

DETERMINANTS OF ENTREPRENEURIAL INTENTION IN PERSPECTIVE OF THEORY OF PLANNED BEHAVIOUR

***Temoor Anjum¹, Shiva Sharifi², Nida Nazar³, Muhammad Farrukh⁴**

^{1,2,3} *PhD Candidates, Limkokwing University of Creative Technology Cyberjaya, Selangor Malaysia 63000. E-mail tamooranjum@yahoo.com; nida.nazar.syed@gmail.com*

² *Assistant Prof. Faculty of Business and Management, Cyberjaya University College of Medical Sciences, Cyberjaya, Malaysia 63000. E-mail mfarrukhiqbal@hotmail.com*

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One of the most concerning issue being faced by the under developed countries i.e. Pakistan, is how to create job opportunities for their young lads. In Pakistan, innumerable of youngsters are graduating from the universities annually, with few corresponding job of opportunities which is causing social vice in form of violence and crimes. Entrepreneurship can play an effective role in generating employment opportunities in the country which in turn help in reducing unemployment rate, alleviating poverty and improving livelihood. Thus, it has become a tinted area of for the researcher to study antecedents of entrepreneurial intentions. Therefore, the purpose of this study was to investigate the antecedents of entrepreneurial intention in perspective of theory of planned behaviour. For doing so, a deductive approach of logic was adopted and data were collected from 250 students with the help of structured questionnaire. To empirically test the model, structural equation modelling technique was used with the help of SmartPLS software version 3. The findings supported all the hypothesized associations. This study contributed to practice and knowledge domain by endorsing the incorporation of Self efficacy and perceived risks into TPB model.

Key words: Entrepreneurial Intentions, Theory of Planned Behaviour.

JEL Codes: L26, M10.

1. Introduction

Pakistan is the 10th largest country in the world in respect to the size of its labor force. In accordance with the current statistics 3.62 million people are unemployed (Pakistan Economic Survey 2014–2015). One of the most concerning issue being faced by the under developed countries i.e. Pakistan, is how to create job opportunities for their young lads. In Pakistan, innumerable of youngsters are graduating from the universities annually, with few corresponding job of opportunities which is causing social vice in form of violence and crimes (Farrukh, 2017). In order to limit the problems prevailing in the society which brings unrest and distress for the people, the government of Pakistan has been paying close attention to take steps which aim towards job creation and side by side incorporate training for entrepreneurs.

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** Corresponding Author*

They are also working towards reviewing curriculum of the universities so that the future entrepreneurs who are young can learn and adhere to self-employment skills. Entrepreneurship can play an effective role in generating employment opportunities in the country which in turn help in reducing unemployment rate, alleviating poverty and improving livelihood (Farrukh, 2017). Irrespective of the training being provided or the convenience of entrepreneurship given by the higher institutions of learning in Pakistan, a large number of graduating students are beating about the bush in job searching being unwilling to take upon entrepreneurial activity. This situation is an eye opener for us that it is not about educating people on entrepreneurship but moreover it is about their willingness towards being an entrepreneur. By judging intention we can predict that the individual behaviour and action is the outcome behavior (Krueger, 1993). Thus, a person's goal in connection to the entrepreneurial activities can prove and be fruitful to entrepreneurial behaviour (Reynolds, 1995). Autio et al (2001) suggested that a person's will towards doing something can explain about 30% deviation in behavior. Thus, to study entrepreneurial behavior, has attracted the interest of many researchers which came forth in a lot of models and theories linked with the explanation that what are the important points which bring entrepreneurship and individuals together (Farrukh, 2017). The most prolific and interesting in comparison to other theories is Theory of planned behaviour (Ajzen, 1991). This piece of information sheds light on the point that attitude, subjective norms and perceived behavioural control are the indicators of intentions and on the same note perceived control and intentions are the forecasttors of behaviour (ibid).

However, the Ajzen Model does have its limitations. First, it has a limitation on account of generalization of the findings of the studies based on this model, to different situations and cultures. Ajzen (1991) states that "The relative importance of attitude, subjective norm, and perceived behavioural control in the prediction of intention is expected to vary across behaviours and situations" (188 p.). Even most of the existing studies showed mixed results. For example, one of the few studies conducted in Pakistan i.e., Shah and Soomro (2017) show that attitude towards entrepreneurship and subjective norms significantly affect EI while the effect of PBC on EI was insignificant.

Second, studies based on this model explain only a small proportion of the variance in the entrepreneurial intentions (EI). The studies (Linan 2009; Van Gelderen, 2008) have shown that these three predictors explain about 30 to 45% of the variation in the EI. Hence, there is room for the inclusion of more predictors to increase the proportion of variance. Hence, there is need to go beyond the purview of TPB to find out the antecedents of the entrepreneurship intention (Lortie, 2015).

One additional predictor of the EI could be the self-efficacy, as entrepreneurial skills positively affect the entrepreneurial intentions (Ibrahima, 2016). However, there has been debate in the literature whether self-efficacy is captured by perceived behavioural controls (PBC) or not. Some scholars (Ajzen, 1991) believe that self-efficacy and PBC are synonymous and some consider that self-efficacy is related to PBC.

However, many researchers (e. g., Manstead, 1998) do not endorse this viewpoint and believe that both constructs are considerably different from each other. For example, Bandura (1992) says, “that locus of control and self-efficacy bear little or no relation to each other” (124 p.). Moreover, empirical evidence (e.g. Isiwu, 2017) also shows that they are the two different constructs. Self-efficacy refers to the state of self-sufficiency in certain skills. On the other hand, PBC is related to perceived barriers and restrictions on the way to achieving the target behaviour (Armitage, 2001). Perceived risk (PR) is another factor which is likely to influence the EI (Zhao, 2010). Higher perceived risks are likely to negatively affect the intentions of individuals to prefer business over job. Hence, the inclusion of self-efficacy and perceived risks in the TPB make the case. However, there is need for empirical testing to find out whether their inclusion in the TPB improves variance in EI or not. The present study aims at exploring answer to this question.

2. Proposed Theoretical Framework

TPB has been extensively used in studies related to entrepreneurship intentions (Shiri, 2017). Ajzen model is based on TPB, which states that attitude, PBC and subjective norms are the predictors of the EI (Ajzen, 1991). First determinant of the EI is the AE. The effect of AE on EI has been reported to be positive and significant by studies such as Shah and Soomro (2017) and Tiwari, Bhat, & Tikoria (2017). Second determinant of the EI is PBC. The causal relation between of PBC and EI has also been found significant by previous studies such as Tiwari, Bhat, & Tikoria (2017). However, some studies such as Shah and Soomro (2017) reported this proposition (effect of PBC on EI) statistically non-significant. These conflicting results highlight the need for testing these propositions in different geographical contexts. Third determinant of the EI is subjective norms. Literature (Shah, 2017; Tiwari, 2017) provides considerable support for the causal effect of subjective norms on EI. However, opposing results have also been reported by studies such as Passaro, Quinto & Thomas (2018). In recent years, several studies have attempted to extend the model in a bid to improve our understanding about the antecedents of EI.

Self-efficacy is expected to positively affect AE and EI. Support is available from the literature for these propositions. Isiwu & Onwuka (2017) found that self-efficacy is a positive and significant predictor of AE and EI. The effect of SI on EI was also reported to be statistically significant by Ibrahimia & Mas’udb (2016); Farukh, et al. (2017) and Tiwari, Bhat, & Tikoria (2017). Tiwari, Bhat, & Tikoria (2017) revealed that self-efficacy is a significant predictor of PBC and SN too. However, they did not examine its effect on EI. Self-efficacy has a psychological effect on EI. Besides, self-efficacy is also expected to positively affect PBC. Perceived risks are expected to negatively affect the PBC and the attitude towards entrepreneurship (Akbar, 2015; Zhao, 2010).

In brief, addition of Self-efficacy and risk factors to the Ajzen model is expected to add considerable value. Based on the propositions discussed above, it is hypothesized that:

- H1. Self-Efficacy positively impacts Attitude towards Entrepreneurship
- H2. Self-Efficacy positively influences Entrepreneurial Intentions
- H3. Self-Efficacy negatively influences the Perceived Risk
- H4. Self-Efficacy positively affects Perceived Behaviour Control
- H5. Attitude towards Entrepreneurship positively affects Entrepreneurial Intentions
- H6. Perceived Risk negatively influences AE
- H7. Perceived Risk positively impacts Perceived Behaviour Control
- H8. Perceived Behaviour Control positively affects Entrepreneurial Intentions
- H9. Subjective norms positively affect Entrepreneurial Intentions.

3. Methodology

Instrument for data collection

All constructs of the study were reflective in nature. The scales for attitude towards entrepreneurship, perceived behavioural control, subjective norms and entrepreneurial intention were adapted from Lorz (2011) and Linan & Chen (2009); Shah, Shah, Soomro & Soomro (2017) and Self-efficacy scale was adopted from Schwarz & Jerusalem (1995).

Sampling design

We approached 300 Pakistani students of business education in various universities in Malaysia. They were provided hard copies of the questionnaires. Out of 300 students, 258 questionnaires, out of which 7 questionnaires were not completely filled hence, were discarded, leaving 251 responses valid for data analysis.

4. Data analysis and Results

The Partial Least squares Structural equation modelling (PLS SEM) method and statistical software SmartPLS 3 (Ringle, 2015) was used to estimate the hypothesized model. PLS-SEM is a non-parametric, multivariate approach used to estimate path models with latent variables (Avkiran, 2017; Hair, 2017; Richter, 2016; Rigdon, 2016). The PLS SEM has been used in number of previous studies Farrukh, Khan, et al. (2017); Farrukh, Chong, Mansori, & Ravan Ramzani (2017); Farrukh, Wei Ying, & Abdallah Ahmed (2016); Farrukh, Ying, & Mansori (2016; 2017); Riaz, Farrukh, Rehman, & Ishaque (2016). There are two steps in running PLS SEM in first step, measurement model is evaluated for validity and reliability while in second step structural model is measured.

Assessment of measurement model

Indicator and composite reliability

To assess the quality of measurement model, Indicator reliability (item loading) and internal consistency (Cronbach's alpha and composite reliability) measures

are used to test reliability. Researchers (e.g. Ali, 2018) suggest that the minimum value of item loading should be 0.7 and that of composite reliability 0.7.

Convergent and discriminant validity

Average variance extracted (AVE) is a measure of convergent validity. Convergent validity is established if value of AVE for each construct exceeds 0.50.

Table 1. Construct Reliability and Validity

LV	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Attitude towards Entp.		0.909	0.932	0.733
ATE1	0.739			
ATE2	0.572			
ATE4	0.759			
ATE5	0.845			
Entrepreneurial Intention		0.907	0.929	0.687
EI1	0.878			
EI2	0.755			
EI3	0.769			
EI5	0.712			
Perceived Behavioural Control		0.897	0.922	0.663
PBC1	0.732			
PBC2	0.879			
PBC4	0.785			
PBC5	0.815			
PBC6	0.888			
Subjective Norms		0.795	0.882	0.715
SN1	0.771			
SN2	0.725			
SN3	0.893			
SN4	0.878			
Self-efficacy		0.947	0.953	0.594
SE1	0.716			
SE2	0.816			
SE3	0.746			
Se4	0.893			
SE5	0.717			
Perceived Risk		0.708	0.837	0.631
PR1	0.868			
PR2	0.734			
PR3	0.777			

AE: Attitude towards entrepreneurship; EI: entrepreneurial Intentions; PR: perceived Risk; PBC: perceived behavioural controls; SE: Self-efficacy; SN: Subjective norms

Table 1 indicates that the values for composite reliability were greater than the threshold value of 0.70 and all values of Cronbach’s alpha exceeded the cut off value of 0.70 (Nunnally, 1994); establishing adequate reliability. Table 1 also indicates that value of all the constructs’s AVE were well above the 0.50 threshold; ensuring adequate convergent validity.

Next, to establish the discriminant validity Fornell and Larcker’s (1981) criterion was used by comparing the correlations among the latent constructs with square roots of average variance extracted as presented in Table 2.

Table 2. Discriminant Validity

	AE	EI	PB	PBC	SE	SN
AE	0.856					
EI	0.732	0.829				
PR	-0.495	-0.454	0.794			
PBC	0.479	0.543	-0.390	0.814		
SE	0.677	0.722	-0.503	0.534	0.771	
SN	0.577	0.598	-0.335	0.297	0.607	0.845

Note: Diagonals represent the square root of the AVE while the other entries represent the squared correlation

Furthermore, as a rule of thumb for establishing discriminant validity, Fornell and Larcker (1981) suggested that the square root of the AVE should exceed the correlations among latent constructs. As presented in Table 2, the correlations among the latent constructs were compared with the square root of the average variances extracted (Chin, 1998, 2010a; Fornell, 1981; Hair, 2014; Henseler, 2009). Table 2 further indicated that each of the square root of the average variances extracted has exceeded the correlations among latent constructs. Hence, this suggests that adequate discriminant validity has been achieved.

Assessment of structural model

After establishing the validity and reliability, next is the assessment of structural model, which includes evaluation of coefficient of determination, predictive power and effect size, An Important method of evaluating the predictive power of structural model in PLS-SEM is to estimate the coefficient of determination, which is also known as the R-squared. Value Adjusted R² is quite reasonable in case of all four endogenous variables i. e., AE (0.487), EI (0.657), PR (0.251) and PBC (0.299). All these variables are acceptable as Hair Jr. et al. (2014) consider a value of 0.20 high in behavioural sciences. Table 3 predicts R squared values.

Table 3. Adjusted R²

	Adjusted R ²
AE	0.487
EI	0.657
PR	0.251
PBC	0.299

As shown in the table 3 entrepreneurial Intention (dependent variable) has 0.657 R² which means that all the independent variables caused a 65.7% change in the entrepreneurial intentions of the students.

Effect Size f^2

The effect size f^2 measures the contribution of an exogenous variable to R² of its endogenous variable. Table 4 predicts values of f^2 .

Table 4. Effect size f^2

	AE	EI	PB	PBC	SE	SN
AE		0.184				
EI						
PR	0.063			0.029		
PBC		0.057				
SE	0.482	0.102	0.340	0.219		
SN		0.047				

0.02= small; 0.15 medium; 0.35 Large

Results in table 4 show that the contribution of the exogenous variables to their respective endogenous variable is considerable, as per the guidelines given by Cohen (1988). Effect size f^2 of 0.02 is considered as small, 0.15 as medium and 0.35 as large effect. Further, table 4 shows that Attitude towards entrepreneurship (AE) has the highest contribution (0.184) towards EI while subjective norms (0.047) have the lowest contribution towards percentage change in entrepreneurial Intention.

Path coefficients and their significance

Table 5 contains path coefficients and values of their significance.

Table 5. Path coefficients and their significance

	Original Sample (O)	T Statistics	P Values	H	Result
AE → EI	0.361	7.472	0.000	H5	Accepted
PR → AE	-0.207	4.027	0.000	H6	Accepted
PR → PBC	-0.163	2.186	0.029	H7	Accepted
PBC → EI	0.168	3.600	0.000	H8	Accepted
SE → AE	0.573	14.276	0.000	H1	Accepted
SE → EI	0.288	4.805	0.000	H2	Accepted
SE → PR	-0.503	9.944	0.000	H3	Accepted
SE → PBC	0.451	6.819	0.000	H4	Accepted
SN → EI	0.165	3.360	0.001	H9	Accepted

It shows that SE ($b = 0.288$, $t = 4.805$, $p < 0.01$), AE ($b = 0.361$, $t = 7.472$, $p < 0.01$), PBC ($b = 0.168$, $t = 3.600$, $p < 0.01$) and SN ($b = 0.165$, $t = 3.360$, $p < 0.01$) are significant predictors of EI. Hence, H2, H5, H8 and H9 are supported. The four predictors of EI account for about 66% of the variance in the EI. SE ($b = 0.573$, $t = 14.276$, $p < 0.01$) and PR ($b = -0.207$, $t = 4.027$, $p < 0.01$) are the significant predictors of AE. Hence, H1 and H6 are confirmed. These two predictors explain about 50% of the variance in the AE. The effect of SE on AE is positive while that of PR is negative. SE ($b = 0.451$, $t = 6.819$, $p < 0.01$) and PR ($b = -0.163$, $t = 2.168$, $p < 0.05$) have significant effect on PBC. Hence, H4 and H7 are accepted. SE and PR jointly account for 30% of the variance in the PBC. The effect of SE on PBC is positive while that of PR is negative. SE ($b = -0.503$, $t = 9.944$, $p < 0.01$) also significantly but negatively affects PR. Hence, H3 is supported.

5. Discussions

On overall basis, strength of the structural model of the current study is high. Its results revealed that self-efficacy, attitude towards entrepreneurship, perceived behavioural control and subjective norms explain 65.7% variance in the entrepreneurial intentions. This is substantial as per criterion of Chin (1998). The model of entrepreneurial intention of the current study has not been studied in entirety, in the past. However, some propositions tested in this study have been examined by some other studies. Results are briefly discussed below:

The result of H1 (effect of SE on AE) is congruent with previous studies (Isiwu, 2017). We conclude that the students who succeed in developing self-efficacy in the domain of entrepreneurship are very likely to develop intentions to have their own businesses. The result of H2 (effect of SE on EI) is congruent with previous studies such as (Ibrahima, 2016; Farrukh, 2017). The result of H3 (effect of SE on PR) is congruent with previous studies. The result of H4 (effect of SE on PBC) is congruent with previous studies.

Findings show that attitude towards entrepreneurship has higher coefficient for EI than any other variables. The result of H5 (effect of AE on EI) is congruent with previous studies (Shah, 2017). The result of H6 (effect of PR on AE) is consistent with previous studies. The result of H7 (effect of PR on PBC) is pioneering. This is also one of the major contributions of this study. The result of H8 (effect of PBC on EI) is congruent with previous studies (Tiwari, 2017) but does not support the findings of the studies such as (Shah, 2017) which found this relationship non-significant. The result of H9 (effect of SN on EI) is congruent with previous studies (Shah, 2017) however; it deviates from the findings of the studies such as (Passaro, 2018) which found such relationship non-significant.

The findings of the present study partly support the findings of Shah and Soomro (2017) to the extent that attitude towards entrepreneurship and subjective norms significantly affect EI. However, the current study does not support their finding that PBC is not a significant predictor of EI.

The findings of the present study concur the findings of Tiwari, Bhat, & Tikoria (2017) that AE, PBC and SNs are the significant predictors of EI. However, their study found that PBC was the biggest contributor ($b = 0.42$), followed by AE (0.34) and SN ($b = 0.19$). However, the present study has found that biggest contributor to EI is AE ($b = 0.361$) followed by SE ($b = 0.288$), PBC ($b = 0.168$) and SN (0.165). It makes more sense when findings show AE and SE as stronger predictors.

Subjective norms have been found to be significant predictor of the EI, however, its coefficient is small i.e. 0.165. Some of the earlier studies (Passaro, 2018) found insignificant effect of SN on the EI.

Since SE and PR are the significant predictors of AE, it implies that attitude towards entrepreneurship is caused by self-efficacy and perceived barriers. Self-efficacy positively contributes while perceived barriers negatively influence the attitude towards entrepreneurship. PBC is affected positively by SE and negatively by PR. They cause 30% of the variance in the PBC. Self-efficacy negatively affects perceived risks. In other words, elevation in the level of self-efficacy will help in reducing the perceived risks. The biggest determinant of EI is the AE, which in turn depends upon SE. Besides, SE is also a significant predictor of EI.

Practical implications

Findings of the study offer useful implications for universities and related government institutions which have a mandate to promote entrepreneurship. A greater emphasis on the development of self-efficacy (related to entrepreneurship) of the business studies students will not only help in developing attitude of the students toward entrepreneurship but will also reduce the level of perceived risks, which in turn will enhance intentions of the students to do business instead of seeking jobs. Entrepreneurship education should begin from grade 10 so that the students start developing a positive attitude towards entrepreneurship. Such education will help in raising the bar of self-efficacy among youth in the country, which will in turn develop their attitude towards entrepreneurship and improve their intentions to have their own businesses.

Theoretical implications

The study contributes to the theory of planned behaviour by providing an empirical evidence for the justification of the inclusion of self-efficacy and perceived risks into the model of entrepreneurial intention. The study also provides evidence that self-efficacy and perceived behavioral control are the two separate constructs.

Limitations of the study

The current study does have some limitations which must be kept in view while generalizing the findings of this study to other contexts. First, sample of the study was drawn from Pakistani business studies students currently studying in Malaysia.

The sampled students may not represent the general behaviour of the Pakistani students studying in Pakistan. Second, convenience sampling was employed to select and approach the students. Third, the study did not have a big sample size.

The future studies may include the constructs of perceived feasibility, perceived desirability into the model and cognitive styles. Secondly, they may also examine the mediating role of attitude towards entrepreneurial between self-efficacy and entrepreneurial intentions; and of perceived risks between self-efficacy and attitude towards entrepreneurship. Thirdly, the future studies may also collect panel data for more rigorous and more reliable results. Demographics may also play a role in the determination of EI. Hence, the future studies are also suggested to evaluate their impact. The effect of perceived risks is likely to be moderately by the personality style of students; hence, future studies may test the moderating effect.

6. Conclusion

Entrepreneurship can play an effective role in generating employment opportunities in the country which in turn help in reducing unemployment rate, alleviating poverty and improving livelihood. In recent years, several studies have attempted to extend the model in a bid to improve our understanding about the antecedents of EI, past literature used theory of planned behaviour to investigate EI, and however, in this study we incorporated two additional variables, Self efficacy and Perceived Risk. We found that the addition of these two factors increased the percentage of variance in the entrepreneurial intention of the students.

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VERSLININKYSTĖS KETINIMO NUSTATYMAS PLANUOJAMO ELGESIO TEORIJOJE

***Temoor Anjum, Shiva Sharifi, Nida Nazar, Muhammad Farrukh**
Limkokwingo kūrybinės technologijos universitetas Selangoras, Malaizija

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Viena iš aktualiausių problemų, su kuria susiduria besivystančios šalys, tarp kurių yra ir Pakistanas, susijusi su jaunų žmonių įsidarbinimu. Pakistane daugybė jaunuolių kasmet baigia universitetus, tačiau dėl tokių socialinių problemų, kaip smurtas ir didelis nusikalstamumas, galimybių jiems įsidarbinti gana nedaug. Kuriant darbo vietas šalyje, svarbų vaidmenį gali atlikti verslumas, nes tai padėtų mažinti nedarbo lygį, skurdą ir keltų pragyvenimo lygį. Dėl šių priežasčių pastaruoju metu vis plačiau mokslininkai nagrinėja verslo galimybes Pakistane, o šio tyrimo tikslas – pasitelkus teorinį požiūrį apie planuojamą elgesį, iširti verslumo galimybes. Siekiant tikslo, buvo surinkti duomenys iš 250 studentų naudojant struktūrizuotą klausimyną, buvo taikomas dedukcinis loginis metodas. Naudijant „SmartPLS“ programinės įrangos 3-iają versiją, empiriškai išbandytas sukurtas teorinis modelis. Iškeltos hipotezės buvo pagrįstos gautais tyrimo rezultatais. Šis tyrimas prisidės prie praktikos ir žinių gilinimo įkomponuojant saviefektyvumo ir suvokiamos rizikos veiksnius į TPB modelį.

Pagrindiniai žodžiai: verslumo ketinimai, planuojamo elgesio teorija.

JEL kodai: L26, M10.