

Entrepreneurial Intentions among University Graduates:

Analysis of Business and Engineering Technology Students in Pakistan

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Abstract

The research aims to assess the relationship among factors affecting the entrepreneurial intentions of university students and a comparison among business and engineering technology students has also been done. Most of literature supports that Entrepreneurial Intention can be accurately measured through Theory of Planned Behavior and “ESM” Entrepreneurial Support Model as a theoretical framework using Perceived Behavioral Control, Personal Attitude, Relational Support, Structural Support and Entrepreneurial Education as variables of the study. The result indicates that Perceived Behavioral Control, Personal Attitude, Relational Support, Entrepreneurship Education and Structural Support have strong positive impact on Entrepreneurial intention among university graduates.

Keywords: Entrepreneurial Intention (EI), Perceived Behavioral Control (PBC), Structural Support, Educational Support, Relational Support, Normative Belief, Personal Attitude, Entrepreneurial Education.

Introduction

An entrepreneur plays a vital role for the economic development of the country and it also increase the productivity of the nation and reduces unemployment and provides an environment for the economy to grow. Sholihah & Kaijun, (2015) is of the view that for the reduction of unemployment the entrepreneurial spirit must be imparted among college students is deemed to be one of the solutions. This phenomenon has been implemented in developed economies like North America, UK, Ireland, and some European countries and they use entrepreneurship education to achieve this objective. Hadi et al, (2015) also states that to lessen the percentage of unemployment the solution is PEP potency and entrepreneurship program which provides training to develop entrepreneurial potential among students. Over the past decades due to the growing global competition, fast technological advancements and changing of dynamic has allowed entrepreneurship to become an area of interest not only for researcher but also for governments around the world and Entrepreneurship is increasingly seen as way to dealt

with global economic challenges. Therefore, it has become more applicable to comprehend how young people might nurture into entrepreneurs, Ozaralli & Rivenburgh, (2016).

Most of the literature agrees that entrepreneurial intention can be measured accurately through theory of planned behavior proposed by Icek Ajzen (Ajzen 1991). (Turker & Selcuk, 2009) were also of the view that in addition to elements of TPB model, contextual factor should not be avoided because they could have impact strongly on entrepreneurial intentions. Therefore he proposed three variables in their study as ESM Entrepreneurial Support Model having Educational, Relational and Structural Supports as variable. Batool et al, (2015) claimed that past studies on entrepreneurs profoundly put emphasis on personality and demographic approaches. Maresch, D, et al, (2015) states that entrepreneurial education is generally effective to enhance entrepreneurial intention among business and science and engineering students. Schlaegel & Koenig, (2014) both proposed that the drivers of entrepreneurial intentions are attitudes, subjective norms and PBC that is corresponding to the findings of Ambad & Damit, (2016).

Ambad & Damit, (2016) Also states that perceived relational support is the predictor of Entrepreneurial Intention. Usaci, (2015) Also states that the most of the Entrepreneurial Behavior can be explained through the four major factors including Proactive Personality, Attitude towards Learning, Attitude towards entrepreneurial Behavior and Social Norms. Therefore, literature supports that developing entrepreneurial mindset entails cooperative efforts from policy makers, educators and strategists. Therefore, it is important to know the factors that influence students to choose entrepreneurship as their career and from above discussion it can be stated that Entrepreneurship Education and factor of Theory of Planned Behavior and Entrepreneurial Support Model influence the entrepreneurial intentions of the students.

Theoretical Framework

According to TPB related model, intentions are established by Subjective Norms, Personal Attitudes and PBC Ajzen, (1991). This model was first used Kruger and Carsrud, (1993) for determining Entrepreneurial Intention. "The first is the attitude toward the behavior and refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. The second predictor is a social factor termed subjective norm; it refers to the perceived social pressure to perform or not to perform the behavior. The third antecedent of intention is the degree of PBC which, as we saw earlier, refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles". (Ajzen, 1991, p. 188). Turker and Selcuk, (2009) affirms that in entrepreneurial studies, the contextual factors should not be disregarded even though the preponderance of research emphasizes on genetics or personality traits. To discover the effect of contextual factors they developed Entrepreneurial Support Model, Which Suggest that Entrepreneurial intention is a function of Structural Support, Educational Support and Relational Support. Usaci, (2015) Also states that the most of the Entrepreneurial Behavior can be enlightened through the four major factors including Proactive Personality, Attitude towards Learning, Attitude towards entrepreneurial Behavior and Social Norms.

Relational Support

Turker and Selcuk, (2009) asserts that the young person's career selection decision could be prejudiced by friends and family members. However they found no momentous impact of Relational Support on Entrepreneurial Intention. Whereas, Yurtkoru et al, (2014) contradicts with the findings of Turker and Selcuk, (2009) and argues that Relational Support was found significant in explaining both Personal Attitudes and PBC which leads to entrepreneurial

intention. The study carried out on young Australians concluded that friends considerably influence their decision to start a business Yurtkoru et al, (2014). The support from friends, family and close network among 425 Turkish university students were optimistically influenced their decision to become entrepreneurs kurtako et al, (2014). Similarly Altinay et al, (2012) In a study of university hospitality students in UK establishes that Family Entrepreneurial Background has an impact on creating Entrepreneurial Intention. Supporting these Zapkau et al, (2015) also found that the parental role models positively influence Entrepreneurial Intention. Ambad et al, (2016) in their study to found the determinants of entrepreneurial intention among university students in Malaysia incorporate that Personal attitude is found to have a significant effect on student's intention to become an entrepreneur.

Structural Support

Structural Supports in this study refers to perceived entrepreneurial assistance from Pakistani economy, public, private and non-government organizations, these includes financial aids, rules and regulations imposed to the entrepreneurs and business opportunities provided. According to the study of Turker and Selcuk, (2009), the private, public and Non-Governmental Organizations may persuade people to engage in entrepreneurial activities since structural support was found to have constructive impact on entrepreneurial intention, which was supported by the study of Yurtkoru et al, (2014). The study among college students in Ghana found positive correlation between initiatives, incentives and other supports from government and non-government agencies and entrepreneurial Intention, Denanyoh et al, (2015).

Personal Attitude

Mumtaz et al, (2012) institutes that undergraduate student's attitude plays a vital role in developing their intention to opt entrepreneurship as a career and this was supported by the study of Yurtkoru et al, (2014). Maes et al, (2014) recommended that Personal Attitudes and PBC are working indirectly with Social Norms in laying down person's intention in involving the entrepreneurship. Maresch et al, (2015) argue that Pro-Entrepreneurial attitude in every aspect positively relates to entrepreneurial intention. Ambad et al, (2016) in their study found the determinants of entrepreneurial intention among university students in Malaysia incorporate that personal attitude is found to have a significant effect on student's intention to become an entrepreneur.

Perceived Behavioral Control

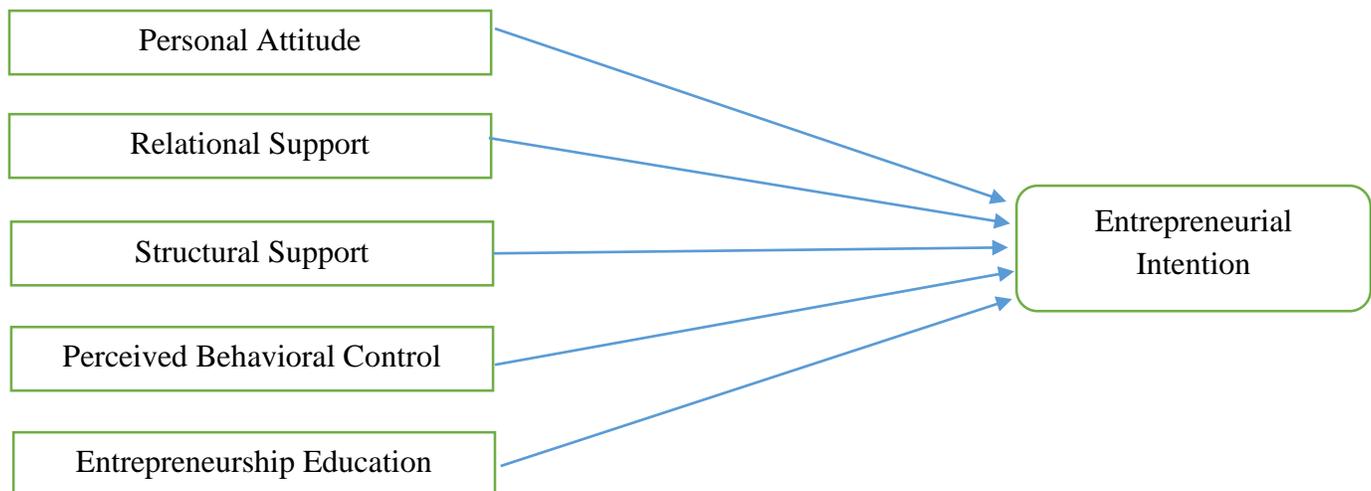
PBC is related with people confidence that they are capable of performing the behavior under examination and linked with their thinking that they have control over on that behavior, Ajzen, (2002). PBC is a precept of the person's perceived personal ease or difficulty to perform entrepreneurial behavior, Maes et al, (2014). Maresch et al, (2015) states that PBC is positively related to EI. As explained by Maes et al, (2014), internal control beliefs are linked to the personal capabilities of a person. Yurtkoru et al, (2014) predicts that the Entrepreneurial Intention is developed as result of strong Perceived Behavioral Control. The study conducted by Mumtaz et al, (2012) also found that Behavioral Control has positive relationship with Entrepreneurial Intention. Study conducted on undergraduate students in Malaysia states that PBC has a significant effect on student's intention to become entrepreneur, Ambad et al, (2016).

Entrepreneurship Education

Turker and Selcuk, (2009) asserts that Entrepreneurial Education is resourceful for acquiring knowledge on entrepreneurship, they argue that university education is an efficient way for obtaining necessary knowledge about entrepreneurship. A study conducted in Singapore to observe the interest in Entrepreneurship by university students originates that between three important factors were gender, family background in business and education level Wang and Wong, (2004). The effectiveness of Entrepreneurship Education and Training is recognized as an important factor to help youth improve entrepreneurship (Entrepreneurial Attitude) Wang and Wong, (2004). This was supported by Ahmad Bustamam et al, (2015) who argue that the entrepreneurship training is an important element in making a business a success. Studies by Sanchez, (2011) showed that entrepreneurship training undertaken by students during the university affects the interest to run their own business after graduation. Maresch et al, (2015) asserts that there are significant relations between entrepreneurial education and entrepreneurial intention. Entrepreneurial education is an efficient method to equip students with necessary knowledge about entrepreneurship, Mumtaz et al, (2012) and Turker and Selcuk, (2009).

Rauch and Hulsink, (2013) states Entrepreneurship Education may change Theory of Planned Behavior aspects in the course of Education, as it positively affects Attitudes and perceived behavioral control. Educational Support was found significant Yurtkoru et al, (2014). Denanyoh et al, (2015) also argued that education plays a key role in the development of entrepreneurial intentions and it can be enhanced as a learning process. De la Cruz del Rio-Rama, (2016) during their study on tourism students in Portugal states that students perceives education as an important factor to develop entrepreneurs, the students think that entrepreneurial subjects are very important, and that universities have to encourage entrepreneurship.

Research Framework & Hypothesis



H1: Higher the extent of Personal Attitude, the stronger the persons Entrepreneurial Intention

H2: Higher the extent of Perceived Behavioral Control, stronger the persons Entrepreneurial Intention

H3: Higher the extent of Relational Support, the stronger the persons Entrepreneurial Intention

H4: Higher the extent of Structural Support, the stronger the persons Entrepreneurial Intention

H5: Higher the extent of Entrepreneurial Education, the stronger the persons Entrepreneurial Intention

Methodology

Measurement

The primary data for independent and dependent variables were collected through face-to-face survey done using a structured questionnaire. The questionnaires were addressed to 874 students of business and engineering faculties of 11 institution of Lahore. The independent and dependent variables instrumentation, which are Relational Support, Structural Support, Perceived Behavioral Control, Personal Attitude, Entrepreneurial Education and Entrepreneurial Intention, were adapted from Turker and Selcuk (2009) and Linan and Chen (2009). All responses were measured using five-point scale items, ranging from “1=strongly disagree” to “5=strongly agree”.

Sample characteristics and data collection method

The participants in this study were Business and Engineering Technology students. The criterion for the participants is that they must have completed 50% of the degree/Program. The reasons for this was to ensure that they understand the key knowledge areas of their field and before asking them to fill the survey, a brief description about entrepreneurship was also given to the participants so that they have adequate knowledge/background before filling the survey. Majority of the respondents were female, 52.05% or 455 students against male 47.95% or 419 students. More than half of the respondents were studying Engineering Technology (52.9%) and (47.1%) were Business management students. The data was gathered from 11 Institutions of Lahore, Pakistan.

Sr #	Institution Name	Sample Size
1	University of Management & Technology	45
2	University of the Punjab	161
3	Government College University	78
4	Lahore University of Management Sciences	53
5	University of Engineering & Technology	243
6	COMSATS Institute of Information Technology	36
7	University of Central Punjab	60
8	University of Lahore	70
9	The Superior College, Lahore	24
10	National College of Business Administration & Economics	50
11	Lahore School of Economics	54

Analysis & Conclusion

Group Statistics & T-tests

Student Category		N	Mean	Std. Deviation	Std. Error Mean	T value	df value	Sig. (2-tailed)
Entrepreneurial Intention	Engineering Technology	411	3.9771	0.7088	0.03496	6.374	872	0.001
	Business	463	3.6479	0.80627	0.03747	6.423	871.92	0.001
Gender		N	Mean	Std. Deviation	Std. Error Mean	T Value	df value	Sig. (2-tailed)

Entrepreneurial Intention	Male	419	3.8907	0.78258	0.03823	3.22	872	0.001
	Female	455	3.7218	0.76788	0.036	3.217	863.113	0.001

Pearson Correlation

	Elavg	PAavg	SSavg	RSavg	PBCavg	EEavg
Elavg	1	0.559	0.122	0.43	0.587	0.316
PAavg	0.559	1	0.148	0.43	0.426	0.212
SSavg	0.122	0.148	1	0.281	0.166	0.241
RSavg	0.43	0.43	0.281	1	0.358	0.341
PBCavg	0.587	0.426	0.166	0.358	1	0.253
EEavg	0.316	0.212	0.241	0.341	0.253	1

Regression & Reliability

	R value	R Square	Unstandardized Coefficients	Cronbach's Alpha	Mean	Median	Mode	Sig
Personal Attitude	0.559	0.313	0.521	0.872	3.7771	4	3.8	0
Structural Support	0.122	0.015	0.128	0.698	3.0432	3	3	0
Relational Support	0.43	0.185	0.371	0.853	3.7582	4	4	0
Entrepreneurship Education	.316 ^a	0.1	0.218	0.927	3.394	3.6667	4	0
Perceived Behavioral Control	.587 ^a	0.344	0.573	0.867	3.4787	3.6	4	0
Entrepreneurial Intention				0.864	3.8027	4	4	

The reliability test (Cronbach's Alpha) values show that the data collected is reliable for all the variables set. The overall reliability of the model is 90.6 %. The significant value for all the independent variables are less than 0.05 as shown in correlation table which means all the proposed hypothesis are accepted.

Group statistics and t test values shows that there is significant group differences of gender and student categories regarding entrepreneurial intentions. The results indicate that male student's entrepreneurial intentions are higher than the female students. Furthermore engineering technology students has more intentions to start a business in comparison with business students.

Regression and correlation test show that personal attitude, structural support, relational support, entrepreneurship education and PBC have positive impact on entrepreneurial intentions. personal attitude, structural support, relational support, entrepreneurship education and PBC contributes 31.2%, 1.5%, 18.5%, 10% and 34.4 % respectively. The overall contribution of independent variables towards dependent variables is 95.7 % which means only 4.3% are the factors that still needs to be investigated the co relation effect shows that 1% increase in personal attitude, structural support, relational support, entrepreneurship education and PBC will increase entrepreneurial intention by 55.9%,12.2%, 43%,31.6%,58.7% respectively.

Findings

Our research findings suggests that personal attitude, structural support, relational support, entrepreneurship education and PBC contributes and impact positively towards shaping Entrepreneurial Intention among university graduates and this is supported by the past studies of Turker and Selcuk (2009), Denanyoh et al (2015), Mumtaz et al (2012), Maresch et al (2014), Yurtkoru et al (2014) and Ambad et al (2016).

Research limitations

The limitation of this research is its sample size, which only consists of 11 Institutes in Lahore city of Pakistan. The finding may not represent the whole population of students in Pakistan. Further research may consider including other public and private universities in different cities of Pakistan. This study could not provide information on several aspects like job opportunity and obstacles to be entrepreneur. These students have limited understanding of business related matters like, management skill, business plan preparation, funds and lack of theoretical in entrepreneurship. This is due to the nature of program offered by the university that focuses only on two entrepreneurial subjects throughout their study

Future Recommendations

In future research could be narrowed down to those students only who have received the complete entrepreneurial education as well as education of their own field, because it will would allow the researcher to clearly test the impact of Entrepreneurship Education on Entrepreneurial Education of the Students.

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