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ANALYSING FACTORS AFFECTING THE INDIVIDUAL ENTREPRENEURIAL ORIENTATION OF UNIVERSITY STUDENTS

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ABSTRACT

Each individual, at some point in their lives, has faced the dilemma of whether or not to become their own boss or work for someone else. With the rapid change of the business environment due to the rapid enhancement of technology, higher education is no longer a significant element in employment. In order to meet the evolving needs of employers, individuals, specifically students need to acquire more entrepreneurial tendencies. The aim of this study is to investigate the factors affecting the individual entrepreneurial orientation (IEO) of university students. In order to do so, five constructs (IEO, self-efficacy, perceived educational support, perceived relational support, perceived structural support were used within the proposed model and the constructed hypotheses were evaluated using structural equation modelling (SEM).

The findings showed that self-efficacy is the most influencing factor on students' IEO. It is suggested that perceived educational and perceived structural support have an indirect effect instead of a direct effect on IEO. The effects of these constructs on IEO were found to be mediated by self-efficacy.

Keywords: Entrepreneurial Orientation, Individual Entrepreneurial Orientation, University Students, Structural Equation Modelling.

INTRODUCTION

The increasing government support for entrepreneurship shows the importance of such endeavours for a nation. One of the outcomes of entrepreneurship being economic growth also gives praise to such ventures. Meanwhile, with the ever developing technology and the competitiveness of the job market, higher education alone no longer suffices for employment in higher levels of an organisation. With more and more people earning a degree in higher education providing a more qualified workforce, the expectations of employers are changing. Employers are in need of graduates with entrepreneurial behaviours and orientations (Molaei, Reza & Hasan, 2014).

Entrepreneurship has been considered a way of life and an entity that helps in the thought process in order to overcome threats and take up challenges and opportunities (Gerba, 2012). The importance of entrepreneurs has grown significantly throughout the last decade, so much so that their role in the business industry cannot be overstated enough. Generating new ideas, transforming these ideas into profitable businesses, creating innovative processes and/or methods and producing mass employment are among the many roles taken on by entrepreneurs (Gelaidan

& Abdullateef, 2017). Entrepreneurs have been distinguished as individuals who believe something that nobody else believes (Witt, 1998).

Entrepreneurial orientation (EO) concerns the processes, practices and decision-making activities applied by entrepreneurs leading to the inception of an entrepreneurial firm (Lumpkin & Dess, 1996). Lumpkin & Dess (1996) along with many others have defined pro-activeness, risk-taking, innovativeness, autonomy and competitive aggressiveness as the five dimensions of EO although some only include three of the five dimensions (Covin & Slevin, 1986; Miller, 1983).

Entrepreneurship is an essential topic for today's university students. Studies show that more than half of people between the ages of 18-34 would prefer to start their own businesses. Therefore, it is reasonable to state that students who develop the necessary skills and attitudes are more likely to start their own businesses (Robinson & Stubberud, 2014). Education at all levels plays a vital role in the evolution of an entrepreneurial society. Since the education offered by a university greatly affects the career choice of students, universities can be seen as potential sources of future entrepreneurs (Turker & Selcuk, 2009). Additionally, entrepreneurship education is important due to entrepreneurial activities being an essential element of economic growth, innovation and employment. These are some of the reasons why entrepreneurship education is gaining significance within universities (Giacomin et al., 2011).

As is apparent from the recent literature, studying the entrepreneurial tendencies of students and what factors affect these tendencies can aid in the better understanding of individual entrepreneurial orientation (IEO). Most studies in the literature are conducted on business students and their entrepreneurial tendencies. However, students of higher education from various fields react differently to entrepreneurship (Peprah, Afoakwah & Koomson, 2015), therefore, the range of students evaluated should be broadened to include students of different fields. In this vein, this study investigates the factors influencing the EO of university students from various degrees and fields using structural equation modelling (SEM).

This paper consists of six parts. The current literature is discussed in part two and the research model and hypotheses are constructed in part three. In parts four and five, the methodology of the study and subsequent findings are discussed respectively. The last part consists of the conclusion.

LITERATURE REVIEW

The construct and expressions of entrepreneurial orientation (EO) have accumulated ample attention of researchers over the years (Covin and Miller, 2014). Defining the core of entrepreneurship has been a continuing conceptual consideration (Henry et al., 2005). Schumpeter (1949) defined entrepreneurship as the stable disturbing force that causes creative destruction.

Miller (1983) conceptualised EO and identified risk-taking, innovativeness and pro-activeness as the three elements of EO and Covin & Slevin (1986) later on. Additionally, Lumpkin & Dess (1996) incorporated another two elements, autonomy and competitive aggressiveness. However, some studies have argued that pro-activeness and competitive aggressiveness are fairly the same (Okhomina, 2010). Many researchers have used different variations of these previously defined components of EO along with some of their own concepts to describe a fairly consistent set of elements (Naldi et al., 2007). This has led to a variety of different definitions for the term EO. De Clercq et al. (2013) state that EO is the level of pro-activeness, innovativeness and risk-taking in an organisation's behaviour. Okhomina (2010)

defines EO as an important element of entrepreneurial intention (EI) that differentiates entrepreneurs from non-entrepreneurs according to their risk-taking, innovativeness and pro-activeness capabilities. According to Covin & Miles (1999), innovation is the dimension that best represents entrepreneurship. Among the components of EO, risk-taking involves the propensity to take bold actions such as venturing into unknown markets and allocating a large portion of resources into ventures that have uncertain outcomes. Innovativeness refers to an eagerness to support creativity and new products, becoming technological leaders and establishing new processes (Lumpkin & Dess, 1996). Pro-activeness refers to an opportunity-seeking perspective that entails introducing new products or services in anticipation of future demand and shaping the market (Lumpkin & Dess, 2001).

A large percentage of studies within the entrepreneurship literature refer to the EI, orientation and behaviour in the business aspect whereas the concept of EO can apply to individuals as well as organisations (Robinson & Stubberud, 2014). Understanding EO at the individual level could be beneficial to future business owners, business breeders and potential investors (Bolton & Lane, 2012). While EO is characterised in literature as the overall aspect of an organisation (Goktan & Gupta, 2015), IEO is understood to be a comprehensive evaluation of individual tendency towards entrepreneurship (Basso et al., 2009). The unique contribution of IEO to research may be relevant to assessing individual decision-makers general tendency towards entrepreneurial decision and actions, whether within an organisational boundary or outside it (Kollman et al., 2007). For instance, one of the major components of EO, risk-taking, can be an individual level (Sitkin & Pablo, 1992) or a firm level characteristic (Baird and Thomas, 1985). Entrepreneurs generally acknowledge the risks that come along with entrepreneurship and are willing to take risks in return for possible rewards (Segal et al., 2005).

Although a vast amount of studies have been carried out to analyse the effect of EO and EI on firm performance and other firm related behaviour, there have been a number of studies related to the EO of students. For example, the study of Sanchéz (2013) who found that entrepreneurial education was significantly related to the risk-taking and pro-activeness abilities of students. Another study reported that students who are immersed in entrepreneurial education show higher levels of innovativeness (Storen, 2014). Accordingly, universities play a significant role in training entrepreneurs as greater knowledge along with a higher level of information and abilities provides an individual with a greater competency to engage in entrepreneurial activities and to acquire entrepreneurial attitudes (Barahona, Cruz & Escudero, 2006). Taatila and Down (2012) found that students with more experience related to entrepreneurship had a higher EO than those that did not have any experience with entrepreneurship.

RESEARCH MODEL AND HYPOTHESES

Individual Entrepreneurial Orientation (IEO)

As stated in the literature, EO can be taken at the individual level as well as the corporate (Robinson & Stubberrud, 2014) and is believed to also be a multi-dimensional construct. Studies that have investigated IEO such as that of Koe (2016) have taken the three conceptualised dimensions of EO, innovativeness, proactiveness and risk-taking as the items of the IEO construct. Koe (2016) studied the relationship between IEO and EI by conducting a survey on university students enrolled in an “entrepreneurial university”. This study validated the need to study EO at an individual level. Below, the remaining constructs and how they have been measured within this study has been given along with the corresponding hypotheses.

Self-Efficacy

Self-efficacy depicts an essential means of personal power. Self-efficacy is not only thought to alter an individual's level of effort and determination on a specific task but also their choice of activities and behavioural contexts (Zhao, Seibert & Hills, 2005). Self-efficacy is the strong personal belief in one's abilities to start a task and carry it to success (Bandura, 1997). Self-efficacy is domain specific and can vary across different situations (Wilson, Kickul and Marlino, 2007). It is also one of the core elements of EI models (Ajzen, 2002; Segal, Borgia & Schoenfeld, 2005).

The self-efficacy construct is applicable for the study of entrepreneurship due to its task-specific nature (Drnovsek, Wincent & Cardon, 2010) including the evaluation of beliefs an individual has about personal and environmental constraints (Boyd & Vozikis, 1994). Kropp et al. (2008) used self-efficacy theory in evaluating the entrepreneurial orientation of ventures. Various researchers have come to the conclusion that self-efficacy is an essential component for predicting start-up intentions (Krueger et al., 2000), new ventures and personal success (Markman et al., 2002) and some even go as far as to praise the construct stating that it is the "single best predictor in the entire array of variables" (Baum, 1994 as cited in Shane et al., 2003, p. 267). Kropp et al. (2008) used self-efficacy as a construct to measure the EO of ventures. Throughout the significant array of work, there is a strong view that self-efficacy is a positive attribute for entrepreneurs (Drnovsek, Wincent & Cardon, 2010). Therefore the following hypothesis can be formed:

H1: Self-efficacy has a positive effect on IEO.

Perceived Educational Support

EO is a process of training which enables students to obtain entrepreneurial information that provides insight, raises awareness and discloses a strong mental picture of entrepreneurship (Ikpesu, 2016). Based on the argument that entrepreneurship can be taught and learned (Yusoff, Ahmad & Halim, 2016), entrepreneurial education seems to enable students to obtain the skills needed for successful performance throughout the entrepreneurial process (Matlay, 2008). These set of skills can facilitate future entrepreneurs as well as promote entrepreneurship desirability and feasibility and thus increase the establishment of intention to become self-employed (Peterman & Kennedy, 2003). The current literature describes educational support as a set of actions that are designed to improve national economic development by way of continuous investment in quality education (Mwoma & Pillay, 2016). A survey of technology students from four different countries reveals that the career choices and entrepreneurial beliefs are affected by the representation of entrepreneurship as a career path and the support received from the university environment (Autio et al., 1997). Some studies analysed how entrepreneurial interests of universities affected the entrepreneurial orientation of students (Gelard and Saleh, 2011). The study of Gorman Hanlon and King (1997) showed that entrepreneurial characteristics can be positively affected by educational programs. In their study, Kolvereid and Moen (1997) also indicated a link between education in entrepreneurship and entrepreneurial behaviour. Therefore, it is apparent that training and education contribute to the development of human resources in the way that previous literature has accordingly stressed the strong relationship between entrepreneurship and education (Galloway & Brown, 2002; Gorman et al., 1997). Therein, the following hypothesis can be made:

H2: Perceived educational support has a positive impact on IEO.

Many universities are investing in entrepreneurship training programmes, with the aim of promoting entrepreneurship among their students (Gelaidan & Abdullateef, 2017). Entrepreneurship courses also typically present the opportunity to observe successful role models and thus the opportunity for vicarious learning to arise (Zhao, Seibert & Hills, 2005). Aside from gaining the necessary knowledge of how to run a business, educational support may also assist students to achieve business success in a competitive industry (Gelaidan & Abdullateef, 2017). Therefore, it can be argued that effective entrepreneurship education can be a stimulating factor that motivates individuals to adopt entrepreneurship by enhancing their level of self-confidence. In support of this debate, other studies have found that entrepreneurship education can enhance levels of self-efficacy and help the students convey further intentions to start their own businesses (Wilson et al., 2007). With the appropriate entrepreneurship education, students will tend to develop the necessary self-confidence to go into their own businesses during, before or after their higher education programmes (Gelaidan & Abdullateef, 2017). Furthermore, education plays a vital role in developing students' entrepreneurial efficacy by involving them in various entrepreneurial activities and expanding the appeal of establishing one's own business through emphasising the advantages and supporting them to start-up their own business (Pihie & Akmaliah, 2009). Based on these arguments, the following hypothesis is formed:

H3: Self-efficacy mediates the relationship between IEO and perceived educational support.

Perceived Relational Support

The entrepreneurial intentions and orientations of students are affected by multiple factors. These factors have been considered in various studies such as that of Veciana et al. (2005) and Turker & Selcuk (2009). It has been found that students are especially influenced by the environment they grew up in; especially by their family, friends and companions (Holienka, Myra & Marcin, 2013). Additionally, it is highly likely that individuals that have a parent who has his/her own business will have a higher EO because they will have already been entangled in the environment, therefore, have a better understanding of it (Domke-Damonte, Faulstich & Woodson, 2008). The study of Krueger (1993) has found that parents who have their own businesses are more likely to be involved in entrepreneurial activity. Stemming from this argument, the following hypothesis can be made:

H4: Perceived relational support positively affects the IEO of university students.

Relational support can be in the form of emotional support and/or the acquisition of financing from friends and family (Honig & Davidsson, 2000; Baughn et al., 2006). For example, if a student knows that he/she has the support of their parents and family members and also has access to business information, their enthusiasm to undertake a new business will be higher thereby boost their self-confidence (Ismail et al., 2009). Based on this debate, it is hypothesised that:

H5: Self-efficacy mediates the relationship between IEO and perceived relational support.

Perceived Structural Support

Another factor in the model is perceived structural support. The current context of entrepreneurship is moulded by economic and political tools, which are regulated by the individuals in the public, private and non-governmental sectors. Such a system can impose threats or opportunities for entrepreneurs.

For instance, barriers in the form of harsh regulations to entry into a market may lower the aptitude for entrepreneurship. However, should the given conditions be acceptable and encouraging, individuals may be more likely to start a business (Gelard & Saleh, 2011). Drawing on this conclusion, it is hypothesised:

H6: Perceived structural support positively affects IEO.

This paper investigates the effect of self-efficacy, perceived educational support, relational support and structural support on university students' IEO. It also examines the effect of self-efficacy on the relationship between perceived educational support and perceived relational support on IEO. Figure 1 displays the relationship between these constructs.

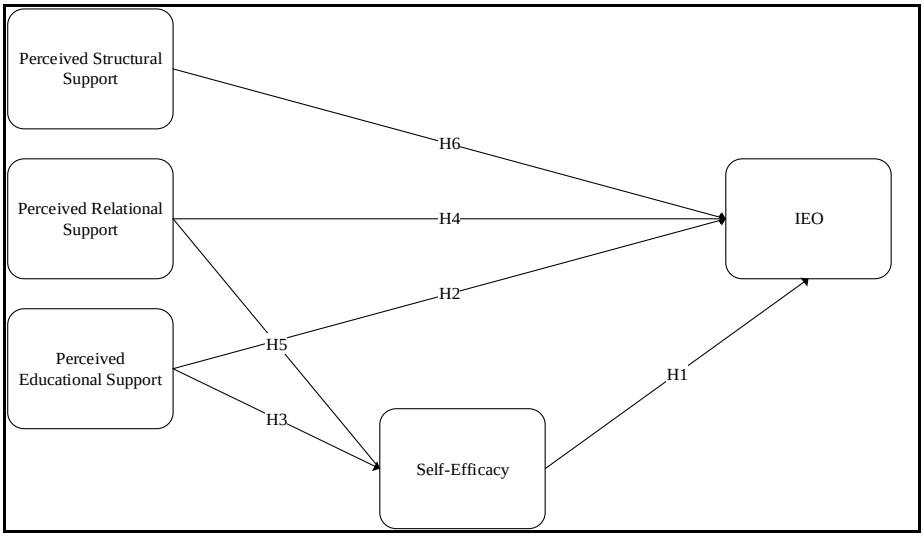

FIGURE 1
RESEARCH MODEL

METHOD

An online questionnaire was prepared and sent out to students of various universities, degrees and fields in order to collect the necessary data to evaluate each hypothesis. A handful of surveys were printed out and handed out to students. The survey consisted of two sections; the first being the demographic questions such as gender, age, university, field, income, whether or not they have taken an entrepreneurial class and if any member of their family runs their own business. The second section consists of 24 seven-point Likert questions ranging from 1-"strongly disagree" to 7-"strongly agree" pertaining to the five constructs identified within this study.

Existing scales were taken from previous studies after extensive literature research. The items under the IEO construct were taken from the study of Taatila & Down (2012). The items under the perceived educational support, perceived relational support and perceived structural support were taken from the study of Turker & Selcuk (2009). Lastly, the three items under the self-efficacy construct were taken from the study of Gurbuz & Aykol (2008) and Linan & Chen (2009). The questionnaire containing these items can be found in Appendix A.

The population consisted of Turkish university students. A total of 332 surveys were returned. Due to a large number of missing sections in some surveys, a total of 265 were usable for assessment. Out of the 265 students 25% were enrolled in private universities while the rest where students at public universities. AMOS was used to conduct SEM. Table 1 presents the demographic features of the participants.

ANALYSIS AND RESULTS

Descriptive Statistics

Table 1 shows the descriptive findings of the participants of the study. According to the table, the participants of this study mostly consist of students taking their bachelor's degree (67.2%) and students between the ages of 18-24 (76.2%). The gender of the participants is almost equally distributed. A majority of the participants (67.2%) have not taken a course on entrepreneurship and also most of these participants' do not have a family member who owns their own business (81.5%). Lastly, 44.4% of the participants' family income is between 700-1400 dollars ($).

Table 1
DESCRIPTIVE STATISTICS OF PARTICIPANTS

Characteristic		Frequency	Percentage
Age	18-24	202	76.2
	25-30	48	18.1
	31-35	10	3.8
	35+	4	1.6
Gender	Male	126	47.5
	Female	138	52.1
Current Degree	Associate	41	15.5
	Bachelor	178	67.2
	Masters	37	14.0
	Ph.D.	8	3.0
Taken Entrepreneurial Course	Yes	86	32.5
	No	178	67.2
Family Income	0-300 $	12	4.8
	301-700 $	51	20.2
	700-1400 $	112	44.4
	1401-2700 $	62	24.6
	2700+	15	6
Family Business	Yes	48	18.1
	No	216	81.5

Confirmatory Factor Analysis (CFA)

The first step in evaluating a proposed theory is to specify the measurement model and validate it with CFA. This, in turn, allows for the focus to be on establishing the construct validity for each construct (Hair et al., 2010).

Table 2 gives an outline of the goodness of fit values for the measurement model, the acceptable fit interval along with their references. The goodness of fit index (GFI) and the root mean square error of approximation (RMSEA) where determined as the absolute fit indices and the normed fit index (NFI) was chosen for the incremental fit indices for this study.

Table 2
MEASUREMENT MODEL FIT INDICES

Fit Measure	Structural Model Result	Acceptable Fit Interval	Reference
Degrees of Freedom (df)	67		
Chi-square (χ^2)	104.161		
Absolute Fit Indices			
Goodness of fit index (GFI)	0.946	>.90	Byrne (1994)
Root mean square error of approximation (RMSEA)	0.046	<0.08	Browne & Cudeck (1993)
Incremental Fit Indices			
Normed fit index (NFI)	0.950	$0.90 \leq NFI \leq 0.95$	Hair et al. (2010)

One of the ways to measure convergent validity and thereby the validity of a construct is to check the factor loadings. According to Hair et al. (2010), the factor loadings should exceed 0.50. The items for innovation and networking, the items PRO2 and STRSP3 were under this threshold, therefore they were removed from the model in order to better represent the constructs and increase the overall goodness of fit. The results of the second CFA can be seen in Table 3. Also, the revised measurement model can be seen in Figure 2.

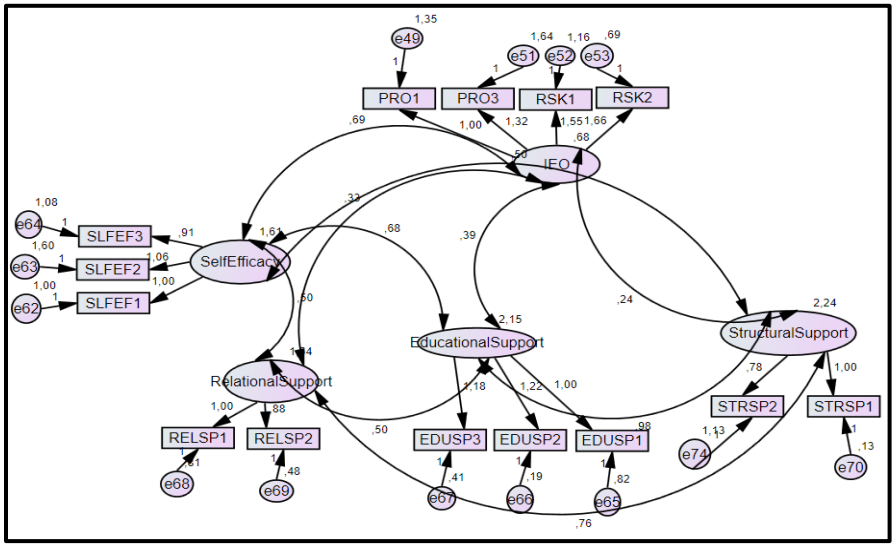

FIGURE 2
MEASUREMENT MODEL

Table 3
RESULTS OF THE CFA

Construct	Items	Factor Loadings	Errors (e_i)
IEO	PRO1	0.58	0.664
	PRO3	0.648	0.580
	RSK1	0.766	0.413
	RSK2	0.857	0.266
Self-Efficacy	SLFEF1	0.786	0.382
	SLFEF2	0.728	0.470
	SLFEF3	0.743	0.448
Perceived Educational Support	EDUSP1	0.851	0.276
	EDUSP2	0.972	0.055
	EDUSP3	0.938	0.120
Perceived Relational Support	RELSP1	0.81	0.344
	RELSP2	0.846	0.284
Perceived Structural Support	STRSP1	0.972	0.055
	STRSP2	0.737	0.457

Construct Validity and Reliability

Construct validity is the degree that a set of measured items express the latent construct the items are modelled to measure. Therefore, it deals with measurement accuracy (Hair et al., 2010). One of the components of construct validity is convergent validity. Convergent validity specifies that items of a certain construct should share a large proportion of variance in common.

With CFA, the average variance extracted (AVE) is calculated and is also an indicator of convergence as is construct reliability (CR). The rule of thumb for AVE and CR according to Hair et al. (2010) is that AVE should be 0.5 or higher whereas CR should be 0.7 or higher. Table 4 shows the AVE and CR values for each construct used in this study. As can be understood from the results, all the constructs fit the rule of thumb and therefore these constructs can be deemed valid and reliable.

Discriminant validity gives us the extent to which a construct is distinct from other constructs. It is suggested that the square of the correlation estimate between each pair of constructs should be lower than the minimum of the AVEs of the two compared constructs in order to establish adequate discriminant validity (Hair et al., 1998). As can be seen in Table 5, all pairs of constructs fit the suggested rule for discriminant validity. Therefore it is suitable to move on to the evaluation of the structural model.

Table 4
RESULTS OF AVE AND CR

Construct	Items	AVE >0.5	CR >0.7
IEO	PRO1	0.519	0.809
	PRO3		
	RSK1		
	RSK2		
Self -Efficacy	SLFEF1	0.567	0.797
	SLFEF2		
	SLFEF3		
Perceived Educational Support	EDUSP1	0.850	0.944
	EDUSP2		
	EDUSP3		
Perceived Relational Support	RELSP1	0.686	0.814
	RELSP2		
Perceived Structural Support	STRSP1	0.744	0.851
	STRSP2		

Table 5
DISCRIMINANT VALIDITY RESULTS

Construct 1		Construct 2	Square of Correlation	AVE for Construct 1	AVE for Construct 2
IEO	<-->	Self-Efficacy	0.434	0.519	0.567
Self-Efficacy	<-->	Relational Support	0.101	0.567	0.686
Self-Efficacy	<-->	Educational Support	0.132	0.567	0.850
Self -Efficacy	<-->	Structural Support	0.070	0.567	0.744
IEO	<-->	Structural Support	0.036	0.519	0.744
Educational Support	<-->	Structural Support	0.201	0.850	0.744
Relational Support	<-->	Structural Support	0.169744	0.686	0.744
IEO	<-->	Educational Support	0.101761	0.519	0.85
Relational Support	<-->	Educational Support	0.076729	0.686	0.85
IEO	<-->	Relational Support	0.1024	0.519	0.686

Structural Model

A structural model is the conceptual representation of structural relationships between constructs. Once the validity of the measurement model is insured, the measurement model is transformed into a structural model. The structural model for this study can be seen below in Figure 3.

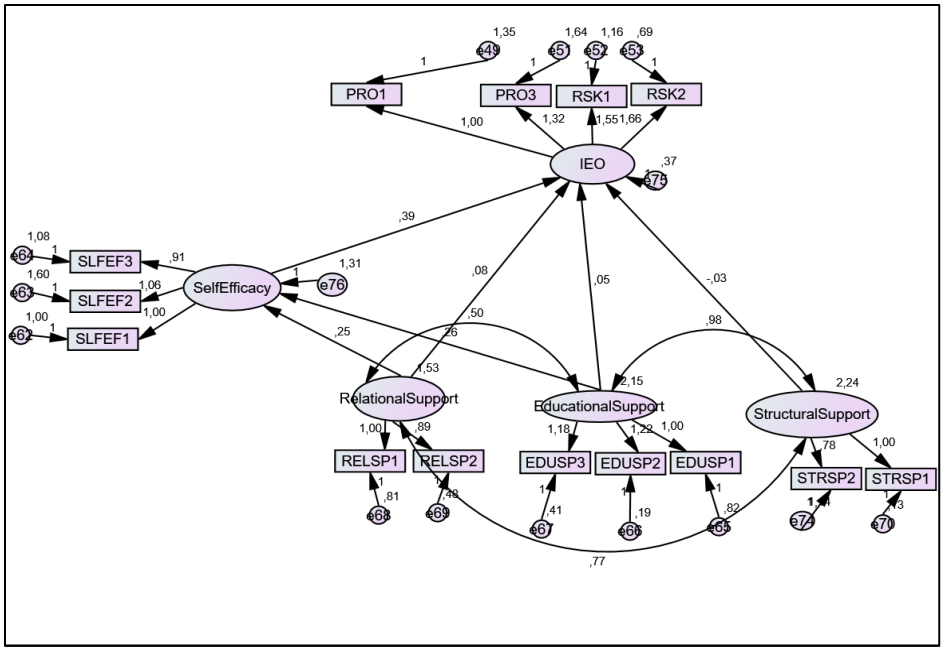

FIGURE 3
STRUCTURAL MODEL

There are various model fit indices used to evaluate a structural model. A summary of these values along with their acceptable intervals is given in Table 6.

Table 6
STRUCTURAL MODEL FIT INDICES

Fit Measure	Structural Model Result	Acceptable Fit Interval	Reference
Degrees of Freedom (df)	68		
Chi-square (χ^2)	104.519		
Absolute Fit Indices			
Goodness of fit index (GFI)	0.946	>.90	Byrne (1994)
Root mean square error of approximation (RMSEA)	0.045	<0.08	Browne & Cudeck (1993)
Incremental Fit Indices			
Comparative fit index (CFI)	0.982	>0.93	Byrne (1994)

The goodness of fit indices of the structural model indicates an acceptable fit. Table 7 provides the path estimates and their corresponding p values. Of the six hypotheses proposed within the model, only H1, H3 and H5 were supported at an alpha level of 0.05 and H4 was supported at an alpha level of 0.10, therefore the remaining paths should be removed from the model. Looking at the path estimates it is clear that self-efficacy has the most effect on IEO among university students. Both educational and relational support has an indirect effect on IEO. Self-efficacy provides a moderating effect for both relational and educational support on IEO.

Table 7
PROPOSED HYPOTHESIS RESULTS

Hypothesis			Estimate	P Value
Self-Efficacy	<---	Relational Support (H5)	0.245	0.002
Self-Efficacy	<---	Educational Support (H3)	0.259	0.000
IEO	<---	Self-Efficacy (H1)	0.391	0.000
IEO	<---	Relational Support (H4)	0.084	0.089
IEO	<---	Educational Support (H2)	0.051	0.188
IEO	<---	Structural Support (H6)	-0.032	0.411

CONCLUSION

This study explores the factors influencing the IEO of university students. The study proposes self-efficacy, perceived educational support, perceived relational support and perceived structural support as critical elements of IEO and tests the hypotheses using SEM. The model was constructed based on the constructs and items used in previous studies.

One of the contributions of this study is that it gives an overview of the factors influencing IEO of not only business students, but also none-business students. Since most studies regarding entrepreneurship are conducted on business students, this study can be seen as more diverse in this sense. The findings of this study are as follows; the hypotheses that perceived educational support and perceived structural support influenced IEO were not supported. Instead, they were found to have an indirect effect on IEO. Self-efficacy was found to be the most influencing factor on IEO and also found to have a moderating effect on perceived educational support and perceived relational support. Self-efficacy being a very influent factor on IEO could explain the reason for the hypotheses 2 and 6 not being supported as these in turn indirectly affect IEO through self-efficacy. This tells us that students that feel that their friends and family support them regarding such issues have a higher tendency towards entrepreneurial endeavours as their self-confidence or self-efficacy regarding these endeavours is strengthened. The same can be said for support from students' universities regarding entrepreneurial issues. The variance in the field of study of the students may be the reason behind why educational support does not seem to have a direct effect on IEO. The result of structural support not being an influencer of IEO may stem from a lack of knowledge regarding government funding for entrepreneurial ventures. Therefore, public and private institutions should promote such funds on university campuses for students to be better informed.

The current study has some limitations. This study focuses on IEO, therefore does not signify the entrepreneurial behaviour of students, since students that have participated in this study may not go in the direction of entrepreneurship and may change their course of action. In keeping with this limitation, a longitudinal study could be carried out in future works in order to assess the difference in the behaviour of the students after graduation.

Appendix A	
Scale Name	**Reference**
Individual Entrepreneurial Orientation	Taatila and Down (2012)
Pro-activeness	
In dealing with other people I typically respond to actions the other people initiate.	
In dealing with other people I typically initiate actions to which other people then respond.	
In my peer-group, I am typically the one that first begins using new products, services, etc.	
In a confrontational situation I typically adopt a very direct and competitive posture.	
Risk-taking	
In general, I have a strong proclivity for high-risk projects.	
I believe that owing to the nature of the environment, bold, wide-ranging acts are necessary.	
When confronted with decision-making situations involving uncertainty, I typically adopt a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.	
Self-Efficacy	Gürbüz and Aykol (2008); Linan and Chen (2009)
To start a firm would be easy for me.	
I know how to develop an entrepreneurial project.	
If I tried to start a firm, I would have a high probability of succeeding.	
Perceived Educational Support	Türker and Selçuk (2009)
The education in my university encourages me to develop creative ideas for being an entrepreneur.	
My university provides the necessary knowledge about entrepreneurship.	
My university develops my entrepreneurial skills and abilities.	
Perceived Relational Support	Türker and Selçuk (2009)
If I decided to be an entrepreneur, my family members would support me.	
If I decided to be an entrepreneur, my friends would support me.	
Perceived Structural Support	Türker and Selçuk (2009)
In Turkey, entrepreneurs are encouraged by a structural system including private, public and non-governmental organizations.	
Turkish economy provides many opportunities for entrepreneurs.	
State laws (rules and regulations) are adverse to running a business.	

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