Construction of an instrument to measure social valuation in an emerging market context

Isaac Wasswa Katono

Faculty of Business and Administration, Uganda Christian University, Mukono, Uganda

Abstract

Purpose – This study aims to construct a parsimonious instrument to measure social valuation in a collective setting using Uganda as an example.

Design/methodology/approach – A triangulation technique was used in this study. Conversations with students, parents, teaching and non-teaching staff at Uganda Christian University (UCU) main campus were carried out, as well as a rigorous review of the literature to gather an original set of items on social valuation. Content and face validity were carried out in order to get rid of redundant and ambiguous items. The remaining items were incorporated in a questionnaire which was pretested before being distributed to a convenience sample of 650 third-year business students on the four campuses of UCU, each located in one of the four regions of Uganda.

Findings – Principal axis factoring by promax rotation extracted six oblique factors accounting for 56 percent of the variance, namely, teaching of entrepreneurship in schools, family, knowledge, institutions, perception of education, and culture. Confirmatory factor analysis found the measurement model to have acceptable fit statistics.

Research limitations/implications – The study used a convenience sample of students from four campuses of one institution in the country.

Practical implications – Government and other stakeholders in the entrepreneurial sector should use the instrument developed in this study as a guide in a bid to enhance entrepreneurship.

Originality/value – Existing measures of social valuation were designed in the West and may not be wholly applicable in a developing country setting. The instrument designed in this study in a collective setting should be a great contribution to entrepreneurial research and development in developing economies.

Keywords: Entrepreneurialism, Social valuation, Social capital, Instrument, Uganda, Emerging markets, Developing countries

Introduction

The importance of entrepreneurship in the economies of countries both developed and developing is an undisputed fact, although the concept of entrepreneurship is not

native to every society (Chowdhurry, 2007). Given that entrepreneurship is both an economic and social activity (Steyaert and Katz, 2004), people in different regions and communities differ in their outlook towards entrepreneurship (Reynolds and Maki, 1992). Hence numerous empirical studies report some cultures as being more represented than others in the entrepreneurial sector (e.g. Busenitz and Lau, 1997). Entrepreneurs do not work in isolation (Aldrich and Zimmer, 1986), but are part and parcel of the environment in which they work. This explains why the relationship between personal related factors and entrepreneurship intent is not always deterministic in nature (Luthje and Franke, 2003). The environment can either restrain or promote entrepreneurial activities (Brenner, 1987), and therefore it is prudent to view entrepreneurship as an embedded process in a social, cultural and economic context, in which individuals take the environment into account in their decision-making process (Schwarz et al., 2009).

The propensity to engage in entrepreneurship is a function of many factors, e.g. the characteristics and quality of the entrepreneurs (Davidsson, 1991, Santos and Guzman, 2001), cognition (Busenitz and Lau, 1997) as well as country specific institutional arrangements (Busenitz et al., 2000) among others. This paper contends that these different factors combine to influence the way in which a given society values entrepreneurship (the general view irrespective of the personal proximity to the entrepreneur) and that this will eventually impact on an individual's intention to engage or not engage in entrepreneurship. This view is shared by Zahra et al. (1999), who argue that the way in which a society perceives entrepreneurship plays a key role in determining entrepreneurial behavior. For example a major source of concern in the entrepreneurship literature is the failure to see relatively high levels of apparent intent to start up amongst students (Robertson and Wilkson, 2005; Ward et al., 2008, Wu and Wu, 2008). This low start up rate among the youth and particularly graduates is attributed to the presence of perceived barriers within the environment such as lack of finance and negative societal attitudes towards entrepreneurship (Mason, 1989; Morrison, 2000). GEM (2000-2002) as quoted by Robertson et al. (2003) finds cultural attitudes to pose the strongest barrier to the growth of entrepreneurship in the UK, due to the negative attitudes towards wealth creation, self-employment, business failure and a general mistrust of entrepreneurs (Shurry et al., 2001). Similarly, some socio cultural values hinder the development of entrepreneurship in Africa (Tukyiasiedu, 1993) or frustrate them (Munene et al., 2000), while there is evidence to the effect that in France, there are attitudes and perceptions that are less positive towards entrepreneurship and its impact, and hence act as impediments to its growth (Carayannis et al., 2003).

Given this scenario, Hayton et al. (2000) posit that an independent measure of cultural values that relate to entrepreneurship would be highly desirable. They suggest that such a measure should go beyond the normative aspects of culture to include institutional dimensions. Busenitz et al. (2000) construct a measure of country specific profiles and include the normative, cognitive and regulatory dimensions, however the factor structure of their instrument was not found to be consistent across countries, indicating that their three-dimensional model may be country and possibly culture specific (Hayton et al., 2000). Further, Busenitz et al. (2000) overlook the role of education and the families, which are two important constructs that are bound to influence the way entrepreneurship is valued in a collective setting. On the other hand, Liñán and Chen (2009) attempt to construct a measure of social valuation in a developed country context (Spain). Although they included the family dimension in their instrument, they overlooked the institutional and education dimensions. In short, these instruments have focused mainly on dimensions that the Western world considers important. It has been established that standardized research instruments from a developed country context may not be equally applicable to emerging markets as they are likely to miss some important attributes (Greenland et al., 2006). Hence

findings from developed economies may not readily apply to entrepreneurship in emerging economies yet there is only limited research in these environments (Bruton et al., 2008).

Developing a standard instrument helps in accumulating knowledge in a topical area as direct comparisons become possible between time periods, geographic regions or cultures (Cook and Campbell, 1979). Building on the work of earlier researchers (Liñán and Chen, 2009; Kolvereid, 1996; Busenitz et al., 2000) this paper develops and validates a measure of the social valuation of entrepreneurship in a collective country setting, Uganda. Since there are so many variables that influence the way society values entrepreneurship, this study will limit itself to those that are most important for purposes of parsimony (Busenitz and Lau, 1997). A robust measure of these factors should be a great contribution to entrepreneurial research in emerging markets. The rest of the article is organized as follows. In the next section, the literature and theoretical foundations of the study are outlined, followed by the methodology used to carry out the study. Findings are presented next, while a concluding discussion wraps up the paper.

Literature review

Intention models

This study is based on intention models, especially Ajzen's (1987) Theory of Planned Behavior (TPB) given that entrepreneurial action is actually planned behavior (Krueger et al., 2000) and the Shapero and Sokol (1982) model. Fishbein and Ajzen (1975) operationalised intention as the likelihood to act. In the TPB, entrepreneurial intent is an immediate determinant of planned behavior (Fishbein and Ajzen, 1975). The model holds that attitude, subjective norm and self-efficacy predict intention which also in turn predicts behavior. If an individual evaluates a suggested behavior as positive (attitude), those important to him/her approve of the behavior (subjective norm), and the person feels he/she can successfully execute the behavior (perceived behavioral control (PBC), then this should result in a higher intention (motivation) to perform the behavior. In PBC, control reflects whether the behavior is easily executed (control beliefs), and can be influenced by internal factors (e.g. skills, abilities, knowledge) and external factors (situational and environmental). Control beliefs can therefore facilitate or impede the performance of a behavior (Ajzen, 1991).

Shapero and Sokol (1982) explain entrepreneurial intention on the basis of perceived desirability, perceived feasibility, and the propensity to act. They argue that a state of inertia guides human behavior, until an event displaces that inertia. Shapero and Sokol view start up as based on an individual having the potential to start up, as well as his/her ability to do so later. These two models greatly overlap (Gelderen et al., 2008) and Krueger et al. (2000) highlight the usefulness of both of them in helping our understanding of entrepreneurial intentions. In the TPB, attitude and subjective norm are equivalent to perceived desirability, while perceived behavioral control is equated to perceived feasibility (Krueger et al., 2000). Both perceived feasibility and perceived

desirability are influenced by the values or valuations of entrepreneurial activity in the society the individual belongs to. Thus social valuation plays a very significant role in the configuration of personal attitudes and intentions towards entrepreneurship (Liñán, 2008).

Social capital theory

Social capital theory helps to explain the impact of the environment on entrepreneurial intentions. Social capital is capital captured in the form of social relationships (Lin, 2003) and can also be defined as the sum of current and potential resources incorporated in, available in, and derived from the network of relations possessed by a person, or social unit (Nahapiet and Ghoshal, 1998).

Bonding and bridging ties

The strength of the ties between individuals or organizations depends on the frequency and proximity of contacts between them (Liñán, 2008). Granovetter (1985) differentiates between strong ties (among family members or ethnic group) and weak ties (among the extra community). Liñán and Chen (2009) refer to the strong ties as bonding ties (closer environment) and the weak ties as bridging ties (social environment) and both play different yet complimentary roles in the transmission of values and ideas that influence perception, and through them entrepreneurial intentions (Carolis and Saparito, 2006). Bonding ties generate different values, trust, and shared language and shared narratives. Thus people receive influence from their closer environment valuation, and as established by Kennedy et al. (2003) (in Liñán, 2008) expectations from family and colleagues are key variables that influence students' entrepreneurial intentions. Hence if a person's closer environment is supportive of entrepreneurship, then that person is bound to be more inclined towards that career option. This view is echoed by Kolvereid (1996), who asserts that great family interdependence leads to valuing the opinions of family more heavily as is the case in collective societies.

On the other hand, bridging ties are those relationships held in the outer community that generate a favorable disposition toward start up through the provision of knowledge and experience. Bridging ties affect the extent to which knowledge and skills pertaining to the establishment and operating a new business are institutionalized within a country, and become part of shared knowledge within that society. The skills possessed by a person are particularly important since there is a link between skills and perceived behavioral control i.e. skills have an effect on entrepreneurial intentions (Chen et al., 1998). Busenitz et al. (2000) refer to this as the cognitive dimension. In short the different experiences and contacts to which a person is exposed could provide him/her with high self-confidence and make entrepreneurship a desirable and feasible option (Liñán and Santos, 2007).

Cognitive and structural social capital

Another set of benefits obtained from both bonding and bridging social capital are derived in turn from two other types of social capital, namely cognitive and structural (Uphoff, 2000 cited in Liñán , 2008). Cognitive social capital emanates from mental processes and resulting ideas, reinforced by culture, generating shared norms, values, attitudes, beliefs and trust. Consequently, cognitive social capital is intangible in nature contributing to cooperative behavior and stimulating collective action. Culture represents the shared values and beliefs of a society and is an important contextual factor affecting the potential number of entrepreneurs that emerge in a given society (Thomas and Muller, 2000). Meek et al. (2009) demonstrate that social norms (decentralized or socially determined institutions) explain some of the variance in the level of entrepreneurial founding in a region, and in addition and of great theoretical interest is their finding that while centralized government incentives may contribute to entrepreneurial

growth and economic development, such an effect is dependent on the overall social environment and its influence on decision making. These findings are in agreement with empirical research, which has demonstrated the efficacy of social norms in changing the behavior of individuals regarding their natural environment (Ostrom, 2000 cited in Meek et al., 2009) and economic actions (Young, 1998 cited in Meek et al., 2009). Individuals are influenced in their economic actions by injunctive norms (which involve perception of the right thing to do, and by descriptive norms (which involve a description of others' behavior) (Cialdini cited in Meek et al., 2009). Busenitz et al. (2000) refer to this as the normative dimension. In short, the underlying system of values peculiar to a certain group shapes the development of certain personality traits and capacities, modeling normative and ability perceptions towards start up. (Liñán, 2008).

On the other hand, structural social capital (an extremely observable construct) is related to several forms of social organization, and formal social networks that also contribute to cooperation and especially to collective action to obtain mutual benefits. Meek et al. (2009) refer to these as centralized institutions (government designed), e.g. procedures, rules, laws, regulations and tax codes which impact entrepreneurial activity. Institutional theory suggests that institutions which are both representative of a nation's culture and are given meaning by that culture (Scott, 1995) determine the boundaries of acceptable strategic actions available to organizations (Kreiser et al., 2010). Busenitz et al. (2000) refer to these as the regulatory/institutional dimension. Thus the structural arrangement of institutions in a country is likely to have a great impact on entrepreneurial intentions.

Perception of education

An important variable in the entrepreneurial literature is the way people perceive education in various societies. Research shows that both nascent entrepreneurship (Delmer and Davidson, 2000) and self-employment (Robinson and Sexton, 1994) are influenced by educational attainment. Uhlaner et al. (2000) demonstrate that a higher level of education in a country is accompanied by a lower self-employment rate. This could be because higher education levels may result in higher earnings (higher salaries) and because of the desire to use the skills acquired through education (Coleman and Pencavel, 1993). For example the Global Entrepreneurship Monitor (GEM) (cited in Walter et al., 2004, p. 19) illustrates this:

> Anecdotal evidence suggests that Ugandans regard white-collar employment in government service or big business (as a result of education) as the most prestigious form of employment. Self-employment has a comparatively low status, and is undertaken if only one has to.

This type of social valuation of entrepreneurship makes many graduates shun the entrepreneurship career option in countries like Uganda, where some sections of society think entrepreneurship is for those who have failed to make it academically or who cannot find a job (necessity entrepreneurship). In summary, bonding and bridging ties, as well as cognitive and structural social capital (antecedents) exert a direct influence on perceived feasibility and desirability of entrepreneurship and then indirectly on entrepreneurial intentions (Liñán and Santos, 2007).

Method

The study started with a rigorous review of the literature about graduate start up and contextual factors, as well as conversations with students, entrepreneurship lecturers and parents. Some ideas for items were from existing instruments (Liñán et al., 2011). This entire effort resulted in a total pool of 65 items about the social valuation of entrepreneurship. These were placed before three independent expert judges (entrepreneurship professors) who scrutinized them for redundancy, repetitions, ambiguity/clarity in meaning, and relevancy to the concept of social valuation. They also provided editorial feedback on item phrasing, content relevance and content breadth. Items were revised as necessary based on their review. This multistage verification of item content/face validity examination resulted into the cancellation of seven items, leaving a balance of 58, which were then put into a questionnaire in which respondents were asked to indicate their level of agreement with an item on a scale ranging from "1" strongly disagree to "5" strongly agree with "3" as a neutral point, i.e. neither agree nor disagree.

This neutral response was adopted to reduce uninformed response, since it assures respondents that they do not feel compelled to answer every question (Wilcox, 1994). Items in the questionnaire were randomly assigned, in order to counter any systematic order effect. This questionnaire was pretested with a sample of 20 second year Bachelor of Procurement and Logistic Management students who had no difficulty in answering it, following which it was administered to a convenience sample of 3rd year and 2nd year UCU Business Faculty students from the main campus (Central region), Arua campus (Northern Region), Mbale campus (Eastern region) and Bishop Birham, a constituent college of UCU (Western region). In each case the students were requested to fill the questionnaire at the end of a lecture (not related to the topic understudy).

In order to cater for common method bias, procedural measures were put in place as recommended by Podsakoff and Organ (1986, p. 540), as opposed to using statistical remedies alone. Specifically, data was collected from respondents at different times and in different settings as explained above. Further Harman's one factor test (see Podsakoff et al., 1984) was carried out to examine the inter correlation of the study variables. Since a single factor did not emerge from the unrotated factor solution, it was concluded that common method bias was not a problem in this study.

Descriptive statistics

In all a total of 626 usable questionnaires were returned, with 262 of these coming from the main campus (central region). In this region, 47.8 percent were male, while 52.2 percent were female, their age ranging from 20-45 with a mean of 24.2 (SD 4.29), and a mode of 22. Most of them (79.7 percent) were single, while the rest were married. Respondents from the other three regions (n = 332) were pooled together. Their age ranged from 19-55, with a mean of 24.5 (SD 5.02), and a mode of 22. Most of them were single (81.6 percent), while the rest were married. By course, Bachelor of Business Administration (BBA) students 3rd year formed 80 percent of the total sample, while Bachelor of Entrepreneurship and Project Planning (BEPP) 3rd year students formed the rest of the sample.

Data analysis started by examining the normality of the data set following rules of thumb suggested by West et al. (1995): for a sample size <200, moderately non normal data (univariate skewness <2, univariate kurtosis <7) are acceptable i.e. robust standard errors provide generally accurate estimates. In this study the univariate skewness of each variable was within acceptable range. However recent research shows that maximum likelihood estimation can be used with minor deviations from normality (Raykov and Widaman, 1995).

Following the above procedure, data were divided into two, the first part (data from the central region) for exploratory factor analysis and the second half (data

from East, North and South) for cross validation using confirmatory factor analysis (Churchill, 1979; Neter et al., 1989). For the first sample (n = 262), principal axis factoring based on promax rotation and Kaiser Normalization was carried out by first constructing a Pearsonian correlation matrix between each pair of the 58 items. Bartlett's test of sphericity which tests the null hypothesis that the resultant correlation matrix is an identity matrix was rejected (x^2 = 1,785.976 df = 276, p = 0.000), with a Kaiser Meyer-Olkin (KMO) measure of sampling adequacy value of 0.717, both indicating that factor analysis was appropriate. Items that cross loaded, plus those that loaded on unexpected factors as well as those that had factor loadings, <0.5 were discarded. This iterative process was continued a number of times until a stable model consisting of six oblique factors each with Eigen value >0.7 (based on the Joliffe criterion in Garson, 2008), accounting for 56.11 percent of the variance was obtained which is considered acceptable (Hair et al., 1995). Oblique rather than orthogonal rotation was preferred given the evidence in the theory and because oblique factors rotate to simple structure and conform more to psychological theory (Kline, 2000). Four of these factors met the 0.7 reliability cut off (Nunnally and Bernstein, 1994), while the other two had reliability above 0.6, which is the minimum acceptable for exploratory studies.

Next, the construct validity of the scale was examined. Construct validity consists of two elements internal and external validity (Gupta et al., 2002 p. 249). Internal validity is of two types, convergent and discriminant. According to the guidelines by Hair et al. (1995), convergent validity is achieved if an item loads significantly on its factor (factor loading >0.5), thereby confirming nomological validity (Barnes, 2007, p. 50). This is the case in the study model. Discriminant validity is a measure of the extent to which constructs are distinct i.e. they should not correlate so highly as to seem to be measuring the same underlying dimension (Siekpe, 2005). Discriminant validity can be assessed by examining the factor correlation matrix and average variance extracted (AVE)[1]. The square root of AVE should exceed the correlations in the rows and columns for adequate discriminant validity, which indicates that more variance is shared between the construct and its indicators than with other constructs (Fornell and Larcker, 1981), as in Table I.

Another approach to assessing discriminant validity is to examine the factor reliabilities and the inter factor correlations. For adequate discriminant validity, the reliability coefficients should be greater than the correlation coefficients (Gerbing and Anderson, 1988) as evidenced above.

External validity

External validity is the extent to which the results of a study can be generalized (applied) beyond the sample. The external validity of a scale is established if it is related with an established cross-cultural scale in theoretically expected directions (Gupta et al., 2002, p. 251). Many researchers of entrepreneurial intention have developed their own ad hoc instruments (Chandler and Lyon, 2001) making the comparison between these works problematic. Liñán and Chen (2009) have attempted to solve this problem by designing an entrepreneurship intentions questionnaire (EIQ). Three items from this questionnaire were deliberately incorporated in the study instrument in order to test its

external validity, two of which loaded significantly on the EIQ dimension i.e. “If I had the opportunity and resources, I would love to start a business” (mean 4.52) and “I will make every effort to start a business” (mean 4.47). The family dimension of the study instrument correlated with entrepreneurial intentions as expected ($r = 0.348$). Similarly the cultural and institutional dimensions also correlated with entrepreneurial intentions in the expected direction ($r = 0{:}15$ and $r = 0.139$) respectively (though the correlation is weak), thereby confirming the external validity of the measure.

Confirmatory factor analysis

Cross validation of the instrument was carried out next based on the second half of the data set ($n = 362$) using confirmatory factor analysis. Lisrel 8.8 (Jöreskog and Sörbom, 2007) maximum likelihood function was used to draw a path diagram of the measurement model using raw data. Items that had the highest factor loading on each factor were used as marker variables (see Table II). Three sets of CFA were carried out. In the first phase, a model was fitted in which items were not allowed to cross load, and with no correlated measurement errors. The model was identified with 155 degrees of freedom, and a chi square which was statistically significant: $x^2 = 274.47$, $p < 0.001$, indicating a poor reproduction the covariance matrix. However, Siekpe (2005) argues that a model should not be rejected on the basis of this static since it is sensitive to departures from normality (Hatcher, 1994) and sample size (Brown, 2006; Byrne, 1994). Modification indices suggested areas of localized strain, so one path was added from knowledge to institutions, another was added from education to institutions, and another path from institutions to teaching. This action was justified since the factors are oblique.

Table I.
Factor correlation matrix and discriminant validity of factors

	1	2	3	4	5	6	Alpha
Teaching	0.845						0.885
Family	0.337	0.618					0.737
Knowledge	0.281	0.201	0.591				0.646
Institutions	0.347	0.311	0.323	0.563			0.674
Education	-0.24	0. - 18	0.158	-0.26	0.681		0.709
Culture	0.157	0.349	0.259	0.156	0.178	0.632	0.739

Note: √AVE in italics in diagonal

Construct	Mean	Eigen value	Loading	Alpha	√AVE
Teaching					
Teaching in schools in my country					
encourages innovation	3.70	3.964	0.834	0.882	0.71
Teaching in schools in my country					
encourages personal initiative	3.69		0.951		
Teaching in schools in my country					

provides adequate attention to					
entrepreneurship	3.74		0.758		
Family					
My immediate family highly values entrepreneurial activity	3.64	1.734	0.545	0.734	0.618
My family would consider it appropriate if I became an entrepreneur[a]	3.70		0.544		
My friends would consider it appropriate if I became an entrepreneur[a]	3.70		0.763		
The family influences entrepreneurship decisions	4.02		0.679		
Knowledge					
Individuals generally know the procedure for registering a business	2.31	1.498	0.580	0.646	0.591
People who start a business in this country know how to manage risk[b]	2.39		0.646		
Businesspeople in this country know how to spread risks	2.78		0.588		
Businesspeople in this country are conversant with knowledge of running a business	3.14		0.596		
Institutions					
Legal institutions in country support entrepreneurship	3.64	1.203	0.553	0.646	0.591
Government economic policies in my country support entrepreneurship	3.75		0.668		
Government supports organizations that help business in my country	3.27		0.582		
The local government system favors entrepreneurship in my country.	2.95		0.596		
Perception of education					
Entrepreneurship is for those who are not highly educated	2.01	1.070	0.705	0.709	0.681
A graduate who pursues an entrepreneurial career is not respected	2.16		0.764		
Parents encourage their educated children not to engage in entrepreneurship	2.30		0.553		
Culture					
The culture of our people highly favors entrepreneurship	3.02	0.855	0.670	0.738	0.632
Cultural and social values encourage entrepreneurship	3.15		0.810		

Table II.
Constructs and item loadings

Sources: [a]Liñán and Chen (2009); [b]Busenitz et al. (2000)

The resulting model had $x^2 = 234.01$, df 152 $p < 0.001$ but with more acceptable fit statistics GFI = 0.94, and CFI = 0.93, NNFI = 0.91. The SRMR = 0.055 met the 0.08 cut off for better fitting models (Jöreskog and Sörbom, 1993), while the RMSEA value of 0.039 (CI 0.029, 0.048) is acceptable since Brown and Cudeck (1993) suggest as a rule of thumb that models with RMSEA <0.05 show acceptable fit. Further RMSEA had a non-significant p close fit value (0.98) which is further evidence of appropriate model fit. Note that the upper level for the RMSEA confidence interval did not exceed the 0.08 cut off. The fit statistics show that the model is robust and adequately fits the data. Another two models were fitted for comparison purposes. In model two items were not allowed to cross load, with orthogonal measurement errors, while in model three, all items were specified to load on one factor. Results show that the first two models two had a better fit and a smaller AIC than model three whose fit statistics are not acceptable (see Table III).

An examination of the factor loadings indicated that factor structure from the EFA slightly differs from that of the CFA. Following Brown (2006, p. 239), the test for tau equivalence was done by placing restrictions on the model i.e. equality constraints were placed on indicators that load on the same factor, while freeing the error variances and evaluating the resultant change in model x^2. The result was $x^2 = 283.000$ (155) free, versus $x^2 = 377.328$ (169) constrained. The chi square difference was significant: $x^2 = 94.328$ (14) $p < 0:000$.

Discussion

This study constructed and empirically validated a measure of social valuation in a collective developing country context Uganda, guided by intention models and the social capital theory (SCT). This measure will promote our understanding of entrepreneurship in this context since most instruments of social valuation have been developed in the west. The more entrepreneurship is valued as a career option, the higher the probability that the student will take it up. This instrument thus provides a possible starting point in this process because after gauging the way society values entrepreneurship, remedial action can be taken by various stakeholders such as government and institutions of higher learning.

Six dimensions which influence the perception people have of entrepreneurship have been identified. Consistent with the SCT, as well as Liñán and Chen (2009), this study identifies closer valuation (by the family) as a dimension that influences the way people perceive entrepreneurship. This is particularly true of collective societies, where the views of important others (friends and family) are taken into consideration before the performance of a behavior. Similarly, consistent with Busenitz et al. (2000), and institutional theory, this study identifies institutional arrangement of a society as an important dimension that influences the social valuation of entrepreneurship. Thus social institutions (in the wider society) not only have an impact on entrepreneurial intentions of an individual, but they also influence the more centralized institutions and eventually the feasibility of entrepreneurial action. Further, consistent with Busenitz et al. (2000), this study also captures cognitive and subjective norms as dimensions that influence the social valuation of entrepreneurship.

Indices	x^2/df	RMSEA	GFI	NNFI	CFI	SRMR	AIC

Model 1	1.55	0.039	0.94	0.90	0.92	0.055	350.01
Model 2	1.77	0.046	0.90	0.87	0.90	0.060	384.47
Model 3	4.36	0.097	0.86	0.44	0.51	0.10	587.58
Recommended values	<3[a]	<0.05[b] <0.06[c] <0.08[d]	>0.90[e]	>0.90[e]	>0.9[e]	<0.08[e]	

Table III.
Fit indices of measurement model

Sources: [a]Bollen (1989), Hair et al. (1998), Jöreskog and Sörbom (1993); [b]Brown and Cudeck (1993); [c]Hu and Bentler (1999); [d]Byrne (1994); [e]Hair et al. (1998)

The influence that education has on the social valuation of entrepreneurship is also captured by this instrument. Specifically the influence that the teaching of entrepreneurship has on social valuation of entrepreneurship is reflected in the Teaching dimension, which is different from another dimension that refers to what people think about graduates (educated people) that participate in entrepreneurship. Means of this dimension (all <3) indicate that this study sample has no problems with graduates engaging in entrepreneurship, a fact borne out by the negative correlations between this factor and the other constructs (Table I). There is therefore need to establish whether this stand would be maintained with a different study population.

Managerial implications

Different stakeholders, particularly government and teaching institutions, should put the identified constructs into consideration in the bid to promote entrepreneurship, since society values entrepreneurship along these dimensions. In agreement with Liñán and Chen (2009), every possible opportunity should be used to recognize the role entrepreneurs play in an economy. Further, legal institutions that facilitate the creation of new ventures and the smooth running of already existing ones should be put in place in order to promote entrepreneurship. This study further makes a strong case for education programs that will make entrepreneurship a more valued career option among graduates.

Conclusion

This study has constructed a robust measure of social valuation in a developing market context, in light of the results of the EFA and fit statistics from the CFA. The dimensions of this measure can be used as a starting point in examining what people in a collective setting think about entrepreneurship. Besides the four constructs already identified by earlier researchers, this study identifies teaching of entrepreneurship and education as important variables in this context. Working along these six dimensions by government and its agencies as well as

institutions of higher learning, a positive message can be sent to society that becoming an entrepreneur is a positively valued option (Liñán and Chen, 2009).

Limitations and future research

The study used a convenience sample of students, instead of a random sample. However this is quite common in many such studies. The sample size could have been bigger, given that the study intended to take on a national character. In spite of these limitations, the study instrument developed raises a platform from which further diagnosis of social valuation can start. Since this is a new instrument, there is need to validate it in different contexts. There is also need to examine the cause of the divergence in factor structures. Data should also be collected from different groups of people in order to establish metric and configural invariance of this measure.

Note

1. Average Variance Extracted (AVE) is given by: $AVE = \sum \lambda i^2 / \{ \sum \lambda i^2 + \sum(1 - \lambda i^2) \}$, where $\sum \lambda i^2$ is the sum of the squared loading, while $\sum(1 - \lambda i^2)$, is the sum of the residual variances (Reinartz et al., 2003).

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