



## Predicting Entrepreneurial Intentions among Students: Evidence from Pakistan Higher Education Institutions

Noman Ahsan \*      Muhammad Ashfaq †

**Abstract:** Thousands of students are graduating each year, but the number of jobs in the market is much smaller. The unemployment rate is slowly and gradually increasing in Pakistan. There is a need to change people's minds by promoting the concept of entrepreneurship among them. Hence, the present paper aims to examine different perspectives through which the entrepreneurial intention of an individual can be formed. Online questionnaire was distributed among private university students. Therefore, in this study, four aspects are combined to evaluate the entrepreneurial intention in the Pakistan. The dataset was statistically analyzed using "CFA" and "SMART-PLS." Finding revealed students with a business background, i.e., family background are likely to become an entrepreneur as they possess the skills from their parents. However, students with entrepreneurial personality traits also show interest in entrepreneurship, but universities and competent authorities are required to assist students in forming an entrepreneurial intention, especially among the students whose parents are not entrepreneurs.

**Keywords:** Entrepreneurial Intention, University Support, Higher Education, Family Background, PLS-SEM

## Introduction

Recently, a substantial interest has been observed in entrepreneurship, especially in business schools ([Venkataraman, 2019](#)). The mindset of people is gradually taking a shift, and in this reference, students are getting more interested in entrepreneurship. Moreover, the economic growth and well-being of a society can be improved by those people who possess entrepreneurial skills as they are capable enough to determine and act upon new business opportunities. Therefore, [Audretsch \(2014\)](#) argued that universities could make a relevant contribution to society by providing opportunities to students with business skills. According to [Davidsson, Gordon, and Bergmann \(2011\)](#), entrepreneurship education gained attention and it has become a prominent field. Entrepreneurship has become part of many areas, for instance, business studies, management, and technical studies. However, it is also essential to understand individual personalities because a wide range of human actions and work-related choices are anticipated by the personality. Internal factors stimulate the desire to become an entrepreneur, as the individual's traits are the

\*Director General Sindh, Higher Education Commission, Karachi, Pakistan. Email: nomanahsan29@gmail.com

†Department Business & Management, IU International University of Applied Sciences, Germany.  
Email: muhammad.ashfaq@iu.org

fundamental component in establishing and succeeding ([Wang & Wong, 2004](#)). Similarly, crucial personality traits that develop individual's intention for entrepreneurship; these traits include internal locus of control, need for achievement risk-tolerance and entrepreneurial alertness.

Universities play an essential part in developing the intention of students, as universities are responsible for generating knowledge and awareness. Therefore, educational institutes can create awareness among students to support and develop their entrepreneurship intention. Perceived educational support includes networking, skills, knowledge, and internship opportunities. Whereas, concept development includes the creation of ideas and then converting them into workable concepts. Moreover, support highly motivates students, and pushes them to pursue their entrepreneurship careers ([Burton, Sørensen, & Dobrev, 2016](#)). As supportive atmosphere in university makes students of entrepreneurship main option as a profession by encouraging self-efficacy and improving awareness and trust in them.

Similarly, a conducive family background is also essential to form strong intention regarding entrepreneurship because the learning process is not limited to the university premises, but it also occurs in the family settings, and an individual learns more quickly from the family as compared to others. Also, the attitudes and behaviors of children are formed by the norms and values of their parents. Thus, family background, especially the occupation of parents, affects the lives of children. Previously, it is claimed that if parents are entrepreneurs, children will eventually inherit the entrepreneurial skills, whereas if a parent is an engineer in a multinational company, children will also have related skills and be more likely to work in a multinational company ([Hoffmann, Junge, & Malchow-Møller, 2015](#)). Hence, it shows that the role of the family in forming a personality and intention is crucial. Thus, the study analyzes influence of personality traits (individual factors) and university support (contextual factors) on entrepreneurial intention by incorporating the moderating role of family background.

Pakistan as a developing country needs to raise the youth's degree of entrepreneurial intention to develop quickly and join the developed world. As an emerging country, the ratio of unemployment is slowly and gradually increasing. International Monetary Fund reported that the unemployment rate of Pakistan in December 2019 is 6.140% (CEIC, 2019). However, in December 2018, it was 6.079%. Currently, in Pakistan, the numbers of jobs are less, whereas; there are many unemployed graduates in the market, which makes entrepreneurial activities essential for job creation ([Hussain & Imran Malik, 2018](#)). Moreover, the rate of entrepreneurial activities in Pakistan is low comparatively from other countries ([Hussain & Imran Malik, 2018; Khalid, Raza, Sawangchai, & Somtawinpongsai, 2022](#)). Therefore, there is an urgent need to stimulate and endorse this concept among the youth of Pakistan. On the other hand, Pakistan's So, in such situations, entrepreneurship can do wonders as new businesses create vacancies and increase the purchasing power of an individual." economy is facing severe problems with rising inflation rates, declining economic output, devaluing the currency, increasing poverty, and many more. So in such situations, entrepreneurship can do wonders as new businesses create vacancies and increase the purchasing power of an individual ([Ali, Farooq, & Parveen, 2020](#)).

Many researches have been conducted in different countries for analyzing the en-

trepreneurship intention ([Venkataraman, 2019](#); [Karimi et al., 2017](#)). Nevertheless, there have been few studies in Pakistan that focuses on goal-oriented students from Pakistan to be an entrepreneur. Moreover, intention of entrepreneurship is unpredictable in a collective environment owing to cultural, social, political, and economic differences. Thus, this study is unique in multiple aspect. First of all, it integrates two different perspectives, i.e., personality traits (individual factors) and university support (contextual factors), along with "Theory of Planned Behavior" variables. Rationale for using these factors to obtain in-depth knowledge about the concept. Secondly, we believe that an individual attitude and personality is highly associated with their families as they shape the intention and behavior. Thus, the present study also incorporates the moderating role i.e. family background. Thirdly, two models are proposed i.e. first order and second order, and the reason is to study the individual and collective influence of variables on the entrepreneurial intention. Hence, this research will provide the literature with new and updated information on the three different dimensions. Furthermore, the study will be beneficial for students, corporations, universities, and the government.

The remaining manuscript is structured as follows: Section 2 discusses related literature and develops hypotheses. Section 3 presents the theoretical framework and research methodology. Section 4 presents the findings using structural equation modeling. Lastly, the paper concludes with a discussion on the implications and recommendations for future research.

## Literature Review

### Theoretical Background

This study incorporates "Theory of Planned Behavior" (TPB) model proposed by [Ajzen \(1989\)](#). "TPB" in psychology confers individual's beliefs and behavior; it affirms behavioral motivation, cultural practices, and behavioral regulations influence individual behavioral actions. Moreover, an individual is motivated to perform a specific action based on intention. Therefore, there is a need to first develop the intention among people as [Ajzen \(1991\)](#) mentioned that higher intention causes enactment of the behavior. This model further introduced following three antecedents of intention i.e. subjective norms, perceived behavioral control, and attitude towards the behavior. According to [Kautonen, Van Gelderen, and Fink \(2015\)](#), one of the important examples of behavioral intention is entrepreneurship as previously it has been used as a prime interpreter of future behavior of entrepreneurship. Prior researches focused on the intellectual models of entrepreneurship intention and behavior that specifically focused on the TPB. TPB has been used in several research to evaluate students' intentions regarding entrepreneurship; results validates the significance of antecedent variables in TPB ([Maresch, Harms, Kailer, & Wimmer-Wurm, 2016](#)).

## Hypotheses Development

### Attitude (ATT), Subjective Norm (SN), and Perceived Behavioral Control (PBC)

Attitude, subjective norm and perceived behavioral control are antecedents of TPB. As per the research of Ajzen (1991), overall evaluation by people, either positive or negative, is the individual attitude to a particular conduct. The researcher believed people should analyze their behavior before forming a purpose. Many evaluations either support that action or condemn an action (Schlaegel & Koenig, 2014).

As per the researches of Douglas and Fitzsimmons (2013); Moriano, Gorgievski, Laguna, Stephan, and Zarafshani (2012), when an individual perceives benefits, they will eventually show a positive behavioral attitude. Additionally, in prior researches, it can be seen that attitude depicts a constant and positive impact on intention of entrepreneurship. On the other hand, (Siu & Lo, 2013) stated that due to cultural differences, we could not anticipate collective entrepreneurial intention.

SN is the second antecedent of TPB. SN are the interpretation of an individual's perspective on what others should do or ignore. Sometimes, doing or not doing any particular behavior happens due to social pressure (Ajzen, 1991). Accordingly, the researches of Kautonen et al. (2015); Siu and Lo (2013); Maheshwari and Kha (2022) determine SN positively impact determination to be an entrepreneur. On the other hand, previous work show SN as the worst indicator to determine entrepreneurship.

PBC implies perception of people regarding nature and principle of behavior. For instance, how much voluntary control they have over a new business. The leading predictor of entrepreneurial intention was PBC. Further, when students can perform the tasks concerning entrepreneurship, then they eventually portrayed positive intentions for business (Moriano et al., 2012; Qazi, Qureshi, Raza, Khan, & Qureshi, 2020). Therefore, the hypotheses are stated as:

*H1: Attitude has a positive and significant impact on entrepreneurial intention.*

*H2: Subjective norm has a positive and significant impact on entrepreneurial intention.*

*H3: Perceived behavioral control has a positive and significant impact on entrepreneurial intention.*

### Perceived Feasibility (PF)

As the name implies a person capability to perform certain behaviors based on the possibilities. Further, Liñán and Chen (2009) stated the significance of mentors, role-models, partners, and friends regarding establishment of entrepreneurial feasibility level among the students. Prior researches portrayed the positive association between PB and EI of an individual. Researchers believed that perceived feasibility plays a part in determining the propensity of workable entrepreneurship. Also, it concluded that perceived feasibility is the significant antecedent of intention (Ajzen, 1991). The entrepreneurial event is formed based on perceptions of feasibility. If an individual finds the idea of any business feasible, then they might pursue and execute that business. Therefore, following hypothesis was

proposed:

*H4: Perceived Feasibility has a positive and significant impact on entrepreneurial intention.*

### **Perceived Educational Support (PES)**

PES is the perspective of an individual about the educational institution that how much they promote entrepreneurship in their institutes and how much they support them. Perceived educational support is the crucial factor of EI. Previous research reveals that when students receive entrepreneurship education, students engage in business activities. As a result, providing educational support is an effective strategy for empowering students with essential entrepreneurship information (Kadir, Salim, & Kamarudin, 2012). There is a need to promote entrepreneurship in universities as survival is getting difficult in such an intensified business world. Moreover, entrepreneurship education is capable enough to educate students about the benefits of entrepreneurship, and when students understand the advantages that are associated with entrepreneurship, so they eventually want to start their business (Moriano et al., 2012; Masri, Abdullah, Asimiran, & Zaremozzabieh, 2021). Similarly, Kadir et al. (2012) researched in Malaysia, stated that students could be influenced to be an entrepreneur if appropriate entrepreneurship education is provided. When the desired assistance and support is provided to students from surroundings, then eventually, they are more likely to do that work. Therefore, we hypothesized the following:

*H5: Perceived Educational Support has a positive and significant impact on entrepreneurial intention.*

### **Perceived Concept Development Support (PCDS)**

PCDS signifies the early support provided during the process of entrepreneurship development i.e. motivation, business ideas, and awareness (Rocha, Moraes, & Fischer, 2022). Furthermore, in many ways, universities can support students in promoting entrepreneurial intention among them, but it's also crucial to assess the extent that will support and influence students. According to Saeed, Yousafzai, Yani-De-Soriano, and Muffatto (2018), concept development helps student to pursue careers in the domain of entrepreneurship by converting the ideas into reality. Further, many universities globally promote entrepreneurship by turning ideas into reality. Thus, following can be hypothesized as:

*H6: Perceived Concept Development Support has a positive and significant impact on entrepreneurial intention.*

### **Proactiveness (P)**

It is a crucial aspect in the selection of a career. As a result, owing to different characteristics several students prefer to be an entrepreneur. As, reluctance to follow specific

schedule of nine to five routine is the major reason. Therefore, personality determines the success, establishment, and development of a business. Proactive personality exhibits distinctive characteristic in five-factor model. Multiple studies have examined association among PP and EI; findings validate these traits are essential for people who aims to become an entrepreneur ([Mustafa, Hernandez, Mahon, & Chee, 2016](#)). So, we constructed following hypothesis:

*H7: Proactiveness has a positive and significant impact on entrepreneurial intention.*

### **Self-Efficacy**

An individual's conviction that they have the potential to succeed or carry out desired behavior. Accordingly, people with high efficacy are strong-welled irrespective of lack of resources or insecurity. There are several ways through which it is evaluated, such as common and business traits. Furthermore, general self-efficacy was defined by the researchers as a consistent sense of personal competence of an individual that can deal with different stressful situations effectively. Additionally, entrepreneurial self-efficacy is all about the capability to launch and run entrepreneurial project. Many prior researchers studied the relationship and revealed different results. Another study showed self-efficacy and proactive personality has a substantial influence on EI. Also, [Maheshwari and Kha \(2022\)](#) confirms direct influence of students' self-efficacy on their EI. Hence, hypotheses are stated as follows:

*H8: Self-Efficacy has a positive and significant impact on entrepreneurial intention.*

### **Risk-Aversion (RA)**

According to [Hamböck, Hopp, Keles, and Vetschera \(2017\)](#), Entrepreneurship entails a mindset can visualize risk when turning an idea into a business, or into reality. Not everyone wants to be an entrepreneur because it requires a higher risk tolerance. Therefore, people associated with businesses have higher tolerance for instability and risk. [Kenneth and Donald \(1990\)](#) discussed that the individual tendency to take or avoid risks is fairly common, and it is termed as risk propensity. Former empirical studies exhibits entrepreneurs can depict risk-aversive and risk-taking behavior, simultaneously ([Bird, 1988; Khan, Hassan, Wafa, & Arshad, 2020](#)). Further, people are limited to take risky decisions when they perceive a higher risk so when an individual sees risk in the business then ultimately, the person is reluctant to pursue their idea so the hypothesis is generated as:

*H9: Risk Aversion has a negative and significant impact on entrepreneurial intention.*

### **Need for achievement (NFA)**

In accordance with [Nasip, Amirul, Sondoh Jr, and Tanakinjal \(2017\)](#), NFA is an individual's determination for excellence and achievement; as it is a substantial characteristic

of human personality. NFA is significant in developing and encouraging EI among people. Enthusiasm for achievement and results are fundamental component in the success of business ventures. Moreover, many prior researchers studied the need for achievement in a different context and revealed a positive attitude of students toward becoming an entrepreneur (Ramayah & Harun, 2005). Similarly, Katsikis and Kyrgidou (2009) argued that this personality trait (NFA) is crucial predictor; as it encourages individuals' creativity and innovation during new businesses. Furthermore, people are more willing to participate in business activities in competitive environment. Hence, after reviewing the literature, we develop the hypothesis:

*H10: The need for achievement has a significant impact on entrepreneurial intention.*

### **Family Background**

Family forms the behavior and personality of an individual. People make decisions that are in favor of their families, and the majority of the time their choices are the reflection of their family background. Family is a fundamental component that influence individual's intention to launch any business. Personal factors i.e. character traits are also inherited from the family. For instance, if a person is not able to take decisions and is dependent so it shows that mother/father might possess this element. Moreover, research revealed that family background i.e. parents' education and personality traits are correlated. Many qualities and behaviors are genetically transmitted from parents to their offspring (Krueger, South, Johnson, & Iacono, 2008).

Tarling, Jones, and Murphy (2016) stated that opportunity recognition, start-ups decisions, the existence of new business, and utilization of resources all are the parts of collective decisions. Moreover, intellectual, educational, occupational, and income differences are still affected by family background. Additionally, the business environment provides a great learning experience about entrepreneurship to people belonging from business families as compared to people raised in non-business families. Moreover, prior researchers studied the connection of family background with entrepreneurship intention and showed that self-employment is prioritized by those students whose parents run their businesses and such students are less interested in doing jobs (Abd El Basset, Bell, & Al Kharusi, 2022). After reviewing the literature, we've developed following hypotheses for the present study:

*H11: Family Background positively moderates the relationship between proactiveness and entrepreneurial intention.*

*H12: Family Background positively moderates the relationship between entrepreneurial self-efficacy and entrepreneurial intention.*

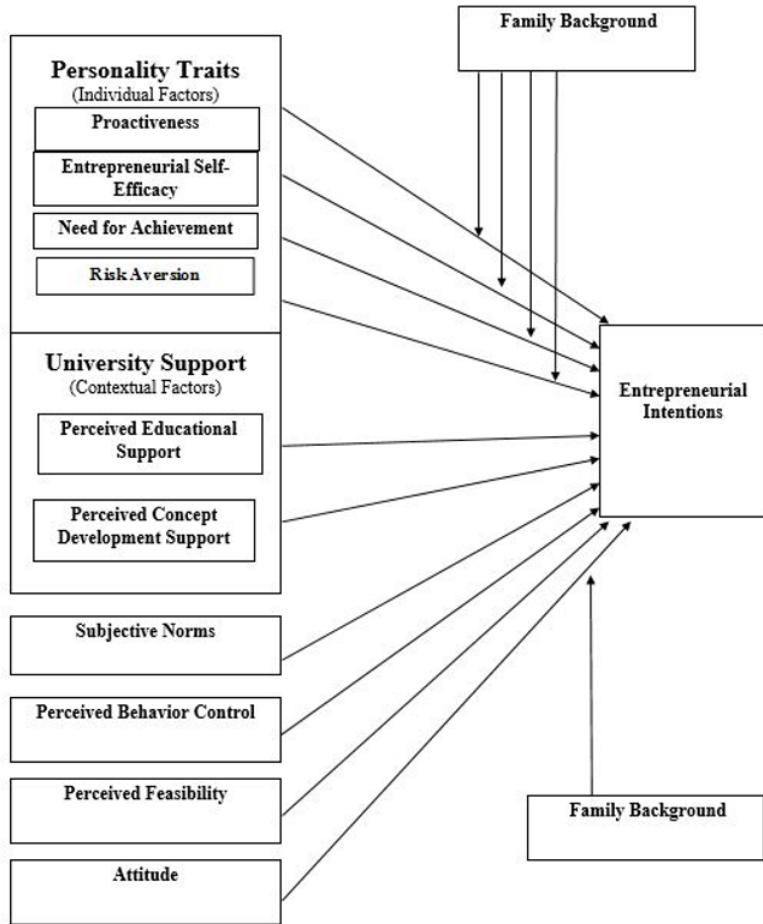
*H13: Family Background positively moderates the relationship between need for achievement and entrepreneurial intention.*

*H14: Family Background positively moderates the relationship between risk aversion and entrepreneurial intention.*

*H15: Family Background positively moderates the relationship between attitude and entrepreneurial*

*intention.*

**Figure 1a**  
Conceptual Framework

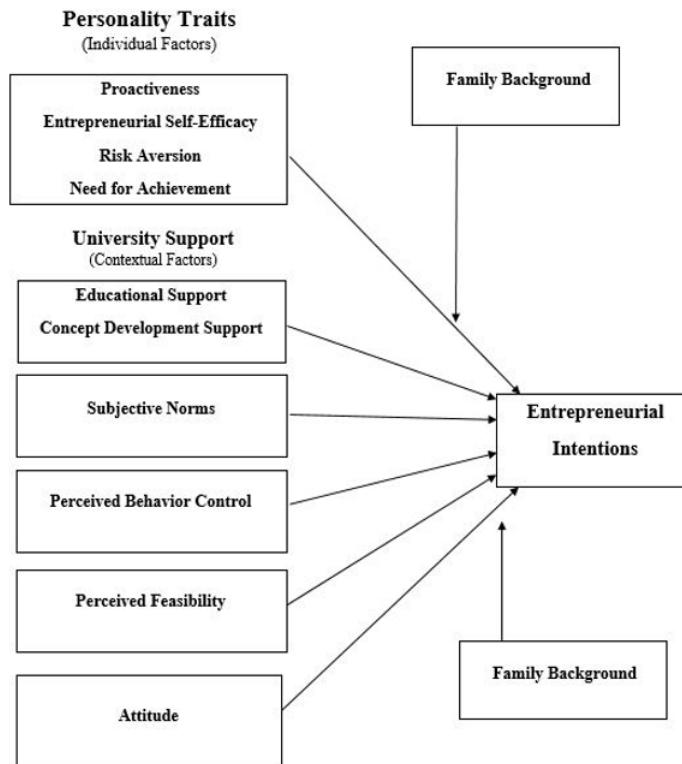


## Methodology

### Research Model

Figure 1 and figure 2 exhibits conceptual framework of research in (A). Framework 1(A) reflects influence of “Theory of Planned Behavior” (TPB) constructs on EI. Additionally, model includes perceived feasibility, proactiveness, risk aversion, self-efficacy, need for achievement, educational support, and concept development support. Lastly, family background is used as a moderator. Figure 2(A) represents the formation of a second-order framework.

**Figure 2a**  
Conceptual Framework



## Data Collection and Instrumentation

The data was gathered via an online questionnaire. Moreover, survey was distributed among private university students by using the convenience sampling approach. The sample size consisted of 505 students. However, data was collected from 547 students but after initial screening 42 responses were deleted. The mentioned sample size is as per the proposed guidelines of [Comrey and Lee \(2013\)](#) i.e. 1000-excellent and 50-poor.

Online questionnaire survey was used for the data collection. It consists items of all variables and the data was measured on a five-point Likert scale, i.e. strongly agree (5) to strongly disagree (1). Questions adapted from pertinent literature. Questionnaire include 49 items. The questions of attitude and subjective norms were taken from [Kolvereid \(1996\)](#). The scale of PBC was taken from the study of [Maresch et al. \(2016\)](#). EI was measured by with scale of [Liñán and Chen \(2009\)](#). The items of PCDS and PES were taken from [Saeed et al. \(2018\)](#). Also, variables of personality traits comrpises of items related to self-efficacy, risk-aversion, and achievement. Questions of perceived

feasibility were taken from [Saeed et al. \(2018\)](#).

## Demographics

The demographic table exhibits descriptive statistics of age, education, gender, and occupation of the respondent.

**Table 1**  
Demographic Profile

Demographic Items	Frequency	Percentage
<b>Age</b>		
18-22	201	39.80%
23-27	263	52.08%
28-32	28	5.55%
Above 32	13	2.57%
Total	505	100.00%
<b>Education</b>		
Undergraduate	351	69.51%
Graduate	144	28.51%
Post Graduate	6	1.18%
Others	4	0.80%
Total	505	100.00%
<b>Gender</b>		
Male	327	64.75%
Female	178	35.25%
Total	505	100.00%
<b>Occupation of Parents</b>		
Business	211	41.78%
Private Sector Employee	203	40.20%
Government Sector Employee	91	18.02%
Total	505	100.00%

Table 1 highlights that the majority were male, i.e., 64.75% while 32.25% were female. In terms of age, majority students are at age of 23-27 years old with 52.08%. While, 39.80% of students belong to age group of 18-22 and remaining 41 students were between 28-32 and above 32 years old respectively. The students of the private university were targeted for the data collection process. Hence, it includes the present business students and graduates as well. So with respect to the education, 351 (69.51%) students were undergraduate, 144 (28.51%) students were graduate, 6 (1.18%) students lie at the stage of post-graduate, and remaining 4 (0.80%) belong to other options. Lastly we focus on sector in which students' parents work. It shows that 211 (41.78%) parents run their own business. However, 203 (40.20%) parents work at private organizations, and the remaining 91 i.e. 18.02% of parents, are government employees.

## Data Analysis and Results

The current study used structural equation modelling (SEM) to assess validity of theory with help of statistical data. [F. Hair Jr, Sarstedt, Hopkins, and G. Kuppelwieser \(2014\)](#) discussed two methods: covariance-based and variance-based. The current study has used variance-based method i.e. Partial Least Square (PLS) as the objective was to test

hypothetical model. Furthermore, PLS-SEM is carried out with help of software Smart PLS and a bootstrap sample of 5000 subsamples. [Henseler, Ringle, and Sinkovics \(2009\)](#) argued that for several researches and complicated models, PLS-SEM is the appropriate approach because, in comparison to other covariance-based techniques, this approach imposes minimum restrictions on sample size and residual distributions. The estimations are carried out in two stages in conformity. First, measurement model is tested, which includes model's reliability and validity. Then structural model is evaluated.

## **Measurement Model**

The model competency is measured by using Convergent Validity and Discriminant Validity. Convergent validity is estimated through individual factor loadings, Cronbach's alpha, Composite Reliability, and Average Variance Extracted (AVE). Alternatively, Discriminant validity is evaluated by using three tests that are; cross-loading analysis, correlation matrix, and heterotrait-monotrait ratio of correlations (HTMT).

Table 2 shows that all variables have Cronbach alpha and composite reliability values more than 0.7; consequently. Similarly, Individual reliability of all variables is also more than 0.7, which is consistent with Churchill's criteria (1979). However, to achieve sufficient convergent validity, extracted average variance (AVE) values must be more than 0.5. As seen in table, all AVE values are more than 0.5, implying that the study model validates convergent validity.

The discriminant validity is assessed using FL criterion, cross-loadings, and HTMT model. First, to meet the criterion, the average extracted variance's square root must be greater than the correlation of the variables ([Fornell & Larcker, 1981](#)). In Table 3, square root of AVE is mentioned in diagonal arrangement. As a result, it is found correlation matrix for each construct is less than square root of AVE, which supports study's discriminant validity requirement.

Second, table 4 displays the loading and cross-loading values. According to Churchill's (1979) criteria, each loading should be greater than 0.7, while loadings less than 0.4 should be discarded. PBC1 is dropped due to low factor loading. Further, higher values are loaded in their respective constructs instead of any other constructs.

Table 5 reveals heterotrait-monotrait ratio of correlations (HTMT) shows that all values supports benchmark of discriminant validity because no value is more than 0.9.

**Table 2**  
Measurement Model Results

	Items	Loadings	Cronbach's Alpha	Composite reliability	Average variance extracted
<b>ATT</b>	ATT1	0.738			
	ATT2	0.821	0.8	0.869	0.626
	ATT3	0.842			
	ATT4	0.827			
<b>EI</b>	EI1	0.753			
	EI2	0.808			
	EI3	0.82	0.884	0.912	0.633
	EI4	0.817			
	EI5	0.802			
	EI6	0.767			
<b>ESE</b>	ESE1	0.779			
	ESE2	0.773			
	ESE3	0.784	0.833	0.882	0.599
	ESE4	0.75			
<b>NFA</b>	ESE5	0.764			
	NFA1	0.762			
	NFA2	0.771			
	NFA3	0.856	0.852	0.894	0.629
	NFA4	0.823			
<b>P</b>	NFA5	0.717			
	P1	0.741			
	P2	0.817			
	P3	0.782	0.816	0.872	0.577
<b>PBC</b>	P4	0.788			
	P5	0.728			
	PBC2	0.703			
	PBC3	0.722	0.762	0.766	0.514
<b>PCDS</b>	PBC4	0.741			
	PBC5	0.733			
	PCDS1	0.805			
	PCDS2	0.832	0.85	0.899	0.69
<b>PES</b>	PCDS3	0.84			
	PCDS4	0.843			
	PES1	0.804			
	PES2	0.832	0.825	0.883	0.654
<b>PF</b>	PES3	0.811			
	PES4	0.786			
	PF1	0.858			
	PF2	0.862	0.805	0.884	0.718
<b>RA</b>	PF3	0.833			
	RA1	0.751			
	RA2	0.709	0.73	0.829	0.547
	RA3	0.745			
<b>SN</b>	RA4	0.742			
	SN1	0.769			
	SN2	0.828	0.731	0.848	0.65
	SN3	0.809			

Notes: ATT=Attitude, EI= Entrepreneurial Intentions, ESE=Entrepreneurial Self Efficacy, NFA=Need for Achievement, P=Proactiveness, PBC=Perceived Behavior Control, PCDS=Perceived Concept Development Support, PES=Perceived Educational Support, PF=Perceived Feasibility, RA=Risk Aversion, SN=Subjective Norms

**Table 3**  
Fornell-Larcker criterion

	ATT	EI	ESE	NFA	P	PBC	PCDS	PES	PF	RA	SN
ATT	<b>0.791</b>										
EI	0.624	<b>0.796</b>									
ESE	0.517	0.635	<b>0.774</b>								
NFA	0.469	0.525	0.659	<b>0.793</b>							
P	0.557	0.691	0.714	0.598	<b>0.760</b>						
PBC	0.383	0.478	0.536	0.386	0.562	<b>0.635</b>					
PCDS	0.319	0.365	0.429	0.52	0.441	0.375	<b>0.831</b>				
PES	0.18	0.226	0.325	0.379	0.316	0.286	0.511	<b>0.808</b>			
PF	0.382	0.522	0.595	0.467	0.541	0.445	0.507	0.332	<b>0.848</b>		
RA	0.271	0.337	0.520	0.413	0.467	0.480	0.411	0.230	0.379	<b>0.740</b>	
SN	0.500	0.484	0.496	0.400	0.456	0.368	0.340	0.318	0.433	0.358	<b>0.806</b>

Notes: ATT=Attitude, EI= Entrepreneurial Intentions, ESE=Entrepreneurial Self Efficacy, NFA=Need for Achievement, P=Proactiveness, PBC=Perceived Behavior Control, PCDS=Perceived Concept Development Support, PES=Perceived Educational Support, PF=Perceived Feasibility, RA=Risk Aversion, SN=Subjective Norms

As a result of above evaluation, it is concluded the measurement model validates convergent and discriminant validity. It can now be utilized to determine a structural model.

## Structural Model

The structural model is assessed to analyze predictive power of model and to examine hypothesized relationships among anticipated constructs by path analysis. Moreover, present study includes the analysis of both first and second order. As a result, tables 6 and 7 show the first-order findings, whereas tables 8 and 9 show the second-order findings.

**Table 4**  
Loadings and Cross Loadings

	ATT	EI	ESE	NFA	P	PBC	PCD	PES	PF	RA	SN
<b>ATT1</b>	0.738	0.329	0.391	0.271	0.435	0.326	0.197	0.152	0.277	0.191	0.297
<b>ATT2</b>	0.821	0.482	0.358	0.38	0.438	0.288	0.249	0.11	0.259	0.157	0.362
<b>ATT3</b>	0.842	0.552	0.403	0.334	0.426	0.309	0.232	0.138	0.269	0.231	0.421
<b>ATT4</b>	0.827	0.528	0.426	0.407	0.454	0.342	0.242	0.193	0.349	0.195	0.453
<b>EI1</b>	0.513	0.753	0.443	0.39	0.542	0.482	0.249	0.219	0.419	0.147	0.353
<b>EI2</b>	0.471	0.808	0.515	0.438	0.597	0.492	0.234	0.173	0.389	0.213	0.332
<b>EI3</b>	0.472	0.82	0.486	0.46	0.527	0.381	0.318	0.178	0.416	0.272	0.397
<b>EI4</b>	0.485	0.817	0.486	0.395	0.492	0.336	0.289	0.137	0.424	0.333	0.409
<b>EI5</b>	0.531	0.802	0.543	0.446	0.529	0.297	0.317	0.185	0.398	0.326	0.395
<b>EI6</b>	0.45	0.767	0.517	0.327	0.593	0.391	0.256	0.213	0.385	0.248	0.42
<b>ESE1</b>	0.394	0.506	0.779	0.474	0.572	0.458	0.273	0.234	0.467	0.471	0.379
<b>ESE2</b>	0.377	0.443	0.773	0.482	0.509	0.399	0.321	0.198	0.45	0.368	0.328
<b>ESE3</b>	0.442	0.539	0.784	0.524	0.62	0.427	0.332	0.262	0.425	0.342	0.378
<b>ESE4</b>	0.311	0.404	0.75	0.518	0.544	0.351	0.317	0.313	0.416	0.39	0.33
<b>ESE5</b>	0.37	0.502	0.764	0.493	0.529	0.337	0.325	0.286	0.499	0.375	0.415
<b>NFA1</b>	0.379	0.402	0.516	0.762	0.512	0.331	0.416	0.313	0.39	0.307	0.293
<b>NFA2</b>	0.25	0.377	0.516	0.771	0.443	0.237	0.44	0.31	0.429	0.375	0.332
<b>NFA3</b>	0.362	0.405	0.54	0.856	0.481	0.271	0.409	0.293	0.314	0.28	0.255
<b>NFA4</b>	0.425	0.461	0.499	0.823	0.512	0.287	0.37	0.282	0.349	0.283	0.291
<b>NFA5</b>	0.322	0.375	0.476	0.717	0.468	0.317	0.353	0.353	0.334	0.332	0.332
<b>P1</b>	0.482	0.551	0.506	0.466	0.741	0.458	0.308	0.258	0.45	0.359	0.39
<b>P2</b>	0.482	0.586	0.517	0.587	0.817	0.429	0.392	0.274	0.36	0.28	0.374
<b>P3</b>	0.317	0.475	0.484	0.345	0.782	0.408	0.313	0.176	0.329	0.409	0.297
<b>P4</b>	0.413	0.465	0.595	0.493	0.788	0.459	0.329	0.242	0.381	0.299	0.322
<b>P5</b>	0.359	0.505	0.635	0.404	0.728	0.484	0.282	0.271	0.494	0.394	0.384
<b>PBC2</b>	0.109	0.16	0.286	0.244	0.184	0.703	0.221	0.21	0.246	0.395	0.193
<b>PBC3</b>	0.095	0.105	0.243	0.147	0.155	0.722	0.197	0.132	0.241	0.435	0.262
<b>PBC4</b>	0.201	0.201	0.286	0.212	0.265	0.741	0.226	0.136	0.254	0.351	0.191
<b>PBC5</b>	0.291	0.348	0.337	0.303	0.455	0.733	0.34	0.208	0.279	0.262	0.283
<b>PCDS1</b>	0.278	0.284	0.39	0.435	0.37	0.228	0.805	0.475	0.423	0.298	0.34
<b>PCDS2</b>	0.233	0.282	0.286	0.403	0.291	0.234	0.832	0.416	0.379	0.307	0.217
<b>PCDS3</b>	0.207	0.269	0.325	0.379	0.36	0.31	0.84	0.437	0.42	0.402	0.258
<b>PCDS4</b>	0.25	0.317	0.347	0.45	0.412	0.378	0.843	0.422	0.417	0.297	0.251
<b>PES1</b>	0.197	0.191	0.303	0.404	0.258	0.226	0.406	0.804	0.227	0.166	0.258
<b>PES2</b>	0.132	0.208	0.32	0.313	0.311	0.209	0.404	0.832	0.334	0.163	0.292
<b>PES3</b>	0.171	0.202	0.253	0.278	0.232	0.25	0.431	0.811	0.277	0.227	0.251
<b>PES4</b>	0.087	0.135	0.179	0.262	0.251	0.179	0.485	0.786	0.254	0.219	0.256
<b>PF1</b>	0.412	0.498	0.614	0.492	0.571	0.423	0.51	0.339	0.858	0.35	0.385
<b>PF2</b>	0.214	0.38	0.409	0.326	0.356	0.272	0.39	0.266	0.862	0.283	0.351
<b>PF3</b>	0.275	0.405	0.445	0.329	0.406	0.357	0.337	0.252	0.833	0.276	0.337
<b>RA1</b>	0.189	0.296	0.408	0.309	0.4	0.31	0.321	0.19	0.29	0.751	0.323
<b>RA2</b>	0.164	0.18	0.366	0.3	0.322	0.231	0.264	0.171	0.243	0.709	0.211
<b>RA3</b>	0.154	0.178	0.352	0.244	0.313	0.325	0.306	0.182	0.234	0.745	0.172
<b>RA4</b>	0.203	0.251	0.352	0.308	0.298	0.29	0.256	0.155	0.278	0.742	0.263
<b>SN1</b>	0.407	0.351	0.377	0.285	0.375	0.299	0.257	0.322	0.395	0.291	0.769
<b>SN2</b>	0.38	0.4	0.367	0.279	0.339	0.247	0.275	0.271	0.32	0.265	0.828
<b>SN3</b>	0.404	0.408	0.408	0.348	0.422	0.265	0.241	0.205	0.312	0.276	0.809

**Table 5**  
Heterotrait-Monotrait Ratio (HTMT)

	ATT	EI	ESE	NFA	P	PBC	PCDS	PES	PF	RA	SN
<b>ATT</b>											
EI	0.730										
ESE	0.634	0.733									
NFA	0.559	0.602	0.785								
P	0.695	0.809	0.866	0.709							
PBC	0.431	0.497	0.646	0.473	0.630						
PCDS	0.386	0.419	0.51	0.611	0.525	0.477					
PES	0.217	0.257	0.382	0.451	0.380	0.359	0.619				
PF	0.467	0.611	0.713	0.555	0.654	0.560	0.602	0.398			
RA	0.350	0.405	0.661	0.519	0.603	0.750	0.521	0.299	0.479		
SN	0.647	0.602	0.633	0.508	0.588	0.513	0.435	0.412	0.564	0.471	

**Table 6**  
Results of Path Analysis-First Order

Hypothesis	Regression Path	Effect type	SRW	Remarks
H1	ATT ->EI	Direct Effect	0.287***	Supported
H2	SN ->EI	Direct Effect	0.078*	Supported
H3	PBC ->EI	Direct Effect	0.045*	Supported
H4	PF ->EI	Direct Effect	0.128**	Supported
H5	PES ->EI	Direct Effect	-0.039*	Not Supported
H6	PCDS ->EI	Direct Effect	0.041**	Supported
H7	P ->EI	Direct Effect	0.305***	Supported
H8	ESE ->EI	Direct Effect	0.132***	Supported
H9	RA ->EI	Direct Effect	-0.028	Not Supported
H10	NFA ->EI	Direct Effect	0.071*	Supported

Notes: SRW = Standardized regression weight

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10

**Table 7**  
Moderating Effect of Family Background-First Order

Hypothesis	Regression Path	Effect type	SRW	Remarks
H11	P ->EI	Direct Effect	0.1043*	Supported
H12	ESE ->EI	Direct Effect	0.086**	Supported
H13	NFA ->EI	Direct Effect	-0.051	Not Supported
H14	RA ->EI	Direct Effect	0.25*	Not Supported
H15	ATT ->EI	Direct Effect	0.037***	Supported

**Table 8**  
Results of Path Analysis-Higher Order

Hypothesis	Regression Path	Effect type	SRW	Remarks
H1	ATT ->EI	Direct Effect	0.298***	Supported
H2	SN ->EI	Direct Effect	0.058*	Supported
H3	PBC ->EI	Direct Effect	0.063*	Supported
H4	PF ->EI	Direct Effect	0.145**	Supported
H5	US ->EI	Direct Effect	0.684*	Supported
H6	PT ->EI	Direct Effect	0.419***	Supported

**Table 9**  
Moderating Effect of Family Background-Higher Order

Hypothesis	Regression Path	Effect type	SRW	Remarks
H7	PT -> EI	Direct Effect	0.092**	Supported
H8	ATT -> EI	Direct Effect	0.025*	Supported

## Discussion

### First-Order Model Analysis

Results of first hypothesis shows attitude of an individual has a positive and significant impact on entrepreneurial intention ( $\beta=0.287$ ,  $p<0.01$ ). Present study results are consistent with results of [Douglas and Fitzsimmons \(2013\)](#). At the point when an individual perceives benefits, people, in the long run, show enthusiasm for turning into an entrepreneur. This intrigue brings about an inspirational frame of mind to begin their businesses. Numerous individuals consider entrepreneurship benevolent in the current circumstance of the nation.

Second hypothesis about subjective norm and entrepreneurial intention is also supported and shows positive and significant relationship ( $\beta=0.078$ ,  $p<0.1$ ). This result are in line with [Kautonen et al. \(2015\)](#); [Siu and Lo \(2013\)](#). It reveals when students receive support from their surroundings and see that in their circle, people are successfully doing businesses, so it develops the willingness among them. Moreover, students both consciously or unconsciously follow the values and norms of their reference groups and thus opt the same behavior. This show that surrounding plays a vital role in one's behavior.

Thirdly, the regression path portrays the relationship between perceived behavioral control and entrepreneurial intention as ( $\beta=0.045$ ,  $p<0.1$ ). The studies which supported that relationship includes [\(Moriano et al., 2012\)](#). The result implies that when an individual finds his /her ability to act as an entrepreneur, then it ultimately boosts their willingness and intention to start their businesses. Self-control plays an important role in forming the intention to start new ventures.

Fourthly, relationship between perceived feasibility and entrepreneurial intention shows a positive and significant relationship ( $\beta=0.128$ ,  $p<0.05$ ). Hence, the proposed hypothesis is accepted, and results are in line with the research of [Fitzsimmons and Douglas \(2011\)](#). The result indicates that higher ability leads to higher entrepreneurial commitment. Moreover, this shows that when a person perceives the concept and implementation of the business viable so it encourages a desire to become an entrepreneur.

The fifth hypothesis is rejected as it shows the negative yet significant relationship between perceived educational support and entrepreneurial intention ( $\beta=-0.039$ ,  $p<0.05$ ). The result are consistent with studies of [Mustafa et al. \(2016\)](#). The authors argued that higher education institutions do not promote entrepreneurial education programs. Moreover, [Othman, Hashim, and Ab Wahid \(2012\)](#) specified that educational institutions generally do not inform students that it is possible to pursue entrepreneurship as a career because they focus on traditional methods of teaching. If some students want to select entrepreneurship as a career, they do not support in early phases of their entrepreneurial

careers.

Whereas, perceived concept development support has positive and significant impact on entrepreneurial intention as ( $\beta=0.041$ ,  $p<0.05$ ). Educational institutions assist in developing business plans, counseling sessions, advice about the startups. These activities help students to have clear concepts regarding entrepreneurship. Concept development support can also be used to motivate students by increasing their awareness of business potential related to their idea. Thus, a positive response is reflected in students as they seek support from their institutions.

The seventh hypothesis shows a positive and significant relationship among proactive personality trait and entrepreneurial intention as ( $\beta=0.305$ ,  $p<0.01$ ). People with a proactive attitude are more likely to seize opportunities because they have a more dynamic approach to work. Hence, students with proactive personalities show a positive attitude toward starting their businesses.

The eighth hypothesis is accepted as it portrays a positive and significant relationship between self-efficacy and entrepreneurial intention ( $\beta=0.132$ ,  $p<0.1$ ). It means that when students consider that they can achieve success or can implement target behaviors, then ultimately, they are likely to involve in business activities. Furthermore, self-efficacy influences what goals people choose to pursue, how those goals are achieved, and how people evaluate their achievement. If these components are a part of one's personality, it leads to a stronger desire to be an entrepreneur.

Ninth hypothesis shows relationship between risk aversion and entrepreneurial intention. Result reveals that risk aversion has a negative and insignificant impact on entrepreneurial intention as ( $\beta=-0.028$ ,  $p>0.1$ ). The result of our study is consistent with the studies of [Newman \(2007\)](#). This implies risk-averse individuals prefer not to start their own business, and such individuals are more comfortable in jobs. It appears that students who are more likely to take a risk and need to encounter modern things are more likely to be in entrepreneurship instead of employment.

The tenth hypothesis is accepted since it indicates a substantial and positive association between need for achievement and entrepreneurial intention ( $\beta=0.071$ ,  $p<0.1$ ). This result is similar to prior researches ([Katsikis & Kyrgidou, 2009](#)). According to the findings, students that are driven to succeed have strong entrepreneurial intentions. These students aspire to be successful entrepreneurs, but if students find that the market is uncertain and they might face loss, so ultimately, they will be less interested in starting a business.

The eleventh hypothesis is accepted because a positive and substantial link between family background and entrepreneurship intention has been discovered ( $\beta=0.421$ ,  $p<0.05$ ). It shows that students are willing to follow the path of their parents. Also, in such environment where jobs are insecure and unemployment rate is high, people prefer either to pursue their parents' businesses or want to become an entrepreneur.

## **Moderating Effect of Family Background**

The moderating impact is explored in this study to see if family background might improve or reduce the association between personality traits, attitude, and entrepreneurial

intention. Furthermore, if path coefficient of the interaction effect is considerable, the moderating impact exists.

Firstly, H12 is accepted as results reveal family background moderates the association between proactiveness and intention as ( $\beta=0.1043$ ,  $p<0.1$ ). It means that when parents are educated and bold so ultimately students would like go for business rather than job as their family background encourages them to become an entrepreneur. Secondly, H13 depicts that family background moderates the relation between entrepreneurial self-efficacy and entrepreneurship intention as ( $\beta=0.086$ ,  $p<0.05$ ). It shows that family background is related to efficacy beliefs, individuals raised in higher socio-economic status portray higher level of self-efficacy and vice versa. Whereas, H14 shows that family background does not moderate the relationship between need for achievement and entrepreneurial intention as ( $\beta=-0.051$ ,  $p>0.1$ ). It suggests that students who want to succeed desire to start their own businesses, regardless of their family background. The present circumstances and competition develop the strong will to become a successful person thus, students with non-business background and enthusiasm for achievement also want to become an entrepreneur. The hypothesis i.e. H15 shows that there is a moderating effect of family background between the association of risk aversion and entrepreneurial intention as ( $\beta=0.25$ ,  $p<0.1$ ). It reveals role of family background is crucial at this stage as children are the reflection of their parent so if parent is reluctant to take risk and prefer secure jobs so ultimately kid will follow the same path.

Therefore, the H16 is accepted, as it shows family background strongly moderates the relationship between attitude and entrepreneurial intention ( $\beta=0.037$ ,  $p<0.01$ ). It reveals that the business environment provides a greater learning experience about entrepreneurship to people as compared to people raised in a non-business environment. Students whose parents operate a business are more likely to become entrepreneurs themselves.

## **Second-Order Model Analysis**

Table 8 and 9 represents the results of the second-order model, and results reveal that all seven hypotheses are positive and significant. Moreover, figure 2(A) shows the proposed model of second-order. According to Table 8, all hypotheses i.e. H1-H4 and H7 show the positive and significant relationships that are comparable to the findings of the first-order analysis. However, values differ, and all hypotheses support past studies. Further, in the second-order analysis, family background positively strengthens the relationship between attitude and entrepreneurial intention.

Fifth hypothesis demonstrates a positive and statistically significant relationship between university support and entrepreneurial intention also university support is the strongest predictor as ( $\beta=0.684$ ,  $p<0.01$ ). It demonstrates role of university is crucial as students learn new things from educational institutions. Therefore, when students learn about entrepreneurship and receive support in the form of counseling, training, entrepreneurship-related courses, and various activities, it eventually strengthens their interest in this field. The sixth hypothesis, also demonstrates a positive and significant link between personality traits and entrepreneurial intention as ( $\beta=0.923$ ,  $p<0.01$ ). Researchers have investigated the individual aspects of human personalities. However, the

present paper focuses on both perspectives. The result shows that the personality trait of a student is the second strongest predictor of entrepreneurial intention as ( $\beta=0.419$ ,  $p<0.01$ ).

Hypotheses eight and nine are also accepted as family background moderates the association between personality traits and entrepreneurial intention and attitude and entrepreneurial intention. It shows that family background is essential in forming the intention to become an entrepreneur.

## **Conclusion and Implications**

### **Conclusion**

Entrepreneurship is the solution to many problems for an emerging country like Pakistan. Thousands of students are graduating each year, but the number of jobs in the market is much smaller. The unemployment rate is slowly and gradually increasing in Pakistan. There is a need to change people's mindset by promoting the concept of entrepreneurship among them. Many people are aware of the idea and its importance, but the acceptance level is low. The current study seeks to ascertain the impact of university support and personality traits, also the contributing factors to Theory of Planned Behavior and moderating variable of family background. To evaluate the sample of 505 respondents, the "PLS-SEM" method was used. Furthermore, "the first-order and higher-order models" were used in this investigation. A questionnaire was distributed online to private university students via convenience sampling approach. Moreover, quantitative approach has been used. The measuring model was tested, including its reliability and validity. The structural model was then evaluated, which proved model's competency by examining convergent and discriminant validity. Except for PES and RA, the examination found that all hypotheses have a positive and significant impact on EI. Furthermore, the moderating role of family background significantly moderates the relationship between proactiveness, entrepreneurial self-efficacy, and attitude. Also, there is no moderating influence of family background between need for achievement and intention. Alternatively, higher-order model shows that academic help is important in developing an enterprise plan. Furthermore, a positive and significant association between personality traits and intention has been identified, implying that when students receive assistance in the form of entrepreneurship education, they plan to pursue it as a career. Furthermore, subjective standards, perceived feasibility, and attitude all have a positive and significant impact on entrepreneurial intentions. Similarly, family background has a moderate effect. It is concluded that individual factors and contextual factors are both essential for developing the intention of entrepreneurship. Moreover, family background strengthens the association so there is a need to focus on individual characteristics and also support them so that in future students can select entrepreneurship as a career

## **Theoretical Implications**

The following are theoretical implications of the current study. Firstly, current study integrates two different perspectives, i.e., personality traits (individual factors) and university support (contextual factors), along with "Theory of Planned Behavior" variables. Secondly, "the first-order and higher-order models" were used in this investigation. Thus, the present study also incorporates the moderating role i.e. family background. Thirdly, four aspects are combined to evaluate the entrepreneurial intention in the Pakistan. Moreover, the dataset was statistically analyzed using "CFA" and "SMART-PLS"

## **Managerial Implications**

In Pakistan, the issue of unemployment and the economy can be solved by introducing entrepreneurship at public platforms. Therefore, policymakers should establish such policies that foster student engagement in entrepreneurship. The government should provide finance to educational institutions so they can help students in their startups. Also, universities should restructure their curriculum and provide educational and concept development support. Universities should also promote entrepreneurial activities and events in their premises such as guest speaker sessions, business ideas showcase, presentations, rewards on presenting the best and feasible approach, connect students with potential investors, start counseling, and introduce courses related to entrepreneurship. Most importantly, universities are the learning centers so they should work more on the skills of students instead of traditional learning.

Results show that personality traits (proactiveness, self-efficacy, and need for achievements) also play a significant role; hence, universities and families can polish their skills by motivating them. At this stage, students need to work on their skills as well. However, universities are the secondary learning centers as primary centers are the homes and families. According to the results of our research, family background positively strengthens the relationship. It means if parents run their businesses so students are highly motivated to become an entrepreneur whereas, students whose parents are employed at private or government sectors are less interested in being an entrepreneur. Therefore, students with non-business backgrounds need more attention and information regarding entrepreneurship so that they can start their businesses in the future. It will help to reduce poverty and strengthen the economic situation as most non-business students encounter problems in finding employment so this way they can become an entrepreneur. Once students gain encouragement from the environment and their talents are developed enough, that they want to launch their business and thus develop work opportunities for others. This cycle will contribute positively to society and the economy. Students need the right direction and support from family and university. It is possible to drive the attitude of students by motivating them and presenting the benefits of entrepreneurship. Therefore, the success stories of renowned entrepreneurs should be circulated among students worldwide to enable them to learn the benefits. It will provide students with a source of motivation and increase their entrepreneurial aspirations.

## **Limitations and Future Recommendations**

The study seeks to examine youth EI in Pakistan. It adds to the body of literature in many different ways. The study aimed at students at private universities. Thus, future researchers can target students at public universities. Second, researchers can undertake a comparison study of students' perceptions of private sector and public sector universities, as teaching styles, curriculum, and co-curricular activities differ significantly between the two institutions. It will contribute to the creation of new insights into the subject. Furthermore, current study is limited to one city, Karachi. The population of other cities can thus be focus of future studies. Further, as the study has used quantitative method: thus, It is advised to carry out a qualitative investigation to gather descriptive sample from targeted audience in order to determine if entrepreneurship helps in poverty reduction or not. Future researchers may also incorporate novel hypotheses and variables, such as psychological characteristics, the moderating effect of entrepreneurial education, or statistical data to gain a better understanding of EI.

## References

- Abd El Basset, F., Bell, R., & Al Kharusi, B. (2022). Reducing barriers to female entrepreneurship in oman: does family matter? *Journal of Enterprising Communities: People and Places in the Global Economy*(ahead-of-print).
- Ajzen, I. (1989). Attitude structure and behavior. *Attitude Structure and Function*, 241, 274.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ali, H., Farooq, F., & Parveen, K. (2020). Inflation and growth nexus in pakistan: A time series analysis. *Review of Applied Management and Social Sciences*, 3(1), 113–129.
- Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. *The Journal of Technology Transfer*, 39, 313–321.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442–453.
- Burton, M. D., Sørensen, J. B., & Dobrev, S. D. (2016). A careers perspective on entrepreneurship. *Entrepreneurship Theory and Practice*, 40(2), 237–247.
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Psychology press.
- Davidsson, P., Gordon, S. R., & Bergmann, H. (2011). *Nascent entrepreneurship* (No. 22). Edward Elgar Cheltenham.
- Douglas, E. J., & Fitzsimmons, J. R. (2013). Intrapreneurial intentions versus entrepreneurial intentions: distinct constructs with different antecedents. *Small Business Economics*, 41, 115–132.
- 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.
- Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26(4), 431–440.
- Fornell, C., & Larcker, D. F. (1981). *Structural equation models with unobservable variables and measurement error: Algebra and statistics*. Sage Publications Sage CA: Los Angeles, CA.
- Hamböck, C., Hopp, C., Keles, C., & Vetschera, R. (2017). Risk aversion in entrepreneurship panels: Measurement problems and alternative explanations. *Managerial and Decision Economics*, 38(7), 1046–1057.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.
- Hoffmann, A., Junge, M., & Malchow-Møller, N. (2015). Running in the family: parental role models in entrepreneurship. *Small Business Economics*, 44, 79–104.
- Hussain, S., & Imran Malik, M. (2018). Towards nurturing the entrepreneurial intentions of neglected female business students of Pakistan through proactive personality, self-efficacy and university support factors. *Asia Pacific Journal of Innovation and Entrepreneurship*, 12(3), 363–378.

- 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.
- Karimi, S., Biemans, H. J., Naderi Mahdei, K., Lans, T., Chizari, M., & Mulder, M. (2017). Testing the relationship between personality characteristics, contextual factors and entrepreneurial intentions in a developing country. *International Journal of Psychology*, 52(3), 227–240.
- Katsikis, I. N., & Kyrgidou, L. P. (2009). Entrepreneurship in teleology: the variety of the forms. *International Journal of Entrepreneurial Behavior & Research*.
- Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3), 655–674.
- Kenneth, R. M., & Donald, A. W. (1990). Characteristics of risk taking executives. *Management Science*, 36(4), 422–435.
- Khalid, R., Raza, M., Sawangchai, A., & Somtawinpongsai, C. (2022). The challenging factors affecting women entrepreneurial activities. *Journal of Liberty and International Affairs*, 8(1), 51.
- Khan, W. A., Hassan, R. A., Wafa, S. A., & Arshad, M. Z. (2020). Does innovation affect the firm performance in developing countries? a conceptual framework. *Jurnal Pengurusan*, 59.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, 21(1), 47–58.
- Krueger, R. F., South, S., Johnson, W., & Iacono, W. (2008). The heritability of personality is not always 50%: Gene-environment interactions and correlations between personality and parenting. *Journal of Personality*, 76(6), 1485–1522.
- 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.
- Maheshwari, G., & Kha, K. L. (2022). Investigating the relationship between educational support and entrepreneurial intention in Vietnam: the mediating role of entrepreneurial self-efficacy in the theory of planned behavior. *The International Journal of Management Education*, 20(2), 100553.
- Maresch, D., Harms, R., Kailer, N., & Wimmer-Wurm, B. (2016). The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs. *Technological Forecasting and Social Change*, 104, 172–179.
- Masri, N., Abdullah, A., Asimiran, S., & Zaremohzzabieh, Z. (2021). Relationship between engagement in learning entrepreneurship education and entrepreneurial intention among vocational college students. *Pertanika Journal of Social Sciences & Humanities*, 29.
- Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development*, 39(2), 162–185.
- Mustafa, M. J., Hernandez, E., Mahon, C., & Chee, L. K. (2016). Entrepreneurial inten-

- tions of university students in an emerging economy: The influence of university support and proactive personality on students' entrepreneurial intention. *Journal of Entrepreneurship in Emerging Economies*, 8(2), 162–179.
- Nasip, S., Amirul, S. R., Sondoh Jr, S. L., & Tanakinjal, G. H. (2017). Psychological characteristics and entrepreneurial intention: A study among university students in North Borneo, Malaysia. *Education+ Training*.
- Newman, A. F. (2007). Risk-bearing and entrepreneurship. *Journal of Economic Theory*, 137(1), 11–26.
- Othman, N., Hashim, N., & Ab Wahid, H. (2012). Readiness towards entrepreneurship education: Students and Malaysian universities. *Education+ Training*.
- Qazi, W., Qureshi, J. A., Raza, S. A., Khan, K. A., & Qureshi, M. A. (2020). Impact of personality traits and university green entrepreneurial support on students' green entrepreneurial intentions: the moderating role of environmental values. *Journal of Applied Research in Higher Education*, 13(4), 1154–1180.
- Ramayah, T., & Harun, Z. (2005). Entrepreneurial intention among the student of Universiti Sains Malaysia (USM). *International Journal of Management and Entrepreneurship*, 1(1), 8–20.
- Rocha, A. K. L. d., Moraes, G. H. S. M. d., & Fischer, B. (2022). The role of university environment in promoting entrepreneurial behavior: evidence from heterogeneous regions in Brazil. *Innovation & Management Review*, 19(1), 39–61.
- Saeed, S., Yousafzai, S., Yani-De-Soriano, M., & Muffatto, M. (2018). The role of perceived university support in the formation of students' entrepreneurial intention. In *Sustainable entrepreneurship* (pp. 3–23). Routledge.
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291–332.
- Siu, W.-s., & Lo, E. S.-c. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. *Entrepreneurship Theory and Practice*, 37(2), 147–173.
- Tarling, C., Jones, P., & Murphy, L. (2016). Influence of early exposure to family business experience on developing entrepreneurs. *Education+ Training*.
- Venkataraman, S. (2019). The distinctive domain of entrepreneurship research. In *Seminal ideas for the next twenty-five years of advances* (Vol. 21, pp. 5–20). Emerald Publishing Limited.
- Wang, C. K., & Wong, P.-K. (2004). Entrepreneurial interest of university students in singapore. *Technovation*, 24(2), 163–172.