

Mediating Role of Perceived Behavioral Control and Stakeholders' Support System on the Relationship Between Entrepreneurial Personal Skills and Entrepreneurial Intentions of IT Employees in Pakistan

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Abstract: The drive of this research is to examine the effectiveness of entrepreneurial skills in developing entrepreneurial intentions in the context of Pakistan. The self-administrative survey was conducted to assemble response through 387 usable questionnaires from IT professionals from Punjab through simple random sampling. The Punjab is one of the largest and highly populated province of Pakistan. The research design comprises of developing a hypothetical framework with entrepreneurial personal skills as independent variable, perceived behavioral control and stake holders' support as mediating variables to test the entrepreneurial intentions as dependent variable. The results of the tests for reliability and validity of the scales are assessed and presented. Finally, testing of the hypotheses using smartPLS 3.0 provide evidence of mediating role of perceived behavioral control and stakeholders' support system on the relationship between entrepreneurial personal skills and entrepreneurial intentions of IT professionals in Pakistan.

Key words: Entrepreneurial intentions, stakeholders' support system, entrepreneurial personal skills, variable, Pakistan

INTRODUCTION

The need of entrepreneurship has increased in today's competitive milieu. Entrepreneurship has anticipated a proactive approach to tackle the ever-changing business atmosphere of the 21st century, building sustainable development in the country, supporting the economic growth of countries, creating new job opportunities for young graduates and social well-being. Keeping in view the need, developed countries and under-developed countries have shifted their focus towards entrepreneurship. In the recent studies such as Obaji (2014) and Rante and Warokka (2013) have discussed the value and popularity of SMEs around the world account 90% of total companies and provided 80% job opportunities in major economies worldwide. Furthermore, SMEs has significantly contributed to the GDPs of the developing countries also played a significant role in the developed countries. European Commission in 2013 reported that 99% of the EU's business fall under the category of small enterprise, they contribute around half of the GDP and two third of private jobs created by these small businesses. According to bureau of statistics of US 2013, 2.5 million people were employed in the newly established small and medium business. As per small business enterprises council 2012, small businesses are contributing almost 45% of the GDP in US.

Entrepreneurship is a process by which individual enters the society's economic and social mainstream, supporting culture formation, population integration and social mobility (Hisrich *et al.*, 2007). It is a result of thinking process that has been widely recognized (Linan, 2008). Numerous studies have high lighted the composite nature of the decision to be self-employed. Research studies supported that the decision to start a new business contains a thinking process and comprises a careful planning that is favorably intentional (Bird, 1988; Krueger, 1993; Kolvereid, 1997; Lorz, 2011. All this requires certain skills, attitude and behavior and to recognize these specific qualities (Chell, 2013).

The capacity to come up with innovative approach and continue as an effective and capable way of formation of new business ventures or as an effective, efficient and innovative within a business enterprise are recognized in all areas. Skills are widely mentioned are leadership, technical, personal and managerial skills and have been reflected as key competences (Morales and Marquina, 2013). The skills are similarly imperative for all those individuals who want to be a self-employed and start a new business. Entrepreneurial skills are, however, also recognized as an important indicator of response change and uncertainty (Deuchar, 2007; Gibb, 1993). Several research scholars have been considered entrepreneurial

skills as an important contributor in the progression of entrepreneurship and entrepreneurial accomplishment (Driessen and Zwart, 1999; Giunipero *et al.*, 2005; Gibb, 1993; Gurol and Atsan, 2006; Kuratko and Hodgetts, 1998; Hisrich *et al.*, 2007; Oosterbeek *et al.*, 2010; Timmons, 1975; Zimmerer and Scarborough, 2008). Never the less, entrepreneurship research lacks agreement regarding the key skills for successful entrepreneur or what are the essential skills (Morales and Marquina, 2013).

Prior studies have addressed several aspects of entrepreneurial intentions includes the role of person's traits and competencies in the process of entrepreneurship (Katz and Gartner, 1988; Linan, 2008), the environmental factors impelling entrepreneurial judgement (Krueger, 1993) and the effect of entrepreneurial education on entrepreneurship intention (Chrisman, 1997; Fekri *et al.*, 2012; Linan, 2008; Lorz, 2011). Despite of Global Entrepreneurship Monitor studies, very little research has been focused on particular sets of entrepreneurial skills in different countries, considering the different cultural, social, technological and political factors.

Some of the ignored aspects of entrepreneurial intention studies are the outputs of entrepreneurship education and training programs and its implications in the shape of skills and its correlation with successful entrepreneurs. It seems to be imperative and worthy to explore entrepreneurial skills' effect on entrepreneurs' intentions in the Pakistani perspective which is a factor-driven economy. Moreover, preceding empirical research studies had primarily focused on determining intentions from students through the paradigms of planned behavior theory rather working professionals. However, it would also be important to mention that very little research has been done on probing entrepreneurial skills and its impact on entrepreneurial intentions (Linan *et al.*, 2010). Frequent studies have verified the factors affecting entrepreneurial intentions (Driessen and Zwart, 1999; Giunipero *et al.*, 2005; Gibb, 1993; Gurol and Atsan, 2006; Kuratko and Hodgell, 2001; Hisrich *et al.*, 2007; Oosterbeek *et al.*, 2010; Timmons, 1975; Zimmerer and Scarborough, 2008). Therefore, the literature and the conceptualizations on the theories, a theoretical and conceptual frame work was established to assess the effectiveness of entrepreneurial skills in developing entrepreneurial intentions.

Literature review: Entrepreneurship is a result of cognitive process that has been commonly accepted. Several studies have high lighted the multi faceted nature

of the decision to be a self-employed (Linan, 2008). The Theory of planned behavior has been widely used to describe the cognitive process of entrepreneurship (Lorz, 2011). Numerous research studies explored that the decision to be self-employed and start a business consists of thinking process and encompasses careful planning that is favorably intentional (Autio *et al.*, 2001; Bird, 1988; Krueger, 1993; Lorz, 2011; Tkachev and Kolvereid, 1999). Many studies has endorsed intentions as a strong predictor of behavior (Linan, 2008; Lorz, 2011) and logical "particularly when that behavior is rare, hard to observe or involves unpredictable time lags" (Souitaris *et al.*, 2007). Several studies confirmed that entrepreneurial intent as a strong predictor of future entrepreneurial behavior and seen as a planned intentional behavior (Fayolle and Klandt, 2006; Krueger *et al.*, 2000; Lorz, 2011; Shapero, 1975).

Entrepreneurial intentions: Intentions refer to "a persons motivation to make an effort to act upon a conscious plan or decisions" (Conner and Armitage, 1998). Entrepreneurial intention can be defined as the intentions to start a new business (Douglas and Shepherd, 2002; Kolvereid and Isaksen, 2006), the intent to start a new business venture (Krueger and Brazeal, 1994; Zhao *et al.*, 2005) or intention for possesses a business enterprise (Crant, 1996). This study considered the entrepreneurial intention as an individual's intent to be an entrepreneur. Many researchers used intentional models to study the entrepreneurial intentions (Bird, 1988; Douglas and Shepherd, 2002; Kolvereid, 1997; Kolvereid and Isaksen, 2006; Shapero, 1975).

The term entrepreneurial intention is referred to intentions to own a business, the intent to establish a new business (Krueger and Brazeal, 1994) and to be self-employed (Kolvereid and Isaksen, 2006). Self-employment intentions or start a new business assumed as a first step in the process of new organization emergence. Preceding studies highlighted that initial occupational aspirations are normally good predictors of future professional choices and it is also reasonable to mention that students of post-secondary level with an interest in entrepreneurship will be likely to seek self-employment. Numerous studies have investigated the reasons of being self-employed becoming self-employed as compare to salaried-employment (Bygrave, 1989; Sexton and Auken, 1985). Most of the researches explained the influence of different factors on entrepreneurial intentions and characterized them into stable personality variables and external environmental

influences (Krueger *et al.*, 2000; Zhao *et al.*, 2005). According to Krueger *et al.* (2000), exogenous factors certainly motivate entrepreneurial intentions.

The role of intention defined by Ajzen as the behavior is more probable the strong intention (Lorz, 2011). Therefore, entrepreneurial intentions played a mediator role for actual actions to start a new business (Fayolle and Klandt, 2006). The measurement of intentions towards entrepreneurship with cognitive basis has been developed to assess the phenomenon of entrepreneurship. The entrepreneurial event theory presented by Shapiro (1988) and the theory of planned behavior by Icek Ajzen are the most widely accepted theory-driven models. The overlapping elements of both models are; perceived venture desirability in Shapero's Entrepreneur Event model is alike attitude towards outcomes in Ajzen's model. The research on entrepreneurial intentions has been focused on two dimensions; the individual's traits and characteristics and the effects of environmental and contextual factors on entrepreneurial process. Nonetheless, there is still a need to explain more precisely about how the individual's entrepreneurial intentions are formed (Linan, 2008).

Perceived behavioral control: Perceived behavioral control refers to an individual's perception or belief of the ease or difficulty of performing a specific behavior. The control beliefs lead the behavioral control and deal with the availability or absence of necessary means and opportunities (Veciana *et al.*, 2005). These control beliefs may be based on previous experiences, information and on other variables which may increase or decrease the perceived difficulty of performing a required behavior (Krueger and Brazeal, 1994; Shapero, 1975; Veciana *et al.*, 2005).

In accordance with social cognitive career theory (Lent and Brown, 2008), entrepreneurial self-efficacy or perceived behavioral control in the theory of planned behavior are expected to mediate the relationships between both person and distal contextual factors and entrepreneurial intentions as well as the relationships between both person and distal contextual factors and outcome expectations. Taken together, these effects reflect self-efficacy's multifaceted utility as it has been described to influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they

experience in coping with environmental demands and the level of accomplishments they realize (Bandura, 1997a, b).

Theoretical arguments and empirical research support the idea that perceived behavioral control and outcome expectations directly influence one's goals or intentions; self-efficacy beliefs and outcome expectations each accounted for approximately 27% of the variance in goals or intentions and choice actions (Lent *et al.*, 1994). Moreover, according to Lent and Brown (2008), an individual's vocational interests, goals or intentions and choice actions reflect concurrent self-efficacy beliefs and outcome expectations. Thus, self-efficacy and outcome expectations are directly associated with intentions.

In line with the above argument, research suggests that the relationship between certain personality constructs and one's intentions are mediated by perceived behavioral control. Further, specific to the entrepreneurship domain, Chen and coauthors in 1998 provide evidence for the relationship between entrepreneurial perceived behavioral control and intentions and Zhao *et al.* (2005) provide initial evidence that entrepreneurial perceived behavioral control mediates the relationships between formal learning, experience and risk propensity and entrepreneurial intentions. Therefore, perceived behavioral control's mediating effect in the relationship between entrepreneurial personal skills and entrepreneurial intentions is suggested in this study.

Stakeholders' support system: The stakeholder's support system measures the perceived social (family, friends and significant others) and environmental (institutional and government) pressure and support (Grootaert and van Bastelaer, 2001). Stakeholders' support system can be categorized into two forms; informal support and structural support. Informal support refers to the perception that "reference people" would or would not approve of the decision to become an entrepreneur.

The stakeholders' support system which is examined with the components: the role of government (Reynolds *et al.*, 2005) financial institutions (Fehr and Hishigsuren, 2006) and informal support from family and friends. The stakeholder's support (from the government, financial institutions, parents, siblings and friends, etc.) is critical for entrepreneurship growth in the society. The stakeholder's support system consists of structural support by government and the social networks in the form of banks, agencies and informal networks including parents, family and friends, etc. The government can help the entrepreneurs to establish the business by supportive

public policies, structural support and financial initiatives to support the entrepreneurial activities (Rante and Warokka, 2013).

Entrepreneurial skills: The ability to come up with innovative mindsets and proceed as an effective and resourceful way of creation of new business or as an effective and innovative within organization is recognized in all areas. According to Linan (2008) “there is an obvious connection between skills and perceived behavioral control. Thus, those individuals feeling they have a higher level of certain entrepreneurial skills will more probably feel they can create a firm. Entrepreneurial skills would have its main effect on perceived behavioral control (a concept quite close to self-efficacy) but may also affect attitudes and norms” (p.64). According to Hisrich *et al.* (2007), the business management skills are necessary to become entrepreneur. Personal skills may also have an effect on entrepreneurial intention. Entrepreneurial skills such as managing ambiguity, creativity, ability to solve problems and sense of taking initiative are considered as key competences.

According to Hisrich and Peters “entrepreneurial skill can be defined as “the ability to create something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence”. Formal descriptions/definitions characterize entrepreneurial skills as ability to have self-belief, boldness, tenacity, passionate, empathy, readiness to take expert advice, desire for immediate result, visionary and ability to recognize opportunity. Kilby states that “the array of possible entrepreneurial skills encompasses the perception of economic opportunity, technical and organizational innovations, gaining commands over scarce resources, taking responsibilities for internal management and for external advancement of the firm in all aspects (of teaching enterprise).”

Entrepreneurial personal skills and entrepreneurial intentions: The literature review guides that the entrepreneur has been viewed in many ways and varying approaches and yet arriving at one concrete definition of the entrepreneur has been a seemingly an impossible task. Carson (1999) advocates the integrated approach to the study of entrepreneurs to overcome this dilemma, proposing the inclusion of cognitions and environmental elements in empirical research studies. The intention to be self-employed and set up a business is an individual’s

motivation to carefully plan and act accordingly (Lorz, 2011). The intentions to be self-employed are based on a person’s attitude, his or her perceived control to take the decision and perceived social support or pressure (Linan, 2008). Thompson (2009) delineates entrepreneurial intention by defining as “self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future”. Consequently, entrepreneurial intention is not a dichotomous question of yes or no but it ranges from zero level to very low and a very high intention level to be self-employed. The role of intention defined by Ajzen as the behavior is more probable the strong intention (Lorz, 2011). Therefore, entrepreneurial intentions play as a mediator role for actual actions to start a new business (Fayolle and Klandt, 2006). The measurement of intentions towards entrepreneurship with cognitive basis has been developed to assess the phenomenon of entrepreneurship. The entrepreneurial event theory presented by Shapiro (1988) and the theory of planned behavior by Icek Ajzen are the most widely accepted theory-driven models. The overlapping elements of both models are; perceived venture desirability in Shapero’s Entrepreneur Event model is alike attitude towards outcomes in Ajzen’s model.

Gibb (1993) explained the process of entrepreneurship through highlighting the role of individual’s behavior, attributes and skills. The results of Gibb (1993) study show that a process is required to develop the entrepreneurial behavior that comprises of the identification of traits related to the setup of a business, either in the form of skills and attributes. According to Linan (2008) “there is an obvious connection between skills and perceived behavioral control. Thus, those individuals feeling they have a higher level of certain entrepreneurial skills will more probably feel they can create a firm. Besides, it might be argued that a high self-perception regarding entrepreneurial skills would also be associated with more favorable attitudes and subjective norms. On the other hand, entrepreneurial skills would have its main effect on perceived behavioral control (a concept quite close to self-efficacy) but may also affect attitudes and norms” (p.64). According to Hisrich *et al.* (2007), the business management skills are necessary to become entrepreneur. Personal skills may also have an effect on entrepreneurial intention.

Several research studies have taken entrepreneurial skills an important indicator of entrepreneurship (Mohamad *et al.*, 2014; Chell, 2013;

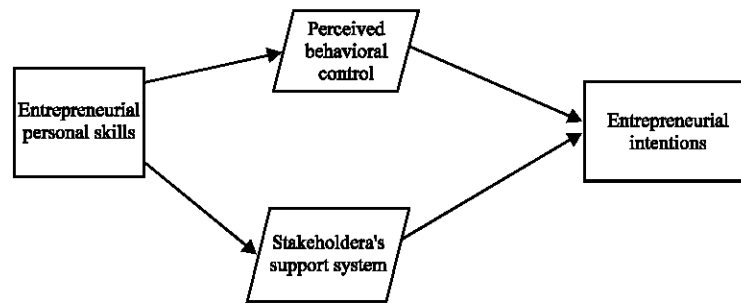


Fig. 1: Research framework

Fitriati and Hermiati, 2011; Kemelgor, 1985; Kuratko and Hodgetts, 1998; Linan, 2008; Morales and Marquina, 2013; Phelan and Sharpley, 2012; Silva, 2006; Timmons, 1975). The earlier research studies on subject matter have concluded an extensive list of entrepreneurial skills. These skills may be of imperative nature depending upon the prevailing conditions.

However, the research studies with the focus on entrepreneurship, overlap the skills required for successful entrepreneurs and not unexpectedly, these overlaps make entrepreneurial skills classification more difficult (Chell, 2013) (Fig. 1).

This study opted for the entrepreneurial personal skills proposed by Smith *et al.* (2008), under the Entrepreneurial Development System (EDS) by Lichtenstein and Layons in 2001. The main dimensions of entrepreneurial personal were the same as presented by Smith *et al.* (2008). According to Lyons in 2002, entrepreneurial personal skills as “the skills needed to develop innovative products and services and to generate solutions to emerging needs in the marketplace” (p. 4), Entrepreneurs require a variety of skills in order to successfully manage an enterprise (Phelan and Sharpley, 2012). Based on these grounds, it is expected that entrepreneurial personal skills effect on developing entrepreneurial intentions. Therefore, this study hypothesizes the following hypotheses;

- H₁; entrepreneurial personal skills have a significant effect on the entrepreneurial intention of IT employees in Punjab, Pakistan
- H₂; entrepreneurial personal skills positively effect on perceived behavioral control of IT employees in Punjab, Pakistan
- H₃; entrepreneurial personal skills positively effect on stakeholders’ support system of IT employees in Punjab, Pakistan

- H₄; perceived behavioral control mediates the positive relationship between entrepreneurial personal skills and entrepreneurial intentions of IT employees in Punjab, Pakistan
- H₅; stakeholders’ support system mediates the positive relationship between entrepreneurial personal skills and entrepreneurial intentions of IT employees in Punjab, Pakistan

MATERIALS AND METHODS

The measurements of this study is adapted from the previous researches. Entrepreneurial intentions are adapted from (Kolvereid, 1997). The entrepreneurial personal skills which is the reflective of the “Entrepreneurial Development System” (EDS) proposed by Lichtenstein and Lyons in 2001 and operationalized by Smith *et al.* (2008) is used to assess the entrepreneurial personal skills, while assurance of consistency (reliability) and validity of the constructs are gaged before conducting this research study. According to Neuman in 1997, survey research is a useful method to facilitate the researcher to gather data from a large number of respondents in order to measure multiple variables and testify many hypotheses in the study, therefore, survey research is used in this study, while questionnaire method is employed to collect the data for this paper.

All the 19272 employees working in IT companies registered with Security and Exchange Commission of Pakistan (SECP) in Punjab, Pakistan were considered as population of this study. Based on Mendenhall, Reinmuth and Beaver in 1993, the 372 IT employees were selected from population using systematic random sampling. Accordingly, a 48 items question naire was self- administered in the cities of Punjab; Rawalpindi, Lahore, Faisalabad and Gujranwala. Additionally, the questions included in the questionnaire were assessed on seven-point Likert scale. The

hypothesized model was tested using Partial Least Squares-Structural Equation Modeling (PLS-SEM) because it is commonly used in business and social research.

RESULTS

Assessment of measurement model: The basic aim of employing measurement model is to assess construct and convergent validity of the constructs. Each one of the constructs under consideration including entrepreneurial intentions, technical skills, managerial skills, leadership skills, personal maturity skill and entrepreneurial personal skills were analyzed in the measurement model. The measurement model aims to specify which items correspond to each latent variable. A Confirmatory Factor Analysis (CFA) using PLS was conducted to assess the convergent and discriminant validity of the constructs in the research model. Hair and Sarstedt in 2013 suggested that construct validity can be developed by undertaking content validity, convergent validity and discriminant validity. The reliability of the instrument was examined using Composite Reliability (CR) whereas validity of each construct was assessed through discriminant validity using Fornell-Larcker criterion and indicator's outer loadings and convergent validity using Average Variance Extract (AVE).

Consequently, the Fig. 2 and Table 1 show that the composite reliability is between 0.92 and 0.97 which reflects the reliability of the instrument used in this study. Furthermore, composite reliability of all constructs is more than threshold value of 0.70.

As it has been discussed earlier that establishing the discriminant validity of the constructs are important to confirm construct validity of outer model. Discriminant validity may be defined as the point to which items of the constructs of a particular scale measure only the construct they should measure. Discriminant validity was assessed for entrepreneurial intentions, entrepreneurial personal skills, perceived behavioral control and stakeholders' support system. The discriminant validity can be assessed through determining whether the square root of the AVE of a given construct is larger than its correlation with any other construct. For a construct to demonstrate discriminant validity, each square root of the AVE should be larger than its correlation with the other constructs.

The assessment of structural model: Once measurement model is examined, the proceeding step was to evaluate the outer model (structural model). A structural model can be tested when all the constructs in the measurement model are examined and are approved to be reliable and valid (Anderson, 1988).

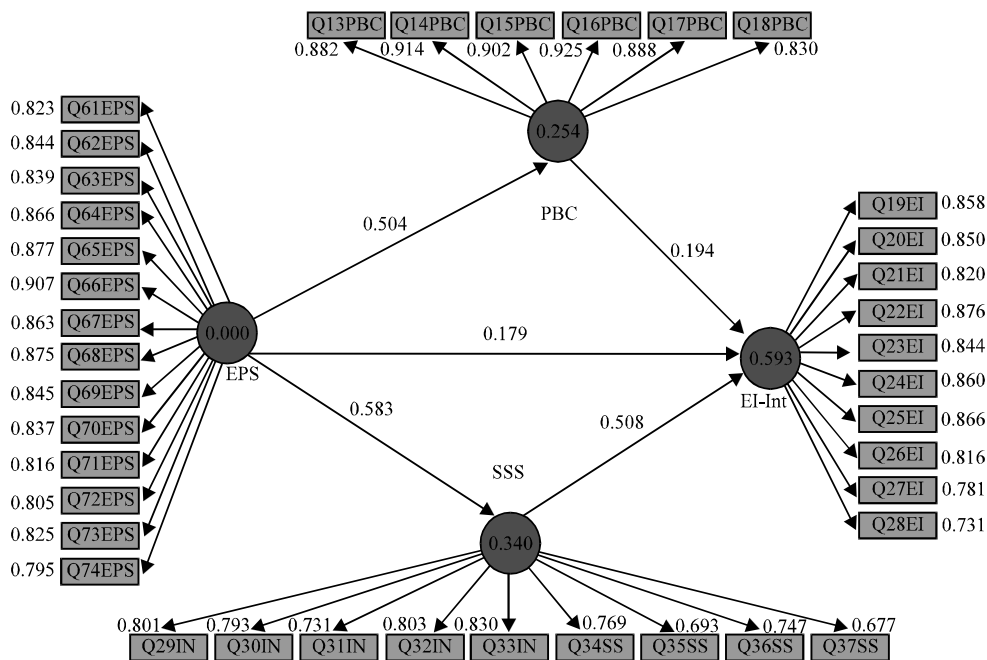


Fig. 2: Measurement model

Table 1: Loadings, reliability and convergent validity values

Construct	Items	Loadings	CR	AVE	Discriminant validity
Entrepreneurial intentions	Q19EI	0.857	0.93	0.69	Yes
	Q20EI	0.850			
	Q21EI	0.839			
	Q22EI	0.877			
	Q23EI	0.846			
	Q24EI	0.861			
	Q25EI	0.865			
	Q26EI	0.815			
	Q27EI	0.779			
Entrepreneurial personal skills	Q28EI	0.731	0.91	0.71	Yes
	Q61EPS	0.828			
	Q62EPS	0.847			
	Q63EPS	0.844			
	Q64EPS	0.869			
	Q65EPS	0.879			
	Q66EPS	0.907			
	Q67EPS	0.860			
	Q68EPS	0.872			
	Q69EPS	0.841			
	Q70EPS	0.837			
	Q71EPS	0.813			
	Q72EPS	0.803			
	Q73EPS	0.820			
	Q74EPS	0.793			
Stakeholder's support system	Q29IN	0.808	0.92	0.58	Yes
	Q30IN	0.802			
	Q31IN	0.731			
	Q32IN	0.798			
	Q33IN	0.827			
	Q34SS	0.769			
	Q35SS	0.687			
Perceived behavioral control	Q36SS	0.745	0.93	0.79	Yes
	Q37SS	0.775			
	Q15PBC	0.901			
	Q16PBC	0.924			
	Q17PBC	0.888			
	Q18PBC	0.831			
	Q19EI	0.857			
	Q20EI	0.856			

CR = Composite Reliability, AVE = Average Variance Extracted

It involves the assessment of model's predictive abilities and relationship between latent constructs. However, it is necessary to assess collinearity before assessing structural model Fig. 3. Subsequent to the examination of multicollinearity in the preceding section, it was confirmed that there is no multicollinearity problem among the exogenous variables.

However, this study, assessed the collinearity as suggested by Hair and coauthors in 2013. In order to investigate multicollinearity, Variance Inflation Factor (VIF) values were examined. The acceptable threshold level of VIF values is <5. The values of 2.11, 2.50 and 2.35 for VIF of perceived behavioral control, stakeholders' support system and entrepreneurial personal skills, respectively were acceptable. Hence, the results for VIF signified that multicollinearity between variables did not exist Table 2.

The major purpose of assessing the structural models in this study, is to test the hypothesis in order to assess the effectiveness of the entrepreneurial intentions on

Table 2: Collinearity using variable inflation factor

Constructs	VIF
Perceived behavioral control	2.11
Stakeholder's support system	2.50
Entrepreneurial personal skills	2.35

developing entrepreneurial intentions. The hypotheses are related to the relationships between entrepreneurial personal skills, perceived behavioral control, stakeholders' support system and entrepreneurial intentions.

Based on the PLS-SEM algorithm and bootstrapping procedure as mentioned above, Fig. 1 shows the path coefficient of the independent variables and the dependent variable. The result reveals that the exogenous variable have a positive coefficient with the endogenous variable. The bootstrapping result in Fig. 2 shows that one relationship between the independent variable and the dependent variable is significant at $p < 0.00$; two relationships are significant at $p < 0.01$ and $p < 0.05$, respectively, while two of the

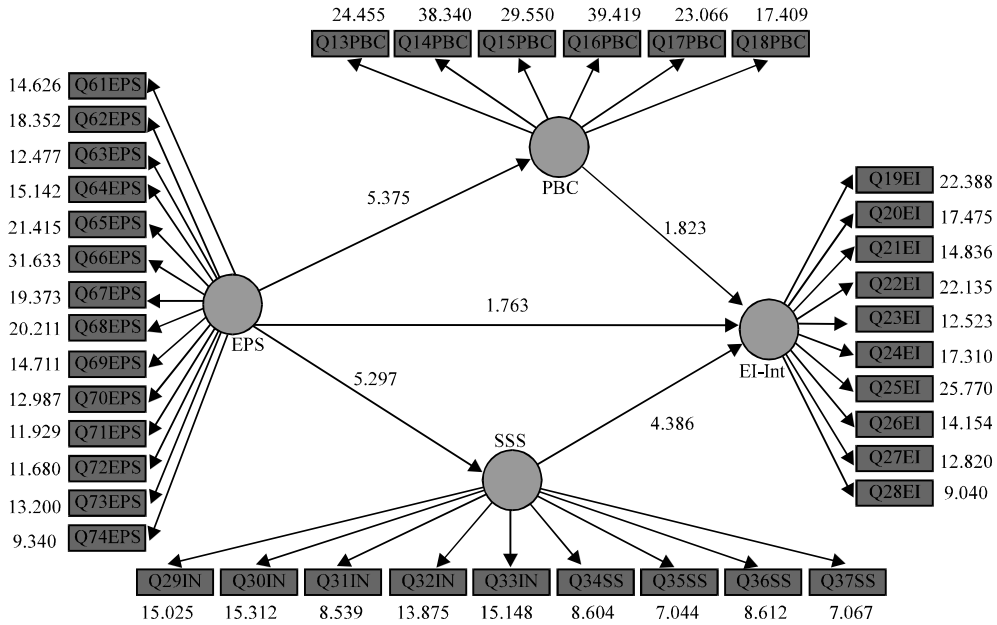


Fig. 3: Structural model

Table 3: Results of hypotheses testing (direct relationships)

Hypothesized path	Path coefficient	SE (STERR)	t value	p value	Decision H ₁ EPS->Ent-Int
H ₁ SP->ENT-INT	0.04	0.06	2.04	0.02*	Supported
H ₂ EPS->PBC	0.18	0.07	2.71	0.00***	Supported
H ₃ EPS->SSS	0.14	0.06	2.42	0.01**	Supported
H ₄ EPS->PBC->EI-INT	0.03	0.02	2.19	0.01**	Supported
H ₅ EPS->SSS->EI-INT	0.06	0.03	2.24	0.01**	Supported

*, **, ***p<0.05, 0.01, 0.00

mediating relationships are significant at $p < 0.01$. Table 3 presents the path coefficients, t-statistics and p-values.

Based on satisfactory result of collinearity assessment, then the key criteria for assessing the structural model was assessed. Firstly, the structural model relationships were assessed using PLS-SEM algorithm for the coefficient and PLS-SEM bootstrapping for the significance of the relationship. The SmartPLS 3.0 was used and original number of cases was used as the number of cases, 5000 sample was used for bootstrapping procedure. Figure 2 and Table 3 illustrate the results of relationship between the exogenous variables and endogenous variable of the PLS-SEM analysis. Specifically, the result of the structural model shows that there is significant positive effect of entrepreneurial personal skills and entrepreneurial intentions. Thus, H₁ is supported. Similarly, H₂ suggest that entrepreneurial personal skills positively effect on perceived behavioral control, the results provide evidence of the hypothesized relationship and therefore H₂ is accepted. With respect to H₃ which assumed that entrepreneurial personal skills positively effect on stakeholders' support system, the

results also provide evidence of the hypothesized relationship, thus H₃ is accepted. Proceeding hypothesis H₄ proposes that perceived behavioral control positively mediate the relationship between entrepreneurial personal skills and entrepreneurial intentions. The results provide the evidence of the positive mediating effect of perceived behavioral control in the relationship between entrepreneurial personal skills and entrepreneurial intentions. Therefore, H₄ is accepted. Finally, H₅ that assumed the mediating effect of stakeholders' support system in the relationship between entrepreneurial personal skills and entrepreneurial intention is also supported by the results. Thus, H₅ is accepted.

DISCUSSION

To start with H₁, the results show that there is positive influence of entrepreneurial personal skills on evolving entrepreneurial intentions ($\beta = 0.04$; $t = 20.04$; $p < 0.02$). Hence, H₁ is supported. With respect to H₂, the results support the positive significant effect of entrepreneurial personal skills on perceived behavioral

control ($\beta = 0.18$; $t = 2.71$; $p < 0.00$). Therefore H_2 is supported. The results also support the significant positive effect of entrepreneurial personal skills on stakeholders' support system ($\beta = 0.14$; $t = 2.42$; $p < 0.00$), hence, H_3 is also supported. The results further provide an evidence of perceived behavioral control's mediating effect on the relationship between entrepreneurial personal skills and entrepreneurial intentions ($\beta = 0.03$; $t = 2.19$; $p < 0.01$). Thus, H_4 is accepted. For H_5 , the result suggests that there is a positive mediating effect of stakeholders' support system on the relationship between entrepreneurial personal skills and entrepreneurial intention ($\beta = 0.06$; $t = 2.24$; $p < 0.01$), therefore, H_5 is accepted.

The findings of this study provide evidence that entrepreneurial skills have positive impact on developing entrepreneurial intention. Similarly, findings also support the significant positive mediating role of perceived behavioral control and stakeholders' support system on the relationship between entrepreneurial personal skills and entrepreneurial intention. In addition, several research studies have taken entrepreneurial skills an important indicator of entrepreneurship. The results are in line with the previous studies conducted on the impact of entrepreneurial skills (Chell, 2013; Fitriati and Hermiati, 2011; Kemelgor, 1985; Kuratko and Hodgetts, 1998; Linan, 2008; Morales and Marquina, 2013; Phelan and Sharpley, 2012; Silva, 2006; Timmons, 1975).

In entrepreneurship literature, there is an evidence of research studies which have been considered entrepreneurial skills as an important contributor in the progression of entrepreneurship and entrepreneurial accomplishment (Driessen and Zwart, 1999; Giunipero *et al.*, 2005; Gibb, 1993; Gurol and Atsan, 2006; Kuratko and Hodgell, 2001; Hisrich *et al.*, 2007; Oosterbeek *et al.*, 2010; Timmons, 1975; Zimmerer and Scarborough, 2008). Though, studies assessed the skills of entrepreneurs rather investigating the effectiveness of skills on potential entrepreneurs (Lazear, 2004; Morales and Marquina, 2013). However, some recent studies support that entrepreneurial personal skills are one of the effective one of the major factors increasing the probability of and individual becoming an entrepreneur (Chell, 2013; Lazear, 2004; Morales and Marquina, 2013).

CONCLUSION

Governments, public and private institutions, practitioners and academic researchers in the area of and entrepreneurship and entrepreneurship education have given lot of consideration to the entrepreneurial intentions and exogenous factors, influencing and

affecting behavior. Based on the findings of this study, the study has more than a few important implications, specifically in terms of entrepreneurial skills in the context of Pakistan. The future research should focus on proposing a theoretical model of assessing the impacts of entrepreneurial skills on developing entrepreneurial intention by considering other exogenous, mediating and moderating factors, so that a clearer view of effectiveness of entrepreneurial skills can be established.

REFERENCES

- Anderson, J.A., 1988. Cognitive styles and multicultural populations. *J. Teacher Educ.*, 39: 2-9.
- Bandura, A., 1997a. Editorial. *Am. J. Health Promotion*, 12: 8-10.
- Bandura, A., 1997b. *Self-Efficacy: The Exercise of Control*. Freeman Press, New York, ISBN: 9780716726265, Pages: 604.
- Bird, B., 1988. Implementing entrepreneurial ideas: The case for intention. *Acad. Manage. Rev.*, 13: 442-453.
- Bygrave, W.D., 1989. The entrepreneurship paradigm (I): A philosophical look at its research methodologies. *Entrepreneurship Theory Pract.*, 14: 7-26.
- Carson, D., 1999. An inaugural commentary for the journal of research in marketing and entrepreneurship. *J. Res. Marketing Entrepreneurship*, 1: 1-4.
- Chell, E., 2013. Review of skill and the entrepreneurial process. *Int. J. Entrepreneurial Behav. Res.*, 19: 6-31.
- Chrisman, N.R., 1997. *Exploring Geographic Information Systems*. 2nd Edn., John Wiley and Sons, New York, USA., Pages: 50.
- Conner, M. and C. Armitage, 1998. Extending the theory of planned behavior: A review and avenues for further research. *J. Applied Soc. Psychol.*, 28: 1429-1464.
- Deuchar, R., 2007. *Citizenship, Enterprise and Learning: Harmonising Competing Educational Agendas*. Trentham Books, London, England, ISBN: 9781858563817.
- Douglas, E.J. and D.A. Shepherd, 2002. Self-employment as a career choice: Attitudes, entrepreneurial intentions and utility maximization. *Entrepreneurship: Theo. Pract.*, 26: 81-90.
- Driessen, M.P. and P.S. Zwart, 1999. *The entrepreneur scan measuring characteristics and traits of entrepreneurs*. University of Groningen, Groningen, Netherlands.
- Fayolle, A. and H. Klandt, 2006. *International Entrepreneurship Education: Issues and Newness*. Edward Elgar Publishing, Cheltenham, England, Pages: 305.

- Fehr, D. and G. Hishigsuren, 2006. Raising capital for microfinance: Sources of funding and opportunities for equity financing. *J. Dev. Entrepreneurship*, 11: 133-143.
- Fekri, K., A. Shafiabady, R. Nooranipour and G. Ahghar, 2012. Determine and compare effectiveness of entrepreneurship education based on multi-axial model and theory of constraints and compromises on learning entrepreneurship skills. *Procedia Soc. Behav. Sci.*, 69: 566-570.
- Fitriati, R. and T. Hermiati, 2011. Entrepreneurial skills and characteristics analysis on the graduates of the Department of Administrative Sciences, FISIP Universitas Indonesia. *Bisnis Birokrasi J.*, 17: 262-275.
- Gibb, A.A., 1993. Enterprise culture and education understanding enterprise education and its links with small business, entrepreneurship and wider educational goals. *Intl. Small Bus. J.*, 11: 11-34.
- Giunipero, L., D. Denslow and R.E. Tantawy, 2005. Purchasing/Supply chain management flexibility: Moving to an entrepreneurial skill set. *Ind. Market. Manage.*, 34: 602-613.
- Grootaert, C. and T. van Bastelaer, 2001. Understanding and measuring social capital: A synthesis of findings and recommendations from the social capital initiative. *Social Capital Initiative Working Paper No. 24*, Washington, DC.
- Gurol, Y. and N. Atsan, 2006. Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Educ. Train.*, 48: 25-38.
- Hisrich, R., J. Langan-Fox and S. Grant, 2007. Entrepreneurship research and practice: A call to action for psychology. *Am. Psychol.*, 62: 575-589.
- Katz, J. and W.B. Gartner, 1988. Properties of emerging organizations. *Acad. Manage. Rev.*, 13: 429-441.
- Kemelgor, B.H., 1985. A Longitudinal Analysis of the Transition from Organization Man to Entrepreneur. *Acad. Manage. Proc.*, 1985: 67-70.
- Kolvereid, L. and E. Isaksen, 2006. New business start-up and subsequent entry into self-employment. *J. Bus. Vent.*, 21: 866-885.
- Kolvereid, L., 1997. Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship Theo. Pract.*, 20: 23-31.
- Krueger Jr., N.F. and D.V. Brazeal, 1994. Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theor. Pract.*, 18: 91-104.
- Krueger, Jr. N.F., M.D. Reilly and A.L. Carsrud, 2000. Competing models of entrepreneurial intentions. *J. Bus. Ventur.*, 15: 411-432.
- Krueger, N., 1993. The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory Pract.*, 18: 5-21.
- Kuratko, D.F. and R.M. Hodgell, 2001. *Entrepreneurship: A contemporary Approach*. Harcourt Inc., New York.
- Kuratko, D.F. and R.M. Hodgetts, 1998. *Entrepreneurship: A Contemporary Approach*. 4th Edn., The Dryden Press, Fort Worth, TX., USA.
- Lazear, E.P., 2004. Balanced skills and entrepreneurship. *Am. Econ. Rev.*, 94: 208-211.
- Lent, R.W. and S.D. Brown, 2008. Social cognitive career theory and subjective well-being in the context of work. *J. Career Assess.*, 16: 6-21.
- Lent, R.W., S.D. Brown and G. Hackett, 1994. Toward a unifying social cognitive theory of career and academic interest, choice and performance (Monograph). *J. Vocational Behav.*, 45: 79-122.
- Linan, F., 2008. Skill and value perceptions: How do they affect entrepreneurial intentions?. *Intl. Entrep. Manage. J.*, 4: 257-272.
- Linan, F., J.C. Rodriguez-Cohard and J.M. Rueda-Cantuche, 2010. Factors affecting entrepreneurial intention levels: A role for education. *Int. Entrep. Manage. J.*, 7: 195-218.
- Lorz, M., 2011. The impact of entrepreneurship education on entrepreneurial intention. Ph.D. Thesis, School of Management, Economics, Law, Social Sciences and International Affairs, University of St. Gallen, Switzerland.
- Mohamad, A., M. Hussin and N.A. Buang, 2014. Exploring dimensions of entrepreneurial skills among student enterprise at higher learning institution in Malaysia: A case of student enterprise of University Utara Malaysia. *Intl. Multilingual J. Contemp. Res.*, 2: 37-51.
- Morales, C. and P.S. Marquina, 2013. Entrepreneurial skills, significant differences between Serbian and German entrepreneurs. *J. CENTRUM. Cathedra Bus. Econ. Res.*, 6: 129-141.
- Obaji, N.O., 2014. The role of government policy in entrepreneurship development. *Sci. J. Bus. Manage.*, 2: 109-115.
- Oosterbeek, H., M. Praag and A. Ijsselstein, 2010. The impact of entrepreneurship education on entrepreneurship skills and motivation. *Eur. Econ. Rev.*, 54: 442-454.
- Phelan, C. and R. Sharpley, 2012. Exploring entrepreneurial skills and competencies in farm tourism. *Local Econ.*, 27: 103-118.
- Rante, Y. and A. Warokka, 2013. The interrelated nexus of indigenous economic growth and small business development: Do local culture, government role and entrepreneurial behavior play the role?. *J. Innovation Manage. Small Medium Enterprises*, 2013: 1-19.

- Reynolds, P., N. Bosma, E. Autio, S. Hunt and N.D. Bono *et al.*, 2005. Global entrepreneurship monitor: Data collection design and implementation 1998-2003. *Small Bus. Econ.*, 24: 205-231.
- Sexton, D.L. and P.V. Auken, 1985. A longitudinal study of small business strategic planning. *J. Small Bus. Manage.*, Vol. 23,
- Shapero, A., 1975. The displaced, uncomfortable entrepreneur. *Psychol. Today*, 9: 83-88.
- Shapiro, B.P., 1988. *What the Hell is Market Oriented?*. Harvard Business Publishing, Boston, USA., Pages: 125.
- Silva, O., 2006. The jack-of-all-trades entrepreneur: Innate talent or acquired skill?. *Econ. Lett.*, 97: 118-123.
- Smith, W.L., K. Schallenkamp and D.E. Eichholz, 2008. Entrepreneurial skills assessment: An exploratory study. *Intl. J. Manage. Enterp. Dev.*, 4: 179-201.
- Souitaris, V., S. Zerbini and A. Al-Laham, 2007. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *J. Bus. Ventur.*, 22: 566-591.
- Thompson, E.R., 2009. Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theor. Pract.*, 33: 669-694.
- Timmons, J.A., 1975. Guided entrepreneurship. *Bus. Horizons*, 18: 49-52.
- Tkachev, A. and L. Kolvereid, 1999. Self-employment intentions among Russian students. *Entrepreneurship Regional Dev.*, 11: 269-280.
- Veciana, J.M., M. Aponte and D. Urbano, 2005. University students' attitudes towards entrepreneurship: A two countries comparison. *Intl. Entrep. Manage. J.*, 1: 165-182.
- Zhao, H., S.E. Seibert and G.E. Hills, 2005. The mediating role of self-efficacy in the development of entrepreneurial intentions. *J. Applied Psychol.*, 90: 1265-1272.
- Zimmerer, T. and N.M. Scarborough, 2008. *Essentials of Entrepreneurship and Small Business Management*. 5th Edn., Prentice Hall, New Jersey, USA., ISBN-13: 9780132294386, Pages: 728.