

Determinants of Entrepreneurial Intention: The Mediating Effect of Entrepreneurial Education

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Abstract

Entrepreneurial Intention (EI) significantly influenced not only by attitude toward entrepreneurial behavior, personality traits, and perceived entrepreneurial behavioral control, but also by entrepreneurial education for creation of new business. EI is the key factor that explains the entrepreneur's ability to engage in entrepreneurial actions. This study hypothesized the direct relationships of entrepreneur's attitude towards entrepreneurial behavior, personality traits, perceived entrepreneurial behavioral control, and entrepreneurial education with EI. Moreover, this study hypothesized the mediation of entrepreneurial education between attitude toward entrepreneurial behavior and EI and the mediation of entrepreneurial education between perceived behavioral control and EI. The current study collected data from the university students who have already taught entrepreneurship course in several departments. A self-administered survey questionnaire was used to collect 476 questionnaires from the students. PLS-SEM software was used for data analysis. In addition, the study supported the direct relationship of attitude toward entrepreneurial behavior, personality traits, and perceived entrepreneurial behavioral control, and entrepreneurial education with EI. This study supported the partial mediation of entrepreneurial education between perceived behavioral control and EI. This study supported the partial mediation of entrepreneurial education between perceived entrepreneurial behavioral control and EI. This study suggested to the policy makers that for planning the education careers of students particularly incorporating important determinants of entrepreneurial intentions that they should consider the age of entrepreneur, training, and experience factor while investigating determinants of EI.

Keywords: Entrepreneurial Intention (EI), Perceived Behavioral Control (PBC), Entrepreneurial Education, Attitude Toward Entrepreneurial Behavior (ATB), Personality Traits.

Introduction

Societies may get vital success by promoting entrepreneurship, which face huge economic and social disputes. As per experience shared by most of western countries since 1970, giant firms are not able to create employment

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because the level of unemployment is increasing in the world, therefore, the creation of new firms at small level is important to create new jobs.¹

Previous studies on entrepreneurial research claimed that top management of large firms is engaged in entrepreneurial actions and design to foster the entrepreneurial behaviours.² However, little is known when it comes to small or newly established firms and the processes through which entrepreneurial intention or behaviours come into existence in these firms as compare to large and established firms.³ It is well argued that small firms are well aware of their customer's needs, flexible, agile in reacting and responding to emerging market trends and decision making.

Extant literature has realized the importance of new ventures and intention to create or start new business.⁴ Entrepreneurial Intention (EI) is defined as the decision of an entrepreneur to start new firm, which is planned for some time, and thus undertaken by an intention to do so. Researchers have found many antecedents of EI such as motivation, PT, EE, ATB, and PBC.^{5,6,7} Among the factors that can increase EI; ATB, PT, PBC and EE are more important for EI for business start-ups. An important antecedent of EI is ATB that explains the appeal of a behaviour or the degree to which an individual holds a positive or negative personal evaluation of it. Another important antecedent of EI is PBC that is the perceived social pressure to perform a specific behaviour. It explains an individual behaviour to involve in identifying and exploiting opportunities through creating, exploring, and

¹ Biraglia, A., & Kadile, V. The Role of Entrepreneurial Passion and Creativity in Developing Entrepreneurial Intentions: Insights from American Home brewers, *Journal of Small Business Management*, 55(1), 2017, pp. 170-188.

² Díaz-Casero, J. C., Fernández-Portillo, A., Sánchez-Escobedo, M. C., & Hernández-Mogollón, R. The Influence of University Context on Entrepreneurial Intentions see in *International Journal of Business and Management*; Vol. 13, No. 3; 2018 pp. 13-27

³ Joseph, I. Factors Influencing International Student Entrepreneurial Intention in Malaysia, *American Journal of Industrial and Business Management*, 7(4), 2017, p. 424.

⁴ Krueger, Norris F., Michael D. Reilly, & Alan L. Carsrud, Competing Models of Entrepreneurial Intentions, *Journal of Business Venturing*, 15(5), 2000, pp. 411-432.

⁵ Zhao, H., Seibert, S. E., & Lumpkin, G. T. The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review, *Journal of Management*, 36(2), 2010, pp.381–404.

⁶ Garcia, D. H., Leles, A. D., & Romano, R. R. Program Entrepreneurship and Innovation: Education as the Core of Innovation. In *Advances in The Human Side of Service Engineering 2017*, pp. 235-244, Springer International Publishing.

⁷ Klotz, A. C., & Neubaum, D. O. Research on the Dark Side of Personality Traits in Entrepreneurship: Observations from an Organizational Behavior Perspective, *Entrepreneurship Theory and Practice*, 40(1), 2016, pp.7-17.

developing new opportunities to start new ventures or business.⁸ Another important factor is personality traits; which is defined as the individual's characteristics that are distinct and unique to him. It is well argued that PT is important predictor of EI.⁹ These characteristics can be classified as willingness to take risks, locus of control, and need of independence.¹⁰ Normally, every person possesses at least one of the personality characteristics. PBC considered as an important antecedent of EI, which is an individual belief to form his/her commitment through pioneering an uncertain and proactive actions inside a company environment. Therefore, all these factors help the entrepreneurs in making decisions to start new business.

The focus of this research is to find out the most important determinants of EI for starting new business especially emphasizing on the importance of entrepreneurial education in the process of EI. Entrepreneurial education increases EI through the education that is provided to the students or entrepreneurs for starting up new business. EE concentrates on the skills and qualities of entrepreneur and reduces their belief on chance and luck.¹¹ Moreover, entrepreneurial education helps in promoting business awareness and interest among entrepreneurs, to improve their business skills, develop innovativeness and technological ideas for the creation of sustainable business and its growth.¹²

The role of entrepreneurship through SME's is vital for the economic growth, innovation, job creation, and social integration of an economy.¹³ Therefore, it is important to bloom and boom the new creation of small business for emergent economy. This article focuses on the determinants of EI namely entrepreneurial education, attitude towards entrepreneurial behaviour, perceived behavioural control, and personality traits of students. The one of the objective of current research is to measure the relationships of ATB, PT, PBC, and EE with EI; to measure the relationship between PT and

⁸ Wang, J. H., Chang, C., Yao, & Liang, C. The Contribution of Self-Efficacy to the Relationship between Personality Traits and Entrepreneurial Intention, *Higher Education*, 72(2), 2016, pp. 209-224.

⁹ Rauch, A., & Frese, M. Let's Put the Person Back into Entrepreneurship Research: A Meta-Analysis on the Relationship Between Business Owners' Personality Traits, Business Creation, and Success, *European Journal of Work and Organizational Psychology*, 16(4), 2007, pp.353-385.

¹⁰ Wang, J. H., Chang, C., Yao, & Liang, C. Op. Cit.

¹¹ Klotz, A. C., & Neubaum, D. O. Op. Cit

¹² Qian, S., Miao, C., & Fiet, J. O. The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review, *Entrepreneurship Theory and Practice*, Volume 38, Issue 2, 2014, pp. 217-254.

¹³ Abraham, Charles, & Paschal Sheeran, Acting on Intentions: The Role of Anticipated Regret, *British Journal of Social Psychology* 42, 2003, pp. 495-511.

EI. Another objective is to measure the mediation of EE between the determinants (ATB, PT, PBC) and EI.

Literature Review and Hypothesis Development

Entrepreneurial intention is a decision or planning to form a new business. A person can be an entrepreneur based on his/her own capabilities and self-efficacy but their transition into an entrepreneur may not be possible because of weak intention.¹⁴ Entrepreneurial intention is influenced by situational based factors such as individuals motivation, skills and perceived environmental dynamism¹⁵ and specifically through attitude towards entrepreneurial behaviour, personality traits, perceived behavioural control, and entrepreneur's education.

The antecedents of EI namely individual's attitude towards entrepreneurial behaviour, PBC, personality traits and entrepreneurial education are important to foresee the intentions of entrepreneurs at individuals as well as managerial level. The relationship of these antecedents with EI is widely used in psychology, management, entrepreneurship, and sociology studies. Theory of Planned Behaviour (TPB) provides a logical theoretical framework that have general applicability to understand the relationships between individual intentions with social, psychological and personal factors^{16,17} such as attitude towards behavioural control, personality traits, perceived behavioural control, and entrepreneurial education. The essential element of this TPB is that an individual intentions are necessary to perform a specific behaviour.¹⁸ The success of a firm depends on making necessary decision about the organization that are related to social contacts that helps individuals to manage its behaviour and ther relative characteristics that helps them to nurture entrepreneurial activity such as EI.¹⁹

Entrepreneur's attitude towards entrepreneurial behaviour influences their perceptional desirability to perform a specific behavior such as

¹⁴ Krueger, Norris F., Michael D. Reilly, & Alan L. Carsrud, Op. Cit.

¹⁵ Fini, Riccardo, The Determinants of EI Within Small and Newly Established Firms, *Entrepreneurship Theory and Practice*, 36 (2) 2012, pp. 387-414.

¹⁶ Ajzen, I. The Theory of Planned Behaviour, *Organizational Behaviour and Human Decision Processes*, 50, 1991, pp.179–211.

¹⁷ Liñán, Francisco, & Yi-Wen Chen, Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions, *Entrepreneurship Theory and Practice*, May 2009, pp. 593-617.

¹⁸ Shapero, A. & L. Sokol, *The Social Dimension of Entrepreneurship*, The Encyclopaedia of Entrepreneurship, Prentice Hall, 1982.

¹⁹ Zahra, S. A., Filatotchev, I., & Wright, M. How do Threshold Firms Sustain Corporate Entrepreneurship? The Role of Boards and Absorptive Capacity, *Journal of Business Venturing*, Vol. 24(3), 2009, pp. 248-260.

entrepreneurial behavior. The entrepreneur attitude depends on his/her expectation and belief about the outcome that is expected from the executing on behaviour. It is found that entrepreneur's attitude towards entrepreneurial behaviour has positive impact on entrepreneurial intentions.²⁰

Past studies have confirmed that the personality traits such as extraversion and openness are identified with entrepreneurial intentions amongst college graduates.²¹ Entrepreneurs depicted as exceptionally fearless individuals with firm beliefs in their ability to manage outcomes in their surroundings.²² Entrepreneurs are highly motivated for the goals attainment. Thus, they demonstrate high levels of conscientiousness.²³ In recent meta-analytic studies²⁴ reported that a strong connection between personality character and entrepreneurial intention, signifying that entrepreneurs with entrepreneurial intentions are more extraverted, open, and conscientious and less anxious and agreeable.

PBC created from the controlled beliefs that an individual hold about the nearness or nonattendance of imperative opportunities. The literature illustrates the significance impact of exterior environment for supporting entrepreneurial behaviour particularly in entrepreneurship domain. The greater benefit of growing up in an entrepreneurial environment offers to learn a role model and get a pragmatic preview entrepreneurs.²⁵ Frimpong argued that EE is positively related with entrepreneurs intention. Among the positive researchers,²⁶ predicted that "the more educated a person gets, the less likely she or he is to act as an entrepreneur". For encouraging entrepreneurship, EE development based on a number of elements in educational program is important.

²⁰ Krueger, N. *Strategic Optimism: Antecedents of Perceived Probabilities of New Venture Success*, paper presented at The Academy of Management Meetings, 2000.

²¹ Ismail, M., Khalid, S. A., Othman, M., Jusoff, H. K., Rahman, N. A., Kassim, K. M., & Zain, R. S. Entrepreneurial Intention among Malaysian Undergraduates, *International Journal of Business and Management*, 410, 2009, pp.54-60.

²² Chen, S.-C., Jing, L.-L. & Sung, M.-H. University Students' Personality Traits and Entrepreneurial Intention: Using Entrepreneurship and Entrepreneurial Attitude as Mediating Variable, *International Journal of Economics and Research*, Vol 313, 2012, pp. 76-82.

²³ Collins, C. J., Hanges, P., & Locke, E. A. The Relationship of Need for Achievement to Entrepreneurship: A meta-Analysis, *Human Performance*, 17(1), 2004, pp. 95-117.

²⁴ Zhao, H., & Seibert, S. E. The Big Five personality dimensions and entrepreneurial status: A Meta Analytical Review. *Journal of Applied Psychology*, 91(2), 2006, pp. 259-271.

²⁵ Franco, Mário, HeikoHaase, & Arndt Lautenschläger, Students' Entrepreneurial Intentions: An Inter-Regional Comparison, *Education and Training*, Vol. 52 Issue: 4, 2010, pp. 260-275.

²⁶ Arenius-Antio, *Entrepreneurship: A Survey of the Literature*, Working Paper of European Commission, Luxembourg, 2004.

Therefore, this study proposes the following hypotheses:

H1: ATB (Attitude toward entrepreneurial behaviour) is positively related with EI.

H2. There is positive relationship between PT (personality traits) and EI.

H3. PBC (Perceived behavioural control) is positively related with EI.

H4. There is a positive relationship between EE (entrepreneurial education) and EI.

Entrepreneurship is an attitude of entrepreneur that shows his/her capacity (motivation) to recognise and exploit an idea (opportunity) to get the maximum benefits (value and success). This entrepreneurial defiance is crucial to survive in competitive environment and reassures modernise thoughts and facts (knowledge). Entrepreneurs' impetus toward their intention is disenchanted by controlling the effect of external forces (over controlling and negative emotion-evoking forces) such as increasing their education and knowledge.²⁷ According to the TPB, there is positive relationship between the ATB, entrepreneurial behaviour and EE. The study of²⁸ has examined the influence of PT on EE of students studying in universities. The Khan's study evidenced that student's internalize their motivation and showed great attitude towards EI. Some chronicle evaluations determined that there is undeniably a constructive association between PT and EE and EI.²⁹ (Rauch and Frese, 2000). Other descriptive assessments evaluated that PT has no association with EE and EI.³⁰ There are studies that have used "meta-analysis" approach revealed the prognostic strength of PT in entrepreneurship studies.³¹ Based on above discussion, this study proposed the following hypotheses;

H5: There is a positive relationship between ATB (attitude towards entrepreneurial behaviour) and EE (entrepreneurial education).

²⁷ Ryan, Richard M., & Edward L. Deci. Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions, *Contemporary Educational Psychology*, Vol 25, 2000, pp. 54-67.

²⁸ Khan, M. M., Ahmed, I., Nawaz, M. M., & Ramzan, M. (2011). Impact of personality traits on entrepreneurial intentions of university students. *Interdisciplinary Journal of Research in Business*, 1(4), 51-57.

²⁹ Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of work and organizational psychology*, 16(4), 353-385.

³⁰ Gartner, W. B. Some Suggestions for Research on Entrepreneurial Traits and Characteristics, *Entrepreneurship Theory and Practice*, 14(1), 1989, pp. 27-38.

³¹ Stewart Jr., Wayne H., & Philip L. Roth. Risk Propensity Differences between Entrepreneurs and Managers: A Meta-Analytic Review, *Journal of Applied Psychology*, 86(1), 2001, pp. 145-53

H6: There is positive relationship between the PT (personality traits) and EE (entrepreneurial education).

H7: There is a positive relation between the PBC (perceived behavioural control) and EE (entrepreneurial education).

Mediation of Entrepreneurial Education

Entrepreneurial education is a mediating variable that explains causal links between dependent and independent variables. ATB explains individual's desire to create value in the firm by incorporating their perception with desire to perform the entrepreneurial behaviour. Attitudes are what we feel about the object with whom an individual attached. It is the normative belief that clarifies what the other people thinks and approves the behaviour or intentions of the referent. This behaviour can affect the individuals' intentions particularly EI to engage in actions. The literature illustrates the significance of the controlled motivation like perceived behavioural control with decision making like entrepreneurial education and intention in entrepreneurship domain figured out that "The more educated a person, the less likely she or he is to act as an entrepreneur."³² Some personality characteristics educational framework expected to advance the entrepreneurial soul, yearning and intention among young entrepreneurs.

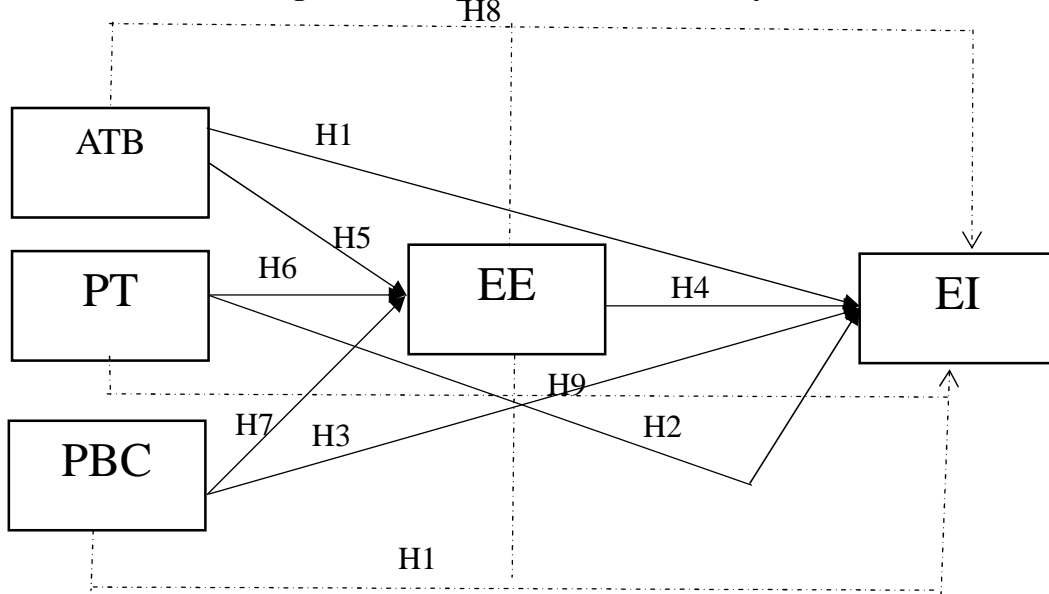
H8: Entrepreneurial education mediates the relationship between ATB and EI.

H9: Entrepreneurial education mediates the relationship between perceived behavioural control and EI.

H10: Entrepreneurial education has mediating effect on personality traits and EI.

³² Arenius-Antio, Op.Cit

Figure 1 conceptual Model of the Study



Note:Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI

Research Methodology

This study collected data from 436 students studying entrepreneurship course in several departments of Bahauddin Zakariya University Multan located in province of Punjab, Pakistan. The population for the current research was entrepreneurs (students) that have intention to start their own business. The current study utilizes convenience sampling in which the relevant information from the sample or the unit of the study is conveniently available. The researcher has distributed self-administered questionnaire among the students. Responses were collected on the 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree) in the study. It has ensured that the respondents were the students enrolled in entrepreneurship course and have enough knowledge of entrepreneurial educational. To measure direct and indirect determinants EI, this study used adopted scales that are tested in previous studies. The scale for EI was adopted and then adapted from the study of ³³. The scale for ATB and PBC

³³ Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), 75-87.

adopted from the study of³⁴. Personality trait scale was adopted from³⁵. The scale of entrepreneurial education was adopted from³⁶. The data was analysed in PLS (SEM) software. Hair et al., (2014) has suggested to use t Structural equation modelling (SEM) that is an exact second-generation multivariate analysis technique to test the link between the constructs.

Results

The data was analyzed in PLS-SEM software and results obtained were reported through measurement model and structural model.

Demographic Information of the Study

Table 1 Demographic Information of Respondents

Demographics	Frequency	Percentage
Gender		
Male	9	1.9
Female	467	98.1
Total	476	100
Age		
Less than 25	4	.8
26 to 30	202	42.4
31 to 35	168	35.2
36 to 40	102	21.4
Total	476	100.0
Education		
Bachelor	174	36.6
Master	155	32.6
Research degree	147	30.8
Total	476	100.0

Table 1 showed the demographic information of the respondents of the current study. Information provided in the table indicated that 98.1% students are male while female respondent's percentage is only 1.9%. Demographic information showed that majority of students are above 26 years old. In

³⁴ Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

³⁵ Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Journal of small business management*, 34, 42-49.

³⁶ Byabashaija, W., & Katono, I. (2011). The impact of college entrepreneurial education on entrepreneurial attitudes and intention to start a business in Uganda. *Journal of Developmental Entrepreneurship*, 16(01), 127-144.

addition, the information regarding their educational qualification showed that 32.6% students are master's degree holder while 30.8% are enrolled in MS/M.Phil/PhD or programs.

The data was analysed in PLS-SEM software and results obtained were reported through measurement model, structural model and mediation analysis.

Table 2 Measurement Model Results

Construct/Dimension /Indicator	VIF	Factor Loading	CR	AVE	Cronbach's Alpha
ATB	2.762		0.817	0.475	0.701
ATB1		0.763			
ATB2		0.731			
ATB3		0.673			
ATB4		0.735			
PT	2.792		0.796	0.566	0.616
PT1		0.789			
PT2		0.717			
PT3		0.750			
PBC	2.828		0.782	0.474	0.628
PBC1		0.683			
PBC2		0.700			
PBC3		0.632			
PBC4		0.735			
EE	1.000		0.836	0.505	0.754
EE1		0.734			
EE2		0.687			
EE3		0.723			
EE4		0.662			
EE5		0.744			
EI			0.851	0.533	0.780
EI1					
EI2		0.738			
EI3		0.721			
EI4		0.708			
EI5		0.697			
		0.783			

Note:Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI, Variance Inflation Factor (VIF), Composite Reliability (CR), Average Variance Extracted (AVE).

Results obtained for measurement model shown in Table1. Measurement model was evaluated with respect to reliability and validity (Hair et al., 2014). The reliability was assessed by Cronbach's alpha. All constructs revealed an acceptable level of Cronbach's alpha, ranging from 0.616 to 0.780 that is suggested by Hair et al., (2014), the acceptable value of Cronbach alpha is 0.60. The results for reliability test represented through factor loading and CR. The reported values indicated that all the measures are robust as the indexes showed satisfactory level, ranging from 0.769 to 0.905

which exceeded the threshold level of 0.7. The AVE of the constructs represents the reliability of the model and should be close to 0.50. The AVE is very close to threshold value ranging from 0.474 to 0.566. The factor loading of each item of the construct undertaken in this study namely ATB, PT, PBC, EE and EI are above 0.60 of threshold value as suggested by the study of Hair indicated the acceptable loadings of constructs that ranges from 0.632 to 0.789.

Table 3 Fornell-Larcker's Criterion

Constructs	ATB	EI	EE	PBC	PT
ATB	0.726				
EI	0.702	0.730			
EE	0.709	0.702	0.711		
PBC	0.706	0.705	0.703	0.760	
PT	0.704	0.724	0.700	0.700	0.723

Note: Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI

Fornell-Larcker's test measures the discriminate validity on the construct level. This test posits that a construct should share more variance with its own measures than it shares with other constructs in the given model. Thus, the correlation of a construct with its own indicators (square root of AVE) must be greater than the correlation between the construct and any other construct operationalized in the study.³⁷ Further, the correlations between the coefficients should not exceed than 0.8. The results reported in Table 3 indicated that all the values are less than 0.80 and diagonal values are more than all other values reported in the above table that showed constructs values are discriminated in its own construct than other constructs.

Structural Model Results

In this study, the structural model relationship was measured using PLS-SEM bootstrapping method for the significance of relationship. Bootstrapping was done on 5000 re-sampling for analysing the significance of the results and the precision of the path coefficients (Hair et al., 2014). Significance and the precision accuracy is analysed through standard error

³⁷ Chen, C. C., Greene, P. G., & Crick, A. Does Entrepreneurial Self-Efficacy Distinguish Entrepreneurs from Managers, *Journal of Business Venturing*, Vol 13, Issue 4, 1998, pp.295-316.

and t values. Path coefficients are regarded as significant if R square shows moderate accuracy with significant t values at one level of confidence.³⁸

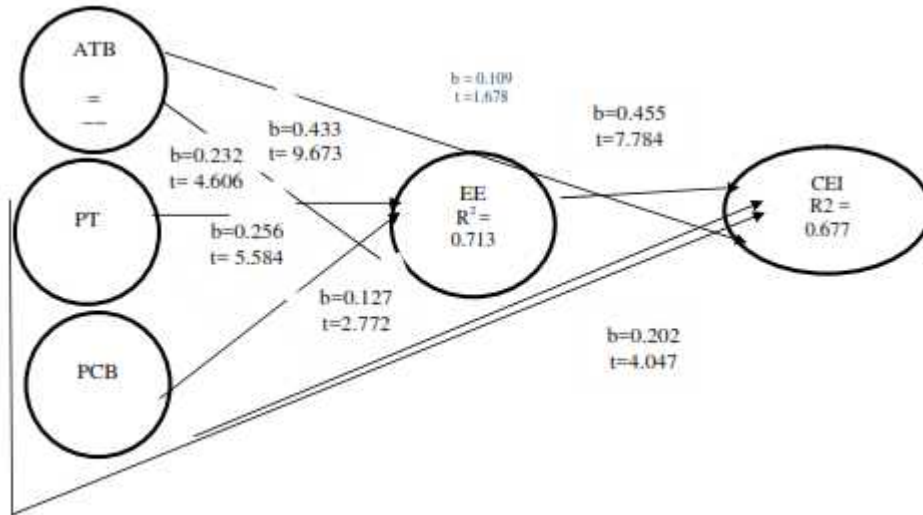


Diagram 2 Structural Model Results

Note: Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI

Diagram 2 showed the values of exogenous constructs namely ATB, PBC, PT, EE on endogenous constructs EE and EI. R^2 analysis revealed the accuracy of prediction. Its value lies between is 0 to 1 and the higher the value indicates high accuracy of prediction. Values are categorized as following according to their interpretations 0.25 = Weak, 0.50 = Moderate, and 0.60 = Strong³⁹ (Hair et al., 2014; 2016). Results of R^2 values for EE are 0.667 and EI is 0.713 that indicated prediction of exogenous constructs on endogenous constructs.

³⁸ Hair Jr, Joe, Partial Least Squares Structural Equation Modeling PLS-SEM an Emerging Tool in Business Research. *European Business Review* , Vol 26, Issue 2, 2014, pp. 106-121.

³⁹ Ibid

Table 4 Summary of Results

Hypothesis	Relationship	SD	t-Stats	P-value	Finding	
H ₁	ATB-> EI	0.109	0.065	1.678**	0.093	Supported
H ₂	PT -> EI	0.202	0.051	4.047*	0.000	Supported
H ₃	PBC -> EI	0.127	0.046	2.772*	0.006	Supported
H ₄	EE -> EI	0.455	0.058	7.784*	0.000	Supported
H ₅	ATB -> EE	0.433	0.045	9.673*	0.000	Supported
H ₆	PT -> EE	0.232	0.050	4.606*	0.000	Supported
H ₇	PBC -> EE	0.256	0.046	5.584*	0.000	Supported

Note: * p<0.01, ** P<0.05 significance level, Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI

The direct relationships among the variables showed a significant positive relationship at 1% level of confidence except the relationship between ATB and EI that showed a positive relationship with greater than 5% or less than 10% level of significance.

Mediation Analysis

Table 5: Mediation Results

Constructs	Indirect Effect	Total Effect	VAF	Assessment
ATB EE EI	0.197	0.3060	64.4%	Partial
PT EE EI	0.1056	0.3076	34.3%	Partial
PBC EE EI	0.1165	0.2435	47.8%	Partial

Note:Attitude towards behavioural control= ATB, Perceived behavioural Control=PBC, Personality Traits=PT, Entrepreneurial Education=EE, Entrepreneurial Intention =EI

The results for mediation analysis of this study were obtained through calculating Variance Accounted For (VAF) formula. VAF formula follows the mediation condition recommended by Baron and Kenny (1986). The study of⁴⁰ argued that VAF value less 20% showed no mediation while the value greater than 20% indicated partial mediation while value greater than 80% indicated full mediation. The results for H8 showed with VAF value (64.4%) that indicated that EE partially mediates between ATB and EI. The results for mediation that was proposed in H9 showed that entrepreneurial education partially mediates between PT and EI with VAF value (34.3%) that also indicated partial mediation. The result for H10 that proposed the

⁴⁰ F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.

mediation of EE relationship between PBC and EI has supported the partial mediation with VAF value (47.8%). Therefore, as with VAF of the current study standing greater than 34%, it can be classified as partial mediation.

Discussion

The one of the important objective of the current is to examine the direct impact of attitude toward entrepreneurial behaviour, personality traits, perceived behavioural control, EI and entrepreneurial education. Another important objective is to measure the mediating impact of entrepreneurial education between ATB and EI, between personality traits and EI, and between PBC and EI. In order to achieve the above-mentioned objectives, the current study hypothesised the positive relationships between; attitude toward entrepreneurial behaviour and EI, personality traits and EI, PBC and EI and EE and EI. Moreover, this study also hypothesised the direct positive relationships between; attitude toward entrepreneurial behaviour and EE, personality traits and EE, PBC and EE. The following discussion explains the results obtained for the hypothesised relations.

The results of the current study highlighted that entrepreneurial intention play important role in prompting and determining the practices of blossoming enterprises. Relying on TPB, this study investigated the determinants of EI namely attitude towards behavioural control, personality traits and entrepreneurial education. The results showed that EI is predicted by ATB, personality traits, PBC, and EE. This study also assessed the significance of positive relationships between EI and its determinants. The result indicated that EI is founded at individual level and mainly determined by motivations, individual characteristics, and perceived behaviours.

The findings of this study hold that the ability to device entrepreneurial behaviours, personality traits, control on behaviour, intellectual ability needs to be implemented at the individual level to increase entrepreneurial intention of new entrepreneurs. The results showed that among the determinants EE has significant strong positive relationship with EI with (beta 0.455) while the results also showed that ATB has also most positive relationship with EE as the value (beta=0.433).The results indicated that there is a need to change the routine mechanism to implement the entrepreneurial behaviours and entrepreneurial characteristics like personality characteristics, PBC along with the relevant education (EE) that resulted in increasing their entrepreneurial intention.

The direct hypothesised relationships of ATB, PT, and PBC with EE were confirmed in this study with empirical evidences. The current study found a significant positive relationship of ATB, PT, and PBC with EE. As

the study of⁴¹ instituted that environmental support is not able to forecast EI. The findings suggested that the researcher should search with more attention at the actual usefulness of backing from the financial institutions (universities) in determining EI. The result of this study indicated that entrepreneurial education creates awareness, innovations and knowledge about the entrepreneurial characteristics among the nascent entrepreneurs. This indicated that entrepreneur's action toward the entrepreneurial activities helps in achieving entrepreneurial actions through implementation of initiatives in the form of ATB, PT, and PBC. The results also showed that it may be possible that the external support like universities in promoting entrepreneurial education play a significant role in this process.

The results of this study supported the hypothesised partial mediation of entrepreneurial education between the relationships of ATB, PT, and PBC with EI. The results indicated that determinants of EI such as ATB, PT, and PBC are fostered by their entrepreneurial education (skills, knowledge, creativity, imagination, and alertness to opportunities) that in turn increase their initiatives in the form of entrepreneurial intention. This improvement can yield by the initiatives taken at the micro-level initiatives (bottom-up processes) and external support (universities).

Limitations and Future Research

This research paper has several limitations. First, this study considered only few factors that effects entrepreneurial intention like personality traits, attitude toward entrepreneurial behaviour, entrepreneurial behaviour control and entrepreneurial education. Further studies on entrepreneurial intention should incorporate environmental factors (organisational and governmental support) and age of the entrepreneur, training and development, and founder's experience, Secondly, the sample size of the study is small which should be increased to realize the most important determinants at more generalized level. Thirdly, the data is collected from a group of people (students studying in universities). Future studies should have collected at from organisations as well. This study collected cross-sectional data while future studies should use longitudinal data.

⁴¹ Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2012). The determinants of corporate entrepreneurial intention within small and newly established firms. *Entrepreneurship Theory and Practice*, 36(2), 387-414.

Practical Implication

The findings of this study inspire researchers, particularly those interested in entrepreneurial literature. Surely, this study would be beneficial for arising entrepreneurs of Pakistan. This has a vast scope and could be helpful for any entrepreneurial students regarding their education career. This study focused on attitude, behaviours (control beliefs), personality and relevant education for entrepreneurs as one vital variable to increase their intention and displayed that the effect of determinants of intention as predictors in the entrepreneurial research will change the entrepreneurial attention. Several effects seem interesting to analyse in future research like the influence of the parent's background on the student's entrepreneurial intentions or whether the parents who are entrepreneurs have influence on the student's preference in terms of becoming an entrepreneur.