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Multigroup Higher Order Mediator On Entrepreneurial Intention Using Structural Equation Modeling

Pengantara Aras Tinggi Kumpulan Berbagai bagi menilai Niat Terhadap Keusahawanan menggunakan Model Persamaan Berstruktur

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Abstract

Nowadays, serious concern has been raised by governments and also academicians for the unemployment issues among graduates. As becoming entrepreneur can be one of the options, their intention on becoming self-employed had encouraged researcher to investigate particularly on the influence of entrepreneurial intention among university students. The main purpose of this study was to identify whether second order mediator entrepreneurial motivation mediates the relationship between independent variables (attitude toward behavior, subjective norm, perceived behavioral control) and dependent variable (entrepreneurial intention). Besides that, this study was conducted to know the type of mediation involved in the study. A structured questionnaire was then distributed to 380 students. A survey methodology using cluster sampling was carried out, covering 380 university students from east coast region which are Kelantan, Terengganu and Pahang. This study is analyzed using structural equation modeling (SEM). The finding shows that the entrepreneurial motivation mediates the relationship between independent variables (attitude toward behavior and subjective norm) and entrepreneurial intention. The type of mediation occur are partial mediation and complete mediation.

Keywords Entrepreneurial Intention, Attitude Toward Behavior, Subjective Norm, Perceived Behavioral Control, Structural Equation Modeling, Mediation

Abstrak

Pada masa kini, kebimbangan yang serius telah dibangkitkan oleh kerajaan dan juga ahli-ahli akademik tentang isu pengangguran dalam kalangan graduan. Apabila usahawan boleh menjadi salah satu pilihan, hasrat mereka untuk bekerja sendiri telah menggalakkan penyelidik untuk menyiasat terutamanya mengenai pengaruh niat terhadap keusahawanan dalam kalangan pelajar universiti. Tujuan utama kajian ini adalah untuk mengenal pasti sama ada pengantara motivasi keusahawanan boleh menjadi pengantaraan hubungan antara pemboleh ubah bebas (sikap terhadap tingkah laku, norma subjektif, kawalan tingkah laku dilihat) dengan pemboleh ubah bersandar (niat terhadap keusahawanan). Selain daripada itu, kajian ini dijalankan untuk mengetahui jenis perantaraan yang terlibat dalam kajian ini. Satu set soal selidik berstruktur telah diberikan kepada 380 orang pelajar. Satu metodologi kajian menggunakan pensampelan berkelompok telah dijalankan, yang meliputi 380 pelajar universiti dari wilayah pantai timur iaitu Kelantan, Terengganu dan Pahang. Kajian ini dianalisis dengan menggunakan permodelan persamaan berstruktur. Dapatan kajian

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menunjukkan bahawa motivasi keusahawanan menjadi pengantara pemboleh ubah bebas (sikap terhadap tingkah laku dan norma subjektif) dan pemboleh ubah bersandar. Jenis pengantaraan berlaku adalah pengantaraan separa dan pengantaraan penuh.

Kata kunci Niat Terhadap Keusahawanan, Sikap Terhadap Tingkah Laku, Norma Subjektif, Kawalan Tingkah Laku, Model Persamaan Berstruktur, Pengantaraan

INTRODUCTION

Since the age of globalization, entrepreneurship has becoming crucial to every country because the growth of entrepreneurial activities will help in creating jobs for the society, reducing the unemployment rate (Abdullah et al., 2010). Nafukho and Helen (2010) proved that entrepreneurship is vital in creating and fulfilling a healthy economy. This is supported by Dickson et al. (2008) where growth of entrepreneurship is significant to a country's economy. It is found that many of the students have narrow business perspectives and less flexible to branch in other working areas. They foresee themselves as only job seekers and not job creators. (Ahmad et al., 2004). Thus, entrepreneurship needs to be encouraged among university students so that they have more options upon graduation. Using the entrepreneurial intention as a subject of study, the researcher focus on mediation analysis using Structural Equation Modeling (SEM).

Douglas et al. (2013) stated that mediation is important because it allows us to conduct scientific investigations; that is the interesting part of science is to explain how something comes about. A meditational analysis provides the researcher with a story about a sequence of effects that leads to something. The interesting part when examine a structural equation model (technically, the part of a structural, as opposed to a measurement, model that is overidentified) almost always is mediation.

Entrepreneurial motivation is a mediator variable in this study. Attitude toward behavior, subjective norm and perceived behavioral control are independent variable. The dependent variable in this study is entrepreneurial intention. The main purpose is to investigate whether second order mediator entrepreneurial motivation mediates the relationship between independent variables (attitude toward behavior, subjective norm, perceived behavioral control) and dependent variable (entrepreneurial intention).

OBJECTIVES

The objectives of this research is to test whether entrepreneurial motivation mediates the effect of independent variables (attitude toward behavior, subjective norm, perceived behavioral control) on entrepreneurial intention among university students.

Hypothesis

There are three hypotheses involved in this study.

1. Entrepreneurial motivation mediates the relationship between attitude toward behavior and entrepreneurial intention.

2. Entrepreneurial motivation mediates the relationship between subjective norm and entrepreneurial intention.
3. Entrepreneurial motivation mediates the relationship between perceived behavioral control and entrepreneurial intention.

METHODOLOGY

The target population was the university students from east coast region which are Kelantan, Terengganu and Pahang. The technique used was cluster sampling. The reason for choosing this sampling technique because of this study covers large geographical area which are Kelantan, Terengganu and Pahang. A total of 380 students from three university are involved in this study. In addition, Yuan et al. (2010) reported that after evaluating different models based on various numbers of respondents opined that a sample size of between 300 and 400 should be appropriate for structural equation modeling.

This study used primary sources of data since the data or information for this study originally collected through questionnaire. The data was analyzed by Structural Equation Modeling using AMOS graphic software. MacCallum & Austin (2000) reported that Structural Equation Modeling tests hypothesized patterns of directional and nondirectional relationships among a set of observed (measured) and unobserved (latent) variables. Structural Equation Modeling or popularly known as SEM is an extension of the general linear model.

In Structural Equation Modeling (SEM), there are two model involved. The two models are measurement model and structural model. Every measurement model of latent construct needs to undergo Confirmatory Factor Analysis (CFA) before modeling SEM. CFA is employed to test whether the measures of a construct are consistent with the researcher's understanding of the nature of that construct (Zainudin, 2015). After the unidimensionality, validity and reliability of all constructs in the measurement model have been reported, the next step is to model these construct into structural model for analysis using SEM. In structural model, the mediation analysis was performed.

RESULTS AND DISCUSSION

The results for the reliability analysis, normality assessment, confirmatory factor analysis and path analysis for each hypothesis for this study are shown below.

Confirmatory Factor Analysis (CFA) : Measurement Model

Confirmatory Factor Analysis (CFA) is a special form of factor analysis. Figure 1 shows that the last measurement model combining all construct simultaneously.

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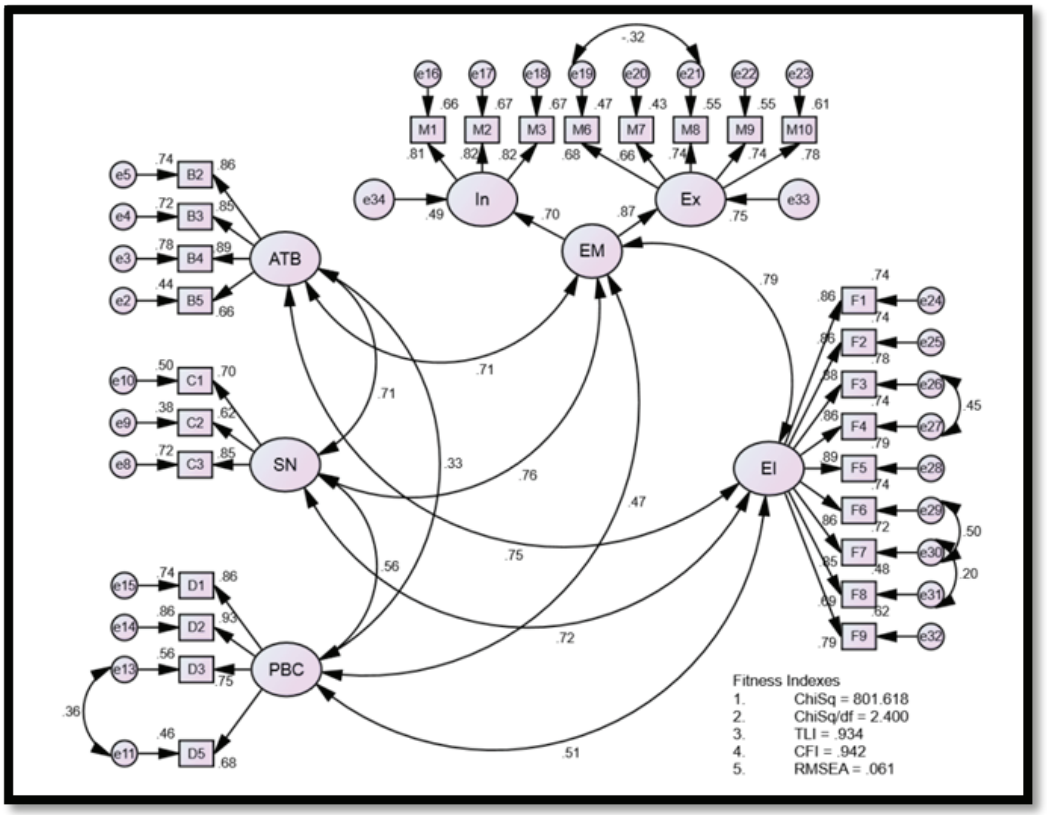

Figure 1 The Last Measurement Model

There are several Fitness Indexes that reflect how fit is the model to the data at hand. There are three model fit categories namely absolute fit, incremental fit, and parsimonious fit. All value of fitness indexes for the model have achieved the level of acceptance. The summary of fitness indexes for the model are presented in Table 1.

Table 1 Summary for Fitness Indexes

Name of Category	Name of Index	Recommended	Obtain	Comments
1. Absolute Fit	RMSEA	< 0.08	0.061	Achieved the requirement
2. Incremental Fit	CFI	> 0.90	0.942	Achieved the requirement
	TLI	> 0.90	0.934	Achieved the requirement
Parsimonious Fit	Chisq/df	< 5.00	2.400	Achieved the requirement

Table 2 shows that the summary of confirmatory factor analysis (CFA) for all constructs.

Table 2 Summary for all constructs

Construct	Item	Cronbach Alpha	CR	AVE
Attitude Toward Behavior	B2,B3,B4,B5	0.884	0.890	0.672
Subjective Norm	C1,C2,C3	0.771	0.770	0.532
Perceived Behavioral Control	D1,D2,D3,D5	0.885	0.883	0.657
Entrepreneurial Motivation	M1,M2,M3,M5,M7,M8,M9,M10	0.858	0.915	0.658
Entrepreneurial Intention	F1,F2,F3,F4,F5,F6,F7, F8,F9	0.957	0.955	0.907

Validity and Reliability

The unidimensionality requirement was achieved through the item-deletion process for low factor loading item. The validity requirement was achieved through the process based on Table 3.

Table 3 Validity Result

Process	Result
Convergent Validity	The value of AVE for all constructs is greater than 0.50 as suggested by Fornell and Larcker (1981). The Convergent Validity was achieved the required level.
Construct Validity	From the last measurement model, all fitness indexes meet the required level.
Discriminant Validity	From the last measurement model, the redundant items are constrained as “free parameter”, also the correlation between all constructs are lower than 0.85.

The reliability requirement was achieved through the process based on Table 4.

Table 4 Reliability Result

Process	Result
Internal Reliability	The value for Cronbach Alpha is greater than 0.60 as suggested by Nunally (1978). The Internal Reliability was achieved the required level.
Composite Reliability	The value of CR for all constructs is greater than 0.60. The Composite Reliability was achieved the required level.
Average Variance Extracted	The value of AVE for all constructs is greater than 0.50. The required level was achieved.

We can conclude that the requirement for unidimensionality, validity and reliability was satisfied the required level. After the researchers have addressed the issues of unidimensionality, validity and reliability of the latent constructs, this measurement model can be assembled into structural model.

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Normality Assessment

After the fitness indexes have been achieved, the normality assessment for the data need to be examine at hand before proceeding to modeling the structural model. The following table presents the normality assessment for every items involved in the measurement model. The measure of skewness reflects the normality assessment for every item. The measure between -1.0 and 1.0 is considered to be normally distributed and acceptable to proceed with further analysis. Table 5 illustrates the summary for measure of skewness of all variable. The result shows that the measure of skewness for all item fall in the range of -1.0 and 1.0, therefore it is considered to be normally distributed and acceptable to proceed with further analysis.

Table 5 Summary for the Measure of Skewness

Items	Skewness
B2	-0.771
B3	-1.096
B4	-0.780
B5	-0.467
C1	-0.450
C2	-0.578
C3	-0.423
D1	0.918
D2	0.143
D3	0.037
D5	0.124
M1	-0.604
M2	-0.605
M3	-0.617
M6	-0.641
M7	-0.254
M8	-0.255
M9	-0.535
M10	-0.721
F1	-0.347
F2	-0.261
F3	-0.273
F4	-0.351
F5	-0.183
F6	-0.517
F7	-0.591
F8	-0.765
F9	-0.326

Structural Equation Modeling (SEM) : Structural Model

Figure 2 shows that the measurement model is assembled into structural model for further analysis. The structural model can be modified if the fitness index is not achieved. Since

that the fitness index was achieved the required level, therefore the structural model are satisfied.

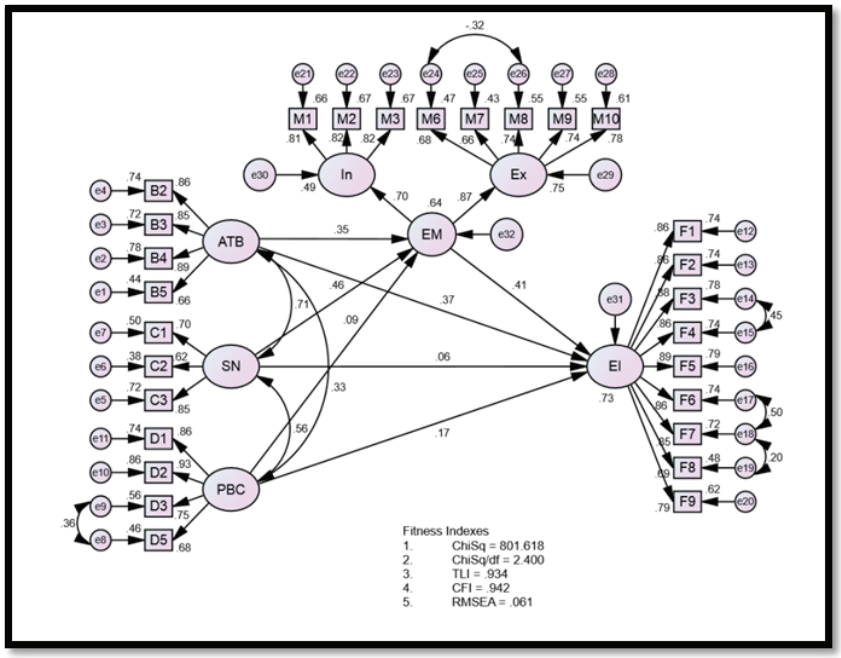

Figure 2 Structural Model

Mediation Analysis

The mediation analysis involved in this study to test whether entrepreneurial motivation mediates the effect of independent variables (attitude toward behavior, subjective norm, perceived behavioral control) on entrepreneurial intention.

Table 6 The Effect of Attitude Toward Behavior on Entrepreneurial Intention

Variable	Path Variable	P-value	Comment
Attitude Toward Behavior	Entrepreneurial Intention	0.000	Significant
Attitude Toward Behavior	Entrepreneurial Motivation	0.000	Significant
Entrepreneurial Motivation	Entrepreneurial Intention	0.000	Significant

The result from the Table 6 shows that the direct effect of attitude toward behavior to entrepreneurial intention is significant since that the p-value is less than $\alpha = 0.05$. When the mediator variable entrepreneurial motivation enter into the model, the indirect effect from attitude toward behavior to entrepreneurial intention through the mediator variable is still significant. Therefore, we can conclude that the partial mediation occurs.

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Table 7 The Effect of Subjective Norm on Entrepreneurial Intention

Variable	Path Variable	P-value	Comment
Subjective Norm	Entrepreneurial Intention	0.516	Not Significant
Subjective Norm	Entrepreneurial Motivation	0.000	Significant
Entrepreneurial Motivation	Entrepreneurial Intention	0.000	Significant

The result from the Table 7 shows that the direct effect of subjective norm to entrepreneurial intention is not significant since that the p-value is greater than $\alpha = 0.05$. When the mediator variable entrepreneurial motivation enter into the model, the indirect effect from subjective norm to entrepreneurial intention through the mediator variable is still significant. Therefore, we can conclude that the complete mediation occurs.

Table 8 The Effect of Perceived Behavioral Control on Entrepreneurial Intention

Variable	Path Variable	P-value	Comment
Perceived Behavioral Control	Entrepreneurial Intention	0.000	Significant
Perceived Behavioral Control	Entrepreneurial Motivation	0.161	Not Significant
Entrepreneurial Motivation	Entrepreneurial Intention	0.000	Significant

The result from the Table 8 shows that the direct effect of perceived behavioral control to entrepreneurial intention is significant since that the p-value is less than $\alpha = 0.05$. When the mediator variable entrepreneurial motivation enter into the model, the indirect effect from perceived behavioral control toward entrepreneurial motivation is not significant since that the p-value are greater than $\alpha = 0.05$. Therefore we can conclude that there is no mediation occurs.

CONCLUSION

The researcher can conclude that the model has achieved the required fitness index. Other than that, the two hypotheses are accepted. The first hypothesis is entrepreneurial motivation mediates the relationship between attitude toward behavior and entrepreneurial intention. The path shows that the partial mediation analysis occurs. The second hypothesis is entrepreneurial motivation mediates the relationship between subjective norm and entrepreneurial intention. The path shows that the complete mediation analysis occurs. The last hypothesis is not accepted since that there is no mediation occur. Entrepreneurial motivation does not mediate the relationship between perceived behavioral control and entrepreneurial intention. The entrepreneurial motivation can be the best mediator to mediate the effect of independent variables (attitude toward behavior and subjective norm) on entrepreneurial intention.

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