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ENTREPRENEURSHIP INTENTION IN AN OPEN AND DISTANCE LEARNING (ODL) INSTITUTION IN MALAYSIA

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ABSTRACT

Higher education providers in Malaysia realized and recognized the need to have the knowledge and skills in entrepreneurship among graduates. The Ministry of Education in Malaysia has suggested including entrepreneurship as a course in higher learning institutions with the hope of fostering local entrepreneurs among graduates because it realized the vital role of entrepreneurship in contributing to national economic growth and job creation. Entrepreneurship education has become an important curriculum in all higher education institutions in Malaysia since the establishment of The Ministry of Entrepreneur Development in 1995. Entrepreneurship has been made one of the core subjects for most tertiary programs in Malaysia. The course Entrepreneurship in higher education institutions in Malaysia has become an essential component for cultivating potential entrepreneurs in higher learning institutions. This study is conducted to identify the factors influencing entrepreneurship intention among ODL learners using structural equation modeling (SEM). The results indicate significant influences of attitude and perceived behavioral control in entrepreneurship intention among adult learners in ODL institutions. These findings would benefit educators in helping learners develop their abilities and skills to produce a higher number of entrepreneurs in Malaysia.

Keywords: Entrepreneurship, structural equation modelling (SEM), entrepreneurship intention, Higher education, Malaysia

INTRODUCTION

The importance of entrepreneurship to the growth of Malaysia's economy is evidenced by the sheer amount and variety of supporting mechanisms and policies that exist for entrepreneurs, including funding, physical infrastructure and business advisory services. The establishment of a The Ministry of Entrepreneur Development in 1995 showed the Malaysian government has realized the importance of nurturing local entrepreneurs. Malaysia has drawn up many policies and set up funding mechanisms to support local entrepreneurs. Aid given include funding, physical infrastructure and business advisory services. Institutions such as Majlis Amanah Rakyat (MARA) focus on entrepreneurship training, Ministry of Entrepreneur Development coordinates all the matters regarding entrepreneurship, Bank Negara plays a role in financing, the Small and Medium Industries Development Corporation (SMIDEC) is responsible for coordinating the development of SMIs and others institutions have been established in Malaysia to encourage entrepreneurship intentions among the citizens. Other than that, the Malaysian government has taken steps to encourage graduates to involve in entrepreneurship as stated in the "knowledge Economy Master Plan" in 2000. Encouragement from the government comes in various forms such as tax incentives, business advisory, funding resources, loans and so forth, in hope to make it attractive to foster young entrepreneurs. In addition to government policies and support through its constitutional bodies, the Malaysian government has also revised its education and training component on entrepreneurship as such mechanisms would spur the economic activities and in turn, create employment growth. Entrepreneurship education has now become an essential component to cultivate the potential entrepreneurs in the private and public higher learning institutions. Entrepreneurship education is the most effective way to promote the transition of graduates toward self-employment.

Open and Distance Learning (ODL) in Malaysia upholds the lifelong learning banner. ODL's flexibility teaching and learning pedagogy attracts mostly adult learners who have family and career commitment to manage in their daily life. They have vast skills and hands-on working experience making them a good target group to initiate the intentions to start up their own business. ODL providers need to realize the importance of revising the academic curriculum regularly to ensure the courses offered in their programs are on the same platform as required by market demand, particularly from the entrepreneurship aspect. Harrison and Hart (1989) in their study showed the tendency of undergraduates in involvement to run their business in Northern Ireland with results showing 47% of students expressed the intention to run their own business.

The purpose of this research is to identify the factors which will influence entrepreneurship intention among ODL learners in Malaysia. The findings of this study will be able to assist educators in fulfilling their responsibilities to help all learners to develop their abilities and skills to produce a higher number of entrepreneurs in the nation.

RESEARCH PROBLEM

Small and Medium Enterprises (SMEs) constitute an important component of the Malaysian economy and have the potential to be a powerful engine of growth and innovation because they contributes 56.4% of total employment in the country. Despite considerable challenges, value added of SMEs grew at 7.8%, faster than the overall economic growth. Consequently, SME contribution to Gross Domestic Product (GDP) increased from 29.4% in 2005 to 31.4% in 2008, as shown in Table 1. The Government is committed to unlocking the growth and innovation potential of SMEs over the Plan period to create domestic, regional and global champions Despite the continuous government support the contribution of Malaysian SMEs to GDP remains low compared with benchmark countries in the Asia Pacific such as Japan, South Korea, Hong Kong and New Zealand. Hence we need to study the entrepreneurship intentions among working adults in Malaysia. This study focuses on those who are currently pursuing their tertiary studies while working (Tenth Malaysia Plan, 2011-2015).

Table 1
SME contribution to Malaysia's GDP

Year	Contribution to GDP
2003	28.70%
2004	28.90%
2005	29.40%
2006	29.90%
2007	31.10%
2008	31.40%

Source: 10th Malaysia Plan, 2011-2015

THE CONCEPTUAL FRAMEWORK

Entrepreneurial intention can be harvested from all academic fields and entrepreneurship education learnt in their tertiary education provided flexibility to graduates in their future workplace (Deborah, John, & Hovis, 2002). Tertiary level education is important to the entrepreneurship intentions because the students will be exposed to develop a sense of autonomy, independence and self-confidence, self-awareness, awareness of career choices and broaden their horizons (Reynolds, Hay & Camp, 1999).

Ajzen (1988) introduced the theory of reasoned action (TRA), indicated that social behaviors are motivated by individual attitudes, and are specifically designed to predict information system (IS) use (Davis, 1989; Davis, Bagozzi & Warshaw, 1989). Later, the theory of planned behavior (TPB) extended the TRA to account for conditions where individuals do not have complete control over their behavior. The TPB postulates that actual usage (AU) is determined by behavioral intention (BI) and perceived behavioral control (PBC). Behavioral intention is determined by three factors: attitude (ATT), subjective norms (SN) and perceived behavioral control (PBC).

Franke and Lutjhe (2004) revealed that students' intention to entrepreneurship is directly influenced by their perception towards entrepreneurship enablers and obstacles. Results showed that students have lower entrepreneurial intentions because they perceived that higher education does not have enough support in providing knowledge and experience to start a business. The subjective norm (SN) refers to the perceived social pressure to perform or to not perform the behavior. Van Gelderen et al. (2008) revealed that parents, peers, and others would affect a person's intention to be an entrepreneur.

Attitude toward behavior is a positive or negative evaluation of a person on the performance of certain behavior. This variable is influenced by the total behavioral beliefs. Van Gelderen et al. (2008) identified five attitudes toward behaviors that affect a person's intention to entrepreneurship, namely, independence, challenge, wealth accumulation, while lack of income security and high workload were perceived as uninteresting aspects of entrepreneurship. Davidsson (1995) found that attitudes toward achievement and toward change explained entrepreneurial intention.

Perceived behavioral control is an individual's perception about the difficulty level for starting behaviour; it is assumed that this variable is influenced by control beliefs. Van Gelderen et al. (2008) discovered the factors within this variable, namely perseverance, creativity, entrepreneurial alertness, and self-efficacy.

Theory of Planned Behavioral Model

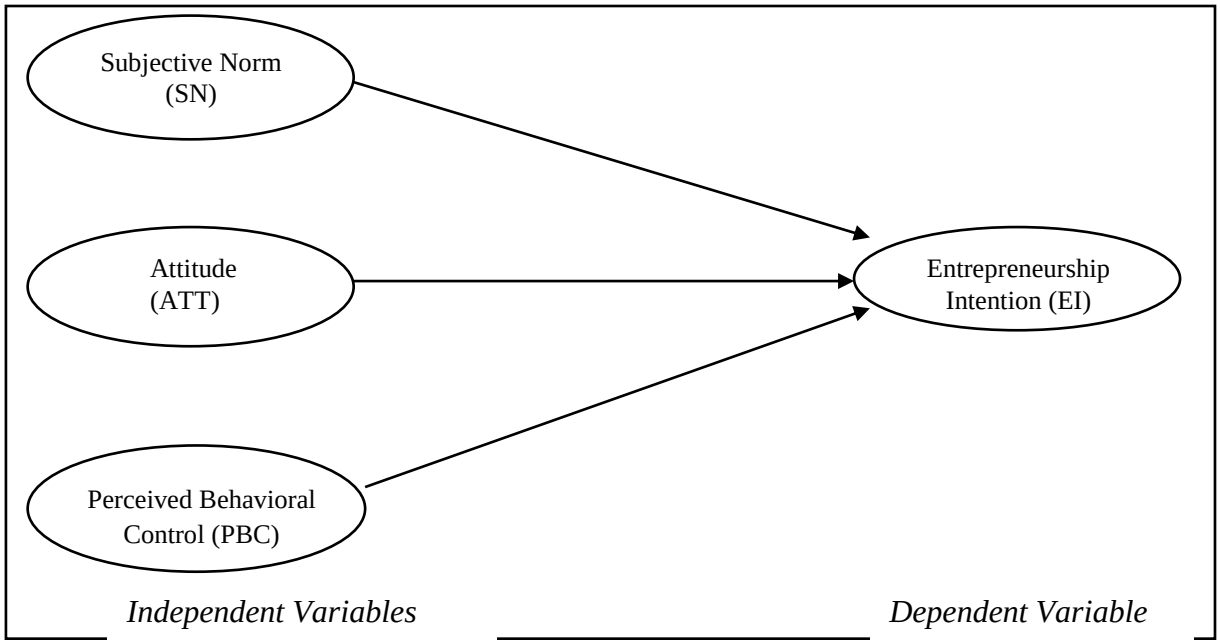

Figure 1. Conceptual framework of the study.

Referring to Figure 1 for the conceptual framework adopted from Theory of Planned Behavioral Model to analyze the entrepreneurship intention among ODL learners, the Independent variables are identified as subjective norm (SN), attitude (ATT) and perceived behavioral control (PBC); the dependent variable in this study is entrepreneurship intention (EI). Multiple regression using structural equation modelling is used in this study.

RESEARCH QUESTIONS

The research questions for this study are as follows:

1) Is there a significant influence of subjective norm to entrepreneurship intention among learners in an ODL institution?
2) Is there a significant influence of attitude to entrepreneurship intention among learners in an ODL institution?
3) Is there significant influence of perceived behavioural control to entrepreneurship intention among learners in an ODL institution?

RESEARCH HYPOTHESIS

The following hypotheses were tested in this study:

H_1: There is significant influence of subjective norm to entrepreneurship intention
H_2: There is significant influence of attitude to entrepreneurship intention
H_3: There is significant influence of perceived behavioural control to entrepreneurship intention

METHOD

Research Design

A total of 109 questionnaires were distributed to learners currently undertaking their tertiary education in ODL to express their views on factors that will influence their entrepreneurship intention. The questionnaires were distributed to final year students in ODL because it would be able to capture the intentions of entrepreneurship among them upon graduation. The questionnaire had two sections: Section A gathered information pertaining to learners' profile such as gender, age, educational level, marital status and the learners' programs; Section B consisted of three items measuring the subjective norm (SN), five items measuring attitude (ATT), and six items to measure perceived behavior control (PBC) on entrepreneurship intention, respectively. Respondents were requested to respond on a 7-point Likert-type scale, with "1": Strongly disagree" and "7": Strongly Agree. The 7-point Likert scale was chosen because it was believed to produce better distribution of data.

Results Analysis

According to Hair, Anderson, Tatham and Black (1998), structural equation modelling (SEM) was used to analyze the data obtained from questionnaires. SEM was conducted following the two-stage model-building process for applying SEM. The measurement model was estimated using confirmatory factor analysis (CFA) to test reliability and validity of the measurement model. Besides, the structural model also was analyzed to examine the model fit results of the proposed Theory of Planned Behavior model as the theoretical model.

RESULTS

Demographic Analysis

Table 2 summarizes the demographic profile and descriptive statistics of the respondents.

Table 2

Demographic Statistics of the Respondents

Item	Frequency	Percent (%)	Cumulative (%)
Gender			
Male	49	44.95	44.95
Female	60	55.05	100.00
Age			
less than 25	19	17.43	17.43
In between 26-34	53	48.62	66.05
Above 35	37	33.95	100.00
Education Level			
Diploma	49	44.95	44.95
Bachelor Degree	60	55.05	100.00
Major			
Business	73	66.98	66.98
IT	20	18.34	85.31
Science & Tech	16	14.68	100.00
Marital Status			
Married	49	44.95	44.95
Single	60	55.05	100.00

The majority of respondents are female (55.05%) whereas male respondents comprised 44.95%. Meanwhile, 17.43% of the respondents are aged below 25, 48.62% are aged between 26 to 34 years old, and 33.95% are aged 35 and above. Most of the respondents are currently pursuing Bachelor Degree, 55.05%, followed by Diploma level with 44.95%.

Reliability and Validity

The research instrument used confirmatory factor analysis (CFA) to examine factor reliability and validity. Table 3 summarizes the results of reliability and convergent validity for constructs.

Table 3
Results of CFA for Measurement Model

Construct	Items	Cronbach alpha	Convergent validity		
			Loadings	Composite reliability	Average Variance Extracted
Subjective Norm	SN2	.870	0.915	0.871	0.772
	SN3		0.841		
Attitude	ATT1	.866	0.753	0.865	0.617
	ATT2		0.843		
	ATT3		0.769		
	ATT4		0.773		
Perceived Behavior Control	PBC4	.870	0.832	0.878	0.709
	PBC5		0.968		
	PBC6		0.706		
Entrepreneur intention	EI1	.941	0.819	0.940	0.724
	EI2		0.779		
	EI3		0.911		
	EI4		0.902		
	EI5		0.857		
	EI6		0.828		

A reliability analysis using the measure of Cronbach's alpha was used to estimate the reliability of the factors. From Table 3, the reliability result generated in this study ranged from .866 to .941. According to Hair et al. (1998), an alpha value above .7 in academic research is generally accepted and this study showed the reliability of factors is above the accepted threshold.

Convergent validity is the degree to which multiple attempts to measure the same concept are in agreement. Convergent validity was assessed based on factor loading, composite reliabilities, and variances extracted (Hair et al., 1998). The results of the convergent validity are shown in Table 3. To investigate the underlying structure of a twenty items questionnaire assessing the factors influence

entrepreneurship intention among ODL learners, data collected from 109 respondents was subjected to factor loading analysis. Four factors (with factor loading exceeded 0.7) were identified as underlying the twenty questionnaire items. However, some items were deleted from the core construct. According to Comrey and Lee (1992), loadings in excess of 0.71 are considered excellent, 0.63 very good, 0.55 good, 0.45 fair. The factor loadings in Table 3 show all variable loadings exceeded 0.7 which reached an acceptable standard. Composite reliability values, which depict the degree to which the construct indicators indicate the latent construct, ranged from .865 to .940. The composite reliability of all latent constructs exceeded recommended level of .7 as suggested by Hair et al. (1998). The average variances extracted, which reflect the overall amount of variance in the indicators accounted for by the latent construct, were in the range between .617 and .772. The average variances extracted of all latent constructs exceeded recommended level of 0.5 by Hair et al. (1998).

In order to investigate the underlying structure of a 20-item questionnaire assessing the factors influencing entrepreneurship intention among tertiary education students, data collected from 109 respondents were subjected to factor loading analysis. Four factors (with factor loading exceeded 0.7) were identified as underlying the 20 questionnaire items. However, some items were deleted from the core construct. According to Comrey and Lee (1992), loadings in excess of 0.71 are considered excellent, 0.63 very good, 0.55 good, 0.45 fair. The factor loadings in Table 3 show that all variable loadings exceeded 0.7 which reached an acceptable standard.

Table 4

Discriminant Validity of Construct

Construct	(1)	(2)	(3)	(4)
(1) Entrepreneur Intention	0.851			
(2) Perceived Behaviour Control	0.626	0.842		
(3) Attitude	0.773	0.349	0.785	
(4) Subjective Norm	0.302	0.192	0.335	0.879

Discriminant validity is the degree to which the measures of different concepts are distinct. Discriminant validity can be examined by comparing the squared correlations between constructs and variance extracted for a construct (Fornell & Larcker, 1981). In this analysis, the correlations between constructs and square root of variance extracted for a construct were compared. The analysis results showed that the correlations for each construct is less than the square root of average variance extracted by the indicators measuring that construct, as shown in Table 4. It indicates the measure has adequately discriminant validity. In summary, the measurement model demonstrated adequate reliability, convergent validity and discriminant validity.

Structural Model Results

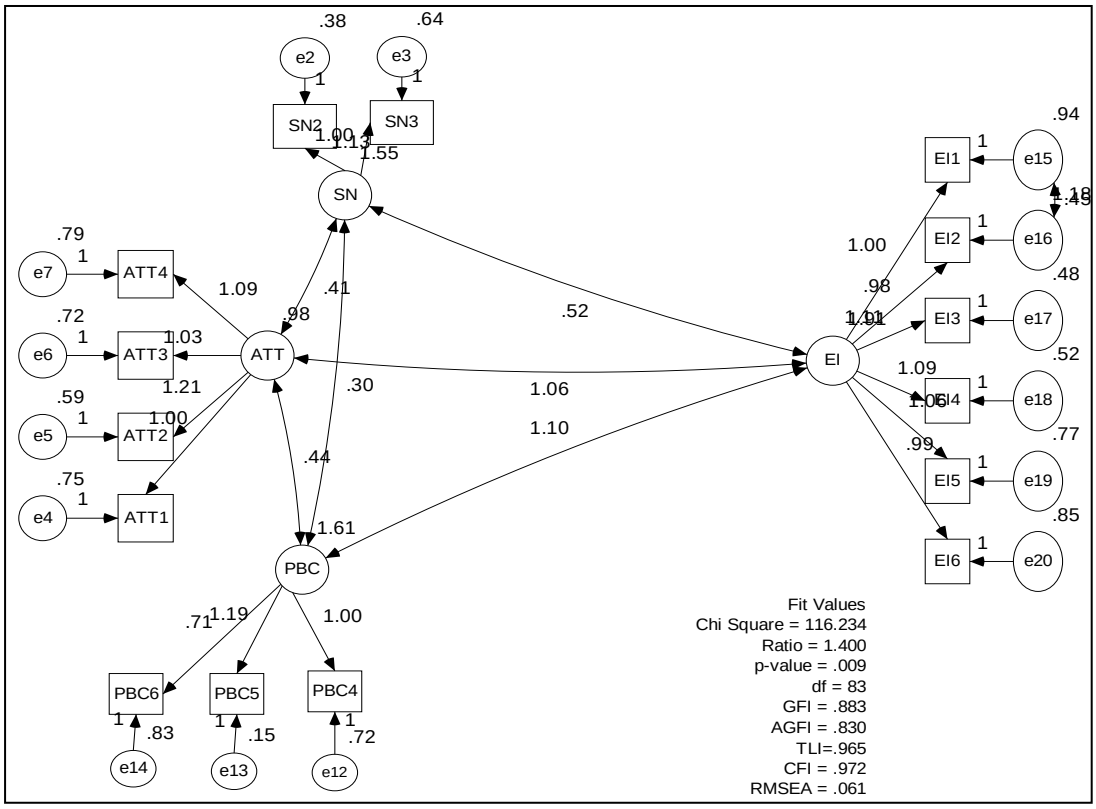

Figure 2: Structural Equation Model for Entrepreneurship Intention among ODL learners

Figure 2 illustrates a structural model performed through AMOS to determine the goodness of fit of the hypothesized model.

The results of the model fit were derived and the indices assessed the overall model fit including Chi-square (χ^2), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), Tucker Louis Index (TLI), comparative fit index (CFI) and root mean square error of approximation (RMSEA). A summary of the fit indexes is presented in the following Table 5:

Table 5
Fit Indexes Structural Model

Fit Index	Value	Recommended Criteria
df	83	
χ^2/df	1.400	3
GFI	0.883	0.9
AGFI	0.830	0.80
TLI	0.965	> 0.95
CFI	0.972	0.90
RMSEA	0.061	0.10

The observed normed χ^2 for the measurement model was 1.400 (χ^2 = 116.234, df = 83) which is smaller than 3 recommended by Bagozzi and Yi (1988). Other fit indices also show good fit for the measurement model. The adjusted goodness-of-fit index (AGFI) is 0.830, which exceeds the recommended cut-off level of 0.8 by Chau and Hu (2001). The comparative fit index (CFI) is 0.972, greater than the 0.9 recommended by Bagozzi and Yi (1988). The root mean square error of approximation (RMSEA) is 0.061, lower than the recommended cut-off level of 0.10 recommended by Browne and Cudeck (1993). Overall, the three structural models displayed a good fit with the data, compared with the suggested fit criteria.

A summary of the hypothesis testing results is shown in Table 6:

Table 6
Hypothesis Testing Results

Hypotheses No	Hypothesized Path			Path coefficient	*t*-value	*p* Value	Decision
H1	EI	<---	SN	0.014	0.201	.841	Reject
H2	EI	<---	ATT	0.628	6.316	***	Accept
H3	EI	<---	PBC	0.405	5.33	***	Accept

**** Significant at 1%*

The results of the finding show attitude (ATT) (t = 6.316; p <.001) and perceived behavior control (PBC) (t = 5.33; p < .001) are significantly related to entrepreneurship intention behavior (EI), but subjective norms (SN) (t = 0.201; p > .001) are not instead.

DISCUSSION AND CONCLUSION

The education providers play a huge role in cultivating entrepreneurs in the nation because the idea of a university has changed since their foundation because industrialism had a huge effect and now the changes are due to the current forces of capitalistic globalization. A university aims to impart the knowledge of learning, transmission, elicitation, transformation, explication, clarification and creation of knowledge to its learners. Therefore, the findings show that attitude (ATT) (t = 6.316; p < .001) and perceived behavior control (PBC) (t = 5.33; p < .001) are significantly related to entrepreneurship intention behaviour (EI), but subjective norms (SN) (t = 0.201; p > .001) are not.

As a conclusion, there is a significant influence of attitude and perceived behavioral control on entrepreneurship intention. However, subjective norms do not significantly influence the entrepreneurship intention among ODL learners. This result is similar to that reported by Kuttim, Kallaste, Venesaar and Kiis (2013). The study indicated that participation in entrepreneurship education was found to exert positive impact on entrepreneurial intentions. Nevertheless, the overall findings of this research have limitations in terms of generalizability. The findings will be able to assist educators in fulfilling their responsibilities to help learners develop their abilities and skills to produce a higher output of entrepreneurs in the nation. Educators will be able to review the course curriculum to enhance graduates' ability to create wealth. However, the overall findings of this research have limitations in terms of generalizability to the whole country because the data were collected from an ODL private higher education provider in Malaysia only.

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