

Environmental factors and graduate start up in Uganda.

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Abstract

Purpose: *A major concern in many countries is the failure to see high levels of apparent intent to start up amongst graduates. This study investigates the relationship between social and closer valuation and intention to start a business by graduates in Uganda.*

Design/Method/ Approach: *In the first phase of the study, the answers to the question “What are the reasons for low graduate start up in Uganda?” set in a second year Bachelor of Business Administration entrepreneurship examination were content analyzed. Findings from the content analysis of 96 scripts provided the direction for the second phase, which was anchored on the Theory of Planned Behavior and the Social Capital Theory. Data was collected from a convenience sample of 217 third year business students using the newly created Entrepreneurial Intentions Questionnaire (EIQ).*

Findings: *Content analysis reveals that negative societal perceptions of entrepreneurship are important barriers against graduate start up, while regression analysis shows that the three antecedents of intention in the TPB are good predictors of intention. The relationship between close valuation and intention is fully mediated by subjective norm, attitude towards entrepreneurship and perceived behavioral control, while the relationship between social valuation and intention is not mediated by these antecedents of intention. Unlike studies in a Western context, this study establishes that family, peers, and colleagues exert a direct effect on intention. This finding underlines a particularity of entrepreneurship in collectivist societies.*

Limitations: *The study utilized a small sample from only one academic institution.*

Practical implications: *There is need to convince Ugandans that entrepreneurship is a noble career path for graduates.*

Theoretical implications: *The study gives reason to assume that the influence of peers, family, and colleagues on entrepreneurial intention is much more straightforward in collectivistic societies like Uganda.*

Originality/ value: *Contrary to earlier studies about entrepreneurship in Uganda, the study identifies social valuation as a barrier to graduate start up in Uganda.*

Keywords: Close valuation, social valuation, Theory of planned behavior.

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1.0 Introduction

The importance of entrepreneurship in the economies of developing and developed economies is well documented in the literature, and many countries are encouraging their citizens to pursue entrepreneurship (Chowdhury 2007). Specifically, there is a strong global drive towards encouraging students to pursue entrepreneurship, yet there is much less research on graduate entrepreneurship (Nabi and Holden 2008), compared to the existence of a large body of research about entrepreneurship in general (Henry *et.al.* 2003). A major source of concern 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), and it remains a key research question (Nabi and Holden 2008). This low start up rate among the youth and particularly graduates is attributed to the presence of perceived barriers for example lack of a good business idea (Harding 2007), lack of start up funds (Nabi *et al.*2006), lack of skills (Galloway and Brown 2002), negative societal attitudes towards entrepreneurship (Morrison 2000, Mason 1989), as well as fear of failure (Robertson *et. al.* 2003) among others. 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). This paper examines the relationship between environmental factors and graduate intention to start up in the Ugandan context.

The number of universities in Uganda has increased to 21 (UNCHE 2007), up from one in 1922 i.e. 4 public and 17 private, while university student population per annum has risen from 5000 in the 1970's to 137,190 in 2006, with non university tertiary institutions not being the preferred choice of many students and parents. Thus graduate numbers continue to swell by year, making unemployment a major concern in Uganda. According to (Walter *et al.* 2003), government understanding of entrepreneurship in Uganda is limited. First, Uganda is one of the least favourable countries in which to do business (Were 2009) since it is ranked 111 out of 181 countries world wide in terms of ease of doing business. The country scores poorly when it comes to starting a business, protecting investors, enforcing contracts and is one of the worst countries in the world for investors to have their land or property registered. Second, entrepreneurship as a teaching subject is fairly new in Uganda's education system, and the weight given to it in admission of high school students to public universities is very low. Third, NCHE (2007) contends that only a few people are pursuing a search for the truth in the whole higher education system in Uganda. For some institutions of higher learning (universities inclusive), research does not exist, or is tangential to academic programs. Hence entrepreneurship publications on Uganda are rare. Fourth, few graduate development or mentoring programmes are in place to signal graduates into entrepreneurship (e.g. Enterprise Uganda). This paper argues that the above facts send negative signals to society, particularly graduates thus discouraging start up. However, the Global Entrepreneurship Monitor GEM (in Walter *et al.* 2004: 19) position on attitude to entrepreneurship in Uganda is more optimistic: *"Anecdotal evidence suggests that Ugandans regard white collar employment in government service or big business as the most prestigious form of employment. Self employment has a comparatively low status, and is undertaken if only one has to. Based on this, we would expect attitudes towards start up of business to be negative, or at least ambivalent. However attitudes towards start up are in reality surprisingly positive"*.

The literature on entrepreneurship education, training and learning identifies a small number of empirically rigorous publications that consider the position of graduates as nascent entrepreneurs, and most of these originate from the US and focus on graduate entrepreneurship in the context of a mature and stable economy (Matlay 2006). Thus the transferability of such study findings to contexts where the task and psychic environments may be different remains a key question (Thomas and Muller 2000). Most studies on entrepreneurial intentions of students have concentrated on personality factors (Wang and Wong 2004), rather than on differences on contextual factors (Turker and Selcuk 2008, Henderson and Robertson 2000). Further, the few empirical studies linking external conditions to entrepreneurship have also not been consistent (Schwarz *et al.* 2009), besides most researchers of entrepreneurial intention have developed their own ad hoc instruments (Chandler and Lyon 2001) making the comparison between these works problematic. Linan and Chen (2009) have attempted to solve this problem by designing an entrepreneurship intentions questionnaire (EIQ). This paper contributes to literature by first validating the EIQ, followed by theorizing and empirically testing how environmental factors affect entrepreneurial intention of graduates in a collectivist setting, since it has been established that social valuation of entrepreneurship plays a key role in determining entrepreneurial behavior (Zahra *et al.* 1999) and that some socio cultural values hinder the development of entrepreneurship in Africa (Tukyiasiedu 1993) or frustrate them (Munene *et al.* 2000). Validation of the EIQ and examination of contextual factors should contribute to entrepreneurship given the dearth of literature on constraints to entrepreneurship in developing countries (Chowdhury 2007). Policy makers and educators should find the study useful in the designing of mitigation measures to curb the problem of low graduate start up in Uganda. The paper proceeds as follows. The next section examines the extant literature on entrepreneurship, discusses the theory and motivates the hypotheses on which the study is based. This is followed by the methodology and discussion of the findings. A concluding discussion wraps up the paper.

1.0 Literature review

Definitional divergence of entrepreneurship

There is an ongoing debate about the theoretical assumptions underlying the entrepreneurship domain (Herron *et al.* 1991, Fiet 2000). First there is great confusion over the definition of the entrepreneurship concept (Gibb 1993). This definitional divergence has been the largest obstacle in creating a conceptual frame work for this field (Shane and Venkataraman 2000), and has led to the fragmentation of entrepreneurship research (Thomas and Mueller 2000). Early workers on entrepreneurship e.g. Cole (1968), Kirzner (1973) and Drucker (1985) highlighted the theoretical divergence of entrepreneurship and urged in favor of a common definitional model. However, Bygrave and Hofer (1991) point out that a single entrepreneurial model is unlikely to satisfy the varied requirements of a wide range of interested parties. Definitions of entrepreneurship range from narrow meanings such as starting a business, to broad conceptualizations such as work attitudes that emphasize self reliance, initiative, innovation and risk taking (Gelderen *et al.* 2008). This definitional divergence has resulted in confusion and a variety of entrepreneurial education and training programmes (Garavan and Ocinneide 1994), polarized emergent theory and has negatively influenced the development of research outcomes in education.

Second is a concern about the extent to which there is a difference between graduate “enterprise” and entrepreneurship (Nabi and Holden 2008). “Enterprise” to some people refers to a set of life skills (most students should possess these regardless of discipline), while other people regard graduate entrepreneurship as meant for those graduates who are in the process of starting or trying to start a business, or are learning skills for starting a business (Gibb 2005). Another controversy is that although these terms are relatively clear, many authors use them interchangeably. This has implications for higher education programs and Kirby (2004) asks whether the intention of these programs is to develop enterprising graduates or entrepreneurial graduates. There is a further debate concerning the typologies of entrepreneurship. For example Reynolds *et al.* (2004) in Nabi *et al.* (2006) differentiate between opportunity and necessity entrepreneurship. In the former individuals respond to pull factors (pursuing opportunity) and in the latter, they respond to push factors (because of lack of alternative employment options). Both these factors influence graduates in their decision to pursue the entrepreneurial route (Nabi *et al.* 2006).

The theory of entrepreneurship

Intention models

It has been established that an individual’s intention to become an entrepreneur is the best predictor of his /her actually engaging in entrepreneurship in the future (Delmer & Davidson 2000, Kruger *et al.* 2000), rather than trait and demographic approaches. Hence research in the field of entrepreneurship is based upon intention models, since entrepreneurial action is actually planned behavior (Krueger *et al.* 2000). Fishbein and Ajzen (1975) operationalised intention as the likelihood to act. Meta analyses indicate that intentions are strong predictors of behavior in other settings (Armitage and Conner 2001) and two intention models emerge as dominant in the literature i.e. Ajzen’s (1987) Theory of Planned Behavior (TPB) and the Shapero and Sokol (1982) model. TPB views entrepreneurial intent as 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 a person 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) this results into a higher intention (motivation) to perform the behavior. In PBC, control reflects whether the behavior is easily executed (control beliefs), and whether the required resources, opportunities and specialized skills are available (Perceived control) (Conner *et al.* 1999).

Shapero and Sokol (1982) explain intention on the basis of perceived desirability, perceived feasibility, and the propensity to act. Their model suggests that a state of inertia guides human behavior, until an event displaces that inertia. Shapero and Sokol view start up as based on the individual having the potential to start up, as well as his /her ability to do so later. These two models overlap to a great extent (Gelderen *et al.* 2000) and Krueger *et al.* (2000) highlight the usefulness of both them in understanding 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). This study is anchored on the TPB.

An examination of entrepreneurship within the TPB theoretical frame work reveals three contentious positions. First are those authors who argue that all components of the TPB model are predictors of entrepreneurial intent (Kolvereid 1996, Kolvereid and Isaksen 2006, Wu and

Wu 2008), while others argue that this not true and contest the role of subjective norm. Some posit that this variable does not influence intention since they have found it to be insignificant (Autio *et al.* 2001), yet others have omitted it (Peterman and Kennedy 2003, Veciana *et al.* 2005), while others suggest that it is a specific form of social capital which has a causation effect on attitude and perceived behavioral control (Linan and Santos 2007). Hence the relative strength of subjective norm has been identified as a pending issue in intention models (Linan and Chen 2009). According to Ajzen (1987), social norms are less predictive of intention for people with a high internal locus of control or those with a strong orientation toward the act (Bagozzi *et al.* 1992). However, values shared within a culture affect the motivational antecedents of intention (Linan and Chen 2009), and the effect of culture might be stronger on subjective norm (Ajzen 2001, Begley and Tan 2001). Thus some authors argue that subjective norm plays a stronger role in predicting intention in collectivist than individualistic cultures (Wu and Wu 2008, Linan and Chen 2009), hence the influence of important others may sway the individuals career preferences (Lent *et al.* 1994):

H1: Subjective norm is a significant predictor of graduates' intention to start up in Uganda.

The second contentious issue is the question of the relative explanatory power of each dimension. Some researchers insist that perceived behavioral control is the strongest predictor of intention (Nabi *et al.* 2006, Auto *et al.* 2001, Davidsson 1995) while other researchers argue that attitude toward entrepreneurship is the most important predictor of intention among students (Schwarz *et al.* (2009). This paper agrees with this position. Since, entrepreneurship is planned behavior (Krueger *et al.* 2000), the student must have a positive attitude towards it in order to embark on the meticulous planning it involves. In short, a career decision is not a mere response to stimuli but a cognitive process (Lent *et al.* 1994). Self efficacy alone should not make a person do some thing unless that person has a positive disposition toward the act. One may be able to perform an act, but may not do so because he/she does not like it, or important others think the act is not appropriate, thus:

H2: Attitude toward entrepreneurship should account for more variance in intention than perceived behavioral control.

Social Capital Theory

The environment can help explain why the relationship between personal related factors and entrepreneurship intent is not always deterministic in nature (Luthje and Franke 2003). Entrepreneurs do not work in isolation (Robison *et al.* 1991, Aldrich and Zimmer 1986), but are part and parcel of the environment in which they work. Thus it is prudent to view entrepreneurship as an embedded process in a social, cultural and economic context; hence individuals do take the environment into account in their decision making process (Schwarz *et al.* 2009). 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 Mueller 2000). This study is based on two theories that explain the impact of the environment on entrepreneurship intention.

Lent *et al.* (1994) developed the social cognitive career theory (SCCT), which consists of three overlapping models aimed at explaining the processes through which people develop basic academic and career interests, make and revise their educational and vocational plans, and achieve performances of varying qualities in their academic and career endeavors. Of specific relevance to the current study is the mediated paths model, derived from social cognitive theory

(Bandura 2000), which posits that the relationship between person and environmental factors on one hand and choice behavior on the other is mediated by personal goals and self efficacy. This model recently validated by Lent and Brown (2003), suggests that contextual factors e.g. perceived environmental supports and barriers are linked to choice actions indirectly through self efficacy.

Social capital is 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, and consists of three dimensions, (Nahapiat and Goshall 1996) i.e. a structural dimension in which people perceive themselves as part of a network, a relational dimension in which a set of confidence mutual obligations can be developed through a net work of relationships and a cognitive dimension in which members of a network have common interests, inspired by the principal of confidence and have the attitude to share knowledge. The net effect of these dimensions of social capital or knowledge in action is to generate direct and indirect relations with the environment agents and social unit (Bueno and Salmador 2004).

The strength of the ties between individuals or organisations depends on the frequency and proximity of contacts between individuals (Linan *et al.* 2009). Gronovetter (1985) differentiates between strong ties (among family members or ethnic group) and weak ties (among the extra community). While many institutionalist authors have high lighted the social embeddedness of economic action and argued for the economic rationality of reliance on strong network ties (e.g. Uzzi 1997), Granovetter (2003) argues that weak ties should not be overlooked as they link loosely associated communities and provide people with a wide range of information, a view also held by Tsui-Auchi (2005). Linan *et al.* (2009) refer to the strong ties as bonding ties (Close valuation) and the weak ties as bridging ties (social valuation) and both play different yet complimentary roles in the transmission of values and ideas that influence perception, and through them entrepreneurial intentions (Carolis and Spariato 2006). Bonding ties generate different values, trust, and shared language and shared narratives. Thus people receive influence from this closer environment valuation, and as established by Kennedy *et al.* (2003) expectations from family and colleagues are key variables that influence students' intentions. Similarly, the bridging ties held in the outer community generate a favourable disposition toward start up through the provision of knowledge and experience. In short the values held by a society shape the development of certain traits and abilities, modeling normative and ability perceptions toward entrepreneurship (Thomas and Muller 2000). Given the social embeddedness of the African culture that emphasizes social order, respect for tradition and family security, African values conflict with the autonomy type of values that enable individuals to derive meaning from their unique ideas, actions and outlooks. For example Africans maintain order by avoiding unnecessary risks (Onuejeougwu 1995) and restrain actions that might disrupt the traditional order (Munene *et al.* 2000). Based on these views, it is hypothesized thus:

H3: The closer environment should have a greater influence on intention than social valuation.

H4: Social valuation in the Ugandan context should have a negative influence on intention.

According to Ajzen (1991), the motivational antecedents of the theory of planned behavior explain intention, and all other variables should have only an indirect effect. However some researchers have reported findings which are contrary to this strong theoretical argument. For example, Linan *et al.* (2009) using structural equation modeling report a significant path between close valuation and intention, as well as another significant path between role models and intention. Autio *et al.* (2001) reported a direct relationship between work experience in small

firms and intention. Linan *et al.* (2009) call for further examination of this anomaly, but attribute it to the possible presence of mediating effects, thus:

H5: The relationship between closer valuation and intention is mediated by perceived behavioral control, attitude and subjective norm.

H5a: Close valuation is related to attitude

H5b: Close valuation is related to subjective norm

H5c: Close valuation is related to perceived behavioral control

H5d: Close valuation is related to intention.

H6: The relationship between social valuation and intention is mediated by attitude, subjective norm and perceived behavioral control.

H6a: Social valuation is related to attitude

H6b: Social valuation is related to subjective norm

H6c: Social valuation is related to perceived behavioral control

H6d: Social valuation is related to intention.

The table below summarizes work that has been done on environmental factors and entrepreneurship, while figure 1 sums up the narration above.

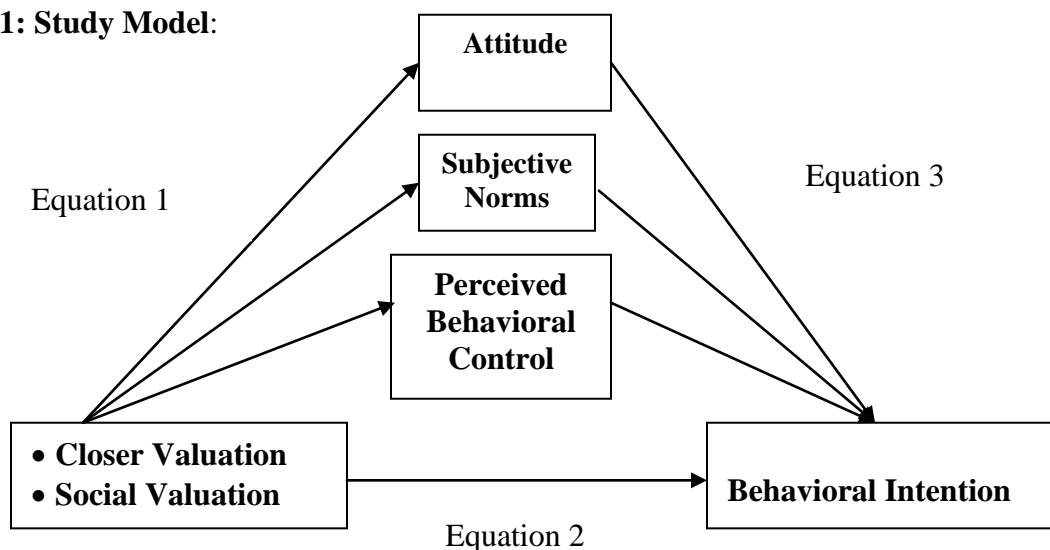
Table 1: Studies on contextual factors and entrepreneurship

Author(s)and Year	Context	Variables	Unit of Analysis	Findings
Scott and Twomey(1988)	United Kingdom, USA, Republic of Ireland	Predisposing (background/ Personality) and Situational factors	Durham University, West Virginia University.	Predisposing factors and situational factors act both independently and in concert to shape career aspirations.
Begley <i>et al.</i> (1977)	Singapore Indonesia Sri Lanka, Philippines US, Bangladesh, Mexico	Social Status of Entrepreneurship, Value of Innovation, Business failure, Importance of work.	MBA Students	Social status of entrepreneurs is a predictor of intention to start up
Lee <i>et al.</i> (2005)	USA Korea	Attitudes, Venture Creation	University Students	Cultural contexts are unique, thus each country should provide customized entrepreneurship education.
Autio <i>et al.</i> (1997)	Asia Scandinavia USA	Attitude, Competitiveness, Entrepreneurial motivation	University Students	The image of entrepreneurs and encouragement from university environment affect entrepreneurial conviction of students.
Veciana <i>et al.</i> (2005)	Catalonia /Puerto Rico	Desirability, Feasibility, Intention	Peurtorrican Universities: UPR,RIO,Piedras, Mayaguez, Cayey, UIA, Metro Catalonian Universities:	Gender and entrepreneurial history of the students could be linked to desirability, feasibility and intentions.

			UAB, UB, UPC, UdG, URV, UdL	
Luthje and Franke (2003)	USA	Personality Traits, Perceived Barriers/support	Massachusetts Institute of Technology	Attitude towards self employment by students is linked to perceived barriers and perceived support.
Turker <i>et al.</i> (2005)	Turkey	Motivation / self confidence, level of education, opportunities and support.	University students	Perceived level of support was a significant predictor of intention
Turker and Selcuk (2009)	Turkey	Structural/ Educational support, self confidence, intention.	Two state and two private Universities	Educational and structural support influence intention.
Parnell <i>et al.</i> (1995)	Egypt/USA	Entrepreneurial Propensity, self confidence, educational level	University students	Intention was a function of perceived opportunities
Henderson and Robertson (2000)	UK	Personal experience, Family Influence	Students Leeds Metropolitan University	Family is an important factor in the career choice of respondents; Positive image of entrepreneurship is hampered by lack of role models.
Linan <i>et al.</i> 2009	Spain	Intention Attitude Subjective norm Close valuation Social valuation	UAB Catalonia USE, Andalusia	Close valuation strongly influences Attitude. Social valuation has a strong impact on Perceived behavioral control.

Linan *et al.* (2009) propose a model between contextual factors and entrepreneurial intention. This model provides a guideline for us to explore mediational relationships among the above constructs. They propose that closer valuation (family, friends) influence intention to start up through their impact on attitude, subjective norm and perceived behavioral control. Similarly, social valuation influences intention through its impact on attitude, subjective norm, and perceived behavioral control. We have searched the literature and found support for this model, especially Bandura's mediational model in the SCCT (Lent *et al.* (1994). Since Linan *et al.* (2009) tested this model in developed countries, this study tests this model in an emerging market context.

Figure 1: Study Model:



3.0 Method

The study utilized a triangulation technique (Campbell and Fiske 1959), in which both qualitative and quantitative methods were used. 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. This was followed with a content analysis of answers to the question “What is the cause of low graduate start ups in Uganda”, which had been set in the second year BBA entrepreneurship examination. The results of the analysis provided the direction for the second phase of the study.

In the second phase of the study, a copy of the newly constructed EIQ was obtained from its authors, who also granted us permission to utilize it in this study. This instrument was selected because it suited the purpose of the study, had good psychometric properties, (Linan and Chen 2009) and because we wanted to compare our findings to similar studies carried out in other contexts using the same tool. The instrument was slightly modified to suit Ugandan conditions. For instance “Euros” was replaced with Ugandan Shillings. The instrument was then distributed to 3rd year Bachelor of Business Administration and Bachelor of Procurement and Logistics Management students who were requested to fill it immediately after a Research Methodology class. During data clean up, items that had been reversed in meaning from the overall direction of the scale were reverse coded.

Data Analysis started with validation of the EIQ. Such validation is of value to entrepreneurship research, because developing a standard instrument enables research to accumulate in a topical area as direct comparisons become possible between cultures and geographic areas (Cook and Campbell 1979). Linan and Chen (2009:11) call upon other researchers to “test the psychometric properties of the instrument on different samples”. Validation was done by dividing the data into two : The first part (N= 100) was used for principal axis factoring based on promax rotation and Kaiser Normalization, to examine the factor structure by first constructing a Pearsonian correlation matrix between each pair of the 20 items. Bartlett’s test of sphericity tested the null hypothesis that the resultant 20x20 correlation matrix was an identity matrix, all diagonal coefficients are equal to one, and off diagonal items are zero (those that are not zero it is due to chance). The null hypothesis was rejected ($\chi^2 = 896.753$ $df=190$, $p=0.000$) meaning that factor analysis could proceed. The Kaiser Meyer-Olkin (KMO) measure of sampling adequacy indicated a coefficient of 0.813, which is interpreted as meritorious (Kaiser, 1974), further reinforcing that factor analysis was appropriate (the closer to 1.0 the better). Four oblique factors each with Eigen value greater than one and accounting for 56.6% of the variance were extracted as expected. A useful factor must account for one unit of variance or have Eigen value >1. Oblique factors were preferred to orthogonal ones, given the evidence in the theory and because oblique factors rotate to simple structure and conform more to psychological theory (Kline 2005). Reliability of the different factors was assessed based on the recommendations of Nunnally and Bernstein (1994). All the items were significantly loaded on their constructs since they had loadings > 0.4 as indicated in table 2: Further, items A16, A17, A04, A11, A09, A03, A15, A18 loaded as expected compared to Linan and Chen (2009). Items that were reverse coded are labeled RC.

Table 2: Latent Factors and their loadings

Latent factor	Item loading at >0.4	Eigen value	Loading	AVE	√AVE	Alpha
Attitude	Being an entrepreneur would give me great satisfaction(A15)	6.203	0.805	0.446	0.667	0.732
	Being an entrepreneur implies more advantages than disadvantages(A18)		0.713			
	I am determined to create a business venture in the future(A13)		0.587			
	If I started a business I would have a high chance of being successful(A 14)		0.560			
Subjective Norm	My colleagues would approve of my decision to start a business(A11)	2.381	0.703	0.448	0.669	0.753
	My immediate family would approve of my decision to start a business (A 08).		0.686			
	My friends would approve of my decision to start a business. (A3)		0.685			
Perceived Behavioral Control	Starting a firm and keeping it viable would be easy for me (A01)	1.436	0.778	0.44	0.66	0.701
	My professional goal is to be an entrepreneur (A17)		0.713			
	I am ready to do anything to be an entrepreneur (A04)		0.412			
Intention	I have a very low intention of ever starting a business (RC) (A19)	1.203	0.779	0.40	0.632	0.743
	I t would be very difficult for me to develop a business idea (RC) (A16).		0.676			
	I believe I would be completely unable to start a business (RC) (A05)		0.674			
	If I had the opportunity and resources, I would love to start a business.(A10).		0.535			
	I will make every effort to start and run my own business (A06)		0.473			

Next, the discriminant validity of these factors was examined. Discriminant validity is a measure of the extent to which constructs (latent factors) 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 Lacker in Siekpe, 2005), as in table 3 below.

Table 3: Factor correlation matrix and discriminant validity of factors

Variable	1	2	3	4	Alpha
Intention	0.670				0.70
Attitude	0.501	0.669			0.73
S/Norm	0.280	0.574	0.660		0.70
PB Control	0.470	0.532	0.407	0.632	0.71

AVE in bold in diagonal N=100

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 (Anderson and Gerbing 1988 in Siekpe (2005) as evidenced above. The eight contextual items were also factor analyzed following the above procedure. Factor analysis yielded $\chi^2 = 255.203$ $df=28$, $p=0.000$ a KMO of .660 (higher than the 0.5 cut off). Two distinct oblique factors with Eigen value >1 emerged, and accounted for 46.7% of the variance (Table 4). Items C3 and C5 loaded as expected on one factor and Items C1, C4 and C7 loaded on the second factor as expected. Alpha for these two constructs did not meet the 0.7 cut off, but was close to that obtained by Linan and Cheng (2009). It has been suggested that alpha should be above 0.6 for exploratory research and above 0.70 for confirmatory research and that in the case of a scale with two or three items, a coefficient alpha of 0.60 or 0.50 is acceptable as a minimum standard (Cortina, 1993). Loewenthal (2001) concurs when she argues that if a scale has a small number of items, it may not be possible to get a high reliability value and thus a coefficient of 0.6 may be sufficient. Lastly, since the inter correlation between pairs of the constructs did not exceed 0.9, the problem of multicollinearity was ignored (Hair *et al.*, 1998).

¹ Average Variance Extracted (AVE) is given by : $AVE = \frac{\sum \lambda_i^2}{\{\sum \lambda_i^2 + \sum (1 - \lambda_i^2)\}}$,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).

Table 4: Factor Loadings for contextual factors

Latent factor	Item loading at >0.4	Eigen value	Loading	AVE	√AVE	A
Close Valuation	My immediate family values entrepreneurship above other activities and careers	2.350	0.463	0.41	0.64	0.66
	My friends value entrepreneurship above other activities and careers		0.653			
	My colleagues value entrepreneurship above other activities and careers		0.722			
Social Valuation	The entrepreneurship role in my country is generally undervalued	1.386	0.305	0.42	0.648	0.5
	Most people in my country consider it unacceptable to be an entrepreneurship		0.835			

In order to validate the instrument, a confirmatory factor analysis was carried out using the second half of the data set (N=117). Lisrel 8.8 (Joreskog and Sorbom 2007) maximum likelihood function was used to draw a path diagram of the measurement model of the theory of planned behavior using raw data. Items that had the highest factor loading on each factor were used as marker variables i.e. A15 for attitude, A11 for subjective norm and A 01 for perceived behavioral control. The model was identified but had poor fit (e.g. RMSEA 0.094). Examining the modification indices and residuals, the model was re specified to cater for method effects (Brown 2006) by adding error covariances between A07 and 01, A15 and A01, as well as A18 and A15. A path was also added from subjective norm and A14, as well as perceived behavioral control and A14. We justify these additional parameters as follows: Immediate family (subjective norm) may have a positive attitude toward start up, just like feasibility perceptions (perceived behavioral control) influence the attitude towards start up. No further specification was suggested by modification indices. The fit statistics for the new model are presented in table 5:

Table 5: Fit indices of Measurement Model

Indices	χ^2 / df	RMSEA	NFI	NNFI	CFI	SRMR
	1.72	0.077	0.95	0.96	0.98	0.056
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

^a[Bollen, 1989],[Hair et al], [Joreskog and Sorbom 1993]

^b[Browne and Cudeck 1993]

^c[Hu and Bentler 1999]

^d[Byrne 1998]

^e[Hair et al],[Joreskog and Sorbom 1993]

The model was identified with 25 degrees of freedom, and a chi square which was statistically significant: $\chi^2 = 42.29$, $p < 0.01$. However the chi square static is sensitive to departures from normality (Hatcher 1994) and sample size (Byrne 1994, Brown 2006). All the other fit statistics namely NFI, NNFI, CFI were > 0.9 , indicating acceptable fit. The SRMR value of 0.056 was slightly above the 0.05 cut off for better fitting models (Joreskog and Sorbom 1993). The RMSEA value of 0.077 (CI 0.036, 0.12), with p-value for test of close fit (RMSEA < 0.05) = 0.12 is acceptable since Brown and Cudeck (1993) suggest as a rule of thumb that models with RMSEA < 0.08 show adequate fit. The non significant p close fit value (0.12) is further evidence of appropriate model fit; however the upper level for the confidence interval exceeded the 0.08 cut off, probably due to the small sample size. Hu and Bentler (1999) argue that RMSEA tends to reject models if N is small. Brown (2006: 87) sums it up “If N is small, RMSEA =0.08 may be of less concern if the other fit indices are strong in suggesting good model fit”. The preceding analyses indicate the robustness of the EIQ.

Result:

Descriptive Statistics:

Out of 300 students in the BBA class, 96 attempted the question “What is the cause of low graduate start ups in Uganda?” which is a response rate of 32%. Age is not a required field on university examinations answers booklets so it was not obtained, however it was ascertained from their registration numbers that 53 % were male and 47% female. Of the 217 students who filled the EIQ, 56.2% were male, and 41% female. 6 students did not indicate their gender. Their ages ranged from 19 to 45, with a mean of 24.45, and a mode of 22. Most of their mothers (35 %) had university education, 18.9% had vocational education, and 14.7% had up to secondary education, while 10.6% had only primary school education. 44 students did not indicate the educational level of their mothers. On the other hand, 55% of the fathers had university education, 33% had vocational education, and 10% had secondary level education, while 6% went up to primary education. 28 students did not answer this question. With regard to employment, 35% of the mothers were self employed, 9.7% work in the public sector, 17.5% work in the private sector, and 10.1 were retired, while 9.2 were unemployed. 39 students did not indicate the employment status of their mothers. Lastly 13.4% of their fathers work in the private sector, 25.3% work in the public sector, 22.1% are self employed, and 16.1% are retired, while 4.1% are unemployed. 40 students did not indicate the employment status of their fathers. 96.4% of the students have ever thought seriously about becoming an entrepreneur. The table below presents the results of the content analysis.

Table 6: What are the causes of low graduate start ups in Uganda?

Reasons	Total	Percentage (%)
Inadequate starting capital	79	82.29
Fear of public opinion	44	45.83
Low self efficacy	36	44.79
Poor planning	37	38.34
Inadequate skills	28	29.17

Lack of business idea	22	22.92
Level of education (job of low class people)	22	36.46
Legal requirements for starting business	58	60.42
Fear of failure	66	68.75
Hope for white collar jobs	46	47.92
Negative parents	43	44.79
Laziness	43	44.79
Lack of trust among Ugandans	22	22.92
Lack of market research	46	47.92
Competition (Fear of)	52	54.17
Lack of equipment and technology	53	55.21
Political instability	34	35.46
Poor development of transport network	20	20.83
Poor saving skills	25	26.64
Fear of high risks involved in business	26	27.08
High interest rates	33	34.38
Lack of vision	17	17.71
Unfaithfulness to your own business	13	13.54
False ideas from friends	30	31.35
Wastage of time and resources	13	13.54
Procrastination	04	04.17
Huge salaries incentives and benefits	08	08.33
Poor work ethics	13	13.54
Length of time for business to mature	13	13.54
Lack of creative minds	30	31.25
Socio-cultural factors	19	19.79
Fear of corruption	12	12.50
Poor markets	08	08.33
Inflation	03	03.13

White collar jobs partly refer to the education system producing job seekers, and not job creators. Laziness could emanate from hope of inheriting parental property, or the personality of an individual, while transport net work refers to the poor infrastructure in many parts of Uganda. Low level of education refers to graduates themselves or some people in society thinking entrepreneurship is for low class/ low education people. This interacts with or could possibly emanate from negative public opinion toward entrepreneurship, because paid employment is more prestigious (GEM 2004).

Regression analysis:

To examine the contribution of the antecedents of intention in the TPB model, a regression model was fitted with attitude, subjective norm and perceived behavioral control entered in that order. Results indicate (table 7), that the three variables are predictors of intention (Adjusted $R^2 = 0.428$ $p < 0.05$). The table indicates that attitude accounts for more variance ($B = 0.406$), followed by Subjective norm ($B = 0.186$) and Perceived behavioral control ($B = 0.126$), hence $H2$ is supported. The adjusted R^2 indicates that the model could explain 42.8% of the variance in intention.

Table 7: Multiple regression analysis for predicting intention

	<u>Standardized regression coefficients</u>		
	Step 1	Step 2	Step 3
Attitude	0.627*	0.478**	0.406**
Subjective Norm		0.207**	0.186**
PBC			0.126**
Adjusted R2	0.389	0.414	0.428**
Change in Adjusted R2		0.021	0.015**

N=217 p<0.05* p< .01** p <.001***

A rule of thumb for interpreting practical importance of a variable is that r^2 of 0.01, 0.09 and 0.25 are considered a small, medium and large effect respectively (Cohen 1988). Based on this assertion, the TPB antecedents are good predictors of graduate start up.

Mediation Analysis

The mediating effect of the TPB variables was assessed based on the recommendations of Baron and Kenny (1986). For mediation to exist, three conditions must be met. First, the independent variables (closer valuation, social valuation) must significantly influence the hypothesized mediators, (i.e. attitude, subjective norm, and perceived behavioral control), tested in equation 1. Second the independent variables must significantly influence the dependent variable (intention) tested in equation 2, and third when the analysis includes the mediating variables, the effect of the independent variable on the dependent variable should be either reduced to a non significant level (perfect/full mediation) or decrease in size (partial mediation) when the effect of the mediating variable is significant, tested in equation 3. Based on the above, mediation analysis was carried out using regression scores saved from factor analysis (Norusis 1988). In phase 2, Medgraph (Jose 2003) was used to get a sobel z score for each model based on factor correlations, (Table 8) and beta weights from phase one. Tables 9, 10 and 11 present these findings.

Table 8: Descriptive Statistics and Correlations of study constructs

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1 Intention	5.42	1.44	1					
2 Subjective Norms	5.18	1.51	.559**	1				
3 Attitude	5.57	1.23	.627**	.697**	1			
4 PB Control	5.16	1.11	.551**	.710**	.720**	1		
5 Closer Valuation	4.78	1.42	.235**	.322**	.398**	.435**	1	
6 Social Valuation	5.29	0.98	-.122	-.165*	.110	-.010	.006	1

N=217 ** $p < .01$, * $p < .05$ (two-tailed).

Table 8 shows that all constructs all the TPB constructs are significantly correlated ($p < 0.01$), with attitude correlating highest with intention. However, closer valuation is strongly correlated to intention ($B = .235$ $p < .001$), and is also strongly correlated to the other TPB motivational variables. On the other hand, social valuation is not correlated to intention ($B = -.122$ $p = 0.063$) and is only correlated with subjective norms ($B = -.165$ $p = 0.019$) of the three motivational variables. Since the three motivational factors are highly correlated, a step wise entry method was adopted to counter any multicollinearity effects.

Table 9: Close valuation- intention with attitude, subjective norm and pbc as mediator.

<i>Close valuation</i>	df	F	p	R ²	β
<i>Attitude as covariate</i>					
Eq1 CV -ATT		29.4	.000	.158	.398**
Eq2 CV-INT	1	9.14	.003	.055	.235**
Eq3 ATT- INT (Step 1)	1	105.5	.000	.393	.627*
Eq3 CV –ATT-INT (Step 2)	2	53.4	.000	.406	.646**
<i>Subjective norm as covariate</i>					
Eq1 CV- SN	1	18.1	.000	.104	.322**
Eq2 CV- INT	1	9.147	.003	.055	.235**
Eq3 SN -INT (Step 1)	1	74.16	.000	.313	.559**
Eq3 CV –SN-INT (Step 2)	2	38.8	.000	.309	.532**
<i>Perceived Behavioral control as covariate</i>					
Eq1 CV - PBC	1	36.6	.000	.189	.435**
Eq2 CV- INT	1	9.147	.003	.055	.235**
Eq3 PBC- INT (Step 1)	1	74.42	.000	.304	.551**
Eq3 CV-PBC -INT (Step 2)	2	34.28	.000	.305	.556**

N=217 $p < 0.05$ * $p < .01$ ** $p < 0.001$ ***

ATT=Attitude, SN=Subjective norm, PBC= Perceived behavioral control, INT=Intention

Table 10: Social valuation - intention with attitude, subjective norm and pbc as mediator

Social valuation	df	F	p	R ²	β
<i>Attitude as covariate</i>					
Eq1 SV -ATT	1	1.908	.169	.012	-.110
Eq2 SV-INT	1	2.36	.126	.015	-.122
Eq3 ATT -INT (Step 1)	1	105.5	.000	.393	.627*
Eq4 SV -ATT -INT (Step2)	2	53.84	.000	.408	.631**
<i>Subjective norm as covariate</i>					
Eq1 SV - SN	1	4.38	.038	.027	-.165*
Eq2 SV- INT	1	2.36	.126	.015	-.122
Eq 3 SN- INT (Step1)	1	74.6	.000	.313	.559**
Eq 4 SV -SN -INT (Step 2)	2	34.5	.000	.306	.547**
<i>Perceived behavioral control as covariate</i>					
Eq1 SV - PBC	1	.015	.903	.000	-.010
Eq2 SV- INT	1	2.36	.126	.015	-.122
Eq 3 PBC -INT (Step 1)	1	71.04	.000	.304	.551**
Eq 4 SV – PBC-INT (Step 2)	2	36.15	.000	.319	.551**

N=217 p<0.05* p<.01 ** p<0.001***

ATT=Attitude, SN=Subjective norm, PBC= Perceived behavioral control, INT=Intention

Table: 11 Mediation analyses with Medgraph.

Equation	UB	SE	SB	SC	p	Med
CV-ATT	.248	.082				
CV-ATT-INT	.655	.068	.646***	2.883	.0039	Full
CV-SN	.248	.082				
CV-SN-INT	.532	.070	.556***	2.810	.0049	Full
CV-PBC	.248	.082				
CV-PBC-INT	.593	.079	.556***	2.758	.0005	Full
SV-ATT	-.13	.087				
SV-ATT-INT	.637	.063	.631***	-.847	.3969	None
SV-SN	-.13	.087				
SV-SN-INT	.545	.067	.547***	-1.52	.0128	None
SV-PBC	-.13	.087				
SV-PBC-INT	.588	.070	.551***	-1.52	0.127	None

N=217 p<0.05* p<.01 ** p<0.001*** ATT=attitude, SN=Subjective norm, PBC= Perceived behavioral control
 UB=Unstandardized beta, SE= Standard error, SB = Standardized beta after mediation, SC= Sobel Z score
 P= p value, Med= Mediation

Table 12: Results summary:

Hypothesis	Result
H1	Supported
H2	Supported
H3	Supported
H3	Supported
H4	Supported
H5	Supported
H5a	Supported
H5b	Supported
H5c	Supported
H5d	Not supported
H6	Not supported
H6a	Not supported
H6b	Supported
H6c	Not supported
H6d	Not supported

Discussion:

This study contributes to the literature in a number of ways. First this study has established that the EIQ is a robust instrument that can be used to predict intention in emerging market contexts. Where as Linan and Chen (2009) call for a refinement of the measures of subjective norm, this study finds them quite adequate. However, the items used to measure the contextual items need some refining since the alpha levels are below the recommended cut of 0.7 (Nunnally and Bernstein (1994), particularly the measures of social valuation seem narrow in content. Second, the findings of the exploratory factor analysis confirm the fact that there are some negative attitudes towards entrepreneurship in Uganda, consistent with the content analysis and the assertions in the GEM (2004).

Third the findings confirm the robustness of the theory of planned behavior in predicting intention, similar to many other studies in developed country contexts (Krueger et al 2000, Wu and Wu 2008, Linan *et al.* 2009). However, attitude is found to be the best predictor of student intention to start up in line with Schwarz *et al.* (2009), followed by subjective norms and perceived behavioral control in that order. Thus subjective norm is a predictor of intention in a collectivist setting, just as established earlier by researchers like Kolvereid (1996) and Wu and Wu (.2008). Subjective norms should be important given that culturally, embeddedness, hierarchy and mastery underline the value system in the African setting (Munene *et al.* 2000), at the expense of autonomy and egalitarianism i.e. Africans emphasize the role of a person as a group member, who derives meaning from shared ideas, practices and fate (embeddedness). According to some researchers, when embeddedness is maintained in the context of a market economy, it seriously interferes with productivity. Hence where parents and significant others

view entrepreneurship negatively, the graduate is not likely to start up. Most of the parents of the students have some good level of education, and it is hoped that they can influence their children positively about start up, since 94.6% of the respondents state that they have ever thought seriously about becoming an entrepreneur.

Fourth, the findings on the contextual factors yield interesting findings. Theoretically the findings show that close valuation is fully mediated by attitude, subjective norm and perceived behavioral control, whereas social valuation is not. Further, the findings indicate that close valuation has a direct influence on intention ($F 9.147, p < 0.05$), while social valuation does not have a direct relationship to intention ($F 2.36, p > 0.05$).

Using structural equation modeling, Linan *et al.* (2009) also found close valuation to have a direct relationship with intention in their study, and attributed it to possible mediation effects. This study has identified these mediation effects. Where as this finding is contrary to theory, it is possible in a collectivist setting, because the influence of significant others is paramount. For example the parent may even extend financial support to their children in order for them to start up.

Social valuation (and the emergent bridging ties that come with it) shapes the development of ability perceptions toward entrepreneurship (Thomas and Muller 2000). That SV is not directly related to intention is consistent with the theory of planned behavior. As Byabashaija (2009 :) notes, "Networks in themselves do not create a business. This only happens when the relationships enable the nascent entrepreneur to execute starts up activities." However, this study finds that social valuation only influences intention through subjective norm and not the other two variables. Again this can be explained by the cultural background in Ugandan society where people are told to ignore what others outside the family say, and do what you and your family think is correct.

Fifth, another major finding is that close valuation in this sample is relatively positive; while social valuation is relatively negative (Table 3). This finding is in consonance with the assertions in the GEM (2004), and tallies up with the content analysis. Further, close valuation exerts a stronger influence over the motivational antecedents than social valuation. These findings are similar to those by Linan *et al.* (2009) who did a comparative study in which they found that social valuation of entrepreneurship was higher in the more developed Catalonia region particularly through subjective norms, while close valuation of entrepreneurship was higher in the less developed Andalusia region. They also established that social valuation of entrepreneurship is negative in the Andalusia region. This means that the positive influence is not general, but only lies within the closer environment. In other words support for the start up decision is within the closer environment and probably not in the general population. Thus the less developed Andalusia region and the developing nation of Uganda yield similar results in the way they evaluate entrepreneurship. As, Vaillant and Lafuente (2007), note there is need for promoting a more positive entrepreneurial culture and values in less developed regions . This negative evaluation of entrepreneurship may be one of the reasons why many students do not attempt to start up after graduation. Society still values and respects those who get a job with government or the multinationals. A graduate who sets up a small business may be viewed as one who has failed to make it. Further, the Ugandan business environment is not in favour of a

young person who wants to start up, given the difficulty of raising funds plus the negative business environment (Were 2009).

Practical Implications

There is need for the government in Uganda to send positive signals to the populace about entrepreneurship. A number of steps can be taken in this direction. The business environment can be improved to make Uganda a favourable country for doing business. The legal environment and other regulations that discourage would be entrepreneurs should be improved. There is need to inform the citizenry that white collar jobs are very few, given the number of job applicants, hence entrepreneurship is the way to go. They should know that it is a respectable career for their children to take up. In this regard entrepreneurial role models visiting schools and Universities would be of great help. Government should set up programmes to signal graduates into entrepreneurship. Universities should extend entrepreneurship courses to non business students since this would have a big impact on their attitude and self efficacy.

Theoretical implications:

This paper has established that subjective norm is a relevant predictor of intention in collectivist societies, and reinforced the importance of the contextual factors in graduate start up.

Conclusion

The study went out to investigate the contextual factors that may be influencing graduate start up in Uganda, using the newly created EIQ. The study has established that this is a robust instrument with good psychometric properties, and that all three antecedents of the TPB can predict intention using this instrument. Further, the study has established that there are negative attitudes towards entrepreneurship in Ugandan society, and that close valuation directly influences intention, where as social valuation does not, except through subjective norm. Entrepreneurship is mainly evaluated positively in the closer environment, while it is evaluated negatively in the social environment. In order to generate more graduate start ups, there is need to sending more favourable messages about entrepreneurship.

Limitations of the Study:

The study utilized a small convenient sample from one institution. Second no regional comparisons were possible. The measures of social valuation used in the EIQ are rather limited in scope. In spite of these limitations, it is hoped that the paper provides a platform from which further diagnosis in this study area can be done.

Directions for future research:

Other researchers in emerging markets should attempt to validate and use the EIQ, so that we can amass a large volume of studies that are comparable. There is also need to carry out more rigorous studies to examine the relationship between close valuation of entrepreneurship and intention, to throw more light about the mediation effects established in this study in other emerging markets in sub Saharan Africa.

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