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# Developing attitudes and intentions among potential entrepreneurs

304

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## Abstract

**Purpose** – The purpose of this paper is to explore the attitudes and intentions of individuals towards entrepreneurship with the support of theory of planned behaviour (TPB). This research may contribute to the growing body of knowledge that has begun to explore attitudes and intentions of individuals for self-employment in a developing country.

**Design/methodology/approach** – This is an initial part of a longitudinal study in which survey instrument has been adapted for data collection. A random sampling was applied to the students of public and private higher educational institutions of a developing country. For data analysis, Statistical Package for Social Science 20 versions for Windows were used to test the hypotheses through descriptive, Pearson's correlations and multiple regression analysis techniques.

**Findings** – Results of the study showed that all variables are reliable and valid. However, internal consistency among the variables has been found. By using Pearson's correlations, entrepreneurship intention was found to be significantly and positively correlated to attitudes towards entrepreneurship. A high correlation was found between entrepreneurship intentions and attitudes towards behaviour and low correlation was between innovation and attitudes towards behaviour. However, all independent variables were found positively and significantly related to dependent variable except personal control.

**Research limitations/implications** – This study possess limitations such as only quantitative data were obtained for educational institutions. Second limitation is collecting data from small number of samples. Third limitation is use of few variables with direct relationship approach. This study may support the management and practitioners of human resources management and organisational behaviour in assessing and evaluating employee attitudes and behaviours in the organisation.

**Originality/value** – Based on real facts, this study provides empirical considerable evidence of individuals' attitudes and intentions towards the entrepreneurship. Results indicate that that TPB theory factors such as attitudes towards the behaviour, subjective norms and perceived behavioural control and personal and social attitudinal characteristic like achievement, self-esteem, and innovation are important for the development of entrepreneurial attitudes and intentions

**Keywords** Theory of planned behaviour, Intention, Entrepreneurship attitudes, Psychological factors

**Paper type** Research paper

## 1. Introduction

Today, entrepreneurship has the centre role in developed and developing economies because of facing big challenges of globalisation, social development, competition and economic downturn. Entrepreneurship has a great force for economic growth, recovery and societal progress in turn of employment, social empowerment and innovation. Being an economic and socio economic agent, most commonly, entrepreneurship provides individuals remarkable distinction with the freedom to pursue their own goals, dreams and desires in new firm creation (Fauchart and Gruber, 2011). Creation of



new businesses can play important role in terms of generating employment, income and new markets. Thus, it is belief that entrepreneurship is a great activity for economic mobility, innovation, new jobs creation, grow and diversify small business sectors. To this extent, concept of entrepreneurship has been underlying many common aspects such as opportunity identification, risk-taking and newness. According to Anderson and Bushman (2002) that entrepreneurship employs the process of carrying out new groupings of enterprise and the individuals who perform this task is known as the entrepreneurs. The individuals who perform innovative thinking for introducing self-job are known as the entrepreneurs. Performing economic and socio economic agent role, entrepreneurs have been recognised as a leader who are made not born and can be learnt and taught through education and training programs (Henderson and Robertson, 2000; Souitaris *et al.*, 2007). They need to know the process and sustainability of entrepreneurship through systematic development and planned efforts (Gorman *et al.*, 1997; Sethi, 2006). In the literature main characteristics of potential entrepreneurs have been centred such that knowledge, skills and attitudes (Garavan and O'Connell, 1994). These factors can be fulfilled by entrepreneurial education programs. To this extent, large research evidences have been found that entrepreneurs can be taught and entrepreneurship education programs have positive influence to encourage favourable attitudes towards entrepreneurship (Anderson and Jack, 2008; Athayde, 2009). Entrepreneurial attitudes predict entrepreneurship intentions which lead to individual behaviour. To this vein, education for entrepreneurship place importance in their development and foster mindset and skills of an individual to embrace entrepreneurship (Formica, 2002; Li, 2006). Literature witnessed that entrepreneurship education support to develop attitudes and behaviour in self-employment promotion, formation of new business and interest in starting up a business (Sergeant and Crawford, 2001; Keogh and Galloway, 2004). In this regard large stream of research is available with different models such that Theory of planned behaviour (TPB), theory of reasoned actions, entrepreneurship teaching programs (Fishbein and Ajzen, 1975; Ajzen, 2002). Apart of educational insight other factors like individual's social context, personal and environmental have positive influence to develop attitudinal behaviour (Robinson *et al.*, 1991; Luthje and Franke, 2003; Alain *et al.*, 2006). Over the past few decades, large insights have been found through these factors but so far little research has been found to assess the entrepreneurial attitudes and behaviour through psychological and behavioural approach. Researchers like Robinson *et al.* (1991) pointed out that attitude are a better approach for the entrepreneurs than personality characteristics. In a study Buang and Yusof (2006) found that education, business family background and other psychological factors are not supporting to choose to become entrepreneurs. Recently, Ferreira *et al.* (2012) combined both psychological and behavioural factors to examine the individuals' attitudes and intention through the entrepreneurship education programme. Applying psychological and behavioural approaches more insights have been paid to entrepreneurial intention and there is need to investigate personal variables along with TPB theory in order to investigate the influence on entrepreneurial intention. According to Rosenberg (1960) that attitude with regard to entrepreneurship can be influenced by thoughts, feelings and behavioural intentions. This raises the need of investigating personal and environmental factors related attitudes such as innovation, achievement, self-esteem and personal control. This study proposes aim to investigate the individuals' attitudes and intentions towards entrepreneurship through TPB and personal and environmental factors.

## 2. Literature review

Significant numbers of people are living in intolerable circumstances such as unemployment, poverty, low level of business and low income due to the reasons like over population, illiteracy, diseases, economic downturn and social backwardness. In view of that situation, entrepreneurship is considering as a means for economic development through creation of new businesses, jobs, make stronger competition and even increase productivity through technological changes (Hindle and Rushworth, 2000; Kuip and Verheul, 2004; Fitzsimmons and Douglas, 2005; Gibb and Hannon, 2006; Mohar *et al.*, 2007; Johansen *et al.*, 2012). Literature reveals entrepreneurship as a socioeconomic agent, a state of mind of business economy, final stage of economic activity, generator of employment opportunities, multiple other economic benefits, practice of starting new organisations, particularly new businesses in order to utilise opportunities, have an intuitive ability, instincts, unique values, shares, attitudes and skills (Cunningham and Lischeron, 1991; Mort *et al.*, 2003; Mohar *et al.*, 2007; Acs and Megyesi, 2009; Azhar *et al.*, 2010; Johansen *et al.*, 2012). The impact of entrepreneurship is always seen in positive in the economy.

The dominant focus of entrepreneurship is to provide individuals remarkable distinction with the freedom to pursue their own goals, dreams and desires. Being an economic growth agent, researchers require possessing the ability and capability of potential entrepreneurs. From this stream, many researchers believe that problem solving and leadership in entrepreneurship can be learnt and taught through education and training programs (Gorman *et al.*, 1997; Henderson and Robertson, 2000; Solesvik *et al.*, 2012). There is a strong support that the education for entrepreneurship place importance in their development and increase foster mindset and skills of an individual to embrace entrepreneurship (Formica, 2002; Li, 2006). According to Reynolds *et al.* (1999, p. 26) that appropriate education and training programs in entrepreneurship are expected to increase the number of people becoming entrepreneurs because the better educated the population the higher the level of entrepreneurial activity. In this connection, many studies have been reviewed like Kennedy *et al.* (2003), Souitaris *et al.* (2007), Izquierdo and Buelens (2008), Coduras *et al.* (2008) and Ali *et al.* (2011). In view of the large number of previous research, entrepreneurship education can have an effect on entrepreneurial intentions which can be developed through attitudes. Furthermore, these researchers assume that individual attitudes and intentions indicate future acceptance for entrepreneurship as a profession and also many respondents preferred the entrepreneurial option for earning more money. However, from the literature many factors such that subjective norm, attitudes to ownership, income, independence, risk, work effort, perceived behavioural control, inspiration, entrepreneurship education, universities support, earning more money, creativity and be his or her own boss factors have positive effect on developing entrepreneurial attitudes and intention (Cunningham and Lischeron, 1991; Mort *et al.*, 2003; Mohar *et al.*, 2007; Acs and Megyesi, 2009; Azhar *et al.*, 2010; Johansen *et al.*, 2012). However, majority of researchers used behaviour theory (TPB) to assess the attitudes and behaviour of potential entrepreneurship through targeted entrepreneurship education programs.

Literature witnessed that without entrepreneurship activities economy cannot be developed (Johansen *et al.*, 2012; Mohar *et al.*, 2007) because it brings prosperity and economic growth (Hindle and Rushworth, 2000), job creation (Kuip and Verheul, 2004), income, ownership and work effort (Fitzsimmons and Douglas, 2005). From this perspective, entrepreneurship generates growth, serves as a vehicle for innovation. The idea is that how entrepreneurship attitudes and intention can be developed which is actually related with the mindset of individuals. Researchers supported theories like

entrepreneurship, network, and cognitive science theories together (Klapper and Tegtmeier, 2010). According to Izquierdo and Buelens (2008) entrepreneurship education can have an effect of entrepreneurial intentions and attitudes have a stronger relationship with intentions. This was also supported by Coduras *et al.* (2008) that entrepreneurial intention is related with universities support, showing the improvement of the influence of high education in entrepreneurship. Peltier and Scovotti (2010) drawn results that students desire to be entrepreneur and feel strongly about entrepreneurial education. Further, they concluded that exposure to entrepreneurial marketing tools, experiential learning activities and networking opportunities were deemed to be especially important. Another study conducted by Souitaris *et al.* (2007) based on TPB theory investigated the effects of entrepreneurship programs on the entrepreneurial intentions and attitudes. Researchers found that the entrepreneurial education programs raise some attitudes and the overall intention and that inspiration. Additionally, Nabi *et al.* (2010) inferred results that a substantial minority of students consistently hold relatively strong start-up intentions. A study conducted by Solesvik *et al.* (2012) and found positive relationships with entrepreneurial intention through TPB factors such that personal attitude, subjective norms, and perceived behavioural control. Continuing this journey Ferreira *et al.* (2012) found positive effect of personal attitude on entrepreneurial intention. In a recent study Block *et al.* (2013) confirmed the positive effect of education on the decision to become self-employed.

In conclusion, large amount of literature is available and many researchers focused on the relationship of development of individuals' attitudes and intentions through entrepreneurial education programs. However, there is still lack of empirical evidence to measure the relationship between growth in entrepreneurship and personal and environmental factors through education amongst university students (Peterman and Kennedy, 2003; Mentoor and Friedrich, 2007; Ferreira *et al.*, 2012). To assess the extent of entrepreneurial education, little is known about the attitudes and intentions of entrepreneurs towards entrepreneurship. Keeping in view of this concept, this research was carried out in a developing country. The significance of this study is that it was empirically examined the link between individuals' attitudes and their intentions through TPB and personal and environmental factors. The importance of this work represents a significant departure from previous work.

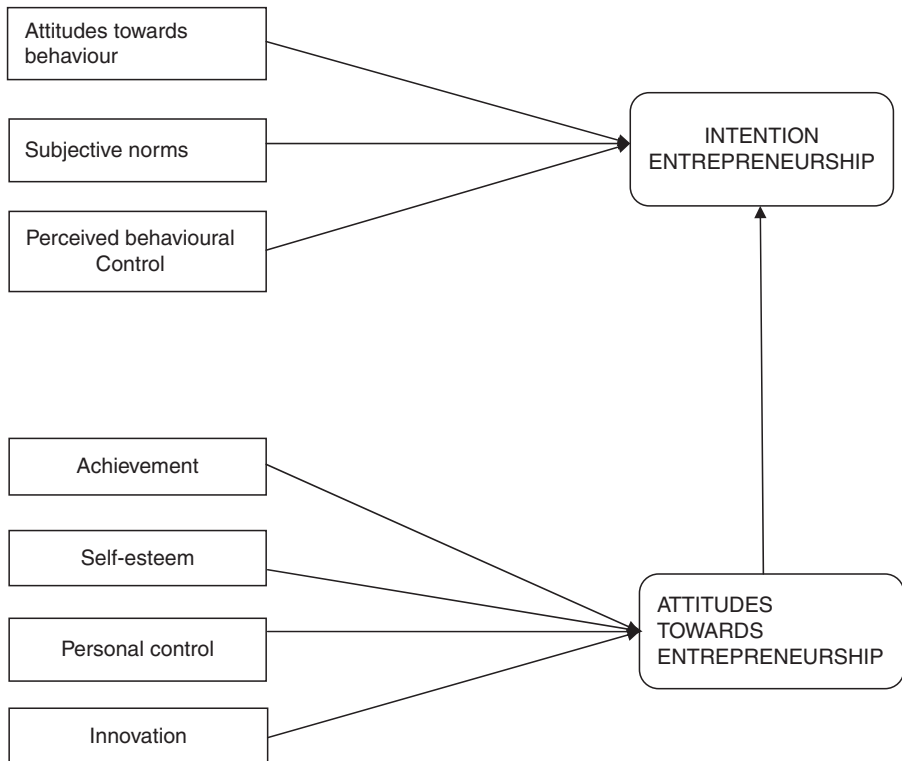
### 3. Conceptual framework

Developing attitudes and intentions towards the entrepreneurship is one of the important issues which have been defined as the extent to which people think about the good opportunities for starting a business. The idea regarding the start up a business is intentional and is best predicted by attitudes. To this extent, attitudes development is based on the attitudes towards the behaviour, subjective norms and perceived behavioural control (Souitaris *et al.*, 2007). However, individual intentions are effective in predicting planned behaviour and with the support of TPB behavioural intention is predicted by attitudinal factors. Different researchers tested the intentions model through targeted entrepreneurship education programs and found positive and significant effects (Kennedy *et al.*, 2003; Fitzsimmons and Douglas, 2005; Linan and Chen, 2006; Izquierdo and Buelens, 2008; Coduras *et al.*, 2008).

Apart of that, attitudes exist in personal and environmental factors which are interconnected with each other. For example attitude of family members with the business can be closely related to the attitude towards business in general. This degree of affiliation in an individual consideration has been found rarely. To this extent,

researchers pointed out several personal variables which have identical characteristics like need for achievement, propensity to take risk, locus of control, self-esteem, innovation and tolerance of ambiguity. These objects are known as personalist theory which is related with humanistic psychology. In literature these characteristics of individual are associated with entrepreneurship but researchers have distinct results like Robinson *et al.* (1991) and Ferreira *et al.* (2012) found self-confidence positively and significantly related with entrepreneurs. Wiklund (1999) revealed no relationship between need for achievement and entrepreneur behaviour. According to Ferreira *et al.* (2012) that personal attitude has positive effect on entrepreneurial intention. Moreover, Hamidi *et al.* (2008) showed strong influence of innovativeness on entrepreneurial intention.

Indeed, intention predicts behaviour and attitude predict intention. To assess the extent of attitude, intention and behaviour, the researcher attempts to link the development of these attributes to entrepreneurship education. Developing entrepreneurial behaviour and intention through the education are related to fostering of relevant mind-set and skills to enhance the self-efficacy and effectiveness of the potential entrepreneurs. A wide variety of factors have been considered for this issue and to date, research based on behavioural and psychological approaches in the context of developing individuals entrepreneurial intentions is very limited. We support to basis of Ajzen's (1991) TPB theory and perceptions of participants regarding personal and social desirability. Following to intention model of Ajzen (1991) and environmental characteristics of Robinson *et al.* (1991) this study has been conceptualised in following figure to investigate the individual attitudes and intention towards entrepreneurship (see Figure 1). Researchers has proposed



**Figure 1.**  
Proposed conceptual model

entrepreneurship intention directly with the support of factors such as attitudes towards the behaviour, subjective norms and perceived behavioural control and through the personal and social attitudinal characteristic like achievement, self-esteem, personal control and innovation. Measuring intentions of individuals for entrepreneurship need to investigate both approaches like behavioural and psychological.

Entrepreneurial intention is defined by Ajzen (1991, p. 181) as “intention are assumed to capture the motivational factors that influence a behaviour; they are indication of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour”. This concept of intention contends the individual’s will or effort to do something in a particular manner. A large amount of literature reveals that intention can be predicted through attitudes and assessing the extent of attitudes through attitudes towards the behaviour, subjective norms and perceived behavioural control factors. These three factors are largely presented in TPB theory which is related to the personal behaviour and its role has been quiet strongly found with the entrepreneurial intention (Nabi *et al.*, 2010; Krueger *et al.*, 2000; Ferreira *et al.*, 2012). Based on attitudes towards behaviour factor, researchers of this study measure the individual’s likes, dislikes, beliefs and opinions regarding a particular behaviour such that entrepreneurial intention. In the relevant literature, Ajzen (1991) produced the idea that attitude towards behaviour is the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. Applying this factor, behaviour of individuals’ desirability towards self-employment or organisational employment can be measure. In this literature many researchers used this factor and found that the greater a person’s attitude towards behaviour, the stronger relationships of individual’s to become self-employed (Kolvereid, 1996b; Fayolle, 2005; Kickul *et al.*, 2008).

Second behavioural factor is subjective norm which represent a person’s perception of important others’ (family, friends, teachers, experts) beliefs that he or she should or should not perform the behaviour. This factor is existed to people’s opinion regarding the subject and Ajzen (1991) given ideas that individual’s perceived social pressures to perform or not to perform the behaviour. Krueger *et al.* (2000) have pointed out that subjective norm is perceptions of what important people in respondents’ lives think about them becoming self-employed. Finally, perceived behavioural control factor reflects the individual’s perceived ability to become self-employed (Kolvereid, 1996a). This concept represents an individual’s perceived ease or difficulty of performing a particular behaviour. However, in TPB theory it is considered to show the increase of perceived behavioural control through the perception of opportunity. Literature witnessed with mixed responses like Kolvereid (1996a), Souitaris *et al.* (2007) and Ferreira *et al.* (2012) confirmed the relationship between attitudes (attitude towards self-employment, subjective norm and perceived behavioural control) and intention towards self-employment and Krueger *et al.* (2000) found no relationship between subjective norm and intention. Based on the TPB theory, researchers proposed following hypotheses:

- H1. Attitudes towards the behaviour has significant and positive relationship with intention towards entrepreneurship.
- H2. Subjective norms have a significant and positive relationship with intention towards entrepreneurship.
- H3. Perceived behavioural control has a significant and positive relationship with intention towards entrepreneurship.

Apart of behavioural approaches, psychological approach may have influence to create a business. Psychological behaviours support to show the aggregating different

behaviours in any different situation. In the literature Mitton (1989), Koh (1996) and Krauss and Frese (2005) described that psychological traits are best predictors of entrepreneurial intentions. According to Mitton (1989) that individuals' commitment to the work, liking for challenge and uncertainty and need for control factors have positive relationship with the psychological characteristics. Robinson *et al.* (1991) found four important factors such that need for achievement, locus of control, innovation and self-confidence for individuals' entrepreneurial attitudes. These researchers indicated that individuals' internal control can lead to positive entrepreneurial attitudes. Recently, empirical study of Ferreira *et al.* (2012) provide further evidence that need achievement, self-confidence and personal attitudes have positive impact on entrepreneurial intention. Early research witnessed is indeed valuable and can be seen positive association of psychological characteristics with entrepreneurship (Kennedy *et al.*, 2003; Li, 2006; Florin *et al.*, 2007).

There is increasing interest in individuals' personal characteristics like need for achievement, innovation, perceived control and self-esteem. In the psychological literature personal characteristics is related with personalist theory for the development of individual to acknowledge the differences and individual needs. The idea that entrepreneurship education is for the development of individual skills needed to assess business opportunities. In general main psychological characteristics are need for achievement which refers to concrete results related with the startup and growth of business, innovation which is related with new techniques to act upon business activities, perceived control is concerned with the individual's perception of control over the business and finally, self-esteem is pertained to the self-confidence and competency of an individual for business affairs. Reflecting to entrepreneurial behaviour, investigating these factors may be support to field experts to improve the targeted entrepreneurial education. There is claim for the factors that support to developing individual's attitudes and intentions is essential for promoting to new business and researchers proposed additional insights for the issue. With the support of literature, we propose that psychological factors like need for achievement, self-esteem, personal control and innovation can significantly increase the likelihood of students' attitudes and that attitudes can support to entrepreneurial intentions. We proposed the following hypotheses:

- H4.* Achievement has a significant and positive relationship with attitudes towards the entrepreneurship.
- H5.* Self-esteem has a significant and positive relationship with attitudes towards the entrepreneurship.
- H6.* Personal control has a significant and positive relationship with attitudes towards the entrepreneurship.
- H7.* Innovation has a significant and positive relationship with attitudes towards the entrepreneurship.
- H8.* Attitude has a significant and positive relationship with the intention towards.

#### 4. Research methodology

This is a longitudinal study and researchers proposed to adapt a survey questionnaire for data collection from sample of business, economics and engineering students of public and private higher educational institutions of a developing country. This piece of research is based on data that were collected at the beginning of the study to



examine the participants' attitudes and intentions. However, in this domain well known research scholars applied quantitative methods like Coduras *et al.* (2008), Madhoushi *et al.* (2011), Suomalainen (2010) and Ali *et al.* (2011). However, this study is based on a pilot study where researchers were interested to confirm the reliability and validity of survey instrument and measure the relationship of variables. In this regard researchers proposed different steps for research methodology (see Figure 2).

#### 4.1 Population, sample and procedure

Researcher has proposed population of the study from public and private sector universities of a developing country where entrepreneurship courses have been offered to the student at bachelor and master degree level. For this study, researchers proposed to select 200 sample sizes from the higher educational institutions. By applying strata random sampling, researchers divided the samples into subjects such that business, economics and engineering and selected four universities using simple random sampling. A packet of survey consisted on questionnaire, letter from supervisor, covering letter mentioning the purpose of the study, and instructions on how to complete the survey instrument. Researchers handed over a packet of survey questionnaire direct to the participant by personal visit and through mail/e-mail services. Before distributing the questionnaire, participants were contacted to determine their willingness to take part in the study. Participation was volunteer basis and it was also informed that at any time participant can withdraw. The survey instrument was administered in English language.

#### 4.2 Measurements scales

The survey instrument was developed on the basis of what kind of information required. Researcher adapted question items of entrepreneurship which is already developed by the field researchers. For all items, five point Likert scale (such that agree, strongly agree, neutral, disagree and strongly disagree) was used.



**Figure 2.**  
Research  
methodology

*Attitudes towards behaviour.* Attitudes towards behaviour represent an individual's likes, dislikes, beliefs and opinions regarding a particular behaviour. This scale was developed by Ajzen (1991) and used by Cameron *et al.* (2012) and Robinson *et al.* (1991).

*Subjective norms.* Subjective represent a person's perception of important others' (family, friends, teachers, experts) beliefs that he or she should or should not perform the behaviour. Subjective norms measured on five items with five point developed by Ajzen (1991) used in intention model and used by Cameron *et al.* (2012).

*Perceived behavioural control.* Perceived behaviour control represents an individual's perceived ease or difficulty of performing a particular behaviour. This scale would be measured on five items with five point Likert scales developed by Ajzen (1991) used in intention model and used by Cameron *et al.* (2012).

*Achievement.* Achievement would be measured on 20 items with five-point Likert scale as measured by Robinson *et al.* (1991). Same pattern of measurement was used by McClelland *et al.* (1953) and McClelland (1961).

*Self-esteem.* Measurement of self-esteem consists on 14 items with five-point Likert scale as measured by Robinson *et al.* (1991). Crandall (1973) is already used this technique of measurement of self-esteem.

*Personal control.* Personal control measured on 12 items with five-point Likert scale as measured by Robinson *et al.* (1991).

*Innovation.* Innovation is measured on 25 items with five-point Likert scale as measured by Robinson *et al.* (1991). This measured was also applied by Kirton (1976).

*Entrepreneurship intention.* Intention represents an indication of an individual's readiness to perform a given behaviour. This item would be measured on five items with five point Likert scale developed by Ajzen (1991) and used by Cameron *et al.* (2012).

*Attitudes towards entrepreneurship.* Attitudes towards behaviour represent an individual's likes, dislikes, beliefs and opinions regarding a particular behaviour. Measured on five items with five point Likert scale developed by Ajzen (1991) and used by Cameron *et al.* (2012) and Robinson *et al.* (1991)

#### 4.3 Data analysis

Researchers applied Statistical Package for Social Science for data analysis. For quantitative analysis, researcher used descriptive statistics, Cronbach's  $\alpha$  reliability and Pearson's correlation. First, the authors checked missing data and no major problems were evident. Second, descriptive statistics (i.e. means; standard deviations) were calculated in order to provide basic information. Third, the strength of the Cronbach's  $\alpha$  reliability of the variables was examined. Fourth, the relationship between the constructs was calculated through the Pearson's correlation (Gall *et al.*, 2003). Finally, hypotheses were tested through multiple regression analysis.

## 5. Results

### 5.1 Sampling

Of the 200 survey questionnaires distributed among the students from different public and private higher educational institutions, 135 were returned, showing a response rate of 67.5 per cent. Out of them six surveys were incomplete and excluded from the final analysis. Demographic details (Table I) show that 69 per cent ( $n = 89$ ) participants and majority were male and ( $n = 84$ ) were below 84. The majority of the participants were single and a substantial number ( $n = 116$ ) had no dependents. Demographic data showed that respondents about 59 per cent ( $n = 76$ ) had just completed intermediate

education. The majority of respondents ( $n = 86$ ) had no prior job experience and most of them (91 per cent,  $n = 117$ ) had no any training on entrepreneurship.

Descriptive statistics and reliability among the variables can be shown in Table II. In this study, overall, participants' intentions towards entrepreneurship were high with a statistical mean ( $M$ ) of  $4.01 \pm 0.91$  on a five Likert scale of strongly disagree (1) to strongly agree (5). The participants attitudes towards the entrepreneurship was found ( $M = 4.51 \pm 1.05$ ). Majority of the mean scores of participants for the variables were above than 3.21 on a five point Likert scale of strongly disagree (1) to strongly agree (5).

Reliability of the survey was measured through Cronbach's  $\alpha$  and overall reliability was found 0.92 which showed higher internal consistency among the scales. However, reliability of individual scales was different from range of 0.75 to 0.91 (Table II). After confirming the survey items reliability, researchers calculated correlations among the variables used for the study. By using Pearson's correlations analysis, a significant correlations between the scales were determined at two levels, i.e.  $p = 0.05$  and  $p = 0.01$  (Table III). In this study,

Demographic	Category	Frequencies ( $n$ )
Gender	Male	89
	Female	40
Age	< 21	84
	21-30	45
Marital status	Single	117
	Married	12
Highest educational level	Intermediate	76
	Bachelor	44
	Master	9
Number of dependents	1-2	7
	3-4	4
	None	116
Job experience previously	< 1 year	25
	1-5 years	18
	None	86
Course type	Principles of entrepreneurship	102
	Management of SME's	27
Any training on entrepreneurship	None	117
	I have training	12

Note:  $n = 129$

**Table I.**  
Demographic  
characteristics of  
participants

	Variable	$M$	SD	$\alpha$
1	Entrepreneurship intentions	4.01	0.89	0.91
2	Attitudes towards entrepreneurship	4.51	1.05	0.89
3	Attitudes towards behaviour	3.85	0.85	0.84
4	Subjective norms	3.55	1.15	0.86
5	Perceived behavioural control	3.38	1.21	0.75
6	Achievement	4.21	1.91	0.86
7	Self-esteem	3.22	0.99	0.79
8	Personal control	3.21	0.94	0.90
9	Innovation	4.12	1.21	0.78

Notes:  $n = 129$ .  $M$ , median; SD, standard deviation;  $\alpha$ , Cronbach's  $\alpha$  reliability

**Table II.**  
Descriptive statistics  
and Cronbach's  $\alpha$   
reliability

**Table III.**  
Pearson's  
correlations

Variable	1	2	3	4	5	6	7	8	9
1 Entrepreneurship intentions	-								
2 Attitudes towards entrepreneurship	0.516**	-							
3 Attitudes towards behaviour	0.428**	0.464**	-						
4 Subjective norms	0.332**	0.573**	0.243**	-					
5 Perceived behavioural control	0.411**	0.243**	0.446**	0.327**	-				
6 Achievement	0.351**	0.342**	0.342**	0.271**	0.327**	-			
7 Self-esteem	0.281**	0.254**	0.152**	0.412**	0.342**	0.312**	-		
8 Personal control	0.543**	0.352**	0.234**	0.321**	0.322**	0.331**	0.412**	-	
9 Innovation	0.444**	0.264**	0.126**	0.213**	0.413**	0.214**	0.321**	0.212**	-

**Notes:** *n* = 129. \*\*, \*Correlations are significant at 0.01 and 0.05 levels, respectively (two-tailed)

independent variables like entrepreneurship intention was found to be significantly and positively correlated to attitudes towards entrepreneurship at the level of  $p < 0.01$ . A high correlation was found between entrepreneurship intentions and attitudes towards behaviour and low correlation was between innovation and attitudes towards behaviour. However, all variables were correlated each other at the significant level  $p < 0.01$ . However, no relationship was found to be  $> 0.516$ . Results of regression test were shown in Table IV. Researchers of this study used regression  $\beta$  and  $t$ -value for testing the proposed hypotheses at this stage. At the beginning of this study data revealed that attitudes towards the behaviour, subjective norms and perceived behavioural control has a significant and positive relationship with intention towards entrepreneurship.

The results showed that there is positive and significant effect of attitudes towards the behaviour ( $H1: \beta = 0.351; p < 0.01$ ), subjective norms ( $H2: \beta = 0.245; p < 0.01$ ) and perceived behavioural control ( $H3: \beta = 0.201; p < 0.01$ ) to the intentions. Overall, this model is accounted for the intention in  $R^2$  of 0.48. In second model, researcher used achievement, self-esteem, personal control, innovation variable as an independent and attitudes towards entrepreneurship as a dependent variable. Results of the study showed that there is positive and significant effect of achievement ( $H4: \beta = 0.465; p < 0.01$ ), self-esteem ( $H5: \beta = 0.311; p < 0.01$ ), personal control ( $H6: \beta = 0.052; ns$ ) and innovation ( $H7: \beta = 0.216; p < 0.01$ ) to the attitudes. Overall, this model is accounted for the attitude in  $R^2$  of 0.45. The final hypotheses were found positive and significant relationship between attitudes and intention towards the entrepreneurship ( $H8: \beta = 0.487; p < 0.01$ ). Overall, this model is accounted for the intention in  $R^2$  of 0.54.

### 6. Discussion and conclusion

The main focus of the study was to develop a conceptualisation regarding the attitudes and intentions of potential entrepreneurs through the entrepreneurship programs and test the reliability of data instrument. Today entrepreneurship is widely recognised field for economic and socio economic activities (Johansen *et al.*, 2012; Mohar *et al.*, 2007). The concept of entrepreneurship is practice of starting new organisations, particularly new businesses in order to utilise opportunities (Mort *et al.*, 2003) and also have innovative power of leadership who have an intuitive ability, instinct, unique values, shares, attitudes and skills (Cunningham and Lischeron, 1991). Entrepreneurship activity means final stage

Independent variables	Dependent variable intention std. $\beta$	Dependent variable attitude std. $\beta$	Dependent variable intention std. $\beta$
Attitudes towards the behaviour	0.351**		
Subjective norms	0.245**		
Perceived behavioural control	0.201**		
Achievement		0.465**	
Self-esteem		0.311**	
Personal control		0.052	
Innovation		0.216**	
Attitudes towards entrep.			0.487**
$F$ -value	48.431**	44.562**	54.325**
$R^2$	0.231	0.211	0.432
Adjusted $R^2$	0.212	0.202	0.392
Change in adjusted $R^2$	0.211	0.198	0.382

Notes: \* $p < 0.10$ ; \*\* $p < 0.05$

**Table IV.** Multiple regression analysis between TPB factors and entrepreneurship intention

of economic activity to generate job opportunities and multiple other economic benefits which brings prosperity and economic growth. However, the impact of entrepreneurship on education has been recognised as one of the fundamental factors that help youths to understand and foster an entrepreneurial attitude. Due to the influence that education could have impact on the attitudes and aspirations of youth, there is a need to understand how to develop and nurture potential entrepreneurs even while they are still students. The purpose of this study was to conceptualise a model that support to develop attitudes and intentions of individuals towards entrepreneurial behaviour. Researchers has developed a conceptual framework in which entrepreneurship intention has been connected with the variables such as attitudes towards the behaviour, subjective norms and perceived behavioural control and attitudes towards entrepreneurship depends upon achievement, self-esteem, personal control and innovation. In addition, developing attitudes through achievement, self-esteem, personal control and innovation may support of developing individual's intention. In this study, extensive literature has been reviewed to conceptualise the intention of entrepreneurship through the psychological and environmental factors.

This is a part of longitudinal study and researchers proposed to adapt a survey questionnaire for collecting objects from the students' sample of higher institutions of a developing country. Researchers adapted survey instrument based on what kind of information required and also adapted question items from variety of research like McClelland *et al.* (1953), McClelland (1961), Ajzen (1991), Robinson *et al.* (1991) and used by Cameron *et al.* (2012). The base of this study is longitudinal, however, at the beginning, instrument was tested to confirm the reliability and validity. To this extent different approaches were adapted and confirmed reliability of survey. However, validity of survey was confirmed through the field experts. Three field experts have been sent to questionnaire along with study proposal. Overall results of the instrument were found significant and reliable. However, the average time to complete the questionnaire was 19-50 minutes.

After calculating reliability and validity of adapted instrument, a significant correlations among the independent and dependent variables were found at two different levels. After confirming the survey reliability, researchers calculated correlations among the variables used for the study. In literature Pearson's correlations analysis is a significant way to find the correlations between the variables (Hair *et al.*, 2010) and in this study all variables were found positive correlated each other at the significant level  $p < 0.01$ . To assess the hypotheses, researchers applied multiple regression tests and inferred results in which all given hypotheses were accepted except one. In this study no relationship were found between personal control and attitudes towards the entrepreneurship. Results indicated that all three factors such that attitudes towards the behaviour, subjective norms and perceived behavioural control related to TPB model had positive and significant influence on intention towards the entrepreneurship. These findings were supported from the literature where majority of the empirical studies have positive and significant impact of TPB factors to entrepreneurial intention (Kolvereid, 1996b; Autio *et al.*, 2001; Souitaris *et al.*, 2007; Gird and Bagraim, 2008). This study confirms the TPB theory with the context of developing country where individuals can develop their intention for entrepreneurship through these factors. Apart of that researchers examined personal and environmental factors for developing individuals' attitudes towards entrepreneurship. Data showed that need for achievement, innovation and self-esteem variables have positive and significant impact on developing attitudes towards entrepreneurship. In the literature many researcher like Robinson *et al.* (1991) and Ferreira *et al.* (2012) examined these factors and found positive and significant

relationships. Results of our study at this stage support to the literature. However, this study found no relationship between personal control and attitudes towards entrepreneurship. In the literature positive responses have been found like Robinson *et al.* (1991) and Ferreira *et al.* (2012) indicated that individuals' internal control can lead to positive entrepreneurial attitudes. Mixed responses of results need to investigate more in longitudinal study and results may be changed in the context of research. Finally, the relationship between attitudes and intention towards entrepreneurship has been found positively and significantly. This result is supported by like Ajzen (1991), Kennedy *et al.* (2003), Souitaris *et al.* (2007) and Ali *et al.* (2011) in the literature.

This study may be recognised as one of the vital for the youths of a developing country to understand and foster an entrepreneurial because due to over population, technological advancement and saturation in government employment, individuals may develop their attitudes and behaviours towards entrepreneurship. The significance of this study is that before studying entrepreneurship courses students are intend to get job in private or governmental institution but after studying the courses of entrepreneurship their mind might be diverted towards starting their own business because it creates income as well as self-employment. This piece of research might inspire further research work to course developers for higher educational institutions and may also support to those students who can opt for new business after completion of their studies. Possibly developing countries can boost its economy through entrepreneurial promotion whereas university students if properly trained can play a leading role in the society. This study contributes to the literature of the domain in general and particular for developing countries. This study may be contributed to policy makers and domain researchers for developing a strong conceptualisation for further research.

## 7. Research implications and limitations

After extensive literature review, this study was conceptualised to examine the TPB theory factors and personal and environmental factors with individuals' attitudes and intentions. The significance of this study is that this study is based on previous work that has relied on theoretical arguments. In this study examining the TPB in order to development of entrepreneurial intention in a developing country was the primary contribution of this study. Another contribution is to test the model at the higher educational institutions level. A further contribution is that the results of this research represent an empirical attempt to complement existing conceptual and literature in the development of individuals' intentions towards entrepreneurship. This is may be the first study to test individuals' attitudes and intentions towards entrepreneurship in the developing country and testing in Asian country can provide more insights in to the extant literature. This study may support to the entrepreneurial approach in generating employment and solving economic problems.

This study possesses some limitations despite the encouraging and promising results. First limitation of this study is to conduct to graduate-level students. It may be possible that the people can develop positive attitudes and intention through experience and other factors. This study has covered limited number of factors and not addressed socially and culturally influenced factors. Therefore, in future these factors should be considered. From methodological limitations, this study is based on longitudinal study and here results are based on beginning level. Therefore, in full scale results may be changed. In this study, unique data sets because of selection of limited number of institutions. Furthermore, single-source data is another limitation and suggested in-depth interviews from the sample to confirm the results obtained from the quantitative sources.

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**Further reading**

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