

## Entrepreneurship as a Career Choice: Does Entrepreneurship Education Matter?

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### Abstract

*Building upon the theory of planned behavior (TPB), this study measures the impact of entrepreneurial education on entrepreneurial career choice through entrepreneurial intention and attitude towards entrepreneurship among business graduates of Kabul based private higher education institutions (HEIs). Data were collected from 99 business graduates. Partial least squares structural equation modelling (PLS-SEM) was used to test the hypotheses in the research model using Smart-PLS 3.2.6. The results showed that entrepreneurship education had a direct and strong impact on students to become an entrepreneur. Entrepreneurship education also strongly impacted the attitudes and the intention of the students towards entrepreneurial behavior. Also, the entrepreneurial intention had a significant effect on a students' choosing entrepreneurship as a career. However, surprisingly, attitude towards entrepreneurship had a negative weak and insignificant relationship with entrepreneurial career choice. The intention to become an entrepreneur mediated the relationship between entrepreneurship education and entrepreneurship as a career. However, attitude towards entrepreneurship did not mediate the relationship between entrepreneurial education and entrepreneurship as a career. The findings suggest the policymakers inside and outside universities should foster entrepreneurship education because it has a strong direct effect on entrepreneurial behavior.*

**Keywords:** Entrepreneurial education, entrepreneurial intentions, attitude towards entrepreneurship, Private Higher Education Institutions

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## **Introduction**

In today's world, employment is a major economic problem particularly in most developing countries, including Afghanistan. Unemployment exists among different social segments such as young people (Hanna, 2014), who are the focus of this study. In the past one and half decades, besides other issues such as corruption and insecurity, unemployment has also been one of the crucial challenges for Afghanistan. Despite billions of dollars of international aid to Afghanistan, the essential steps towards sustainable employment have not yet been taken. (CSRS, 2017).

According to the World Bank statistics between 2001 and 2004, only 4.6% of the Afghan workforce was jobless, yet in 2005, it rose to 8.5% and since then the rate of unemployment has always risen. In 2014, the Ministry of Labor, Social Affairs, Martyrs and Disabled announced that out of a workforce of 10 million in Afghanistan, 800,000 are unemployed. Meanwhile, statistics show that 23-35% of the Afghan population, particularly youths, is unemployed (Sadiq, 2018).

According to the Afghan Ministry of Higher Education, more than 50,000 students graduated both from governmental and private universities inside the country in 2016. Most of the graduates claim that a lack of employment opportunities is the biggest challenge they face after university graduation. Unfortunately, most of them remain unemployed, although they are young, educated and university graduates (Sadiq, 2018). According to Lavender (2011) that there are also claims that due to lack of necessary skills and knowledge young university graduates facing challenges to obtain a job in the competitive labor market. In this critical situation, small-scale enterprises are an important opportunity for graduates to start a career after graduation. They will become job-creators instead of job-seekers after finishing their studies (Matlay, 2006). In order to encourage students to be self-employed upon graduation, entrepreneurship education has to be expanded to include the development of entrepreneurial mind-sets and promotion of an entrepreneurial culture (Kuratko, 2003). Self-employment has been widely acknowledged as one of the most effective alternatives to reduce poverty and unemployment by economists around the world (e.g., Bangash & Niazi, 2018). Thus, realizing the importance of the young generation's ability to contribute to the development of the economy, Higher Education Institutions (HEIs), especially in the private sector, have to play a key role by creating the entrepreneurial culture within these HEIs to encouraging students towards entrepreneurship, which will eventually develop the entrepreneurial mind-sets among them (Kuratko, 2003, Ramli & Basbeth, 2018).

Although, HEIs in Afghanistan are trying to create the entrepreneurial mindset among students by offering them some courses related to entrepreneurship both on graduate and postgraduate levels. Furthermore, students are encouraged and actively involved in entrepreneurship-related researches. Although, studies have shown that entrepreneurship education

helps in developing entrepreneurial intentions (EI) and attitude towards entrepreneurship (ATE) which subsequently leads to generating entrepreneurial behavior among students or self-employment as a first career choice (Ramli & Basbeth, 2018). However, the majority of students after their graduation do not intend to take entrepreneurship as their first career choice.

Thus, the current study aims at examining the impact of entrepreneurship education on entrepreneurial behavior/ entrepreneurship as a career choice through EI and ATE. It is argued that entrepreneurship education will enhance EI and develop the ATE among business graduates, which subsequently encourage them to take entrepreneurship as their first career choice.

This paper is structured thusly: a literature review regarding the key concept and underpinning theory are provided in the next section, which is followed by the development of several research hypotheses. A research model is proposed based on these hypotheses. Following this, we describe the methods used throughout the present study, including measurement scales, and sample design. We then describe both the analysis and results, followed by a detailed explanation of the findings. The last section of this paper summarizes the overall outcomes of the study, highlights some of the limitations of this research and provides some recommendations for future studies.

## **2. Literature Review**

Over the last decades, the extant literature suggests that the entrepreneurship education is of two types: education about entrepreneurship and education for entrepreneurship. The former focuses on raising awareness about entrepreneurship by teaching students about the various aspects of starting and running a business (Rauch & Hulsink, 2015), while the latter focuses on the preparation of setting up a business and adopts practice-oriented learning. Von Graevenitz, Harhoff, and Weber (2010) argued that courses in education about entrepreneurship often focus on acquiring knowledge relevant to entrepreneurship. Along the same line, Boyles (2012) further added that courses in education for entrepreneurship emphasize the necessary skills to prepare students to set up their own business. The purpose of these specific courses is to stimulate entrepreneurial behavior and generate activities that create effects on a market (Saravathy & Venkataraman, 2011). These courses mainly emphasize on identifying and stimulating entrepreneurial drive and personal talent development (Glaub, Frese, Fischer, & Hoppe, 2014), coaching, developing, and supporting new venture creation (Rasmussen & Sørheim, 2006).

### **2.1 Theory of Planned Behavior (TPB)**

The theory of planned behavior (TPB) was introduced by Ajzen in the year 1991. This theory not only helps to understand the behavior of people but also explains the ways to change these behaviors. The theory explains

three factors that are important in changing the intention and the actual behavior: 1) attitude (beliefs about a behavior), 2) subjective norms (beliefs about others' attitudes), and 3) perceived behavioral control. The first factor that influences intention is the attitude towards the behavior, reflecting whether the person is in favor of doing something. The second factor refers to how much the person feels social pressure to perform the behavior. For instance, people could have a positive attitude toward self-employment, simply because any of their parents is an entrepreneur. Lastly, perceived behavioral control reflects whether the person has control over the behavior and how confident a person feels about being able to perform the behavior (Krueger, Reilly, & Carsrud, 2000).

TPB is quite applicable to entrepreneurship's context because entrepreneurship is a behavior that can be managed and controlled. One can increase the intention to perform entrepreneurial actions and in turn will also increase the chances to become an entrepreneur, by changing the factors affecting the behavior. Numerous studies have used this theory to explain entrepreneurial intentions (e.g., Krueger, Reilly, & Carsrud, 2000; Liñán & Chen, 2009), and entrepreneurial behavior (Kautonen, Van Gelderen, & Tornikoski, 2013) as well as the effects of entrepreneurship education on entrepreneurial behavior (Liñán & Chen, 2009; Liñán, Rodríguez-Cohard, & Rueda- Cantuche, 2011; Rodrigues, et al., 2012).

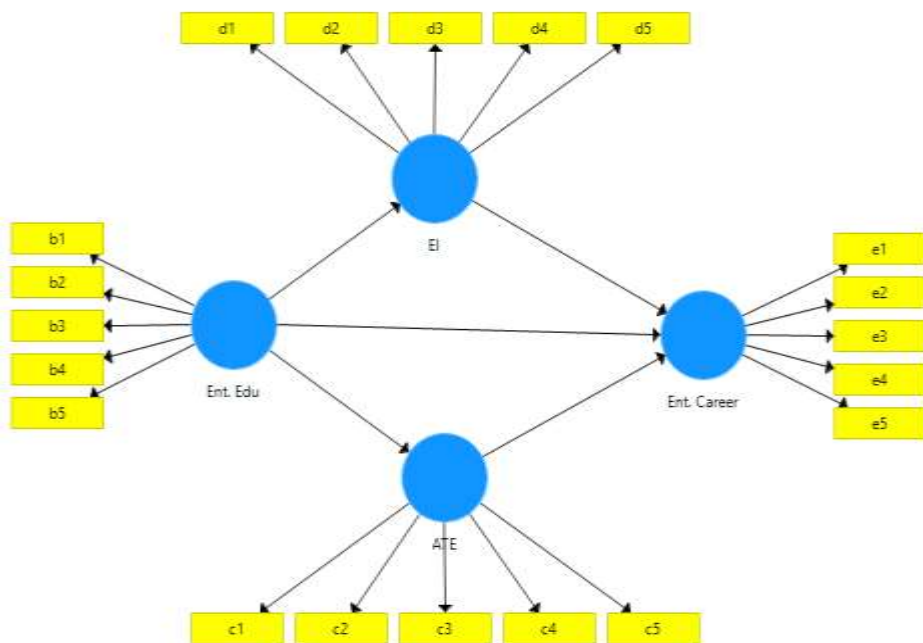
In the studies related to entrepreneurship, the question that what factors lead an individual to choose a self-employment career has been frequently asked. There are several definitions available regarding entrepreneurial intentions. Based on these definitions, entrepreneurial intentions mean a state of mind guiding individual attention, experience, and a series of actions leading to a particular goal (Bird, 1988), a commitment to start a new venture (Krueger & Carsrud, 1993), awareness to take an action (Thompson, 2009), aiming to create a new organization (Lucas & Cooper, 2012), the motivation to perform certain behaviors, and the antecedent of entrepreneurial behavior (Zhang, Duysters, & Cloodt, 2014). Other researchers found attitude as a significant variable that is correlated with entrepreneurial intentions of graduated students (Moi, Ling, & Ling, 2011).

Many factors are influencing entrepreneurial intentions such as educational background, personality traits, family background, and household head (Ramli & Basbeth, 2018). For instance, the study of Talaş, Çelik, and Oral (2013) found that students who were studying educational and applied sciences and students with relatively low household head income were less likely to have entrepreneurial intentions. In another study by Khuong and An (2016) reported that factors such as experience related to entrepreneurial actions, external environment, and perceived feasibility affect entrepreneurial intentions. The study further revealed that entrepreneurial experience was found to be strongly correlated with entrepreneurial actions relative to the other two factors. In other studies, social norms have been reported as a strong predictor of entrepreneurial

intentions (Engle et al.,2010). Similarly, in some studies, desire as a personal factor has been documented to play a key role in an individual's career intention rather than environmental and economic constraints (see., Ilouga, Mouloungni, & Sahut, 2014).

In compliance with the TPB, some studies have found attitude towards entrepreneurship (ATE) in generating entrepreneurial intentions which eventually lead to entrepreneurial behavior i.e., choosing entrepreneurship as a career choice (Ramli & Basbeth, 2018). The study by Ramli and Basebeth further found that entrepreneurship education plays a key role among students in developing their attitude towards entrepreneurship. In the context of entrepreneurship, Kuratko (2003) and Kolvereid, (1996) defined ATE as the difference between perceptions of personal interest in becoming self-employed and organizationally employed. Previous studies have confirmed that the educational measures impact ATE (Lüthje & Franke, 2003; Krueger & Brazeal, 1994; Kim-Soon, Ahmad, & Ibrahim, 2016; Ramli & Basbeth, 2018). Thus, the present study considers ATE as a mediating link between entrepreneurship education and entrepreneurship as a career choice.

Figure 1: Proposed Research Model



Source: PLS-SEM generated output

The above figure 1 describes the proposed research model of this study. The model does not consider subjective norms, which are part of the original TPB, because the beliefs of friends and family cannot be influenced directly by entrepreneurship education; rather, entrepreneurship education should affect attitudes, intentions and entrepreneurship behavior/ career choice. Since entrepreneurial education affects attitudes, it should also increase

people's entrepreneurial behavior (Fayolle, Gailly, & Lassas-Clerc, 2006). We hypothesize that:

- H1: Entrepreneurship education positively affects attitudes toward entrepreneurship.
- H2: Entrepreneurship education positively affects entrepreneurial intentions.
- H3: Entrepreneurship education positively affects entrepreneurship as a career.
- H4: Entrepreneurial intentions positively affect entrepreneurial career entrepreneurial career.
- H5: Attitudes toward entrepreneurship positively affects entrepreneurship as a career.
- H6: Attitudes toward entrepreneurship mediate the relationship between entrepreneurship education and entrepreneurship intentions.
- H7: Entrepreneurial intentions mediate the relationship between entrepreneurship education and entrepreneurship as a career.

### **3. Research Methodology**

This study mainly focused on how entrepreneurial education can increase the intention to become self-employed. We applied a quantitative approach and a convenience sampling method. A survey using questionnaires was conducted to collect information from 200 students who graduated from selected Kabul based private higher education institutions. We used item-response theory to select an appropriate sample size which was 200 (10 respondents \* 20 items = 200). The personal information such as name, phone, and email address was obtained from the registrar office of the concerned HEIs.

The questionnaire covered information about a) demographics (gender, age, job and duration in current job, and family background), b) questionnaires to measure entrepreneurship education (syllabus, co-curriculum, pedagogy); entrepreneurial intentions, attitudes toward entrepreneurship (personal traits, risk-taking, locus of control), and c) questionnaires to measure the dependent variable of entrepreneurial behavior or entrepreneurship as a career. Data were collected through online questionnaires from a sample of 200 participants who finished their studies between 2015 and 2018. In total, 99 usable questionnaires were returned.

#### **3.1 Measure**

This study used the scale developed by Liñán and Chen, (2009) to measure entrepreneurial intentions and attitudes toward entrepreneurship by asking the students the extent to which they seriously considered becoming an entrepreneur. A sample statement was "I am ready to do anything to be an entrepreneur" on a scale from 1 (strongly disagree) to 5 (strongly agree). Next, the measurement about attitudes toward

entrepreneurship contains statements such as “Being an entrepreneur implies more advantages than disadvantages for me” using the same scale above. For the dependent variable, students were asked about their interest in self-employment and work for private/public sectors as a professional career choice (Battistelli, Fraccaroli, & Odoardi, 2003).

#### 4. Analysis

The research hypotheses were tested by using Partial least squares structural equation modelling (PLS-SEM). For the data analysis, Smart-PLS, version 3.2.6 (Ringle et al., 2015) has been used in the current study. Penga and Lai (2012) posited that the robustness nature of PLS-SEM makes it commonly used for the analysis purpose widely. The major reason for using PLS-SEM for the current study was the prediction of the dependent variable (Roldán and Sánchez-Franco, 2012).

Roldán and Sánchez-Franco (2012) suggest a two-stage analytical procedure for applying PLS-SEM i.e., testing of measurement model which includes convergent validity (CV), discriminant validity (DV), and internal consistency reliability. While examining the structural model (i.e. hypotheses testing) comes in the second stage.

##### 4.1 Measurement Model

Internal consistency reliability, convergent validity (CV) and DV of the constructs were assessed by testing the measurement model in the study. According to Ramayah et al. (2016) and Hair et al. (2014), internal consistency reliability refers to the extent that the items are a measure of the late construct. Hair et al. (2017) suggested using composite reliability to measure internal consistency. The measurement model is considered to be satisfactory if the value of composite reliability is above the threshold value of 0.70 (Nunnally and Bernstein, 1994; Richter et al., 2016; Nunnally, 1978).

**Table 1: Internal Consistency Reliability and Convergent Validity**

Constructs	Items	Loading	CR	AVE
Entrepreneurship education (EE)	B1	0.895	0.776	0.549
	B2	0.773		
	B3	0.499		
	B4	Item deleted		
	B5	Item deleted		
Attitude towards entrepreneurship (ATE)	C1	0.729	0.744	0.593
	C2	0.810		
	C3	Item deleted		
	C4	Item deleted		
	C5	Item deleted		
Entrepreneurship Intention (EI)	D1	0.685	0.833	0.501
	D2	0.744		
	D3	0.764		
	D4	0.747		

Entrepreneurship career (EC)	D5	0.583	0.885	0.608
	E1	0.842		
	E2	0.820		
	E3	0.701		
	E4	0.770		
	E5	0.758		

Source: PLS-SEM generated output

**Notes:** CR, composite reliability; AVE, average variance extracted. B4, B5, C3, C4, C5 were deleted due to low loadings.

It is evident from the above table 1 that composite reliability values for the constructs EE, ATE, EI, and EC are 0.776, 0.744, 0.833, and 0.885 respectively. Further, these values are above the cut-off value of 0.70 – thereby indicating that the internal consistency of the measures is higher.

The CV is another important measure to be mindful of. According to Hair et al. (2017), CV assesses “the extent to which a measure correlates positively with alternative measures of the same construct” (p.112). To assess CV, the values of the outer loading of the items and the average variance extracted (AVE) can be checked. Avkiran (2017) suggested that if the value of outer loadings is 0.708 along with 0.50 as a score for AVE, then as a general rule of thumb, it is considered satisfactory. However, if the outer loading value is 0.60, it can also be considered as acceptable (Chin et al., 1997). According to Hair et al. (2017), the weaker factor loadings can be retained if other higher factor loadings can explain at least 50 percent of the average variance extracted (i.e., AVE= 0.50). Thus, the items with the weaker loadings, including B4, B5, C3, C4, and C5, were removed. The results appearing in table 1 indicate that, after removing the items with weaker loading, the AVE for all the constructs i.e., EE (AVE= 0.549), ATE (AVE= 0.593), EI (AVE= 0.501), and EC (AVE= 0.608) is adequate. Hence, these results confirm the CV of the constructs.

DV was assessed as a next step. According to Hair et al. (2017), DV refers to the extent to which one construct is dissimilar to the other constructs in the model. Literature suggests two methods for assessing DV. Fornell and Larcker (1981) criterion is the first method, where the comparison is made for the correlation between the constructs and the square root of the construct's AVE. DV can be achieved if the square root of the AVE for each of the constructs exceeds the same construct's correlation value (Fornell & Larcker, 1981). Below given table 2 shows that the value of the square root of AVE for each of the is higher than the correlation values in the columns and rows (Fornell & Larcker, 1981).

**Table 2: Discriminant Validity (DV) (Fornell and Larcker criterion)**

Constructs	ATE	EI	EC	EE
ATE	<b>0.770</b>			
EI	0.515	<b>0.708</b>		
EC	0.310	0.562	<b>0.756</b>	



EE	0.504	0.643	0.476	<b>0.741</b>
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Source: PLS-SEM generated output

**Note:** The bold values on the diagonal denote the square root of AVE, however, other values signify the correlations.

The second method to assess DV is to apply Heterotrait-Monotrait Ration (HTMT: Henseler et al., 2015). According to Henseler et al. (2015), if the HTMT value is above 0.90, it suggests a lack of DV. They argued further maintained that the value of 0.85 for the HTMT is considered as a more conservative cut-off value. Therefore, in order to make sure that this study does not violate the assumption, the HTMT criterion was established at HTMT  $_{0.85}$ . It is evident from the results presented in Table 3 that the HTMT criterion is well established.

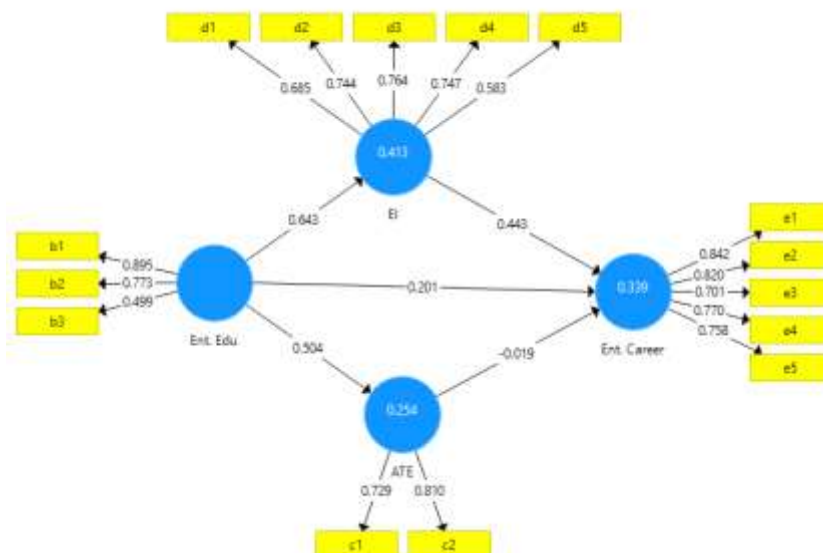
**Table 3: Discriminant Validity (DV) (HTMT criterion)**

Constructs	ATE	EI	EC	EE	VIF Values
					EC
ATE	--				1.462
EI	0.845	--			1.895
EC	0.747	0.860	--		--
EE	0.545	0.602	0.640	--	1.831

Source: PLS-SEM generated output

**4.1.1 Multicollinearity**

Besides assessing reliability and validity, the variance inflated factor (VIF) must be assessed before analyzing the structural model. According to Burn and Burns (2008), if the VIF value is above 10.0, it indicates the issue of multicollinearity. Nevertheless, Hair et al. (2014) recommended 5.0 as a cut-off value for assessing the multicollinearity. Since VIF values for all the constructs are lower than 5.0 as depicted in table 3-thus indicating that the constructs are free from the issue of multicollinearity.



Source: PLS-SEM generated output

## 4.2 Structural Model

The causal relationship between the constructs is examined through the structural model (Sang et al., 2010). To assess whether the study's hypotheses are statistically significant or not, the bootstrapping technique with 5000 resamples was applied (Hair et al., 2017).

**Table 4: Results of the Structural Model**

Hypotheses	Path	$\beta$	t-value	p-value	CI(LL,UL)	Results
H1	EE $\rightarrow$ ATE	0.50	6.11	0.00	0.29,0.63	supported
H2	EE $\rightarrow$ EI	0.64	11.83	0.00	0.50,0.73	supported
H3	EE $\rightarrow$ EC	0.20	1.51	0.13	-0.08,0.43	Not supported
H4	EI $\rightarrow$ EC	0.44	3.64	0.00	0.18,0.66	supported
H5	ATE $\rightarrow$ EC	-0.01	0.14	0.88	-0.30,0.22	Not supported
H6	EE $\rightarrow$ ATE $\rightarrow$ EC	-0.00	0.13	0.89	-0.16,0.10	Not supported
H7	EE $\rightarrow$ EI $\rightarrow$ EC	0.28	3.19	0.00	0.12,0.47	supported

Source: PLS-SEM generated output

Table 4 paints the results from the measurement of the structural model. The results demonstrate that the relationships between EE and ATE ( $\beta= 0.504$ ,  $p< 0.05$ ), EE and EI ( $\beta= 0.643$ ,  $p< 0.05$ ), and EI and EC ( $\beta= 0.443$ ,  $p< 0.05$ ) are strong positive as well as statistically significant. However, the relationship between EE and EC ( $\beta= 0.201$ ,  $p> 0.05$ ) was positive but weak and it was not statistically significant. Surprisingly, a weak negative and insignificant relationship was found between ATE and EC ( $\beta= -0.019$ ,  $p>0.05$ ). Regarding the mediating effect, results in table 4 indicate that EI mediated the relationship between EE and EC ( $\beta= 0.285$ ,  $p< 0.05$ )-indicating that H7 is supported. However, this study did not find ATE as a mediator between EE and EC ( $\beta= -0.009$ ,  $p> 0.05$ ).

In the net shell, among all the five hypotheses of the study H1, H2, H4, and H7 were supported, while the other hypotheses such as H3, H5, H6 were not supported based on the available data.

In addition to describing the significance of the relationship between the constructs, Hair et al. (2017) recommended reporting the coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and predictive relevance ( $Q^2$ ).  $R^2$  shows the degree to which the independent variable(s) explain changes in the dependent variable(s). The available result as appearing in table 5 indicates that the independent variables of the study such as attitude towards entrepreneurship, entrepreneurship career, support factors, and entrepreneurship education bring 33.4% changes in the dependent variable i.e., entrepreneurial intentions. The next is the Effect size ( $f^2$ ).  $f^2$  shows the contribution of the independent variable in the  $R^2$  value of the dependent variable. The equation:  $f^2 = (R^2_{\text{included}} - R^2_{\text{excluded}}) / 1 - R^2_{\text{included}}$  can be used to calculate the effect size. The value of  $f^2= 0.02$ ,  $0.15$ , and  $0.35$  represents the small, medium, and large effect sizes (Cohen, 1988).  $f^2$  Results provided in table 5 indicate that all independent variables contribute little to the  $R^2$  value of the dependent variable- thereby indicating a small effect size. The last is the predictive relevance ( $Q^2$ ), which refers to the predictive relevance or the

out of sample predictive power of a model for the particular construct. The value of  $Q^2$  was obtained by applying the blindfolding procedure. Hair et al. (2014) posited that the "  $Q^2$  values larger than zero for a certain reflective endogenous late variable indicate that path model's predictive relevance for the particular construct" (p.178). It is evident from the result in table 5, the value of  $Q^2$  shows a medium to large predictive relevance which is an acceptable degree.

**Table 5: Results of  $R^2$ ,  $Q^2$ , and  $f^2$**

Latent variables	Coefficient of determination $R^2$	Predictive relevance $Q^2$	$f^2$	Effect size
ATE	0.254	0.124	0.000	No effect
EI	0.413	0.188	0.160	Small to Medium
EC	0.339	0.181		
EE			0.033	Small

Source: PLS-SEM generated output

## 5. Discussion and Practical Implications

The results showed that entrepreneurship education (EE) strongly impacted attitudes toward entrepreneurship (ATE) entrepreneurial intention (EI). Further, the results also indicate that Attitudes toward entrepreneurship (ATE) has no significant effect on the student choosing entrepreneurship as a career (EC). However, entrepreneurial intentions (EI) strongly impacted the entrepreneurship as a career (EC). Also, entrepreneur education (EE) has a positive direct effect on entrepreneurship as a career (EC), although this relationship was weak and statistically insignificant. This study also found that Entrepreneurial intention (EI) mediates the relationship between entrepreneurship education (EE) and entrepreneurship as a career (EC). Next, our study highlighted that Attitudes toward entrepreneurship (ATE) did not mediate the relationship between entrepreneurship education (EE) and entrepreneurship as a career (EC).

In summary, entrepreneurship education (EE) not only stimulates Entrepreneurial behavior i.e., choosing entrepreneurship as a career (EC) among student, but it also generates Entrepreneurial intention (EI) among them, which subsequently leads to Entrepreneurial behavior i.e., choosing entrepreneurship as a career.

### 5.1 Practical Implication

The findings indicate that entrepreneurial education (EE) has a direct positive impact on the entrepreneurial behavior of choosing entrepreneurship as a career (EC). Furthermore, it (EE) also works well through intention (EI) to become an entrepreneur. In other words, entrepreneurial education (EE) contributes enormously in creating the possibility that a student chooses self-employment after graduating, it is suggested that universities increase students' willingness to engage in entrepreneurship as a career by enabling students to actively exploit

opportunities that are imagined, shaped and created in an entrepreneurial process.

Next, the present study found that entrepreneurial education (EE) had a strong impact on developing attitudes toward entrepreneurship (ATE) among business students. However, the results did not confirm whether students with entrepreneurial attitudes engage in entrepreneurial behavior. Although previous studies have shown that students with ATE are most likely to take entrepreneurship as a career, as ATE results in creating entrepreneurial intention (EI) which subsequently lead to entrepreneurial behavior i.e., choosing entrepreneurship as a career (Fayolle, Gailly, & Lassas-Clerc, 2006; Ramli & Basbeth, 2018). One of the reasons for no direct impact of ATE with EC can be the small sample size. Therefore, further research in the area of attitudes toward entrepreneurship (ATE) and its direct impact on entrepreneurial behavior (EC) is required to better understand the contributing role of ATE in entrepreneurial behavior (EC) after graduation.

Finally, the findings indicate a direct positive impact of entrepreneurship education (EE) on the entrepreneurial career to become self-employed after graduation. In order to increase the possibility that a student chooses self-employment after graduation, we recommended that universities should engage students in entrepreneurship activities to enable them to attract the entrepreneurial opportunities which make the make to create a new firm or business. Also, it is recommended that universities should provide some practical business trainings to students to initiate the entrepreneurial intention of students to become an entrepreneur after graduation.

## 6. Scope and Limitations

Like many other studies, this study also has some limitations. Firstly, the sample size was small enough to generalize the findings of this study. Thus, future studies must undertake this study on larger sample size. Secondly, the present study considered graduate students of the Kabul based selected private HEIs. Future studies should consider graduates from both public and private HEIs based in the other provinces of Afghanistan. The present study considered only entrepreneurship education (EE) as a predictor of entrepreneurial intention (EI), attitude towards entrepreneurship (ATE), and entrepreneurial career choice (EC). Beside EE, future studies should consider other factors like family support, university, and government support as some other antecedents in assessing graduates' willingness to be self-employed.

## References

- Adelaja, A. A., & Minai, M. S. (2018). Students Entrepreneurial Intention Changes Due to entrepreneurial education exposure: The experimental design approach. *Journal of Entrepreneurship Education*, 21(4), 1-12.

- Ahmed, U., Pahi, M. H., Mozammel, S., & Umrani, W. A. (2018). Entrepreneurial intentions amongst female students: Test of a moderated model in an emerging economy. *The Turkish Online Journal of Design, Art and Communication*, Special Edition, 3080-3091.
- Avkiran, N.K. (2017), "An in-depth discussion and illustration of partial least squares structural equation modeling in health care", *Health Care Management Science*, pp. 1-8, doi: 10.1007/s10729-017-9393-7.
- Banagash, K., Niazi, M. (2018). Does measurement of entrepreneurial intentions make any difference in the context of Afghan business students? *Kardan Journal of Economics and Management Science*, 1 (2), 76-87.
- Battistelli, A., Fraccaroli, F., & Odoardi, C. (2003). Towards entrepreneurial work after school. *Risorsa Uomo*.
- Blenker, P., Trolle Elmholdt, S., Hedeboe Frederiksen, S., Korsgaard, S., & Wagner, K. (2014). Methods in entrepreneurship education research: a review and integrative framework. *Education+ Training*, 56(8/9), 697-715.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453.
- Boyles, T. (2012). 21st century knowledge, skills, and abilities and entrepreneurial competencies: A model for undergraduate entrepreneurship education. *Journal of Entrepreneurship Education*, 15, 41.
- Burns, R.B. and Burns, R.A. (2008), *Business Research Methods and Statistics Using SPSS*, SAGE, Los Angeles, CA.
- Chin, W. W., Gopal, A., & Salisbury, W. D. (1997). Advancing the theory of adaptive structuration: The development of a scale to measure faithfulness of appropriation. *Information Systems Research*, 8(4), 342-367.
- CSRS. (2017, May 13). *Poverty and Unemployment in Afghanistan: The Two Main Challenges*. Retrieved December 29, 2019, from Center for Strategic & Regional Studies: <http://csrskabul.com/en/blog/poverty-unemployment-afghanistan-two-main-challenges/>
- Do Paço, A., Ferreira, J. M., Raposo, M., Rodrigues, R. G., & Dinis, A. (2015). Entrepreneurial intentions: is education enough? *International Entrepreneurship and Management Journal*, 11(1), 57-75.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Effect and counter-effect of entrepreneurship education and social context on student's intentions. *Estudios de Economía Aplicada*, 24(2), 509-523.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gafar, M., Kasim, R., & Martin, D. (2014). Is the impact of entrepreneurship education as remarkable as the demand? In *proceeding of International Conference on the Emerging Trends in Scientific Research* (pp. 130-144).
- Glaub, M. E., Frese, M., Fischer, S., & Hoppe, M. (2014). Increasing personal initiative in small business managers or owners leads to entrepreneurial success: a theory-based controlled randomized field intervention for evidence-based management. *Academy of Management Learning & Education*, 13(3), 354-379.
- Gnyawali, D. R., & Fogel, D. S. (1994). Environments for entrepreneurship development: key dimensions and research implications. *Entrepreneurship Theory and Practice*, 18(4), 43-62.

- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, SAGE, Los Angeles, CA.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., Sage, Thousand Oaks, CA.
- Hanna, A. L. (2014). The Global Youth Unemployment Crisis. *Sanford School of Public Policy*.
- Ilouga, S. N., Mouloungni, A. N., & Sahut, J. M. (2014). Entrepreneurial intention and career choices: The role of volition. *Small Business Economics*, 42(4), 717-728.
- Kautonen, T., Van Gelderen, M., & Tornikoski, E. T. (2013). Predicting entrepreneurial behaviour: A test of the theory of planned behaviour. *Applied Economics*, 45(6), 697-707.
- Khuong, M. N., & An, N. H. (2016). The factors affecting entrepreneurial intention of the students of Vietnam National University—a mediation analysis of perception toward entrepreneurship. *Journal of Economics, Business and Management*, 4(2), 104-111.
- Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2016). Theory of planned behavior: undergraduates' entrepreneurial motivation and entrepreneurship career intention at a public university. *Journal of Entrepreneurship: Research & Practice*, 2016, 1-14.
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship & Regional Development*, 5(4), 315-330.
- Krueger Jr, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18(3), 91-104
- 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.
- Kuratko, D. F. (2003). Entrepreneurship education: Emerging trends and challenges for the 21st century. *White Paper, US Association of Small Business Education*, 22, 2003.
- Lanero, A., Vázquez, J. L., Gutiérrez, P., & García, M. P. (2011). The impact of entrepreneurship education in European universities: an intention-based approach analyzed in the Spanish area. *International Review on Public and Nonprofit Marketing*, 8(2), 111-130.
- Lavender, L. (2011). *The Youth Bulge in Afghanistan: Challenges and Opportunities*. Civil – Military Fusion Centre (CMIC).
- 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-Cantucho, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7(2), 195-218.
- Lucas, W. A., & Cooper, S. (2012). Theories of entrepreneurial intention and the role of necessity. *Paper presented at the Proceedings of the 35<sup>th</sup> Institute of Small Business and Entrepreneurship Conference 2012*.
- 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.
- 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.
- 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.
- Mason, C. (2011). Entrepreneurship education and research: emerging trends and concerns. *Journal of Global Entrepreneurship*, 1(1), 13-25.
- Matlay, H. (2006). Researching entrepreneurship and education: Part 2: what is entrepreneurship education and does it matter? *Education+ Training*, 48(8/9), 704-718.
- Michelle, K., & Tendai, C. (2016). The association of entrepreneurship education and entrepreneurial intention among university students in the Eastern Cape province of South Africa. *International Journal of Educational Sciences*, 12(3), 200-211.
- Nunnally, J.C. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Nunnally, J.C. and Bernstein, I.H. (1994), *Psychometric Theory*, 3rd ed., McGraw-Hill, New York, NY.
- Nazifa, N., & Shahid, S. (2018). Factors affecting female entrepreneurial intentions in Kabul, Afghanistan. *Kardan Journal of Economics and Management Sciences*.
- Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, 54(3), 442-454.
- Penga, D.X. and Lai, F. (2012), Using partial least squares in operations management research: a practical guideline and summary of past research, *Journal of Operations Management*, 30(6), 467-480.
- Ramli, A., & Basbeth, F. (2018). Careers in entrepreneurship: Is education enough. *Sci.Int.(Lahore)*,30(2),285-291.
- Ramayah, T., Cheah, J., Chuah, F., Ting, H. and Memon, M.A. (2016), Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3.0: *An Updated Guide and Practical Guide to Statistical Analysis*, Pearson, Kuala Lumpur
- Rasmussen, E. A., & Sorheim, R. (2006). Action-based entrepreneurship education. *Technovation*, 26(2), 185-194.
- Rauch, A., & Hulsink, W. (2015). Putting entrepreneurship education where the intention to act lies: An investigation into the impact of entrepreneurship education on entrepreneurial behavior. *Academy of Management Learning & Education*, 14(2), 187-204.
- Richter, N.F., Sinkovics, R.R., Ringle, C.M. and Schlägel, C. (2016), A critical look at the use of SEM in international business research, *International Marketing Review*, 33 ( 3), 376-404.
- Ringle, C.M., Wende, S. and Becker, J.-M. (2015), SmartPLS 3. SmartPLS. Retrieved December 12, 2019, from [www.smartpls.com](http://www.smartpls.com)
- Rodrigues, R. G., Dinis, A., do Paço, A., Ferreira, J., & Raposo, M. (2012). The effect of an entrepreneurial training programme on entrepreneurial traits and intention of secondary students Entrepreneurship born, made and educated: InTech.
- Roldán, J.L. and Sánchez-Franco, M.J. (2012), Variance-based structural equation modeling: guidelines for using partial least squares in information systems research, in Mora, M., Gelman, O., Steenkamp, A. and Raisingham, M.S. (Eds), *Research Methodologies, Innovations and Philosophies in Software Systems*

- 
- Engineering and Information Systems Information Science Reference*, Hershey, 193-221, doi: 10.4018/978-1-4666-0179-6.
- Sadiq, M, E. (2018), Unemployment among the educated youth in Afghanistan: Case Study of Jowzjan University Graduates. *Institute of Development Research and Development Policy*, 49.
- Sarasvathy, S. D., & Venkataraman, S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship Theory and Practice*, 35(1), 113-135.
- Sondari, M. C. (2014). Is entrepreneurship education really needed? Examining the antecedent of entrepreneurial career intention. *Procedia-Social and Behavioral Sciences*, 115, 44-53.
- Talaş, E., Çelik, A. K., & Oral, I. O. (2013). The influence of demographic factors on entrepreneurial intention among undergraduate students as a career choice: the case of a Turkish University. *American International Journal of Contemporary Research*, 3(12), 22-31.
- Vanevenhoven, J., & Liguori, E. (2013). The impact of entrepreneurship education: introducing the entrepreneurship education project. *Journal of small business management*, 51(3), 315-328.
- Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior & Organization*, 76(1), 90-112.
- Zhang, Y., Duysters, G., & Cloudt, M. (2014). The role of entrepreneurship education as a predictor of university students' entrepreneurial intention. *International Entrepreneurship and Management Journal*, 10(3), 623-641.