 1980). Some aspects of strategic risk include venturing into new and unknown territories, which is especially relevant for IEBVs. It also involves committing a relatively large share of assets and significant borrowing (Baird and Thomas, 1985, pp. 231-2 cited in Lumpkin and Dess, 1996).

Some researchers argue that some entrepreneurs may perceive ventures as less risky than non-entrepreneurs due to cognitive biases of the former (Simon *et al.*, 2000) and the fact that they may be overconfident (Wickham, 2005) and tend to frame business situations more optimistically (Palich and Bagby, 1992). Others argue that risk taking is an inherent part of starting an entrepreneurial venture (e.g., Timmons and Spinelli, 2007). Entrepreneurs generally accept that entrepreneurship involves risk taking and are willing to take risks in return for potential rewards (Segal *et al.*, 2005). Therefore:

*H2.* There is a positive relationship between risk taking and the IEBV new entry decision.

Innovativeness is fundamental to contemporary definitions of entrepreneurship (Miller, 1983; Shane and Venkataraman, 2000). Kropp *et al.* (2006) identified that the innovativeness component of an entrepreneurial orientation is important to the success of a new business. Following on their logic, we argue that innovativeness is not associated with new entry. Entrepreneurial firms operate in dynamic environments "where customer tastes, product-service technologies, and competitive weapons often change unpredictability" (Miller, 1983, p. 775). Innovativeness is required for product/market development in these environments to deal with the continuous change and uncertainty (Miller, 1983). The greater the environmental dynamism and hostility, the greater the innovation required (Miller, 1983). Creative and innovative firms will outperform other firm types in more dynamic environments (McKee *et al.*, 1989). Thus, innovativeness is associated more with the ongoing process of business continuity once the business is started than with new entry:

*H3.* There is no relationship between innovativeness and the IEBV new entry decision.

People usually do not choose to be unemployed or unemployable (Kolvereid and Isaksen, 2006). Over the past decade, many businesses have downsized or gone out of

business. As a part of downsizing, some employees accept voluntary redundancy or retirement. Regardless of the reason for unemployment, younger employees tend to find employment faster than older employees. Faced with long-term unemployment, older individuals might turn to self-employment through establishing/acquiring their own business ventures. Such older people become reluctant entrepreneurs (Galbraith and Latham, 1996). This problem is exacerbated by an aging population. Baby Boomers (born between 1946 and 1964) and Generation Xers (born between 1965 and 1980) are the generational cohorts most prominent in the second half of the twentieth century (O'Bannon, 2001). Many Xers have seen their career paths clogged with aging Boomers who significantly outnumber Xers; however, as Boomers age, Xers have the opportunity to "oust" the incumbent Boomers and secure their positions (Macalister, 1994) even though Boomers may feel that they still have something to contribute. Thus, in the current environment, older individuals may be more likely to make the EBV new entry decision than younger individuals. Therefore:

- H4. There is a positive relationship between entrepreneur age and the EBV new entry decision.

Previous research in developed economies indicates that gender and education might affect the decision to start an EBV. Historically, in developed countries men start more businesses than women. However, an increasing number of women are now starting businesses (see Anna *et al.*, 1999; Check *et al.*, 2003; Weber and Schaper, 2004). In addition, there appears to be a growing tendency for entrepreneurs in developed economies to be better educated than they previously were (Bates, 1995; Bowen and Hisrich, 1986). These trends may or may not hold for less developed and developing economies. Therefore, we develop no hypotheses for gender and education. Rather, we control for these variables in our analysis.

## Research design

### *Participants*

Under the supervision of one of the authors, mature executive MBA students (ranging in age from 28 years to 43 years) formed groups of approximately five students. Then, each group selected ten entrepreneurs from a database of firms designated as having an international focus, being entrepreneurial, and having the potential or actually having achieved significant growth. The database was developed and provided by a major accounting firm. Additional firms, meeting the same criteria, were added to the database on information provided by personal contacts in the South African government giving 449 firms in the combined database.

MBA student groups contacted their identified entrepreneurs asking them to complete a self-administered survey. The entrepreneurs were also requested to ask the most senior managers of their firms to complete the survey and preferred survey method (i.e. e-mail, mail, telephone, fax, or personal visit). Participants slow in responding were contacted and reminded to submit their survey forms. The overall response rate was 83 percent, which included 373 of the 449 firms invited to participate in the study. As some firms identified more than one lead entrepreneur, a total of 396 entrepreneurs completed the survey. Discarding incomplete or unusable surveys, 539 individuals completed surveys, 143 of which were senior managers. These

143 individuals had no experience in establishing/buying their own businesses but had extensive work experience.

Annual sales of the participating firms were in the range of \$2-\$7 million with annual growth exceeding 20 percent. No one industry dominated the sample. Overall, there were 80.4 percent males and 19.6 percent females. The age distribution was 22-27 years (9 percent), 28-33 (25.7 percent), 34-43 (39 percent), 44-53 (18 percent), 54-65 (7.6 percent), and over 65 (0.7 percent). Education levels achieved by participants were high school (16.4 percent), technical qualification (15.6 percent), undergraduate degree (24.8 percent), postgraduate degree (35.4 percent), and other (6.8 percent). Given that the education scale is ordinal, we treated it as continuous in our analyses.

### Measures

The questionnaire contained several sections, including demographics and entrepreneurial orientation (EO) measures[1]. The survey took approximately 30 minutes to complete. The approach used in this study to identify entrepreneurial orientation is based on self-efficacy theory (Bandura, 1977) which measures an individual's belief that he or she is capable of mobilizing "the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives" (Wood and Bandura, 1989, p. 364). Chen *et al.* (1998) found that entrepreneurial self-efficacy is positively related to the tendency to become entrepreneurs. In examining motivation, Segal *et al.* (2005) found that there is a positive relationship between self-efficacy and entrepreneurial intentions. As used in this study, EO measures an individual's belief (from "not at all confident" to "very confident") that he or she could carry out the activities necessary to be a successful entrepreneur.

Thus, based on the literature, we identified dimensions of entrepreneurial orientation and developed lists of items for each dimension (Covin and Slevin, 1989; Khandwalla, 1977; Miller and Friesen, 1984; Lumpkin and Dess, 1996, 2001). The items were pre-tested with subjects who had characteristics similar to the target population. The pre-test was followed up with three pilot tests with more than 300 subjects to purify and validate the three scales. The final list of items of the three EO dimensions is shown in the Appendix, Table AI. The three scales for proactiveness (mean = 5.83, SD = 0.77,  $\alpha = 0.70$ ), risk-taking (mean = 6.22, SD = 0.96,  $\alpha = 0.69$ ), and innovativeness (mean = 5.81, SD = 0.93,  $\alpha = 0.85$ ) exhibited Cronbach's  $\alpha$  values close to or exceeding the 0.70 reliability criteria (Nunnally, 1978). Thus, three averaged scales were created for each of the three dimensions of EO.

### Results

Table I provides descriptive statistics for our scales and includes correlation coefficients. The analyses used to evaluate the hypotheses are described in Table I and the results are presented in Table II. Before presenting the findings, we discuss the potential multi-collinearity problem. Such problems can arise when independent variables are interdependent and can complicate the interpretation of the resulting analyses. As shown in Table I, with one exception, none of the correlations exceeded 0.70, which serves to indicate that the problem should not be severe. An additional verification that interdependency is not a problem is often available in tolerance and variance inflation factor diagnostics available for some statistical techniques.

Table I.  
Correlation coefficients  
and descriptive statistics

|                        | Mean | SD   | Risk-taking EO | Proactiveness EO | Innovativeness EO | Entrepreneur age | Entrepreneur education |
|------------------------|------|------|----------------|------------------|-------------------|------------------|------------------------|
| Risk-taking EO         | 6.22 | 0.96 | <i>0.69</i>    |                  |                   |                  |                        |
| Proactiveness EO       | 5.83 | 0.77 | 0.62**         | <i>0.70</i>      |                   |                  |                        |
| Innovativeness EO      | 5.81 | 0.93 | 0.59**         | 0.59**           | 0.85              |                  |                        |
| Entrepreneur age       | 32.6 | 6.40 | 0.07           | 0.12*            | 0.07              | NA**             |                        |
| Entrepreneur education | 3.01 | 1.21 | -0.05          | -0.03            | 0.01              | -0.15**          | NA                     |

Notes: Reliability coefficients are italicized on the diagonal; \*  $p \leq 0.05$ ; \*\*  $p \leq 0.01$

**Table II.**  
Discriminant analysis results

|                        | Started EBV |      | Did not start EBV |      | <i>F</i> (df1 = 1; df2 = 541) | Significance ( <i>p</i> <) | Loadings |
|------------------------|-------------|------|-------------------|------|-------------------------------|----------------------------|----------|
|                        | Mean        | SD   | Mean              | SD   |                               |                            |          |
| Risk-taking EO         | 6.35        | 0.90 | 5.89              | 0.97 | 25.93                         | 0.01                       | 0.56     |
| Proactiveness EO       | 5.93        | 0.72 | 5.61              | 0.83 | 19.59                         | 0.01                       | 0.49     |
| Innovativeness EO      | 5.85        | 0.94 | 5.71              | 0.90 | 2.45                          | 0.12                       | 0.17     |
| Entrepreneur age       | 40.19       | 9.52 | 34.77             | 8.27 | 37.20                         | 0.01                       | 0.67     |
| Entrepreneur education | 2.86        | 1.23 | 3.36              | 1.05 | 18.88                         | 0.01                       | −0.48    |

**Note:** Wilkes' Lambda = 0.87; Chi-square = 76.73 (df = 5);  $p < 0.01$ ; Canonical correlation = 0.36

Tolerance refers to the proportion of variation in the independent variables not explained by other independent variables already in the model and can be used to guard against multicollinearity (Hair *et al.*, 1998). Variance inflation factors refer to the extent that other predictors have on the variance of a regression coefficient and indicate possible multicollinearity problems. Since such diagnostics are not available for MDA in SPSS we ran the model discussed below in a regression procedure. The lowest tolerance far exceeded the traditional value of zero and the largest Variance Inflation Factor (for risk-taking – 1.87) was far below the traditional cutoff value of 10.0 (Hair *et al.*). These tests also suggest that multi-collinearity is not a problem in this study.

The dependent variable was IEBV new entry decision. Responses were based on a non-metric item ("Have you ever started your own business?"). There were 396 positive and 143 negative responses to this question. Since the dependent variable is non-metric and the independent variables associated with the IEBV new entry decision are metric, multiple discriminant analysis (MDA) was used to test new entry decisions. MDA is similar to a regression except for its ability to accommodate a nonmetric (categorical) dependent variable, such as a yes/no IEBV new entry decision in our research. Notably, logistic regression, in which the probability of an observation to be assigned to a given group is assessed, could also have been used. We ran both MDA and logistic regression, which resulted in identical substantive findings. An important consideration in choosing between an MDA and logistic regression is their ability to assign cases to the right sub-group of the dependent variable. We opted for MDA because it provided better classification accuracy for the smaller group (that have not started an IEBV in our case) which is usually more difficult for the statistical procedure used (Hair *et al.*, 1998). The analysis involved entering the independent variables into the model simultaneously rather than a step-wise procedure, in which they are entered sequentially on the basis of their explanatory potential. We opted to use the former because a step-wise procedure is more exploratory, whereas we had specific and directional hypotheses guiding the inclusion of all independent variable[2]. Notably, one variable, gender, is non-metric and could not be used in the MDA. We assessed its potential impact separately in a cross-tabs procedure. The chi-square test of the cross-tabs (3.55; one df;  $p = 0.06$ ) suggested that the ratios of those who started an EBV did not differ significantly between males (74.7 percent) and females (65.7 percent). Similar conclusions rose from

using other tests, such as continuity correction ( $p > 0.07$ ). Hence, we conclude that gender was not an important factor in our analysis.

Four of the five independent variables show significant univariate differences between the two groups. The means of the positive IEBV new entry responses for proactiveness (5.93) and risk-taking (6.35) EO were significantly higher ( $p < 0.01$ ) than for respondents who had provided a negative response to this question (5.61 and 5.89, respectively). The mean of the positive IEBV new entry responses on innovativeness (5.85) was not significantly ( $p > 0.11$ ) different from the mean of the negative responses (5.71). Respondents who had started an EBV were significantly ( $p < 0.01$ ) less educated (2.86) than those who have not (3.36). Finally, respondents who had started an EBV were significantly older (40.2;  $p < 0.01$ ) than those who had not started one (34.8).

The model resulted in a significant discriminant function (Wilks' lambda = 0.87; df = 5;  $p < 0.01$ ). With a canonical correlation of 0.364, 13.2 percent ( $0.364^2$ ) of the variance in the dependent variable is explained (Hair *et al.*, 1998). The discriminant function accurately predicted 66.9 percent of the respondents who had started a business (265 of 396) and 68.0 percent of those who had not (100 of 143). Overall, 67.2 percent of the cases were classified accurately. Given a  $C_{pro}$  of 60.9 percent, our model provides better predictions than the proportional chance criterion ( $C_{pro}$ ) indicates.

Using the full sample in the development of the discriminant function can increase its classification accuracy (Hair *et al.*, 1998). Therefore, the model was re-estimated with an SPSS-generated random split for half of the sample and its predictive accuracy for the holdout sample was assessed. Overall classification accuracy for the analysis sample was 68.1 percent and the holdout sample was 64.9 percent. Both exceeded  $C_{pro}$ . As this provides a measure of confidence in the validity of the results, the results of the multiple discriminant analysis for the full sample were evaluated (the results for the analysis and holdout samples were substantively similar). In line with Hair *et al.*'s (1998) recommendation, the loadings of the discriminating variables (measures of the correlations between the independent variables and the discriminant function) were used as tests of the research hypotheses. Notably, the loading is highest for age (0.67), followed by risk-taking entrepreneurial orientation (0.56), proactiveness entrepreneurial orientation (0.49), education ( $-0.48$ ), and innovativeness (0.17).

The idea that risk taking and proactiveness are important dimensions of entrepreneurial orientation (Das and Teng, 1997; Lee and Peterson, 2000) is supported in this research. *H1* hypothesizes that proactiveness entrepreneurial orientation is positively related to the EBV new entry decision. The univariate difference was significant and the discriminant loading (0.49) exceeded the traditional cutoff rate of 0.30 (Hair *et al.*, 1998). *H2* hypothesizes a positive relationship between the confidence that an entrepreneur could succeed in "risky" activities and the IEBV new entry decision. The difference between the two groups was significant and the discriminant loading (0.56) exceeded the traditional cutoff rate (Hair *et al.*, 1998).

*H3* hypothesized that there would be no relationship between innovativeness and the new entry decision and this hypothesis was supported. The difference between the two groups was not significant and the loading was a low 0.17. *H4* hypothesized that there is a positive relationship between entrepreneur age and the IEBV new entry

decision. The hypothesis is supported. The univariate difference between the means was significant and the loading was 0.67. Entrepreneurs in this research were significantly older than non-entrepreneurs. Finally, the univariate difference between the means on age was significant and the loading was  $-0.48$ . In sum, the data provided support to all of the research hypotheses.

## Discussion

We examined the relationships between the risk taking, proactiveness, and innovativeness dimensions of EO and age of the entrepreneur with the IEBV new entry decision. As hypothesized, the risk taking and innovativeness dimensions of EO and age affect the IEBV new entry decision positively; the innovativeness EO dimension does not. The idea that risk taking and proactiveness are important dimensions of EO (Das and Teng, 1997; Lee and Peterson, 2000) is supported in this research. Risk taking and proactiveness are both important in establishing the IEBV whereas innovativeness is not. The results demonstrate that EO dimensions can vary independently from each other (Lumpkin and Dess, 1996). The EO components of risk taking and proactiveness may have a more important role than recognized previously. Earlier research has associated EO with IEBV performance but not with the initial stage of starting an IEBV. This distinction is important because it highlights risk taking and proactiveness as defining elements of EO required from individuals who might establish an IEBV beyond their role in explaining subsequent IEBV performance. These two dimensions provide insights into converting IEBV startup intentions into actions. Thus, both should be assessed by scholars in future research as defining elements of individuals who might actually start an IEBV.

Based on downsizing, involuntary job displacement, voluntary early retirement, and an aging population, we hypothesized that older individuals are more likely to start an IEBV than younger individuals. Many individuals become entrepreneurs out of necessity (see Minniti *et al.*, 2005). The entrepreneurs in this research were significantly older than their non-entrepreneur counterparts. This is in contrast to popular thinking that older individuals become more set in their ways, may be less likely to change, and may acquire more assets as they grow older which could make them risk-averse and reluctant to proceed with the IEBV new entry decision. Entrepreneurship perhaps is gaining greater acceptance and a greater profile in communities. Ex-employees may appreciate that the corporate world does not hold all the answers and that there can be life after work for corporate high-flyers. In short, scholars should view older individuals as a promising population for studying new IEBV entry.

Finally, while gender did not play a role in the differences between groups, there were differences in education levels between groups. Others have suggested that most individuals who start businesses have higher education levels than people who do not (Bates, 1995; Bowen and Hisrich, 1986). These results, however, may relate more specifically to developed countries. Our results suggest, however, that, in developing countries, the more participants develop their educational qualifications, the less they are inclined to start up businesses – one excludes the other. Perhaps, those starting businesses did not have the time or inclination to obtain a better education or “less educated” people in developing countries start businesses because they may find it

difficult to obtain a job. This interpretation is not inconsistent with Lindsay *et al.* (2007) who also found parallel results with Indigenous entrepreneurs in South Africa.

### **Entrepreneurial implications**

Prospective entrepreneurs sometimes approach financiers and governmental entities to secure funding and other needed resources to start up their businesses. To improve the likelihood that such resources will be directed to the purposes intended, financing and facilitating entities should screen applicants to determine if they have sufficiently developed risk-taking and proactiveness entrepreneurial orientations that will be reflected in the EBVs that they are trying to establish. Such assessments can be done informally as the parties meet over time. Alternatively, such assessments can be made more formal by financiers and governmental bodies requiring these as a pre-condition for making funds and resources available. This is consistent with Mtigwe's (2005) observations that governments in the South African regional economy want to develop entrepreneurial business ventures.

Older and less educated individuals appear to be starting their own entrepreneurial ventures more than younger individuals. Two implications need to be considered. First, older and less educated individuals should be recognized as a promising target market for financiers and other EBV interested parties (e.g., government at different levels). Second, many older and less educated individuals may have little or no previous experience at starting a business or at running one after it is established. This increases the likelihood of failure at any stage of the new venture. As such, entrepreneurial and management training programs should target older and less educated prospective entrepreneurs. Such developmental efforts can be initiated by the government or by privately-owned training companies. Such training can also be incorporated into university-sponsored, adult-targeted business education (e.g., undergraduate and graduate business degree programs).

### **Research limitations/future research**

There are several limitations associated with this research. The first relates to the research sample which was based in the Republic of South Africa; a dynamic developing country undergoing major social and economic transitions. This raises an issue of generalizability of the study results. It is possible that the findings may be more appropriate to developing rather than developed economies. Therefore, there is a need to replicate this study in a developed country where the business environment is more stable. Second, given the nature of the sample, only successful IEBVs were examined. It is possible that there may be different dynamics or relationships between the entrepreneurial orientations and age between successful and unsuccessful IEBVs. There is a need in future research to examine the relationship between proactiveness, risk taking, and innovativeness entrepreneurial orientations, entrepreneur age, and the new entry decision in less successful firms using a representative sample.

Next, it would be interesting to explore the relationships between other types of orientations and the startup decision. For example, there has been extensive research on the role of marketing orientation and the firm. Marketing orientation refers to the way that firms focus on meeting customer needs and on understanding the competitive environment (e.g., Narver and Slater, 1990; Jaworski and Kohli, 1993; Deshpande *et al.*,

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2000; Shoham *et al.*, 2005). Little research has been conducted into the marketing orientation of IEBVs and its impact on the startup decision. Business venture startup

As indicated earlier, studies indicate a correlation between start-up and education in developed countries. The results of this study and a study by Lindsay *et al.* (2007) indicate the opposite, i.e. there is an inverse correlation between education and start-up in South Africa. These relationships should be explored in new studies to determine if this is a fundamental difference between developed and developing countries or if it is an anomaly to South Africa. In addition, it is possible that the age of the entrepreneur starting the business may be related to the number of other ventures that they have started or ventures in which they have been involved. It was not possible to analyze these phenomena given the research instrument used in this study. Future research should address this relationship.

Finally, new scales could be developed to measure the entrepreneurial orientation of firms. The scales used to examine this phenomenon were based on existing theory and they meet both standard reliability and validity criteria, maintaining the integrity of the constructs. None-the-less, modifications to the existing scales could be made that would potentially enhance the reliability of the scales.

## Notes

1. The questionnaire contained other measure not relevant to this study, such as learning orientation and esprit de corps. The entire questionnaire can be obtained from the first author.
2. Notably, using *F*-to-enter of 3.3 and *F*-to-remove of 2.70 yielded results that are substantively identical to the full-variable entry model used. The order of entry of the four significant predictors was identical for the two MDA models, suggesting that their relative importance in discriminating between the two groups does not differ across models.

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### Further reading

- Deshpande, R. and Farley, J.U. (1998), "Measuring market orientation: generalization and synthesis", *Journal of Market Focused Management*, Vol. 2, pp. 213-32.

| How confident are you that you could ...         | Not at<br>all<br>confident |   |   |   |   |   | Very<br>confident |
|--------------------------------------------------|----------------------------|---|---|---|---|---|-------------------|
| <i>Proactiveness</i>                             |                            |   |   |   |   |   |                   |
| Identify an opportunity                          | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Put together a team of the “right” people        | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Identify market trends                           | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Manage your own business                         | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| <i>Risk taking</i>                               |                            |   |   |   |   |   |                   |
| Obtain financing for a new business              | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Start a business without adequate resources      | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Achieve high growth in your business             | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Live with uncertainty                            | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Evaluate downside risk                           | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Make a large profit when you sell your business  | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Walk away from a potential business failure      | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| <i>Innovativeness</i>                            |                            |   |   |   |   |   |                   |
| Be an innovative problem solver                  | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Be creative in using and controlling resources   | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Develop creative solutions to difficult problems | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| Develop new products and services                | 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |

**Table AI.**Relevant scale items and  
associated dimensions**Corresponding author**Fredric Kropp can be contacted at: [fredric.kropp@miis.edu](mailto:fredric.kropp@miis.edu)