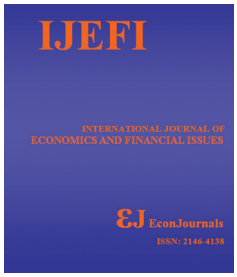

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Academic Enterpreneurship Behavior: The Case of Public Universities in Malaysia

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ABSTRACT

This paper examines the academic behaviour of public universities in conducting enterpreneurship education from the perspectives of academicians. For that purpose, questionnaires were adopted following Llano modified theory of planned behaviour (2010). The questionnaires were administered to three (3) public universities. Data gathered was analysed using partial least squares (PLS) regression analysis. Results suggest that perceived desirability, attitude and university climate have significant influence on enterpreneurship education behavior in universities. In practice, the findings are expected to provide significant input to the public universities on their current enterpreneurship education behaviour and the necessary efforts to be undertaken in order to promote the enterpreneurship skills among graduates. In addition, the findings also add to the existing literature on enterpreneurship education particularly in Malaysian environment.

Keywords: Enterpreneurship Education, Public Universities, Malaysia
JEL Classifications: H8, I23, I28

1. INTRODUCTION

In tandem with a competitive global environment, Ministry of Higher Education has recently announced that public universities in Malaysia must incorporate entrepreneurship curriculum in their undergraduate programs. This aspiration is clearly spelt out in one of the critical agenda project (CAP) of higher learning institutions; that is to have an entrepreneurship program, either in the academic syllabus or co-curriculum activities. From the CAP's point of view, such entrepreneurship education would be able to produce graduates with values, skills, thoughts and entrepreneurship attributes.

By looking at the universities infrastucture, apparently students' readiness to adopt the training education as part and parcel of their curriculum is of no question. However, Norasmah et al. (2012) claimed that in order to be able to offer entrepreneurship education, it requires universities to consider further improvement not only from physical but also psychological and intellectual aspects. This is important in ensuring graduate entrepreneurs may act as catalysts for economic transformation, consistent with the 10th Malaysian Plan.

In view of the above, this study intends to investigate the viability of the entrepreneurship education in Malaysian public universities. Specifically, this study intends to answer the following questions. Are academicians being provided enough encouragement to properly conduct entrepreneurship education program? Do the facilities provide the proper support? Does the internal environment of the universities facilitate the entrepreneurship program? These are particularly relevant in respond to the urge of promoting entrepreneurial career among graduates. From the practical point of view, the results of this study would help universities to enhance the academic values in conducting entrepreneurship education.

The remainder of the paper is structured as follows. The next section offers a review of the related literature. This is followed by the research method used to analyse data. Subsequent section presents the findings and discussions of the results. The paper ends with limitation and suggestion for future work.

2. LITERATURE REVIEW

The definition of entrepreneur can take many forms. The online version of Oxford Dictionary defines entrepreneur as a person who sets up a business or businesses. Carland et al. (1984) on the other hand define an entrepreneur as "an individual who establishes and manages a business for the principal purposes of profit and growth. The entrepreneur is characterized principally by innovative behavior and will employ strategic management practices in the business."

In this study, entrepreneurship involves more than startup a new business, but involves on a way of thinking, culture and ability to be proactive. This definition is in line with Cardow and Kirkley (2011) which defines entrepreneurship as innovation, creativity, risk management and the ability to be proactive.

The role of entrepreneurship in boosting global economic growth has increased attention towards the importance of entrepreneurship education. Katz (2003) claimed that the number of institutions offering courses related to entrepreneurship has grown significantly. Also, there is an expansion of the number of individuals pursuing entrepreneurship courses or program. With this phenomenon, it is a challenging task for the institutions to provide an effective entrepreneurship education. Gorman et al. (1997) conducted a 10-year survey of the entrepreneurship education as to test the impact of such programs. In addition they recommended entrepreneurship and at the end calling for more studies to assess the impact of entrepreneurship educations.

Unfortunately, prior studies (Ming, et al., 2009; Norfadhilah and Halimah, 2010) found that the formal entrepreneurship education in Malaysian universities do not have significant influence on students' decision to start a business after their graduation. Thus, this study embarks on evaluating the academic behavior of public universities in conducting entrepreneurship education adopting Llano modified theory of planned behavior (2010). Her model suggested that academic entrepreneurship behaviour can be divided into six categories that is, (i) Academic entrepreneurship intention, (ii) perceived desirability (PD), (iii) perceived feasibility (PF), (iv) subjective norms (SN), (v) university climate (UC), and (vi) attitude towards entrepreneurship education behavior (EEB).

Academic entreprenurship intention (AEI) refers to evaluation and exploitation of opportunities for converting entrepreneurial knowledge into entrepreneurial culture and behaviour in a university setting. PD on the other hand, is defined as the degree to which an individual has favourable expectations for conducting academic entrepreneurial activities.

This study defines PF as the degree to which an individual feels capable of conducting entrepreneurship program. SN relate to the influencing factors in the academic professional behavior. As for UC, the variable refers to resources, facilities and rewards within the University (Llano, 2010). Attitude towards entrepreneurship education (ATT) on the other hand deals with an overall evaluation in conducting entrepreneurship education in the University.

As a dependent variable, EEB has never been conclusively defined in previous studies. Following Llano (2010), EEB is defined as a commitment in conducting entrepreneurship education in the University. This is measured by way of (i) Effective organization of the program, (ii) smoothness of the program, (iii) effort contribution, and (iv) determination.

3. RESEARCH METHOD

This study adopts quantitative approach to investigate the viability of the entrepreneurship education in Malaysian universities. For that purpose, the study used a set of questionnaire to gather information on EEB from the lecturers in three universities namely Universiti Utara Malaysia (UUM), Universiti Malaysia Perlis (UNIMAP) and Universiti Malaysia Kelantan (UMK) who taught entrepreneurship courses in their respective universities. The questionnaire contains seven (7) sections, i.e., (i) Demographic information; (ii) academic entrepreneurship intention; (iii) PD; (iv) PF; (v) SN; (v) UC; (vi) attitude towards entrepreneurship education; and (vii) EEB. Altogether, 26 reflective items (excluding demographic information) were adopted following previous studies. Ninety three (93) questionnaires were distributed (representing the total number of the entrepreneurship lecturers in the institutions as at February, 2014). A total of 43 questionnaires were returned, that is 15 (60%), 6 (60%) and 22 (38%) from UUM, UNIMAP and UMK, respectively.

In addition to demographic information and descriptive analysis, regression analysis using the partial least square (PLS) technique was employed to test the proposed model. The use of PLS model not only due to its ability to model latent construct under non-normality conditions, but also based on the fact that it has no constraint on the sample size as it has been successfully proven to measure with as low as 30 sample size (Chin et al., 2003).

4. FINDINGS AND DISCUSSION

Table 1 sets out the profile of the lecturers in relation to age, gender, ethnicity, designation, level of education, industrial experience and length of service. The majority of the respondents was in the 31-50 age range. In terms of gender, 46.5% were male and 53.5% were female. As anticipated, the majority of respondents (97.7%) were Malays as they form a substantial proportion of employees in the public sector. With regard to designation, majority of the respondents were lecturers. Surprisingly, about 14% of respondents had no formal schooling qualifications and were perhaps hired based on their industrial experience. For industrial experience, almost half of the respondents claimed that they had sufficient industrial experience to conduct the entrepreneurship program.

Table 2 presents the descriptive statistics on variables under study. It shows that the academicians have great intentions to conduct entrepreneurship courses in their respective universities. This spirit is displayed through the high mean values of the items of 3.23, 3.00, 2.98 and 3.12 for AEI1, AEI2, AEI3 and AEI4. These items deal with motivation, consideration, preparedness and struggle, respectively towards conducting the program. It is also important

Table 1: Demographic information of the respondents (n=43)

Characteristics	Frequency (%)
Age	
Below 30	12 (27.9)
31-40	11 (25.6)
41-50	14 (32.5)
Above 50	6 (14.0)
Gender	
Male	20 (46.5)
Female	23 (53.5)
Ethnicity	
Malay	42 (97.7)
Chinese	0 (0)
Indian	1 (2.3)
Designation	
Professor	3 (7.0)
Associate Professor	7 (16.3)
Senior Lecturer	7 (16.3)
Lecturer	23 (53.5)
Others	3 (6.9)
Length of service	
<5 years	16 (37.2)
5-10 years	11 (25.6)
11-20 years	9 (20.9)
Above 20 years	6 (14.0)
Missing	1 (2.3)
Industrial experience	
Yes	21 (48.8)
No	21 (48.8)
Missing	1 (2.3)
Education	
Diploma	1 (2.3)
Bachelor	1 (2.3)
Master	20 (46.5)
PhD	14 (32.6)
No qualification	6 (14.0)
Missing	1 (2.3)

to note that although the minimum value for item AEI4 is 1, the percentage is very minimal.

The mean values for PD of more than 3.0 for PD1 (desire) (3.23), PD2 (enthusiasm) (3.21) and PD3 (pleasure) (3.30) clearly indicate a high PD of the academic staff towards the program. While the mean value for PD4 (willingness to overwork) is slightly lower than 3.0, the figure still suggests an above average perception. Observing the mean values of PF1 (2.93) and PF2 (2.53), the inference can be made that the academic staff have good perceptions on the feasibility and possibility of the success of the course/program.

The mean values as exhibited in Table 2 further demonstrate the extent to which the academicians perceived that their professional behavior in conducting entrepreneurship programs was influenced by the referent groups. This included academic colleagues (SN1) with a mean of 2.6, senior academic (SN2) with a mean of 2.35, government (SN3) with a mean of 2.5 and industry (SN4) with a mean of 2.79. While all referent groups appear to have high influence on their professional behavior, the results further suggest that the industry is the most important referent group and senior academic being the least.

Table 2: Descriptive analysis of the variables

Variables	Minimum	Maximum	Mean±SD
AEI			
AEI1	2	4	3.23±0.75
AEI2	2	4	3.00±0.69
AEI3	2	4	2.98±0.67
AEI4	1	4	3.12±0.70
PD			
PD1	1	4	3.23±0.68
PD2	2	4	3.21±0.64
PD3	1	4	3.30±0.77
PD4	1	4	2.79±0.89
PF			
PF1	1	4	2.93±0.83
PF2	2	4	2.53±0.63
SN			
SN1	1	4	2.60±0.82
SN2	1	4	2.35±0.90
SN3	1	4	2.56±0.96
SN4	1	4	2.79±0.89
UC			
UC1	1	4	2.91±0.81
UC2	2	4	2.60±0.66
UC3	2	4	2.49±0.63
UC4	1	4	2.42±0.79
UC5	1	4	2.14±0.80
Attitude towards entreprenurship education (ATT)			
ATT1	2	4	3.28±0.57
ATT2	1	4	3.16±0.57
ATT3	1	4	3.30±0.63
EEB			
EEB1	2	4	3.14±0.60
EEB2	2	4	3.23±0.57
EEB3	2	4	3.35±0.57
EEB4	2	4	3.19±0.63

AEI: Academic entreprenurship intention, PD: Perceived desirability, PF: Perceived feasibility, SN: Subjective norms, UC: University climate, EEB: Entrepreneurship education behaviour

With regard to UC, the academicians perceived that the climate is moderately high at a mean value of 2.91 (UC1). Observing individual items of the climate, the mean values are slightly lower but still above average with 2.6, 2.49, 2.42 and 2.14 for UC2, UC3, UC4, UC5 representing resources, facilities, classroom and rewards, respectively.

In relation to ATT, Table 2 shows that the academicians' felt that entrepreneurship education would be able to stimulate entrepreneurship skills (ATT1 with a mean of 3.28), create new job (ATT2 with a mean of 3.16), and nurture potential entrepreneurs (with a mean of 3.30). With regard to EEB, Table 2 indicates that academicians believed that they contributed greatly in ensuring that the entrepreneurship programs run effectively, run smoothly, succeed and are successful.

Several techniques were adopted to evaluate the measurement model prior to the testing of the structural model. The measurement model assessment is crucial to establish the validity and reliability of the model. In order to be valid, the reflective measures are required to meet the convergent and discriminant validity conditions. The constructs are said to be converged when the

indicators loadings reach 0.707 (Chin, 1998b) and the t-statistics are 1.96 and above (Gefen and Straub, 2005). These conditions were met by all items except for one item each that measures PF2, UC1 and Attitude towards Entrepreneurship Education (ATT2). Another method of examining convergent validity is to examine the average variance extracted (AVE) (Dibbern and Chin, 2005). In order to be valid, the AVE should achieve a threshold of 0.5 and above (Bagozzi and Yi, 1988; Fornell and Larcker, 1981), and this has been fulfilled by all variables under study.

In order to establish discriminant validity, the constructs were assessed by examining the item cross-loadings and the square root of AVE (Gefen and Straub, 2005). The result for cross loading reveals that each item loads higher on its corresponding construct than any other construct, providing support that the latent component scores predict each indicator in its block better than indicators in other blocks (Chin, 1998b). Comparing the square root of AVEs with the correlations among the constructs also reveals that the square roots of AVE are larger than the correlation of specific construct. Therefore, this confirmed the discriminant validity (Fornell and Larcker,1981).

As for reliability of the constructs, internal consistency scores, also known as composite reliability was considered (Brown and Chin, 2004). Results suggest that all constructs met the minimum value of 0.7 (Chin, 1998a), with an internal consistency of above 0.8. In addition to composite reliability, the AVE scales were also used to determine the reliability of the measures. The scales performed acceptably (exceed 0.5) and thus confirm the reliability of the measures (Fornell and Larcker, 1981).

Upon establishing the validity and reliability of the constructs, this study used R-squares (R^2), effect size and path coefficients to evaluate the structural model of academic behavior. All these tests which are nonparametric are used to be consistent with the distribution-free approach of PLS. In this study, the value of R^2 of 0.74 indicates that the model accounted for 74% of the construct. This suggests that intention, PD, PF, SN, UC and attitude have successfully explained 74% of the variation of EEB.

The effect size as depicted in Table 3 indicates that PD appears to have large effect on EEB with an effect size of 0.87. Meanwhile, attitude towards entrepreneurship education, SN and UC only provide small effects for the model with an effect size of 0.12, 0.04, and 0.09 respectively. While the variables contribute to the predictive power of the model, the f^2 values of academic entrepreneurship intention and PF suggest that they have minimal impacts on EEB.

The path coefficient values (Table 4) suggest that PD and UC have positive and significant correlation with EEB at 0.69 and 0.16 respectively. The results suggest that the academicians' aspirations and university policies would be able to produce potential entrepreneurs. On contrary, attitude towards entrepreneurship education appears to have a negative relationship at −0.21, with EEB. Surprisingly, the results suggest that, while the academicians perceive that entrepreneurship education would be able to produce potential entrepreneurs, their efforts towards entrepreneurship program did not meet the expected outcome. This could be attributable to their lack of industrial experience and length of service. No such significant relationship is reported for the remaining variables.

Table 3: Effect size in the entrepreneurship education behavior

Variables	R^2 excluded	f^2	Degree of effect
AEI	0.742	0.00	None
PD	0.517	0.87	Large
PF	0.740	0.01	None
SN	0.732	0.04	Small
UC	0.718	0.09	Small
Attitude towards entreprenurship education (ATT)	0.711	0.12	Small

AEI: Academic entreprenurship intention, PD: Perceived desirability, PF: Perceived feasibility, SN: Subjective norms, UC: University climate

Table 4: Path coefficient between dependent and independent variables

Variables	Coefficient	t-statistics
AEI	0.01	0.10
PD	0.69	4.66***
PF	0.08	0.55
SN	0.13	1.19
UC	0.16	1.54*
Attitude towards entreprenurship education (ATT)	−0.21	1.53*

***Significant at 1% level, and *significant at 10% level. AEI: Academic entreprenurship intention, PD: Perceived desirability, PF: Perceived feasibility, SN: Subjective norms, UC: University climate (Sproull, 2002)

5. CONCLUSION, LIMITATION AND FUTURE RESEARCH

This study examines the viability of entrepreneurship education program by looking at the determinants of EEB. In particular, the study tests the influence of academic entrepreneurship intention, PD, PF, SN, UC and attitude towards entrepreneurship education on EEB. The results suggest that out of six variables, only three variables, namely PD, UC and attitude towards entrepreneurship education are significant in doing so. Thus, these three aspects should be emphasized in order for the university to promote its entrepreneurship education program.

While this study does make contribution to the EEB in public universities, it is not without limitation. First, this study measured perceptions of the academic staff in three (3) public universities only despite of 20 of Malaysian public universities available as of to date. This may limit the ability to generalize the results across Malaysian public universities. Thus, it is suggested that future study should be extended to all public and private universities offering entrepreneurship programs. Second, the survey approach which allows respondents to self-evaluate themselves may also create bias. Notwithstanding this, their perceptions are valuable since they are directly involved in the entrepreneurship education environment in their respective universities. In order to enhance the study, a comparison between students and lecturers perceptions

should be conducted to provide a better picture of the attainment of entrepreneurship education at the university level.

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