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Factors affecting the entrepreneurial intention levels among the undergraduate students in District Faisalabad, Pakistan

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ABSTRACT

In many countries, entrepreneurship is seen as an activity to create wealth and is also considered the best solution to the problem of unemployment in developing countries. However, entrepreneurial careers or track are not preferred by the younger generation, especially students. The theoretical framework of this search is based on the theory of planned behavior (TPB) because most of the literature agrees that the theory of planned behavior is used to determine entrepreneurial objectives/intentions. Therefore, this study aims to determine the entrepreneurial intentions among undergraduate students and determine the factors that affect their intention. The cross-sectional data was collected from two public universities in city Faisalabad. Specifically, these are the University of Agriculture Faisalabad and the Govt. College University Faisalabad and information was collected through well-structured and comprehensive questionnaires from 120 students by using random sampling techniques. Frequencies, Cronbach's alpha test, and binary logistic model were used to examine the effects of different factors like gender, age, entrepreneurial education, personal attitude, perceived behavioral control, subjective norms, and opportunity for entrepreneurial intentions. The result indicates that all the factors are significantly related to the entrepreneurial intentions among students. Although, access to opportunities and entrepreneur education are strongly contributing to entrepreneurial intentions among students. The article suggests some strategies that higher education institutions should inculcate entrepreneurial intension among students such as seminars, conferences, and internship programs. Moreover, intensive Small and Medium Enterprises (SMEs) and credit disbursing programs should be designed for the development of entrepreneurship among youth. These results are implicit for policymakers.

Keywords: Entrepreneurial intention, personal attitude, perceived behavior, subjective norms, binary logistic model

1. Introduction

Entrepreneurship has been a developmental and progressive idea for the Business World. It is a weapon that helps to combat unemployment, increase productivity, economic growth and contribute to innovation and competitive dominance. Entrepreneurship is very significant since it contributes meaningfully to the development of micro and macroeconomics of the country. On a macroeconomic level, 'entrepreneurship invigorates economies' enhance inventions in the industries, also a viable means of production, and finally is the driving force behind the economy's growth. Also on the microeconomics level, entrepreneurship provides an opportunity for them to contribute to their skills and economic development efforts. Entrepreneurship is one of the

alternatives that have been identified as a factor that has a positive impact on economic growth (Urbano *et al.*, 2019; Anjum *et al.*, 2018). Many researchers agree that entrepreneurial activities contribute positively to economic growth and development through innovation and create jobs for the unemployed (Urbano & Aparicio, 2016; Huggins & Williams, 2011; Arifin *et al.*, 2020).

Entrepreneurship activities are important to motivate the students for their entrepreneurial careers, enhance their business skills, and help them to start their businesses. University graduates have tremendous potential for innovation and economic growth. Efforts have been undertaken throughout the years to encourage young people and university students to become entrepreneurs (Potter, 2008; Liñán *et al.*, 2011). Developing countries such as Pakistan need to develop the spirits among

students to participate in entrepreneur's activities and consider it as a source of livelihood instead sticky to only option for job hunting. Pakistan is the world's fifth-most populous country, accounting for 2.83 percent of the global population (Worldometer, 2022).

Pakistan has one of the greatest youth populations in the world, with over 64% of the population under the age of 30 (Shimshali, 2021) According to Pakistan's 2019 Economic Survey, 3.3 percent of the population lives in poverty and earns less than \$1.25 per day. Because the labor force is growing rapidly and causing more people to become poor and unemployed. In this situation, entrepreneurship is viewed not only just as a desirable tool for economic growth and development, but also as a means of providing employment opportunities for the youth of Pakistan. The Pakistani government and non-governmental organizations (NGOs) have launched many programs and schemes that shows acknowledgment at government level for entrepreneurship in the growth of a country's economy. It collaborates at the national and provincial levels to boost the country's entrepreneurial activity through different measures i.e., introducing different business acceleration program (BAP), which can promote entrepreneur activities in the state and to organize different conferences with an emphasis on invention and entrepreneurship in different sector of economy. Entrepreneurship education, in particular, has been cited as a key technique for enhancing people's entrepreneurial attitudes. As a result, educational efforts are seen as having a good chance of increasing the flow of potential entrepreneurs. Higher education institutions are now fully acknowledging this effort, and Higher Education Commission of Pakistan has established the National Business Education Accreditation Council (NBEAC) for the purpose of promoting entrepreneurship in the country (Hussain *et al.*, 2021). However, these measures are not enough for the fast-growing youth population of the country and therefore, it's critical to do an empirical study on the effect of entrepreneur knowledge in molding university students' intentions towards entrepreneurial thinking in Pakistan. So, a limited literature is available in the country in this aspect. There is no understandable or empirical proof that the entrepreneurial traits

of young people, particularly those that are in the formal university system in country i.e., Pakistan, can predict their goals and direct their entrepreneurship activities. These studies have shown a favorable attitude of young people towards entrepreneurial activities and that entrepreneurship as a profession will be widely accepted in the future. (Ibidunni *et al.*, 2020; Sata, 2013; Frederick, 2018; Ali *et al.*, 2011).

Therefore, the goals of this research are to bridge the gap by empirically investigating the association between entrepreneurial qualities and entrepreneurial inclinations among university students and to learn more about the factors that influence students' decisions to pursue entrepreneurship in city Faisalabad. So ultimately main objective is to determine the factors that affect entrepreneurial intention among university students.

This research is partitioned into five sections. The first section of this study is the introduction and the objectives. The second section is the Theoretical framework and Hypotheses. The research methodology is discussed in the third section. The results of the study are discussed in the fourth section. Finally, last section includes discussion and conclusion section.

2. Theoretical Framework and Hypotheses

2.1. Theoretical Framework

Several theoretical models have been proposed by various scholars to investigate the different aspects that influence people's entrepreneurial intentions. The model of the theory of planned behavior (TPB) has been carefully tested and confirmed by existing literature (Krueger *et al.*, 2000; Peterman & Kennedy, 2003; Fayolle & Degeorge, 2006). Further this model was extended and implemented in the context of the university students (Autio *et al.*, 1997).

In this context, the study focuses on the theory of planning behavior for assessing entrepreneurial intent among university graduate students. The theory of planning behavior (TPB) model is the most popular model of recent decades, designed to understand predictions and human behavior (Eagly & Chaiken, 1993). The theory of planned behavior (TPB), is a theoretical

framework which provides strong entrepreneurial intentions. This notion asserts that a person's future action comes after their intent. The stronger a person's desire to engage in certain conduct, the more likely that behavior will be carried out. According to the theory, the intention is based on three concepts. The first Personal attitude towards behavior is the degree to which an individual has optimistic personal assessment of entrepreneurship. The second subjective norm entails recognizing social pressure from family, friends, and from others to do or not to do something. Third, perceived behavioral control relates to the ability to become self-employed and reflects the view of the situation's potential. (Ajzen, 2005; Mahmoud *et al.*, 2021). Perceived behavioral control is called self-efficacy by Bandura (1997) and is equivalent to the perceived feasibility in the Shapero model.

TPB has been widely and successfully applied to human intention. TPB is used to predict a variety of human behaviors, including health-related behavior, food choice behaviors, environmental awareness, political and social behavior, ethical behavior, and so on. (Conner & Sparks, 2005; Godin & Kok 1996; Armitage & Conner, 2001). Entrepreneurial intent has also been studied using this theory. Gender impact, decision-making power, and prenatal prognosis are all factors that influence entrepreneurial inclinations in TPB (Gird & Bagraim, 2008; Leroy & Manigart, 2008; Nishimura & Tristán, 2011).

According to literature TPB did not investigate the relationship between students' entrepreneurial goals and entrepreneurial education programs (Izquierdo & Buelens, 2011; Lüthje & Franke, 2003). However, numerous studies have found that entrepreneurial education has a favourable impact on entrepreneurial intentions (Honig, 2004; Martin *et al.*, 2013).

The TPB has been completed in the context of Entrepreneurship Education Research to bring together business intentions that are influenced by entrepreneurship attitudes, thematic principles and perceived behavior control. They are influenced by features such as personal background, motivation, family background- an educational perspective (such as a university) is also important when studying the effect of entrepreneurship

education on entrepreneurial intentions (Sieger *et al.*, 2011).

The goal of this study is to conduct empirical research on the impact of entrepreneur knowledge in shaping entrepreneur intent among university students, as well as to examine the association between entrepreneurial characteristics and entrepreneurial intentions among university students.

2.2. The Hypothesis of the Study

2.1.1. Entrepreneurship Education and Entrepreneurial Intentions

Education is recognized as a determinant of entrepreneurial intentions. According to the previous study, entrepreneurship education helps students to develop business skills that are essential for the creation and management of business plans (Jones & English, 2004). on the other hand, Effective entrepreneurship education is defined as a platform through which students are exposed to practical business information, gain self-confidence, and acquire skills necessary to succeed in running a company endeavor, as well as assisting them in making career decisions. (Wilson *et al.*, 2007). Research conducted in Malaysia has shown that proper entrepreneurship education in the exhibition will inspire students to become entrepreneurs (Kadir *et al.*, 2012). According to the literature university education has an essential role in boosting students' career choices by giving the opportunity to be exposed to theoretical and practical entrepreneurial information. As a result, it is possible to hypothesized that

Hypothesis 1: Entrepreneurship education has a positive effect on entrepreneurial intentions

2.1.2. Subjective Norms and Entrepreneurial Intentions

In previous studies, Subjective Norms were another factor influencing career choices after respondents' personal experiences. Family and friends' support influence the individual to career choice (Henderson & Robertson, 2000). In the present study, this relationship cooperation mainly refers to the emotional and financial support of family and friends. If someone from the family and friends will be starting a business, they will support us to

choose an entrepreneurial career. Therefore, based on the above discussion, it is hypothesized that.

Hypothesis 2: Subjective norms has a positive effect on entrepreneurial intentions

2.1.3. Personal Attitude and Entrepreneurial Intentions

The personal attitudes perception is essential to understanding how experience stimulates attitudes. Attitude refers to a long-term system of positive or negative feelings. It is a person's style of analysing and comparing something to the available possibilities, and it has an impact on one's thoughts, beliefs, and emotions. The undergraduate student's attitude has a positive effect on entrepreneurial intentions that it's confirmed by previous literature (Kadir *et al.*, 2012; MacInnis, 2004; Maes *et al.*, 2014). In short, a positive attitude of the students can strengthen one's intention to participate in the business. Based on this suggestion, it is hypothesized that

Hypothesis 3: Personal attitude has a positive effect on entrepreneurial intentions

2.1.4. Opportunity Recognition and Entrepreneurial Intention

Identifying opportunities is a practice by which individuals identify potentially profitable business plan ideas (Hassan *et al.*, 2020) This includes "the ability to recognize, opportunity, or create an individual's patterns and ideas." The identification of opportunity is one of the intellectual phenomena that an individual considers when making an entrepreneurship decision (Krueger & Dickson, 1994). Identifying business opportunities is an important process in entrepreneurship because choosing an idea before putting it into the business concept, as well as recognizing the opportunity by adopting all the skills and working. (Okudan & Rzasa, 2006). In this way, the opportunity develops attitudes and behaviors towards entrepreneurship. Thus, it is possible to hypothesize that

Hypothesis 4: Opportunity recognition has a positive effect on entrepreneurial intentions

2.1.5. Perceived Behaviors and Entrepreneurial Intention

Perceived behavioral control describes the perception of ease or difficulty with a particular task (Mahmood *et al.*, 2021). Perceived behavior control refers to permitting people to complete things at their own pace. The ability to manage one's perceived conduct aids in the discovery of new business prospects. Perceived behavioral control aids in the development of positive entrepreneurial goals. When job opportunities are plentiful, the impact of PBC on motivation to become a businessperson decrease. Student intent in entrepreneurship shows that students generally have a higher level of self-confidence in an 'elite university, representing perceived behavior control (Souitaris *et al.*, 2007). In short, positive Perceived behaviors of the students can strengthen one's intention to participate in the business. Based on this suggestion, it is hypothesized that

Hypothesis 5: Perceived behaviors have a positive effect on entrepreneurial intentions

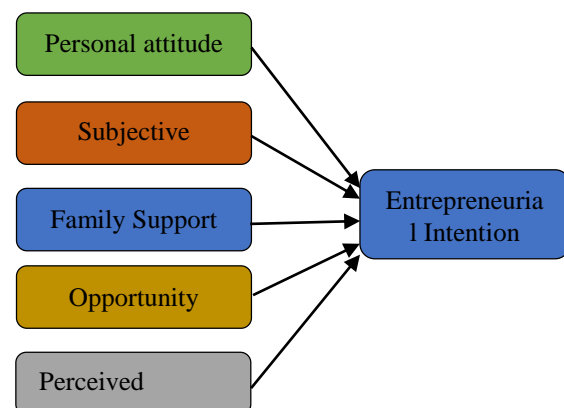


Figure 1. Theoretical framework of the relationship between students' entrepreneurial intentions and the factors affects their intention

3: Materials and Methods

3.1. Sample and Procedure

The deductive approach was used to determine the entrepreneurial intent among university graduate students in this descriptive study. The sample was collected from those populations which are on the verge of making a career decision. The sample was chosen based on the ideas of different research (Krueger, 1993). Therefore, the data was collected from the two public universities in the city of Faisalabad.

Specifically, these are the University of Agriculture Faisalabad and Govt. College University Faisalabad. In this quantitative study, we used a questionnaire to collect data from the respondents. This technique of quantitative study is used to explore the dependent and independent factors, to study the demographic characteristics. Quantitative study techniques views to boost the impartiality, validity, and reliability of results, and its advantages involved in precautions. Fundamentals to this study are the hypothesis that a scientist will find his or her knowledge, investigations, and favoritism to make specific goals in run out the research and results that are implied (Harwell, 2011). The questionnaire was distributed to students in two different institutions, with the proportion of participation from each campus being equal. The most important characteristics of sampled population are listed below. in Table 1.

Table 1: Sample description

Demographic variables	Frequency (f)	Percentage
GENDER		
Male	80	66.7
Female	40	33.3
AGE		
20-24	82	68.4
25-28	36	30.4
29-32	2	1.2
EDUCATION		
Master / MSc.	61	50.8
M. Phil / Ph. D	59	49.2
Income generating activity		
Yes	62	51.7
No	58	48.3
Business	31	25.8
Jobs	89	74.2

Source: own calculation based on survey data

Table 1 reported that 66.7% (80) of those respondents were male, while 33.3% (40) of those respondents were female. The study appears to have more males than females participating. The majority of the participants (68.4%) were between the ages of 20 and 24. Similarly, 30.4 percent of respondents were between the ages of 25 and 28, while only 1.2 percent was between the ages of 29 and 32. The total respondents whose education level in the survey is Master/ MSc were 50.8% (61) and 49.2% (59) from the MPHIL / Ph.D. class. The students who have been involved in income generation Activities among Academic

Staff. According to the survey, students about 51.7 % were involved in some income-generating activity in the form of a job or business and most of the students had experience working in different fields. They either run their own family business or work part-time. The 25.8 % (12) students have worked their own family business while 74.2% (21) students had worked part-time jobs in different sectors. About 48.3 % of the students had zero working experience.

3.2. Study Instruments and Measurements

The simple random technique was selected to collect data quantitatively through a precise questionnaire. survey questionnaire is divided into four sections and was created using previous literature (Chen *et al.*,1998). The first section of the questionnaire is focused on the respondents' demographic characteristics. The second section included six items that assessed opportunity information. On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), the six statements were measured. The items were adopted from ore previous study (Hassan *et al.*,2020). The third part is based on the factors that affect the entrepreneurial intentions among graduate students. The respondents were asked to express their agreement or disagreement on a 5-point Likert scale with the statement 1 = strongly disagree to 5 = strongly agree. These technique is based on the theory of planning behavior (Chen *et al.*,1998; Liñán & Chen, 2009; Krueger, 2000).

3.3. Reliability and Validity of Instruments

Cronbach's alpha (or coefficient alpha) is used to measure the reliability or internal consistency. It was created by Lee Cronbach in 1951. The reliability of multiple-question Likert scale surveys is determined by using the Cronbach's alpha test. These questions assess hidden factors such as conscience, nervousness, and openness, which are invisible. In real life, it is very difficult to quantify the. Cronbach's alpha is a statistics that measure how closely a set of test items are related.

Cronbach's Alpha Formula

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Where, N = the number of items, \bar{c} = average covariance between item-pairs, \bar{v} = average variance.

We used the reliability and validity test to measure the entrepreneurial opportunity, entrepreneurial intension, and factors that affect the entrepreneurial intentions among graduate students. When the dependent variable is dichotomous natures and the independent variable is continuous categorical binary logistic regression is usually used (Burns & Burns, 2008; Harell, 2015).

The binary logistic model used in this study was as follow:

$$\text{Logit}(p) = \left[\frac{p_i}{1-p_i} \right]$$

Where $\left[\frac{p}{1-p} \right]$ is the ratio of the probability that students have entrepreneurial intentions and students have no entrepreneurial intention among graduate students. As a result, the dependent variable is binary and has two values: 1 and 0. If the student has entrepreneurial intention, then its value is 1 and the value is 0 if the student has no entrepreneurial intention.

The non-linear expression of the binary logistics model equation can be linear after taking natural log.

$$\text{Logit}(p) = L1 = L_n \left[\frac{p_i}{1-p_i} \right] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots \beta_i X_i + \epsilon$$

The following Binary logistic Regression expression

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + u_i$$

Y = is the student entrepreneurial intention variable and it has dichotomous nature. β_0 = Intercept term, X_1 = Gender, X_2 = Age, X_3 = Entrepreneurial education, X_4 = Personal attitude, X_5 = Subjected norms, X_6 = Perceived behavioral control, X_7 = opportunity. Statistical package of Social Science (SPSS) is used for the purpose of data analysis.

4. Results and Discussions

4.1. Descriptive Analysis

Descriptive statistical techniques are used to analyze the data. It helps to review, define and

presentation the data in a significant way. This is one of the most important steps in the process of statistical analysis. It summarizes the distribution of your data, helps you detect errors and outliers, and allows you to find patterns between variables, which prepare you for future statistical analysis.

Several questions were asked concerning Entrepreneurial intention among students i.e. respondents. The information about respondents' profiles included their gender, age; Entrepreneurial Education, Subjective Norms, Personal attitude, Opportunity, and Perceived Behavior were expected to have important factors that affect Entrepreneurial intention among students.

Table2: Description analysis of variables used in Entrepreneurial intention among students

Variables	Min	Max	Mean	Standard Dev
Gender	0	1	0.67	0.473
Age	23	30	24.54	1.243
Entrepreneurial Education	16	18	3.51	0.850
Subjective Norms	2	5	3.94	0.955
Personal attitude	2	5	3.58	0.836
Opportunity	1	5	3.73	1.186
Perceived Behavior	3	5	3.86	0.455

According to table 2, Gender had a mean value of 0.67. The average age was 24.54 years with a minimum age of 23 and a maximum age of 30, indicating that they were all adults. Entrepreneurial Educational had a mean value of 3.51. The respondents' minimum education level of 16 years implies that they have a Master's or MSc degree, while the maximum education level of 18 years suggests that they have an MPhil or Ph.D. degree. The mean value of the Subjective Norms was 3.94 which means that 4% of the students think that their family, friends, and significant others affects to perform or not to perform their entrepreneurial intentions. The mean value of Personal attitude was 3.58. It means that 4% of the respondents believe that their Personal attitude impact entrepreneurial intentions. The mean value of the Opportunity was 3.73. It means that if there are increased opportunities for entrepreneurial activities then increases the entrepreneurial intentions among the students

by about 4%. The mean value of the Perceived Behavior was 3.86. This average score indicates that a person's perception of financial assistance is a necessary condition for establishing entrepreneurial goals.

4.2. Cronbach's Alpha Test

We used the reliability and validity test to measure the entrepreneurial opportunity, entrepreneurial intentions, and factors that affect the entrepreneurial intentions among undergraduate students. According to (Luo *et al.*, 2003), If each Cronbach alpha value is greater than 0.9, the reliability is considered "excellent", but if the value is greater than 0.7, it is considered "good".

Table 3. Summary of the loadings and alpha values

Variable	Measurement Items	Cronbach's Alpha
Overall	30	0.725
Entrepreneurial Education	5	0.742
Subjective Norms	5	0.704
Personal attitude	5	0.853
Opportunity	5	0.642
Perceived Behavior	5	0.713

Source: Authors own calculation

If the value of Cronbach alpha is greater than 0.6 then it is acceptable and if the values of Cronbach alpha are 0.5 and less than then it means the items have poor reliability and the unacceptable. It is seen in table 3 that the entrepreneurial intentions of the students at leading institutions of Faisalabad had satisfied of interior reliability. The overall internal reliability of 30 items is 0.725 interpreted as these items had reliable.

4.3. Determine the Factors That Affect Entrepreneurial Intentions Among University Students

The binary logistic model estimated entrepreneurial intention among university graduate students and the factors influencing entrepreneurial intention. Gender, age, entrepreneurial education, Personal attitude, perceived behavioral control, subjective norms, and students' opportunity have been included in the model. The result is estimated by using the binary logistic model in table 4.

The model is estimated with the maximum likelihood method. The significant level of the model is 1%, 5%, 10%. Estimated coefficients and standard errors indicate which factors influence the student's entrepreneurial intention. The likelihood ratio also tests the significance of the variables at the level of 1%, 5%, 10%. Cox & Snell R Square and Nagelkerke R Square shows that the variance in the dependent variable is explained by the variance in the independent variable (Borooah, 2002). Nagelkerke R² = 0.873 and Cox and Snell's R² = 0.887 value, showed that about 87 percent and 88 percent variation in dependent variables which is explained by the variation in the independent variable.

Total 85.4 percent of the outcome is correctly predicted by our model. Coefficients variables do not provide direct information concerning the impact of explanatory change on the likelihood of a student's entrepreneurial intent. To know the odds ratio of this difficulty, it is necessary to determine $\text{Exp}(\beta)$. This ratio is the probability of students' entrepreneurial intention and the probability that students are not the entrepreneurial intention. The stronger contributor in students' entrepreneurial intention was the opportunity which recorded the highest odd ratio of 1.063 which means that opportunity positively related to students' entrepreneurial intention. The value of the coefficient is 4.576 and the p-value is 0.000. This finding is in line (Hassan *et al.*, 2020).

Table4. Binary Logistic Regression result of factors affecting the entrepreneurial intentions among graduate student

Variables	Coefficient	Sign.	Exp(B)
Gender	.087	.816	.008
Entrepreneurial Education	1.399**	.053	-.138
Age	.357**	.088	.087
Subjective Norms	3.172***	.000	.336
Personal attitude	6.847***	.000	.771
Opportunity	4.576***	.000	1.063
Perceived Behavior	1.716**	.019	-.153
Constant	-1.007	.074	.365
Model prediction success	85.4%		
Cox & Snell R square	0.887		
Log-likelihood ratio	90.842		
Nagelkerke R Square	0.873		

Level of significance $p < 0.01$ at 1 percent, $p < 0.05$ at 5 percent, $p < 0.1$ at 10 percent

The variables significantly affecting the probability of the student's entrepreneurial intention are Age, Entrepreneurial education, Personal attitude, Family support, perceived behavioral control, Subjected norms, and opportunity which change the probability.

Older students' goals toward entrepreneurship are more likely to be stronger depending on their age. The finding reveals that when a student's age grows by a year, his or her likelihood ratio of starting a business raises by the value-related odd ratio, which is 0.087. The coefficient value of 0.357 and is significant at 95% significant level. Entrepreneurial education also has a favorable impact on students' desire to start their own businesses. The coefficient is 1.399, indicating that an increase in one level of entrepreneurial education enhances the entrepreneurial intentions among student by 1.399. The result of the Entrepreneurial education coefficient is significant at a 95% level of significance. Subjective Norms are one of the other factors that influence students' entrepreneurial intention. According to the previous study Subjective Norms such as family background, friends is also considered a factor influencing entrepreneurial intentions because Subjective Norms was another factor influencing career choices after respondents' personal experience (Henderson & Robertson, 2000). The value of this coefficient is 3.172 indicating that as increase the Subjective Norms increase 3.172 entrepreneurial intentions among students. The result of the family Subjective Norms coefficient is significant at a 90% level of significance.

Personal attitude are other important factors that affect the entrepreneurial intention among students. Attitude refers to a long-term system of positive or negative feelings. The value of this coefficient is 6.847 indicating that as the increase personal attitude increase 6.847 entrepreneurial intentions among students. The result of the family Personal attitude coefficient is substantial at a 90% level of significance.

Perceived behavioral control means the potential of the situations and represents the ability to be self-employed; it is a strong predictor of the student's entrepreneurial intentions. The value of this coefficient is 1.716 indicating that as increase ability of

Perceived Behavior the increase 1.716 entrepreneurial intentions among students. The result of the Perceived Behavior coefficient is significant at a 90% level of significance. The results of our study are similar to previous studies (Küttim *et al.*, 2014).

The gender variable is statistically insignificant related to students' entrepreneurial intentions. However, the Sign with the gender variable is positive which shows that gender is positively related to entrepreneurial intentions. The study conducted by Kadir, *et al.*, (2012) also found that Behavior control (creativity and risk-taking) there was a positive relationship with business intention. The hypotheses are supported by the empirical findings.

5. Conclusion and Policy Recommendations

The study aims to investigate the entrepreneurial intentions among graduate students by using the cross-section data set. The study is based on the existing literature. This paper attempts to contribute to the ongoing debate over the various theoretical variables that determine startup decision-making regarding entrepreneur intention. According to the theory of planned behavior, person's intentions or behaviors are impacted by their conduct. The theory of planning behavior (TPB) is to be the best model for explaining and predict the human behavior in recent decades. Entrepreneurship is an important source of economic development, job creation, innovation, and productivity. The purpose of this research is to understand more about the factors that influence students' intent to become entrepreneurs. The study is based on five hypotheses, all of which have a key effect on undergraduate students' entrepreneurial intentions. First, education is found to have a positive influenced on students' intentions to become an entrepreneur. According to the previous study, entrepreneurship education helps students to develop business skills that are essential for the creation and management of business plans. Second, Subjective Norms have a favorable impact on entrepreneurial intentions among graduate students. Subjective norm means to understand the social pressure from their family, friends. Family and friends' support influence the individual to career choice. Third, students' entrepreneurial goals

are observed to be influenced by their attitudes. It is a person's style of analyzing and comparing something to the available possibilities, and it has an impact on one's thoughts, beliefs, and emotions. Previous research has shown that an undergraduate student's attitude has a beneficial effect on entrepreneurial intentions. Fourth, Opportunity is positively associated to entrepreneurial intentions among graduate students. Identifying opportunity is a process by which individuals identify potentially profitable business plan ideas. Fifth, Perceived behaviors are proven to have a considerable impact on entrepreneurial intentions among students.

Therefore, policymakers should consider revising existing education systems and other factors to improve and develop a business culture. The study has brought attention to several dynamic policy elements and identified some areas of interest for further investigation. Entrepreneurship education, in particular, has been cited as a key technique for enhancing people's entrepreneurial attitudes. Notable among these are that universities play an important role in shaping business knowledge and there is a need to enhance business knowledge in Pakistan by developing an excellent curriculum for the development of entrepreneurship among university students. Furthermore, policymakers should develop Small and Medium Enterprises and seed funding programs with the purpose of encouraging the students for entrepreneurship which in turn create business opportunities, job creation, poverty alleviation through better living standards, and economic growth within the country.

Limitations and Future Research

The sample size is a limitation of this study because the study was conducted only in two universities in Pakistan. These results do not predict the entire population of undergraduate students in Pakistan. The sample size of future investigation may be increased, which may be considered in other public and private universities.

Conflict of Interest

Authors declare no conflict of interest.

References

- Ajzen, I. (2005). *Attitudes, personality and behaviour*. McGraw-hill education (UK).
- Ali, A., Topping, K. J., & Tariq, R. H. (2011). Entrepreneurial attitudes among potential entrepreneurs. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 5(1), 12-46.
- Anjum, T., Ramzani, S. R., Nazar, N., Shahzad, I. A., & Salman, S. (2018). Entrepreneurial intention: Does entrepreneurial education matter in Pakistan. *International Journal of Human Resource Studies*, 8(3), 147-161.
- Arifin, N. F., Rahman, R. S. A. R. A., & Othman, N. (2020). Tahap personaliti Big Six dan hubungannya dengan kecenderungan keusahawanan digital dalam kalangan pelajar kolej komuniti. *Jurnal Pendidikan Malaysia*, 45(1 (SI)), 101-110.
- Armitage, C. J. & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40, 471-499. <http://dx.doi.org/10.1348/014466601164939>
- Autio, E., Keeley, R. H., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: testing an intent model in Asia, Scandinavia and USA.
- Bandura, A., (1997). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Borooah, V. K. (2002). *Logit and probit: Ordered and multinomial models* (No. 138). Sage.
- Burns, R. P., & Burns, R. (2008). *Business research methods and statistics using SPSS*. Sage.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?. *Journal of business venturing*, 13(4), 295-316.
- Conner, M., & Sparks, P. (2005). Theory of planned behaviour and health behaviour. *Predicting health behaviour*, 2(1), 121-162.

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Eagly, A. H., & Chaiken, S. 1993, *The Psychology of Attitudes*. Orlando, FL: Harcourt Brace Jovanovich.
- Fayolle, A., & Degeorge, J. M. (2006). Attitudes, intentions, and behaviour: New approaches to evaluating entrepreneurship education. *International entrepreneurship education. Issues and newness*, 74-89.
- Frederick, H., O'Connor, A., & Kuratko, D. F. (2018). *Entrepreneurship*. Cengage AU.
- Gird, A., & Bagraim, J. J. (2008). The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. *South african journal of psychology*, 38(4), 711-724.
- Godin, G., & Kok, G. (1996). The theory of planned behavior: a review of its applications to health-related behaviors. *American journal of health promotion*, 11(2), 87-98.
- Harrell, F. E. (2015). *Regression modeling strategies: with applications to linear models, logistic and ordinal regression, and survival analysis* (Vol. 3). New York: springer.
- Harwell, T. S., Vanderwood, K. K., Hall, T. O., Butcher, M. K., & Helgerson, S. D. (2011). Factors associated with achieving a weight loss goal among participants in an adapted Diabetes Prevention Program. *Primary Care Diabetes*, 5(2), 125-129.
- Hassan, A., Saleem, I., Anwar, I., & Hussain, S. A. (2020). Entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education+ Training*.
- Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning & Education*, 3(3), 258-273.
- Huggins, R., & Williams, N. (2011). Entrepreneurship and regional competitiveness: the role and progression of policy. *Entrepreneurship & Regional Development*, 23(9-10), 907-932.
- Hussain, T., Zia-Ur-Rehman, M., & Abbas, S. (2021). Role of entrepreneurial knowledge and personal attitude in developing entrepreneurial intentions in business graduates: a case of Pakistan. *Journal of Global Entrepreneurship Research*, 1-11.
- Ibidunni, A. S., Mozie, D., & Ayeni, A. W. A. (2020). Entrepreneurial characteristics amongst university students: insights for understanding entrepreneurial intentions amongst youths in a developing economy. *Education+ Training*.
- Izquierdo, E., & Buelens, M. (2011). Competing models of entrepreneurial intentions: the influence of entrepreneurial self-efficacy and attitudes. *International Journal of Entrepreneurship and Small Business*, 13(1), 75-91.
- Kadir, M. B. A., Salim, M., & Kamarudin, H. (2012). The relationship between educational support and entrepreneurial intentions in Malaysian higher learning institution. *Procedia-Social and Behavioral Sciences*, 69, 2164-2173.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5-6), 411-432.
- Krueger Jr, N., & Dickson, P. R. (1994). How believing in ourselves increases risk taking: Perceived self-efficacy and opportunity recognition. *Decision sciences*, 25(3), 385-400.
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship theory and practice*, 18(1), 5-21.
- Küttim, M., Kallaste, M., Venesaar, U., & Kiis, A. (2014). Entrepreneurship education at university level and students' entrepreneurial intentions. *Procedia-Social and Behavioral Sciences*, 110, 658-668.
- Leroy, H., & Manigart, S. (2008). The planned decision to transfer micro-businesses. In *BABSON Conference, Date: 2008/01/01-2008/01/01, Location: Chapel Hill (USA)*.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural

- application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
- Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: a role for education. *International entrepreneurship and management Journal*, 7(2), 195-218.
- Luo, B. P., Peter, T., Fueglistaler, S., Wernli, H., Wirth, M., Kiemle, C., ... & Stefanutti, L. (2003). Dehydration potential of ultrathin clouds at the tropical tropopause. *Geophysical research letters*, 30(11).
- Lüthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), 135-147.
- MacInnis, D. J. (2004). *Consumer behavior*. Houghton Mifflin College Division.
- Maes, J., Leroy, H., & Sels, L. (2014). Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. *European Management Journal*, 32(5), 784-794.
- Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of business venturing*, 28(2), 211-224.
- Mehmood, Y., Arshad, M., Kaechele, H., Mahmood, N., & Kong, R. (2021). Pesticide residues, health risks, and vegetable farmers' risk perceptions in Punjab, Pakistan. *Human and Ecological Risk Assessment: An International Journal*, 27(3), 846-864.
- Nishimura, J. S., & Tristán, O. M. (2011). Using the theory of planned behavior to predict nascent entrepreneurship. *Academia. Revista Latinoamericana de Administración*, (46), 55-71.
- Okudan, G. E., & Rzasa, S. E. (2006). A project-based approach to entrepreneurial leadership education. *Technovation*, 26(2), 195-210.
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship theory and practice*, 28(2), 129-144.
- Potter, J. (2008). Entrepreneurship and higher education: future policy directions.
- Sata, M. (2013). Entrepreneurial Intention among Undergraduate Business Students. *International Journal of Research in Management, Economics and Commerce*, 3(9), pp. 33-48.
- Shapero, A., 1984. Why entrepreneurship? Working paper, Babson College
- Shimshali, R. A. (2021). Youth as national dividend. <https://www.thenews.com.pk/print/840454-youth-as-national-dividend>
- Sieger, P., Fueglistaller, U., & Zellweger, T. (2011). Entrepreneurial intentions and activities of students across the world: International report of guesses 2011.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business venturing*, 22(4), 566-591.
- Urbano, D., & Aparicio, S. (2016). Entrepreneurship capital types and economic growth: International evidence. *Technological forecasting and social change*, 102, 34-44.
- Urbano, D., Aparicio, S., & Audretsch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned?. *Small Business Economics*, 53(1), 21-49.
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship theory and practice*, 31(3), 387-406.
- Worldometer. (2022). <https://www.worldometers.info/world-population/pakistan-population/>