Individual Entrepreneurial Orientation (IEO) of University Students

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ABSTRACT

Higher education institutions (HEIs) in Malaysia are expected to produce entrepreneurial graduates and graduate entrepreneurs. However, university students are showing low interest in entrepreneurship. Individual entrepreneurial orientation (IEO) is a crucial competency in becoming a successful entrepreneur, but few studies have scrutinized the issue. Therefore, this paper provides some basic insights on IEO among university students. Based on the questionnaire survey conducted on 157 undergraduates, this paper found that overall students scored highest for innovativeness but lowest for risk-taking. Furthermore, business students scored higher in overall IEO, risk-taking, innovativeness and proactiveness than non-business students. However, it only found significant differences in risk-taking and innovativeness between business students and non-business students. This paper concluded that university students were quite innovative but risk-averse. The paper proposed that developing entrepreneurial competency is a crucial strategy in producing entrepreneurial graduates. Specifically, entrepreneurial education or training has to be carefully designed to suit the needs of students from different areas of studies and to equip them with the required competencies.

Key Words: Entrepreneurial orientation, Entrepreneurship, Students, University.

1. INTRODUCTION

It is undeniable that entrepreneurship is an important agenda in developing a nation. The Malaysian government has clearly stated its aspiration to be an entrepreneurial nation in the New Economic Model (NEM). In the effort of transforming Malaysia into a high income country, the government is not lacking behind the torrent of entrepreneurship development. For instance, the Malaysian government has initiated the Malaysian Global Innovation Creativity Center (MaGIC), 1 Malaysia Entrepreneur (1MET) programme and National Entrepreneurship Institute (INSKEN) to support entrepreneurial individuals. Despite the effort being put forth so far, the number of entrepreneurs in Malaysia is still not high enough.

Higher education institutions (HEIs) in Malaysia are playing a crucial role in producing entrepreneurial graduates (i.e. graduates who have entrepreneurial mindset, capabilities and attributes) and graduate entrepreneurs (Hamidon, 2012). Recently, The Malaysia Education Blueprint 2015-2025 has also clearly delineated the crucial role of HEIs in developing competitive entrepreneurial graduates (Mazlan, 2015). However, university graduates are still having the mindset of being employed rather than starting their own businesses. The entrepreneurial culture still needs to be strengthened. Furthermore, HEIs are continuously facing challenges such as lack of interest in becoming entrepreneurs among university graduates and lack of engagement with non-business disciplines (Hamidon, 2012).

Entrepreneurial orientation (EO) is an important competency in becoming an entrepreneur and managing a firm's performance. For instance, positive relationship was found between EO and entrepreneurial intention (Bolton & Lane, 2012; Ekpe & Mat, 2012; Ibrahim & Lucky, 2014); elements in EO such as risk-taking and innovativeness (Robinson & Stubberud, 2014), pro-activeness and risk-taking (Kropp, Lindsay & Shoham, 2008) have also proven to affect business start-up intention. In addition, EO also positively affected a firm's performance (e.g. Gupta & Batra, 2015; Koe, 2013). It is important to note that EO can be measured at two different levels, i.e. firm's level and individual's level (Elenurm, 2012). However, there is a paucity of studies investigating EO at individual level because most extant literatures investigated and measured EO at a firm level. In fact, EO should be examined at the individual level because it is related to individual's decisions that influence a firm's performance. Unfortunately, there is a dearth of studies about EO as an individual-level construct (Goktan & Gupta, 2015) and studies that addressed individual entrepreneurial orientation (IEO) are still scant (Bolton, 2012; Kollmann, Christofor & Kuckertz, 2007; Lee, Lim & Pathak, 2011).

Since students of HEIs from varying field of studies reacted differently to entrepreneurship (Koe, 2012; Peprah, Afoakwah & Koomson, 2015); there is a need to know how entrepreneurial those students are. Furthermore, it is also important to develop EO among students to encourage innovativeness and to boost future economy (Lee et al., 2011). Although researchers such as Ekpe and Mat (2012), Elenurm

(2012) and Goktan and Gupta (2015) have discussed the IEO of business students in their papers, nothing much is known regarding non-business students. Furthermore, existing IEO studies are mostly conducted in countries other than Malaysia, several issues require further investigations in the local context. For instance, are university students entrepreneurial enough? Do students from different fields of studies possess different IEO? As such, this paper attempts to investigate the IEO of business students and non-business university students in Malaysia.

2. LITERATURE REVIEW

2.1. Entrepreneurial Orientations (EO): An Individual Perspective

The concept of EO was originated from Miller (1983), which consists of three dimensions known as innovativeness, pro-activeness and risk-taking. Covin and Slevin (1989) then categorized these three dimensions as a unidimensional construct called entrepreneurial strategic posture (ESP), which they found particularly essential for small firms to maintain their performance in hostile environments. The EO concept was then further discussed by Lumpkin and Dess (1996), whereby they refined EO as a multi-dimensional construct that consists of five independent salient dimensions; namely, autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness. They further suggested the relationship between EO and organizational performance. According to them, innovativeness is related to new idea engagement that may result in new products, services or processes. Pro-activeness is related to forward-looking perspective that actively looks for business opportunities. While risk-taking is characterized by behavior of making large commitment to obtain high returns.

No doubt, EO is an essential attribute of high performing enterprises. Over the years, various studies have supported the positive relationship between EO and firm performance. For instance, Gupta and Batra (2015) maintained that EO recorded a strong positive linkage with performance of small and medium enterprises (SMEs) in India. Reijonen, Hirvonen, Nagy, Laukkanen and Gabrielsson (2015) used brand performance and market performance as the indicators of firm performance and found that both of them were positively affected by EO. Although Rodríguez-Gutiérrez, Moreno and Tejada (2015) did not really examine components of EO in their study, they found that elements such as introduction of innovation and actively seeking new markets did affect the competitive success (e.g. employment growth, turnover and investment) of a company. Similarly, many studies have also confirmed the EO-performance relationship (e.g.Grimmer, Miles, & Grimmer, 2015; Gupta & Gupta, 2015; Koe, 2013; Oly Ndubisi & Agarwal, 2014; Vidic, 2013).

Although a great number of EO studies are focusing on enterprise level, it is important to note that EO is not only measured at the enterprise level and it does not only influence the performance of firms. Elenurm (2012) expressed that EO is a concept that can be studied at two levels; enterprise and individual. No doubt, EO has long been treated as a firm-level construct because it is considered a strategic construct in an enterprise (Goktan & Gupta, 2015). However, the individual-level EO also requires much attention because only few studies have addressed EO at the individual level (Kollmann et al., 2007) and there is ample room for analyzing EO in a new way (Ferreira, Marques, Bento, Ferreira & Jalali, 2015). Lately, several studies have taken the initiatives to investigate EO at the individual level and its relationship with a firm's performance. Chien (2014) examined the EO of convenience store franchisees in Taiwan and confirmed that franchisees' EO would lead to better performance. Bolton (2012) validated a set of items in studying IEO-business success relationship. The results showed that dimensions such as risk-taking and pro-activeness, but not innovativeness were positively correlated with business success.

Entrepreneurship is a three-phase process that requires the entrepreneurs to be competent in business opportunity identification, business development and implementation and exploitation (Elenurm, 2012). Thus, EO can be considered as important competencies that need to be acquired by potential and practicing entrepreneurs. University students could be considered as potential entrepreneurs because they would enter the working world after graduation. They are encouraged to embark on entrepreneurship because entrepreneurship is important to a nation. The very first requirement in becoming a competitive entrepreneur is that the person has to be entrepreneurial. Thus, it is crucial to examine the entrepreneurial orientation of students.

Due to the increasing awareness of IEO, many researchers have attempted to study students' IEO in recent years. Treating IEO as a holistic construct, Goktan and Gupta (2015) found that male undergraduate business students from United States, Hong Kong, India and Turkey scored higher IEO than their female counterparts. Unlike the previous study, Robinson and Stubberud (2014) studied multiple dimensions of IEO of Norwegian students. They found that overall students showed higher risk-taking, innovation, proactivessnes and entrepreneurial intent after the completion of an entrepreneurship course. However, students rated risk-taking the lowest. The authors argued that risk-taking was indeed a problem for some potential entrepreneurs. Taatila and Down (2012) researched the Finnish university students and found that students with entrepreneurial experience scored higher for all elements of EO than non-entrepreneurial experienced students. They also identified that male students were more risk-taking and pro-active than females and students with working

experience were more innovative and pro-active than students without working experience. Other researchers who have investigated students' IEO include Ekpe and Mat (2012), Pradhan and Nath (2012) and Elenurm (2012). The above studies were conducted in foreign countries, as national culture and education system vary across countries, the findings from the above studies may not be applicable to the Malaysian context.

Although IEO has attracted the attention of researchers in recent years, studies regarding IEO of Malaysians are still scarce. One of the studies conducted by Ismail, Anuar, Omar, Aziz, Seohod and Akhtar (2013) showed that university students' EO was positively related to commercialization; unfortunately, their study did not reveal much information about ratings of EO among the students. In another study, Lee, Lim and Pathak (2011) adopted a four-dimension EO model and researched university students from four countries. They found that Malaysian students scored the highest for "competitive aggresiveness", followed by "innovativeness", "autonomy" and "risk-taking". The above studies provided some preliminary information of Malaysian students' IEO; however, there is ample room for further research. One of the obvious shortcomings of the above studies is that they failed to disclose the information pertaining to students majoring in different fields of study. It is a fact that past studies have shown consistent results with regards to academic programmes and entrepreneurship. For instance, Koe (2012) found that business students were showing higher intention towards entrepreneurship and peceived having higher feasibility in entrepreneurship than non-business students. Similarly, Peprah et al. (2015) supported that business students were more likely to start their own business than science students.

Based on the above discussion, since students from differing academic programmes reacted differently to entrepreneurship, it can be said that they may also possess different levels of IEO. Thus, the following hypotheses are suggested:

H1: There is a significant difference in IEO between business students and non-business students.

H1a: There is a significant difference in risk-taking between business students and non-business students.

H1b: There is a significant difference in innovativeness between business students and non-business students.

H1c: There is a significant difference in proactiveness between business students and non-business students.

3. METHODOLOGY

The population of this study was the final semester undergraduate students from a local university with "entrepreneurial university" status. In selecting the sample, this study employed proportionate stratified sampling to ensure that sufficient subjects were selected from each faculty. A total of 82 students were chosen from the Faculty of Business and Management, they were further categorized as "business students". Furthermore, 32 students were selected from the Faculty of Art and Design and 43 students were selected from the Faculty of Hotel and Tourism Management, they were collectively grouped as "non-business students". They were then surveyed through self-administered questionnaire. The questionnaires were distributed to them before the lecture with the help from faculty members.

Some researchers measured EO as a single construct (e.g. Chien, 2014; Goktan & Gupta, 2015; Gupta & Batra, 2015). However, this paper did not treat EO as a unidimensional holistic construct because single EO construct does not address some important entrepreneurial dimensions for business success (Elenurm, 2012). Therefore, following Lumpkin and Dess (1996) and Wales, Gupta and Mousa (2011), this paper employed a multidimension construct of EO. The three dimensions were "risk-taking", "innovativeness" and "proactiveness". The items used in this study were developed and validated by Bolton and Lane (2012) and Bolton (2012). There were ten Likert-type rating questions used in measuring the three dimensions of IEO and the reliability analysis found that the scales had acceptable internal consistency (α>0.7) (Table 1).

Table 1: Reliability of Items

Variables	No of Items	Cronbach's Alpha	
		Current Study	Bolton (2012)
Risk-taking	3	0.756	0.765
Innovativeness	4	0.825	0.800
Proactiveness	3	0.746	0.767

4. FINDINGS

4.1. Results of Analyses

The respondents of this study were 157 final semester undergraduate students. There were 55 (35.03%) male students and 102 (64.97%) female students. In terms of their programme of study, 82 (52.22%) were from Faculty of Business and Management, 32 (20.38%) were from Faculty of Art and Design and 43 (27.39%) were from Faculty of Hotel and Tourism Management. It is also worth mentioning that majority of them did not have any experience in starting a venture (n=124; 78.98%). However, more than half of them were interested in starting a new business in future (n=97; 61.78%).

Table 2 depicts the results of descriptive analysis and independent t-test analysis. The results revealed that IEO for all students were 3.898 (SD=0.520). In terms of rating of each dimension in IEO, the students scored highest for innovativeness (M=4.013; SD=0.660), followed by proactiveness (M=3.977; SD=0.601) and lowest for risk-taking (M=3.667; SD=0.716). It was also found that business students scored slightly higher than non-business students in IEO and all of its three dimensions.

As explained by Pallant (2011), the independent sample t-test is appropriate for comparing mean scores on continuous variables of two different groups. Thus, this paper conducted the independent sample t-test to examine the four hypotheses. In determining the homogeneity of variance for the two groups, Levene's test results were insignificant (i.e. significance value fell between 0.251 and 0.469). The first hypothesis (H1) proposed that IEO between business and non-business students differed significantly. The analysis revealed that no significant differences was found in IEO between the two groups of respondents (t=1.833; sig.=0.072). Meanwhile, H1a, H1b and H1c suggested that risk-taking, innovativeness and proactiveness between business and non-business students would be different significantly. The results showed that risk-taking (t=2.064; sig.=0.044), and innovativeness (t=2.130; sig.=0.038) were significantly different between business and non-business students. However, proactiveness (t=0.125; sig.=0.901) showed no significant difference between the two groups of students. In addition, this study also determined the effect size of risk-taking and innovativeness through eta-squared (η^2). As proposed by Cohen (1988), since the η^2 values of risk-taking (η^2=0.072) and innovativeness (η^2=0.076) were well above 0.06, the magnitude of difference was considered moderate. The results also showed the variance in risk-taking and innovativeness explained by programme of study were 7.2% and 7.6% respectively. Therefore, H1a and H1b were supported. Meanwhile, H1 and H1c were not supported.

Table 2: Mean, Standard Deviation and Independent t-test Results

Variables	Groups	Mean	Std. Dev.	Independent t-test		η^2
				t	Sig.	
IEO	All-group	3.898	0.520	-	-	-
	Business	4.000	0.498	1.833	0.072	0.052
	Non-business	3.748	0.526			
Risk-taking	All-group	3.667	0.716	-	-	-
	Business	4.108	0.561	2.064	0.044	0.072
	Non-business	3.783	0.616			
Innovativeness	All-group	4.013	0.660	-	-	-
	Business	4.162	0.651	2.130	0.038	0.076
	Non-business	3.794	0.625			
Proactiveness	All-group	3.977	0.601	-	-	-
	Business	3.677	0.802	0.125	0.901	<0.010
	Non-business	3.652	0.582			

4.2. Discussion

The descriptive results found that among the three dimensions of IEO, all students rated the highest for "innovativeness". The finding was rather congruent with Lee et al., (2011) because they also found that Malaysian students placed "innovativeness" at the second place right after "competitive agressiveness". Innovativeness is considered an important attribute in becoming a successful entrepreneur. Entrepreneurs who are innovative enough would be able to make changes to products, services or processes (Hisrich, Peters & Shepherd, 2013). Moreover, innovativeness also helps entrepreneurs to react to changes in their business environment. It was rather encouraging that students in this study scored the highest in this dimension. Meanwhile, risk-taking is an important attribute for a person in becoming an entrepreneur. An individual who likes risks and is willing to take risks has greater potential to become an entrepreneur (Yurtkoru, Acar & Teraman, 2014). Unfortunately, this study found that overall students scored the lowest for "risk-taking". Similarly, Norwegian students also showed low risk-taking orientation (Robinson & Stubberud, 2014). To most students, starting a business

is indeed a risky decision and action. Thus, it is not surprising that students rated the lowest for risk-taking because becoming an entrepreneur involves both monetary and non-monetary risks. As students were having scarce resources, they agreed that becoming an entrepreneur is a risky decision and action.

Entrepreneurship is a complex process which involves various activities (Hisrich et al., 2013). It is therefore not suitable to look at it holistically. This paper found that business students scored higher for risk taking and innovativeness than non-business students. Since business students were better exposed to business education and business environment, they possessed better knowledge about starting and maintaining a business entity. It could be said that they understood the risk with regards to entrepreneurial activities and that was the reason why they rated themselves as risk-takers. In addition, being innovative is an important requirement for entrepreneurship survival because successful entrepreneurs need to create newness in the market. As mentioned by Elenurm (2012), entrepreneurship training could develop entrepreneurial creativity and innovativeness. Therefore, the various entrepreneurship training and courses that business students have attended could help them to develop innovativeness.

5. CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This study was conducted to identify the IEO of university students from different fields of study. Overall, the results confirmed that university students were rather innovative but they were quite risk-averse. In terms of differences, business and non-business students also demonstrated different levels of risk-taking and innovativeness. However, their level of proactiveness remains indifferent.

No doubt, the results of this paper have shed some light on Malaysian university students' IEO. This paper has also highlighted the importance of identifying students' IEO. Based on the findings, it is suggested that HEIs in Malaysia should play a more pro-active role in developing entrepreneurial graduates. It is not easy for HEIs to develop students with high entrepreneurial traits. As suggested by Bell (2015), HEIs could consider "learning by doing" through blending the traditional approach and experiential approach in developing students' entrepreneurial skills. Entrepreneurship education should not focus only on classroom teaching method. Students should be provided with hands-on training on venture set-up and management. Developing a conducive working environment and culture as well as a well-designed entrepreneurship curriculum is important in developing higher EO (Lee et al., 2011). In addition, emotional intelligence is also not to be forgotten in developing entrepreneurial orientation (Pradhan & Nath, 2012).

This paper is not without any limitations. Measuring IEO is relatively new in entrepreneurship study and there remains limitations in the measuring approach (Ferreira et al., 2015). As such, future researchers are required to employ a more updated and reliable measurement technique. Furthermore, the sample in this study only comprised students from a public university. Future studies are recommended to include students from various universities and extent it to non-student population.

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