

## Amsterdam University of Applied Sciences

### An Investigation of Factors Influencing Entrepreneurial Intention amongst University Students

Kör, Burcu; Wakkee, Ingrid; Mutlutürk, Meltem

**DOI**

[10.33423/jhetp.v20i1.2777](https://doi.org/10.33423/jhetp.v20i1.2777)

**Publication date**

2020

**Document Version**

Final published version

**Published in**

Journal of Higher Education Theory and Practice

[Link to publication](#)

**Citation for published version (APA):**

Kör, B., Wakkee, I., & Mutlutürk, M. (2020). An Investigation of Factors Influencing Entrepreneurial Intention amongst University Students. *Journal of Higher Education Theory and Practice*, 20(1), 70-86. <https://doi.org/10.33423/jhetp.v20i1.2777>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please contact the library:

<https://www.amsterdamuas.com/library/contact/questions>, or send a letter to: University Library (Library of the University of Amsterdam and Amsterdam University of Applied Sciences), Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

# **An Investigation of Factors Influencing Entrepreneurial Intention amongst University Students**

**Burcu Kör**  
**Amsterdam University of Applied Sciences**

**Ingrid Wakkee**  
**Amsterdam University of Applied Sciences**

**Meltem Mutlutürk**  
**Boğaziçi University**

*The aim of this study is to investigate the factors affecting the entrepreneurial intention (EI) of university students. In order to do so, EI, individual entrepreneurial orientation, self-efficacy, perceived educational support, perceived relational support, perceived structural support, knowledge sharing, and gender were used within the proposed model, and the constructed hypotheses were evaluated using SEM. The findings of a survey of 268 students show that self-efficacy is the strongest influencer of students' EI. The findings also show the mediating influence of self-efficacy on the environmental components. Additionally, male students are more likely than female students to have EI.*

*Keywords: individual entrepreneurial orientation, entrepreneurial intention, self-efficacy, perceived educational support, perceived relational support, perceived structural support, knowledge sharing, gender*

## **INTRODUCTION**

The importance of entrepreneurship for a nation's economic well-being is indisputable. Entrepreneurship plays a significant role in limiting unemployment levels through job creation and self-employment. Entrepreneurs develop new ideas and add value to them and in doing so, their countries remain competitive in increasingly global markets (Gurbuz and Aykol, 2008). Governments of developing countries see entrepreneurship as a remedy for any economic and social instability (Ibrahim and Mas'ud, 2016).

Scholars have taken into consideration the vital role entrepreneurship plays in economic development and have started to investigate the factors that are influencing people to become entrepreneurs (Gelaidan and Abdullateef, 2017). As intentions have been shown to be a strong predictor of actual future behaviour (Krueger et al., 2000) many studies seek to find out which factors have a positive effect on entrepreneurial intentions (Schwarz et al., 2009).

Many of these studies are undertaken in the context of (higher) education. It is now generally accepted that education is vital in the creation of entrepreneurial individuals and in turn an entrepreneurial community. Universities are the pillars of knowledge providing students with a high level of information

and skills needed to develop entrepreneurial tendencies (Barahona, Cruz and Escudero, 2006, Klofsten et al., 2017). Previous research in this context has explored the role of personal and environmental factors in the formation of entrepreneurial intention yet, the results of these studies remain contradictory (Schwarz et al., 2009, Nabi et al., 2017). This brings up the question of what factors influence entrepreneurial intention among students.

Hence, this study aims to determine the individual and contextual factors that influence entrepreneurial intentions among university students. Even though other studies have also focused on such factors (Sesen, 2013, Passaro et al., 2018) and the role of self-efficacy (e.g. Piperopolous et al., 2018), most studies thus far focus on the influence of entrepreneurship education on the relationship between self-efficacy and entrepreneurial intentions. However, the influence of the availability of educational support, relational support, and structural support on the self-efficacy and intention relationship has received much less attention. Furthermore, an overemphasis on business students still characterizes the literature to date. As the future depends on today's youth, the need to study their undertaking of entrepreneurship is of high importance across all disciplines or educational domains (Henderson and Roberston, 2000).

Many factors have been studied as indicators of entrepreneurial activity such as self-efficacy (Boyd and Vozikis, 1994), entrepreneurial education (Solesvik, 2013) and environmental support (Turker and Selçuk, 2009). However, to the best of the authors' knowledge, there are no studies evaluating knowledge sharing as an indicator. It has also been said that there is a lack of information regarding how knowledge affects entrepreneurial intention (Dohse and Walter, 2012). This is the first contribution of this study as well as contributing to the literature of entrepreneurship tendencies of Turkish students. Also, examining the effects of environmental support factors (i.e., perceived educational support, perceived relational support and perceived structural support) is another contribution of this study. The study aims to bridge the gap said to be present in examining both individual and contextual factors on EI. Another fundamental contribution of this study is the use of mediating variables to understand the interactions of the above-mentioned factors. The scarcity of studies taking into account mediating factors (Zhao, Seibert and Hills, 2005) has led the focus of this study to examine the mediating effect of self- efficacy on other constructs.

## **LITERATURE REVIEW AND HYPOTHESES**

### **Entrepreneurial Intention**

Entrepreneurial Intentions (EI) is a state of mind (Karimi et al., 2016; Passaro et al., 2018) leading an individual to choose self-employment over working for another. Various studies such as that of Turton and Herrington (2012) and Guerrero and Peña-Legazkue (2013) discuss the positive relationship between EI and entrepreneurial activity as well as its subsequent connection with economic development.

Krueger, Reilly, and Carsrud (2000) already reported that behaviour is best predicted by intention; therefore, entrepreneurial behaviour can be predicted by entrepreneurial intention. They also state that gaining insight into the factors driving intention can help to comprehend behaviour. Therefore, it is critical to explore what drives EI. Apart from individual factors, studies have also explored the role of contextual factors such as educational support, relational support, and structural support on entrepreneurial intention. However, research does not clearly help specify whether environmental or individual factors are the drivers of entrepreneurship in students (Schwarz et al., 2009). The ambiguity regarding this issue calls for a deeper understanding of what factors influence EI in students.

### **Individual Entrepreneurial Orientation**

An extensive amount of research has been conducted on entrepreneurial orientation including the works of Richard et al. (2004). Studies such as that of Covin and Slevin (1989), Lumpkin and Dess (1996), Rauch et al. (2009), and Wales et al. (2013) have examined entrepreneurial orientation at the firm-level. Nevertheless, scholars have recognised that entrepreneurial orientation should also be explored

at the individual-level as accounts of entrepreneurial orientation at the firm-level have been based on reports of individuals (Elenurm, 2012).

Previous research on Individual Entrepreneurial Orientation (IEO) mostly focuses on the characteristics of the individual such as risk-taking proclivity, pro-activeness and innovativeness (Wakkee, Elfring and Monaghan, 2010). These are some of the items taken under the construct of IEO in various studies. The studies of Zeffane (2015) and Sanchez (2013) among others have reported that risk-taking inclination helps differentiate between entrepreneurs and non-entrepreneurs. Uddin and Bose (2012) found risk-taking to be the strongest influencer of EI within business students.

Another characteristic of IEO is innovativeness. A vast amount of studies have reported a positive relationship between the level of innovativeness and EI (Gürol and Atsan, 2006; İsmail et al., 2013). Therefore, it can be said that innovative individuals are more likely to become entrepreneurs (Yussof et al., 2016).

The third dimension of IEO is pro-activeness which can be defined as the speed of foreseeing customer needs and expectations and responding to them. This includes staying ahead of the competition by improving on existing products, services, processes or creating new ones (Gupta and Bhawe, 2007). The improvement or creation of new products, services or processes can be linked to innovation; hence, pro-activeness can be said to be related to innovativeness. Given that the level of innovative behaviour in individuals increases the likelihood of choosing an entrepreneurial path, the same can be said for pro-activeness.

Several studies have found a link between IEO and EI in students. Ibrahim and Lucky (2014) determined that EI in Nigerian students was related to IEO. Bolton and Lane (2012), taking IEO as a multi-dimensional construct including risk-taking, innovativeness, and pro-activeness tested found a correlation between each dimension and the level of EI of university students.

In light of these studies the hypothesis below has been formed:

**H1:** *IEO has a direct effect on EI.*

### **Self-efficacy**

Self-efficacy has gained various definitions throughout the years. While some define self-efficacy as an entrepreneur's task specific confidence (Boyd and Vozikis, 1994; Baum et al., 2001), others define self-efficacy as the essential cognitive and behavioural abilities to deal with the environment (Chen et al., 1998; Segal et al., 2002).

Self-efficacy has been found to be suitable for entrepreneurial research because of its task-specific disposition (Drnovsek, Wincent and Cardon, 2010). Various researchers have concluded that self-efficacy is crucial for the prediction of start-up intentions (Krueger et al., 2000), new endeavours and personal success (Markman et al., 2002). Chen, Green, and Crick (1998) prove that entrepreneurial self-efficacy is positively related to student intention to start their own business.

Building on the above information the following hypothesis is formed:

**H2:** *Self-efficacy has a direct effect on EI.*

### **Perceived Educational Support**

Literature defines educational support as a constant investment in quality education to improve national economic development (Mwoma and Pillay, 2016). The skill set students obtain from entrepreneurial education can make an entrepreneurial path seem more desirable and increase the intention of becoming an entrepreneur (Peterman and Kennedy, 2003).

The study of Autio et al. (1997) conducted a survey of technology students and reported that the career choices were affected by the perception of an entrepreneurial career path as well as support received from the university. Educational support of entrepreneurship can be in the form of supporting or encouraging entrepreneurial activities as well as education on entrepreneurship. For example, while Gelard and Saleh (2011) have studied the effects of entrepreneurial activities of universities on the entrepreneurial orientation

of students. A study amongst Pakistani students by Saeed et al (2015) showed no significant relationship between perceived university support and entrepreneurial intention. According to the authors, this suggests that students did not perceive strong educational, cognitive, and business development support from their universities. Likewise, using a sample of 595 students from three Federal Universities in Northern Nigeria, Nasiru et al 2015, found a significant but negative relationship between perception of University support, and EI. Gorman, Hanlon, and King (1997) focus on the positive effects of educational programs on entrepreneurial traits. Similarly, Kolvereid and Moen (1997) have established a link between entrepreneurial education and entrepreneurial behaviour.

In light of the information above, the following hypothesis can be made:

**H3:** *Perceived educational support has a direct effect on EI.*

In order to encourage entrepreneurial behaviour among their students, many universities are investing in entrepreneurship programs. These programs provide the necessary knowledge of how to run a business (Gelaidan and Abdullateef, 2017), in turn, inspiring individuals to become more entrepreneurial and boosting their self-confidence (Mutlutürk and Mardikyan, 2018). Parallel to this, studies have uncovered that entrepreneurship education can improve the self-efficacy of students in starting their own business (Wilson et al., 2007). It has been observed that with the right education, students will gravitate towards self-employment due to higher levels of self-confidence (Gelaidan and Abdullateef, 2017). Moreover, education is crucial in building students' entrepreneurial efficacy by making self-employment more appealing by providing all aspects of developing a business and supporting them in these endeavours (Pihie and Akmaliah, 2009).

Based on these discussions, the following hypothesis is formed:

**H4:** *Self-efficacy mediates the relationship between perceived educational support and EI.*

### **Perceived Relational Support**

The factors that influence the EI of students have been explored in various studies (Veciana et al., 2005; Turker and Selçuk, 2009). Holienka et al. (2013) have stated that students are affected by their environment; their friends and family. Also, it is more likely that individuals with parents that have their own business will have a higher entrepreneurial intention as they will already have inside knowledge regarding the advantages and disadvantages of such an endeavour (Domke-Damonte, Faulstich and Woodson, 2008). Krueger (1993) supports this argument by establishing that self-employed parents are apt to entrepreneurial activity.

Drawing from this argument the following hypothesis is formed:

**H5:** *Perceived relational support has a direct effect on EI.*

Relational support entails emotional support and financing from friends and family (Baughn et al., 2006). Whichever form this support takes, the knowledge of support from friends and family leads to higher self-esteem and motivation to undergo an entrepreneurial path (Ismail et al., 2009).

This argument leads to the following hypothesis:

**H6:** *Self-efficacy mediates the relationship between perceived relational support and EI.*

### **Perceived Structural Support**

Another contextual factor is perceived structural support. New endeavours however big or small are regulated by public or private institutions. Such regulations can cause a feeling of threat or opportunity for young entrepreneurs. Severe regulations and red tape can cause a decline in entrepreneurship intention of young individuals. On the other side, encouraging conditions may increase the aptitude for such entrepreneurial activity (Gelard and Saleh, 2011).

Drawing on this conclusion, the following hypotheses are constructed:

*H7: Perceived structural support has a direct effect on EI.*

*H8: Self-efficacy mediates the relationship between perceived structural support and EI.*

### **Knowledge Sharing**

It is known that in all circumstances, knowledge is perceived as power. Existing research shows that individuals with more entrepreneurial experience (knowledge) and a higher level of education (Arenius and Minniti, 2005) are more inclined to seek an entrepreneurial career path. Dohse and Walter (2012) state that knowledge plays a pivotal role in an individual's decision to become an entrepreneur.

An entrepreneurial environment, such as having a parent or a close friend who is self-employed, provides realistic insight on an entrepreneurial lifestyle (Chlosta et al., 2010; Nabi et al 2018). This environment is a singular source of knowledge regarding entrepreneurial decision-making (Mueller, 2006). Knowledge provided by family or friends can be in the form of direct knowledge regarding business or network knowledge; contacts relevant in the area of entrepreneurship (Dohse and Walter, 2012). From the above information the following hypothesis is formed:

*H9: Knowledge sharing has a direct effect on EI.*

## **METHODOLOGY**

### **Data Collection**

In order to understand the factors affecting the entrepreneurial intention of university students, a quantitative method of data collection and analysis was used in this study. There are two sections to the survey; the demographic questions and a section of 24 seven-point Likert-scale questions related to the items of the model constructs. The items were taken from existing scales of previous studies.

A survey was distributed to students of different universities in Turkey online. The participants of the study were randomly selected from various educational programs not limited to the business domain. Participants in this study answered the questionnaire in a voluntary manner and were informed of the aim of the survey. Participants were also assured of the anonymity and the confidentiality of their answers. Questionnaires were administered to 332 students and a total of 268 were usable. The usable response rate was 80.1%.

The table below gives the descriptive statistics of the participants of this study. Most of the respondents were female (51.5 percent). Most respondents had an undergraduate degree (68 percent), while 14 percent held a master's degree, 15 percent had an associate degree and 3 percent held a Ph.D. degree.

**TABLE 1**  
**DESCRIPTIVE STATISTICS OF PARTICIPANTS**

<b>Characteristic</b>		<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>	18-24	202	75.4
	25-30	51	19
	31-35	10	3.7
	35 +	5	1.9
<b>Gender</b>	Male	130	48.5
	Female	138	51.5
<b>Current Degree</b>	Associate	41	15
	Bachelor	182	68
	Masters	37	14
	Ph.D.	8	3
<b>Taken Entrepreneurial Course</b>	Yes	88	32.8
	No	180	67.2
<b>Family Business</b>	Yes	48	17.9
	No	220	82.1

Notes: n=268

### **Measures**

All constructs were measured with multiple items, which were taken from existing measures that are considered reliable and valid. All items in the questionnaire were measured based on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire was originally developed in English, and then underwent a back-translation procedure (Bhalla and Lin, 1987). Once the translation process was finalized, the content validity, clarity and accuracy of the questionnaires were checked and approved by two faculty members and three students. All correlational analyses, tests of reliability and validity, confirmatory factor analyses, independent t-test and Structural Equations Modelling (SEM) analysis were performed by using the software programmes SPSS (Version 24.0) and AMOS (Version 24.0).

Existing scales were taken from previous studies after extensive literature research. IEO was measured with eight items. The items under the IEO construct were taken from the study of Taatila and Down (2012). To measure EI, the scale of Liñán and Chen (2009) was used. The scale consisted of five items. Knowledge sharing was measured by three items drawn from Huang and Lee (2009). The items under the perceived educational support perceived relational support and perceived structural support were measured with three items and were taken from the study of Turker and Selcuk (2009). Lastly, the three items under the self-efficacy construct were taken from the study of Gurbuz and Aykol (2008) and Linan and Chen (2009). All but one of the scales items attained a corrected item-total correlation of .3 and above. This item (referring to: State laws (rules and regulations) are averse to running a business) was excluded from further analysis. The questionnaire containing these items can be found in the Appendix.

### **Control Variables**

We included several control variables to control the confounding variables. As suggested by prior research (Sahinidis, Giovanis, and Sdrolias, 2012; Shinnar, Hsu and Powell, 2014), we controlled for students' gender (male=0; female=1). Following the gender role theory (Eagly, 1987), we included gender because individuals develop gendered belief systems and these belief systems affect values, behaviours, and roles within a specific societal culture, which might cause variance in EI.

### **Common Method Variance**

Self-reported survey analyses may suffer from some problematic effects of common method variance (CMV). According to Podsakoff et al. (2003), several procedural and statistical techniques should help to

minimize potential problems for common method variance. Following Podsakoff et al. (2003), multiple ways to handle the effects of CMV have been adopted. First, we have collected the data in assuring anonymity and confidentiality to all participants and using reverse code items in the questionnaire to reduce the potential effects of response pattern. Furthermore, two statistical tests were conducted to identify the effects of CMV in this research. First, we conducted Harman's single factor test. The total percentage of variance for the first factor is 28.59, which is less than 50%, indicating minimal effects of CMV. Furthermore, as Table 2 shows, the highest correlation among the principal constructs is .63, far less than the problematic level of CMV (e.g., .90) (Bagozzi et al., 1991). The results of these tests suggest that CMV is likely not a serious concern in the present study.

**TABLE 2**  
**MEANS, STANDARD DEVIATIONS AND CORRELATIONS**

	<b>M</b>	<b>SD</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Gender</b>	.51	.50	-						
<b>EI</b>	4.47	1.79	-.192**	-					
<b>IEO</b>	4.60	1.58	-.128*	.494**	-				
<b>Self-Efficacy</b>	4.11	1.67	-.130*	.633**	.565**	-			
<b>Knowledge Sharing</b>	4.65	1.67	-.037	.112	.250**	.213**	-		
<b>Perceived Educational Support</b>	4.01	1.81	-.057	.219**	.242**	.312**	.503**	-	
<b>Perceived Relational Support</b>	5.56	1.39	-.019	.351**	.273**	.252**	.267**	.224**	-
<b>Perceived Structural Support</b>	3.85	1.55	-.013	.212**	.106	.226**	.272**	.414**	.305**

Notes: n=268; \*p<.05; \*\*p<.01; \*\*\*p<.001. Gender is coded 0= Male, 1= Female.

## VALIDITY AND RELIABILITY

### Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was performed to assess the validity of the multi-item measurement scale. According to Hair et al. (2009), comparative fit index (CFI) values above .90 were usually associated with a model that fits well. The acceptable threshold of the standardized root mean square residual (RMSEA) should be less than .10. In general, if the ratio between the Chi-square goodness-of-fit measure and degrees of freedom was less than three, the model was accepted (Hu and Bentler, 1999; Tabachnick and Fidell, 2001). Hu and Bentler (1999) suggested that standard root mean square residual (SRMR) should be less than .09. In accordance with the cut off points of these fit indices, the measurement model results indicate an acceptable fit to the data ( $\chi^2/df = 2.73$ , RMSEA = .08, CFI = .89, RMR = .167, SRMR = .06).

Table 3 provides information about the factor loadings which gives us the validity of each construct. Hair et al. (2010) state that factor loadings should be higher than 0.50. As can be understood from the table below, all items load onto each of their constructs significantly well. Also, the measurement model has also been given in Figure 1.

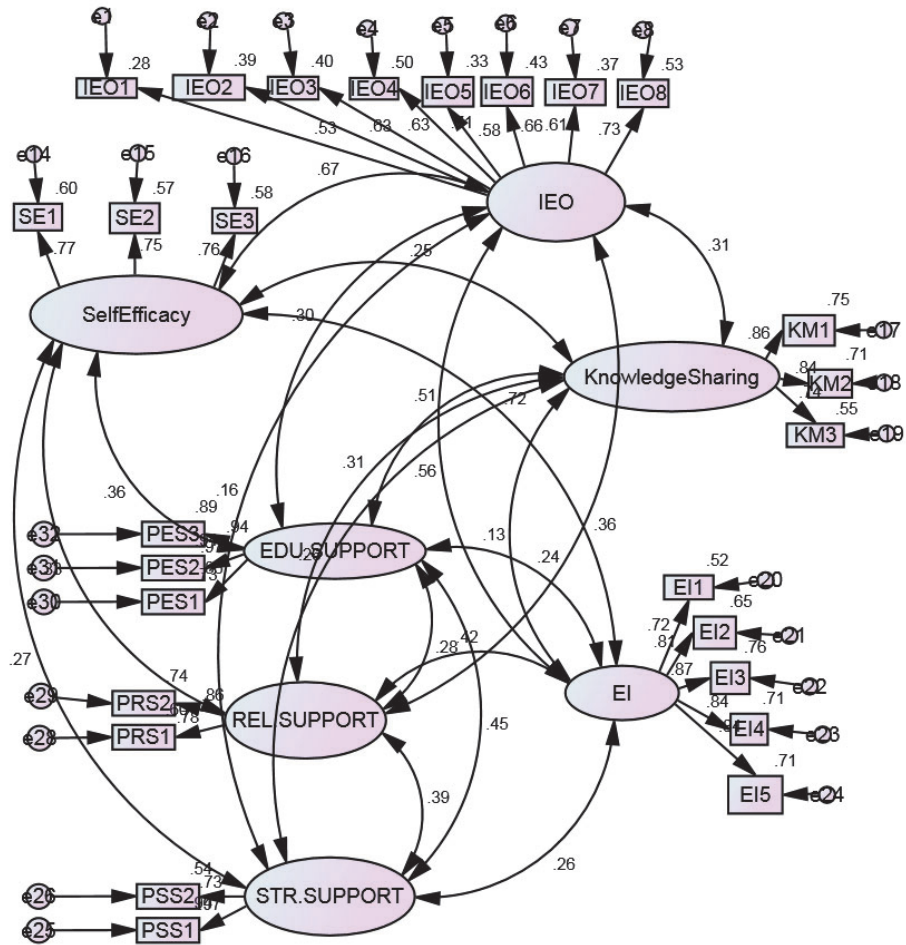


**TABLE 3**  
**RESULTS OF THE CFA**

<b>Construct</b>	<b>Items</b>	<b>Factor Loadings</b>
<b>EI</b>	EI1	0.725
	EI2	0.806
	EI3	0.871
	EI4	0.843
	EI5	0.845
<b>IEO</b>	IEO1	0.528
	IEO2	0.616
	IEO3	0.623
	IEO4	0.695
	IEO5	0.575
	IEO6	0.664
	IEO7	0.647
	IEO8	0.747
<b>Self-Efficacy</b>	SE1	0.773
	SE2	0.759
	SE3	0.758
<b>Knowledge Sharing</b>	KS1	0.864
	KS2	0.845
	KS3	0.741
<b>Perceived Educational Support</b>	PES1	0.851
	PES2	0.972
	PES3	0.938
<b>Perceived Relational Support</b>	PRS1	0.81
	PRS2	0.846
<b>Perceived Structural Support</b>	PSS1	0.972
	PSS2	0.737

*Notes: n=268*

**FIGURE 1  
MEASUREMENT MODEL**



**Reliability, Discriminant Validity and Construct Validity**

The Cronbach’s alpha ( $\alpha$ ), used to calculate a measure of internal reliability based on the average covariance among items in a scale (Guerrero, Urbano, and Fayolle, 2016). The Cronbach’s alpha measure assumes that items on a scale are positively correlated with one another because all are tapping into the same construct. Therefore, a high alpha (0.70 and higher) represents that all scale items are measuring the same construct (Greene 2003). In the present study, each factor had a Cronbach’s alpha estimate above 0.7, which is good.

Construct validity deals in measurement accuracy. One of the ways to measure construct validity is convergent validity. Construct reliability (CR) is an indicator of convergence and is said to be deemed good when higher than 0.7 (Hair et al., 2010). Looking at Table 4, it can be said that all constructs are valid and reliable.

**TABLE 4 RESULTS OF CR**

<b>Construct</b>	<b>Items</b>	<b>CR &gt; 0.7</b>
<b>EI</b>	EI1	0.91
	EI2	
	EI3	
	EI4	
	EI5	
<b>IEO</b>	IEO1	0.85
	IEO2	
	IEO3	
	IEO4	
	IEO5	
	IEO6	
	IEO7	
	IEO8	
<b>Self-Efficacy</b>	SE1	0.81
	SE2	
	SE3	
<b>Knowledge Sharing</b>	KS1	0.86
	KS2	
	KS3	
<b>Perceived Educational Support</b>	PES1	0.94
	PES2	
	PES3	
<b>Perceived Relational Support</b>	PRS1	0.80
	PRS2	
<b>Perceived Structural Support</b>	PSS1	0.85
	PSS2	

*Notes: n=268*

Table 5 gives us the discriminant validity of the constructs. As all constructs fit the rule for discriminant validity, the next step is to evaluate the structural model.

**TABLE 5**  
**DISCRIMINANT VALIDITY RESULTS**

Construct 1		Construct 2	Square of Correlation	AVE for Construct 1	AVE for Construct 2
<b>IEO</b>	<-->	KS	0.09	0.402	0.669
<b>IEO</b>	<-->	SE	0.47	0.402	0.583
<b>IEO</b>	<-->	PES	0.09	0.402	0.85
<b>IEO</b>	<-->	PRS	0.126	0.402	0.671
<b>IEO</b>	<-->	PSS	0.023	0.402	0.74
<b>EI</b>	<-->	IEO	0.319	0.672	0.402
<b>PES</b>	<-->	PRS	0.076	0.85	0.671
<b>PES</b>	<-->	PSS	0.201	0.85	0.74
<b>EI</b>	<-->	PES	0.059	0.672	0.85
<b>KS</b>	<-->	PES	0.259	0.669	0.85
<b>SE</b>	<-->	PES	0.128	0.583	0.85
<b>PRS</b>	<-->	PSS	0.154	0.671	0.74
<b>EI</b>	<-->	PRS	0.171	0.672	0.671
<b>KS</b>	<-->	PRS	0.09	0.669	0.671
<b>SE</b>	<-->	PRS	0.106	0.583	0.671
<b>EI</b>	<-->	PSS	0.068	0.672	0.74
<b>KS</b>	<-->	PSS	0.067	0.669	0.74
<b>SE</b>	<-->	PSS	0.072	0.583	0.74
<b>SE</b>	<-->	KS	0.064	0.583	0.74
<b>EI</b>	<-->	SE	0.515	0.672	0.583
<b>EI</b>	<-->	KS	0.015	0.672	0.669

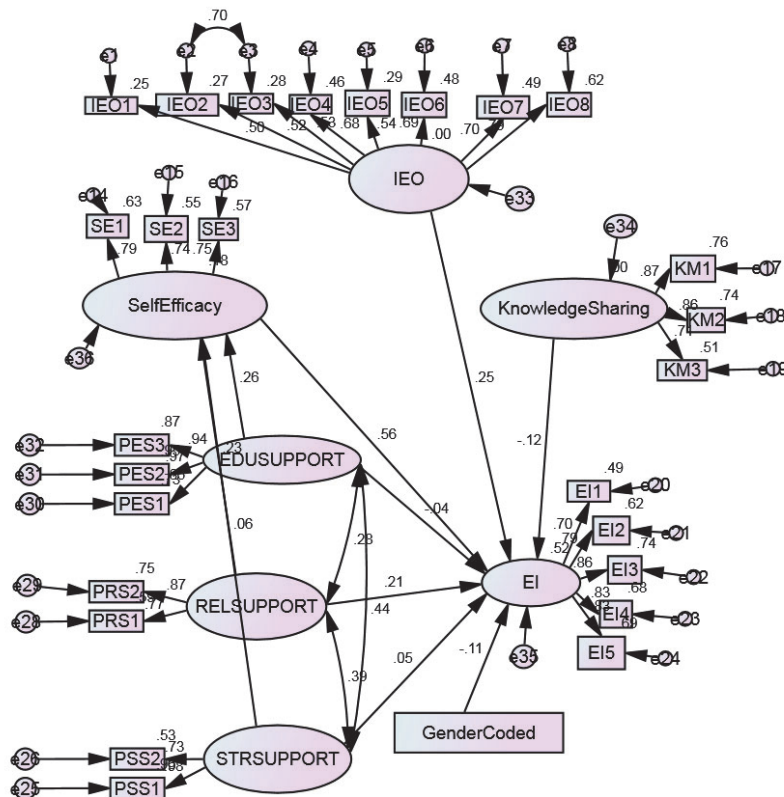
Notes: n=268

### Analysis and Results

Independent-samples t-tests were conducted to compare EI for gender differences. These tests indicated that male (mean: 4.77) are more likely than female (mean: 4.18) to have EI ( $t = 3.196, p = .002$ ).

After ensuring the reliability and the validity of the measurement model, it is safe to move on to the structural model. The measurement model is transformed into the structural model by turning the correlational relationships into causal relationships. The structural model can be seen in Figure 2.

**FIGURE 2  
STRUCTURAL MODEL**



Hypothesis 1 predicts that IEO is positively related to EI. The results relevant to this hypothesis indicated that IEO was significantly related to EI ( $\beta = .25, p < .001$ ). Thus, Hypothesis 1 was accepted. The results also showed that self-efficacy was positively associated with EI ( $\beta = .715, p < .001$ ); therefore, Hypothesis 2 was supported. In addition, the results demonstrated that perceived educational support was positively associated with EI ( $\beta = .243, p < .001$ ); therefore, Hypothesis 2 was supported. Hypothesis 3 was also supported, which predicts the perceived educational support had a significant direct effect on EI. Self-efficacy significantly mediated the relationship between perceived educational support and EI ( $\beta = .148, p < .001$ ); therefore, Hypothesis 4 was supported. Perceived relational support had a significant direct effect on EI ( $\beta = .408, p < .001$ ); therefore Hypothesis 5 was supported. Self-efficacy also significantly mediated the relationship between perceived relational support and EI ( $\beta = .173, p < .001$ ); therefore, Hypothesis 6 was supported. Perceived structural support had a significant direct effect on EI ( $\beta = .229, p < .001$ ); therefore Hypothesis 7 was supported. Self-efficacy didn't mediate the relationship between perceived structural support and EI ( $\beta = .016, p > .05$ ) thus, Hypothesis 8 was not supported. As can be seen in Table 6, the results offered support for Hypothesis 9 ( $\beta = -.12, p < .05$ ).

The results of the hypotheses testing are summarized in Table 6. Only 1 out of the 9 hypotheses proposed within this study was not supported ( $H_8$ ). Of all the factors influencing entrepreneurial intention among university students, self-efficacy is the most important followed by individual entrepreneurial orientation and perceived relational support.

**TABLE 6**  
**THE RESULTS OF THE HYPOTHESES**

Hypotheses	Description of Path	Estimates ( $\beta$ )	Results
H <sub>1</sub>	IEO has a direct effect on EI.	$\beta=.25^{***}$	Supported
H <sub>2</sub>	Self-efficacy has a direct effect on EI.	$\beta=.71^{***}$	Supported
H <sub>3</sub>	Perceived educational support has a direct effect on EI.	$\beta=.24^{***}$	Supported
H <sub>4</sub>	Self-efficacy mediates the relationship between perceived educational support and EI.	$\beta=.15^{***}$	Supported
H <sub>5</sub>	Perceived relational support has a direct effect on EI.	$\beta=.41^{***}$	Supported
H <sub>6</sub>	Self-efficacy mediates the relationship between perceived relational support and EI.	$\beta=.17^{***}$	Supported
H <sub>7</sub>	Perceived structural support has a direct effect on EI.	$\beta=.23^{***}$	Supported
H <sub>8</sub>	Self-efficacy mediates the relationship between perceived structural support and EI.	$\beta= .016$	Not Supported
H <sub>9</sub>	Knowledge sharing has a direct effect on EI.	$\beta=-.12^*$	Supported

*Notes:* n= 268; \* $p<.05$ ; \*\* $p<.01$ ; \*\*\* $p<.001$ ; all coefficients are standardized

## CONCLUSION

This study contributes to the literature by defining the individual and contextual factors influencing entrepreneurial intention within university students. It differs from other studies in the literature in that it incorporates the construct knowledge sharing as an influencer of EI as well as self-efficacy as a mediator between perceived educational, perceived relational, perceived structural support, and EI. The findings support self-efficacy as a mediator for educational and relational support but not for structural support. This shows that even if structural support is given, this does not make students feel more confident in pursuing an entrepreneurial path. This could also be students not being sufficiently informed of possible structural support activities regarding entrepreneurship endeavours. Individual entrepreneurship orientation and self-efficacy are found to be the most influential factors in the EI of university students. The results of this study indicate that there is a significant difference between the EI scores of male and female students, which agrees with the findings of Shook and Bratianu (2010), and male students found entrepreneurship more attractive than female students.

This study should be considered considering the following limitations; the first being that this study focuses on the intention of students. However, students may not turn this intention into actual behaviour. Students that have shown high intention to adopt an entrepreneurial career path may choose to go in another direction. A further study could be carried out on these students to see if they have turned these intentions into behaviour after graduation. Another limitation is that the data was collected from a single country. Data could be collected from various countries in order to compare the intentions and behaviours of students from different cultural and economic backgrounds.

## REFERENCES

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), 233-247.
- Autio, E., Keeley, R. H., Klofsten, M., & Ulfstedt, T. (1997). *Entrepreneurial intent among students: Testing an intent model in Asia, Scandinavia and USA*.
- Bagozzi, R. P., Yi, Y., & Singh, S. (1991). On the use of structural equation models in experimental designs: two extensions. *Int J Res Mark.*, 8(2), 125–140. doi: 10.1016/0167-8116(91)90020-8.
- Barahona, J. H., Cruz, N. M., & Escudero, A. I. R. (2006). Education and Training as Non-Psychological Characteristics that Influence University Students' Entrepreneurial Behaviour. *Journal of Entrepreneurship Education*, 9, 99.
- Baughn, C. C., Cao, J. S., Le, L. T. M., Lim, V. A., & Neupert, K. E. (2006). Normative, social and cognitive predictors of entrepreneurial interest in China, Vietnam and the Philippines. *Journal of Developmental Entrepreneurship*, 11(1), 57-77.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A multidimensional model of venture growth. *Academy of Management Journal*, 44(2), 292-304.
- Bhalla, G., & Lin, L. Y. (1987). Cross-cultural marketing research: A discussion of equivalence issues and measurement strategies. *Psychology and Marketing*, 4(4), 275.
- Bolton, D. L., & Lane, M. D. (2012). Individual entrepreneurial orientation. Development of a measurement instrument, *Education + Training*, 54(2/3), 219–233.
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18, 63-68.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295-316.
- Chlosta, S., Patzelt, H., Klein, S., & Dormann, C. (2010). *Parental role models and the decision to become Self-employed: The moderating effect of personality*. *Small Business Economics*. doi:10.1007/s11187-010-9270-y.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-87.
- Dohse, D., & Walter, S. G. (2012). Knowledge context and entrepreneurial intentions among students. *Small Business Economics*, 39(4), 877-895.
- Domke-Damonte, D., Faulstich, J. A., & Woodson, W., III. (2008). Entrepreneurial orientation in a situational context: Comparisons between Germany and the United States. *Journal of Business Strategies*, 25(1), 15.
- Drnovšek, M., Wincent, J., & Cardon, M. S. (2010). Entrepreneurial self-efficacy and business start-up: Developing a multi-dimensional definition. *International Journal of Entrepreneurial Behaviour & Research*, 16(4), 329-348.
- Eagly, A. H. (1987). *Sex Differences in Social Behavior: A Social-role Interpretation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Elenurm, T. (2012). Entrepreneurial orientations of business students and entrepreneurs. *Baltic Journal of Management*, 7(2), 217-231.
- Gelaidan, H. M., & Abdullateef, A. O. (2017). Entrepreneurial intentions of business students in Malaysia: The role of self-confidence, educational and relation support. *Journal of Small Business and Enterprise Development*, 24(1).
- Gelard, P., & Saleh, K. E. (2011). Impact of some contextual factors on entrepreneurial intention of university students. *African Journal of Business Management*, 5(26), 10707.

- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal*, 15(3), 56-77.
- Greene, W. H. (2003). *Econometric analysis*. Pearson Education India.
- Guerrero, M., Urbano, D., & Fayolle, A. (2016). Entrepreneurial activity and regional competitiveness: evidence from European entrepreneurial universities. *The Journal of Technology Transfer*, 41(1), 105-131.
- Gupta, V. K., & Bhawe, N. M. (2007). The influence of proactive personality and stereotype threat on women's entrepreneurial intentions. *Journal of Leadership & Organizational Studies*, 13(4), 73-85.
- Gurbuz, G., & Aykol, S. (2008). Entrepreneurial intentions of young educated public in Turkey. *Journal of Global Strategic Management*, 4(1), 47-56.
- Gürol, Y., & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: some insights for entrepreneurship education and training in Turkey. *Education + Training*, 48(1), 25-38.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7). Upper Saddle River, NJ: Pearson.
- Henderson, R., & Robertson, M. (2000). Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career. *Career Development International*, 5(6), 279-287.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Huang, J. W., & Li, Y. H. (2009). The mediating effect of knowledge management on social interaction and innovation performance. *International Journal of Manpower*, 30(3), 285 – 301.
- Ibrahim, N. A., & Lucky, E. O. I. (2014). Relationship between entrepreneurial orientation, entrepreneurial skills, environmental factor and entrepreneurial intention among Nigerian students in UUM. *Entrepreneurship and Innovation Management Journal*, 2(4), 203–213.
- Ibrahim, N. A., & Lucky, E. O. I. (2014). Relationship between entrepreneurial orientation, entrepreneurial skills, environmental factor and entrepreneurial intention among Nigerian students in UUM. *Entrepreneurship and Innovation Management Journal*, 2(4), 203-213.
- Ibrahim, N., & Mas'ud, A. (2016). Moderating role of entrepreneurial orientation on the relationship between entrepreneurial skills, environmental factors and entrepreneurial intention: A PLS approach. *Management Science Letters*, 6(3), 225-236.
- Ismail, M., Khalid, S. A., Othman, M., Jusoff, H. K., Rahman, N. A., Kassim, K. M., & Zain, R. S. (2009). Entrepreneurial intention among Malaysian undergraduates. *International Journal of Business and Management*, 4(10), 54.
- Ismail, N., Jaffar, N., & Hooi, T. S. (2013). Using EAO model to predict the self-employment intentions among the universities' undergraduates in Malaysia. *International Journal of Trade, Economics & Finance*, 4(5).
- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., & Mulder, M. (2016). The impact of entrepreneurship education: a study of Iranian students' entrepreneurial intentions and opportunity identification. *Journal of Small Business Management*, 54(1), 187-209.
- Kolvereid, L., & Moen, Ø. (1997). Entrepreneurship among business graduates: Does a major in entrepreneurship make a difference? *Journal of European Industrial Training*, 21(4), 154-160.
- Krueger, N. F., Jr., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432.
- Leroy, H., Maes, J., Sels, L., & Debrulle, J. (2009). *Gender effects on entrepreneurial intentions: a TPB multigroup analysis at factor and indicator level*. Retrieved July 14, 2012, from <https://lirias.kuleuven.be/bitstream/123456789/245186/2/2009-09-16+-+12064.pdf>
- 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.



- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135-172.
- Mutlutürk, M., & Mardikyan, S. (2018). Analysing factors affecting the individual entrepreneurial orientation of university students. *Journal of Entrepreneurship Education*, 21(3).
- Mwoma, T., & Pillay, J. (2016). Educational support for orphans and vulnerable children in primary schools: Challenges and interventions. *Issues in Educational Research*, 26(1), 82-97.
- Nabi, G., Walmsley, A., Liñán, F., Akhtar, I., & Neame, C. (2018). Does entrepreneurship education in the first year of higher education develop entrepreneurial intentions? The role of learning and inspiration. *Studies in Higher Education*, 43(3), 452-467.
- Passaro, R., Quinto, I., & Thomas, A. (2018). The impact of higher education on entrepreneurial intention and human capital. *Journal of Intellectual Capital*, 19(1), 135-156.
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129-144.
- Pihie, Z. A. L., & Akmaliah, Z. (2009). Entrepreneurship as a career choice: An analysis of entrepreneurial self-efficacy and intention of university students. *European Journal of Social Sciences*, 9(2), 338-349.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Pratoom, K., & Savatsomboon, G. (2012). Explaining factors affecting individual innovation: The case of producer group members in Thailand. *Asia Pacific Journal of Management*, 29(4), 1063-1087.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761-787.
- Richard, O. C., Barnett, T., Dwyer, S., & Chadwick, K. (2004). Cultural diversity in management, firm performance, and the moderating role of entrepreneurial orientation dimensions. *Academy of Management Journal*, 47(2), 255-266.
- Saeed, S., Yousafzai, S. Y., Yani-De-Soriano, M., & Muffatto, M. (2015). The role of perceived university support in the formation of students' entrepreneurial intention. *Journal of Small Business Management*, 53(4), 1127-1145.
- Sahinidis, A. G., Giovanis, A. N., & Sdrolias, L. (2012). The role of gender on entrepreneurial intention among students: An empirical test of the theory of planned behaviour in a Greek university. *International Journal on Integrated Information Management*, 1(1), 61-79.
- Sánchez, J. C. (2013). The impact of an entrepreneurship education program on entrepreneurial competencies and intention. *Journal of Small Business Management*, 51(3), 447-465.
- Schwarz, E. J., Wdowiak, M. A., Almer-Jarz, D. A., & Breitenacker, R. J. (2009). The effects of attitudes and perceived environment conditions on students' entrepreneurial intent: An Austrian perspective. *Education + Training*, 51(4), 272-291.
- Segal, G., Borgia, D., & Schoenfeld, J. (2002). Using social cognitive career theory to predict self-employment goals. *New England Journal of Entrepreneurship*, 5(2), 47-56.
- Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education + Training*, 55(7), 624-640.
- Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *The International Journal of Management Education*, 12(3), 561-570.
- Shook, C. L., & Bratianu, C. (2010). Entrepreneurial intent in a transitional economy: an application of the theory of planned behavior to Romanian students. *International Entrepreneurship and Management Journal*, 6(3), 231-247.
- Solesvik, M. Z. (2013). Entrepreneurial motivations and intentions: investigating the role of education major. *Education + Training*, 55(3), 253-271.

- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566-591.
- Taatila, V., & Down, S. (2012). Measuring entrepreneurial orientation of university students. *Education + Training*, 54(8/9), 744-760.
- Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142-159.
- Turton, N., & Herrington, M. (2012). *Global Entrepreneurship Monitor South Africa*. UCT Graduate School of Business: Cape Town, SA
- Uddin, M. R., & Bose, T. K. (2012). Determinants of entrepreneurial intention of business students in Bangladesh. *International Journal of Business and Management*, 7(24), 128.
- Veciana, J. M., Aponte, M., & Urbano, D. (2005). University students' attitudes towards entrepreneurship: A two countries comparison. *The International Entrepreneurship and Management Journal*, 1(2), 165-182.
- Vesalainen, J., & Pihkala, T. (1999). Entrepreneurial identity, intentions and the effect of the push-factors. *Academy of Entrepreneurship Journal*, 5(2), 1-24.
- Wakkee, I., Elfring, T., & Monaghan, S. (2010). Creating entrepreneurial employees in traditional service sectors. *International Entrepreneurship and Management Journal*, 6(1), 1-21.
- Wales, W. J., Gupta, V. K., & Mousa, F. T. (2013). Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International Small Business Journal*, 31(4), 357-383.
- Wang, Y. L., & Ellinger, A. D. (2008). *Organizational Learning and Innovation Performance: A Review of the Literature and the Development of a Conceptual Framework and Research Hypotheses*. Online Submission.
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, 31(3), 387-406.
- Yusoff, A., Ahmad, N. H., & Halim, H. A. (2016). Entrepreneurial orientation and agropreneurial intention among Malaysian agricultural students: the impact of agropreneurship education. *Advances in Business-Related Scientific Research Journal*, 7(1), 77-92.
- Zeffane, R. (2015). Trust, personality, risk taking and entrepreneurship: Exploring gender differences among nascent and actual entrepreneurs in the United Arab Emirates. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(3), 191-209.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), 1265.