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MOTIVATIONAL FACTORS AFFECTING ENTREPRENEURIAL INTENTION AMONG UTeM ENGINEERING STUDENTS

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ABSTRACT

Engineering student's willingness to engage in entrepreneurship may be affected by many different factors. Entrepreneurship intention is found to determine student's willingness to engage into entrepreneurial behavior in the future. The main objective of this work is identifying the relationship of internal and external motivational factors towards entrepreneurship intentions among the engineering students at the university. This study only focused on the internal motivation factors, with three (3) main factors which are the need for achievement, the need for affiliation and the need for power. Whereas, the external motivation factors only focused on the other three (3) main factors include the entrepreneurial role models, the family background, and the entrepreneurship education. The data were collected among University Teknikal Malaysia Melaka (UTeM) engineering students, both in the main campus and in the industrial campus.

Keywords: Entrepreneurship; entrepreneurship intention; engineering students

1. INTRODUCTION

Entrepreneurship has become one of the trend that is growing rapidly in Malaysia and overseas. Entrepreneurship is important and has been widely acknowledge as a contributor to job creation, innovation and economic development to the nations [1]. These days, entrepreneurship has widely impact and attract many young people especially among students of higher learning institutes (IPT) to engage in entrepreneurship, eespecially with the introduction of online business includes websites and information technology [2]. This is because the entrepreneurial programme held at universities were able to attract and increase students acceptance about entrepreneurship.

Students intention towards entrepreneurship has become an interesting topic. Many past studies have been conducted to investigated the motivations to become self – employed and to find out what is it about certain people especially young entrepreneurs that drives them to take on the risk, the uncertainty and the independent structure of business ownership. In the findings by Rae & Melton [3], the study explores entrepreneurial attributes among the students in the United States of America (USA). Their mission were to established the mindset in creating graduates with personal, economic and societal value, which also supported by Musa et at [4] whose studied the case of entrepreneurisal education through understanding the students emotional intelligence and stress.

2. RESEARCH OBJECTIVES

The research objectives for this study are as follows:

1. To examine the internal motivational factors towards the intention to become entrepreneurs among UTeM engineering students.

2. To examine the external motivational factors towards the intention to become entrepreneurs among UTeM engineering students.

3. To determine the relationship between the internal and external motivational factors and intention to become entrepreneurs among UTeM engineering students.

3. RESEARCH METHODOLOGY

In this chapter, the researcher, explained the research method that will be used to carry out the study.

3.1 Research Model

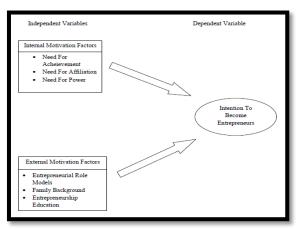


Figure 1: Resaerch Model

3.2 Hypothesis

In order to check the relationship between the independent and dependent variables, six (6) hypotheseses were developed.

<u>Hypothesis 1</u>

H0 : There is no significant relationship between the entrepreneurial role model and the intention to become entrepreneur.

H1 : There is a significant relationship between the entrepreneurial role model and the intention to become entrepreneur.

Hypothesis 2

H0 : There is no significant relationship between family background and the intention to become entrepreneur.

H1 : There is a significant relationship between the family background and the intention to become entrepreneur.

<u>Hypothesis 3</u>

H0 : There is no significant relationship between entrepreneurship education and the intention to become entrepreneur.

H1 : There is a significant relationship between the entrepreneurship education and the intention to become entrepreneur.

<u>Hypothesis 4</u>

H0 : There is no significant relationship between the need for achievement and the intention to

become entrepreneur.

H1 : There is a significant relationship between the need for achievement and the intention to become entrepreneur.

<u>Hypothesis 5</u>

H0 : There is no significant relationship between the need for affiliation and the intention to become entrepreneur.

H1 : There is a significant relationship between the need for affiliation and the intention to become entrepreneur.

<u>Hypothesis 6</u>

H0 : There is no significant relationship between the need for power and the intention to become entrepreneur.

H1 : There is a significant relationship between the need for power and the intention to become entrepreneur.

3.3 Research Design (Descriptive Method)

This research used descriptive data analysis as the research design which the researcher done more of the description and explanation on the topic of the motivation factors affecting entrepreneurial intention among UTeM engineering students.

3.4 Methodological Choice

To achieve the research objective and research problem the researcher have conducted quantitative research method. Quantitative research examines the relationships between variables from the theoretical framework, which are measured numerically and analyzed using a range of statistical techniques.

4. DATA ANALYSIS

The questionnaires have been distributed to 150 respondents consisting of 30 respondents for each of five (5) engineering faculties at UTeM. The 5 engineering faculties consists of Faculty of Mechanical, engineering Technology, Manufacturing, Electrical, and Electronics. To get the results of reliability analysis, every respondent answers in questionnaire were determined by using descriptive analysis and followed by the scale measurements. Moreover, Pearson's correlation analysis and multiple regression analysis were also used. Based on the results, the majority of the respondent were male which consists of 53.3% of the sample size. And age between 23 - 27 years old represented the largest age group consists of 62%. Results showed that 37.3% out of 150 respondents have a family own business while 62.7% showed respondents who do not own family business. Descriptive statistic used to determine of independent variables that is entrepreneurial role models, family background, entrepreneurship education, need for achievement, need for affiliation, and need for power show on the table on the number of mean and standard deviation.

4.1 Reliability

| Cronbach's Alpha | N of Items |
|---------------------|------------|
| .952 | 34 |

Cronbach's Alpha was used to examine the reliability of the 34 items it used to measure the seven constructs. Based on the result, the Cronbach's Alpha is excellent and showed its value of 0.952.

4.2 Pearson Correlation Analysis

Musa et al., 2018

| | Y | X1 | X2 | X3 | | Y | X4 | X5 | |
|---|-------|--------|--------|--------|----------------------------------|----------------|-----------------|------|--|
| Y Pearson Correlation | 1 | .997" | .966 | .977'' | Y Pearson Correlation | 1 | .975 | .974 | |
| Sig. (2-tailed) | | .000 | .000 | .000 | Sig. (2-tailed) | | .000 | .000 | |
| N | 150 | 150 | 150 | 150 | N | 150 | 150 | 150 | |
| X1 Pearson Correlation | .977" | 1 | .975** | .988" | X4 Pearson Correlation | .975 | 1 | .985 | |
| Sig. (2-tailed) | .000 | | .000 | .000 | Sig. (2-tailed) | .000 | | .000 | |
| N | 150 | 150 | 150 | 150 | N | 150 | 150 | 150 | |
| X2 Pearson Correlation | .966 | .975" | 1 | .964 | X5 Pearson Correlation | .974 | .985 | 1 | |
| Sig. (2-tailed) | .000 | .000 | | .000 | Sig. (2-tailed) | .000 | .000 | | |
| N | 150 | 150 | 150 | 150 | N | 150 | 150 | 150 | |
| X3 Pearson Correlation | .977" | .988** | .964** | 1 | X6 Pearson Correlation | .962 | .971 | .970 | |
| Sig. (2-tailed) | .000 | .000 | .000 | | Sig. (2-tailed) | .000 | .000 | .000 | |
| N | 150 | 150 | 150 | 150 | N | 150 | 150 | 150 | |
| **.Correlation is significant at the 0.05 level (2-tailed). | | | | | **. Correlation is significant a | at the 0.05 le | vel (2-tailed). | | |

Table 2: Correlation (DV is Y)

Pearson Correlation Coefficient is used to measure the validity of the data relationship between set of two variables. There is a very strong relationship between entrepreneurial role model and the intention to become entrepreneur among UTeM final year engineering students. The value of the coefficient correlation is 0.997. Next, there is a very strong relationship between family background and the intention to become entrepreneur among UTeM final year engineering students. The value of the coefficient correlation is 0.966. Furthermore, a very strong relationship between entrepreneurship education and the intention to become entrepreneur among UTeM final year engineering students. The value of the coefficient correlation is 0.977. Moreover, very strong relationship between need for achievement and the intention to become entrepreneur. The value of the coefficient correlation is 0.975. Besides that, there is a very strong relationship between need for affiliation and the intention to become entrepreneur. The value of the coefficient correlation is 0.974. Last but not least, there is a very strong relationship between need for power and the intention to become entrepreneur among UTeM final year engineering students. The value of the coefficient correlation is 0.962.

4.3 Multiple Regression

Table 3: Model Summary

Model Summary

| Mode | R | R Square | Adjusted R | Std. Error of |
|------|-------------------|----------|------------|---------------|
| 1 | | | Square | the Estimate |
| 1 | .983 ^a | .965 | .964 | .19057 |

a. Predictors: (Constant), Entrepreneurial Role Model, Family Background, Entrepreneurship Education, Need For Achievement, Need For Affiliation, Need For Power.

Table 4: ANOVA

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|-------------------|-----|-------------|---------|-------------------|
| 1 | Regression | 145.254 | 6 | 24.209 | 666.613 | .000 ^b |
| | Residual | 5.193 | 143 | .036 | | |
| | Total | 150.447 | 149 | | | |

a. Dependent Variable: INTENTION

b. Predictors: (Constant), NEED.FOR.POWER, FAMILY.BACKGROUND, ENTREPRENEURSHIP.EDUCATION, NEED.FOR.AFFILIATION,

ENTREPRENEURIAL.ROLE.MODEL, NEED.FOR ACHIEVEMENT

Table 5: Coefficients

Musa et al., 2018

| | Coefficients ^a | | | | | | | | |
|-------|--------------------------------|------------------------------|------------|------------------------------|--------|------|--|--|--|
| Model | | Unstandardiz Coefficients | zed | Standardized Coefficients | Т | Sig. | | | |
| | | В | Std. Error | Beta | | | | | |
| | (Constant) | .099 | .043 | | 2.320 | .022 | | | |
| | ENTREPRENEURIAL .ROLE.MODEL | .248 | .111 | .247 | 2.240 | .027 | | | |
| 1 | FAMILY.BACKGRO UND | .245 | .065 | .246 | 3.756 | .000 | | | |
| | ENTREPRENEURSHI P.EDUCATION | .460 | .134 | .463 | 3.436 | .001 | | | |
| | NEED.FOR.ACHIEVE MENT | 149 | .142 | 150 | -1.049 | .296 | | | |
| | NEED.FOR.AFFILIAT ION | 004 | .095 | 004 | 042 | .967 | | | |
| | NEED.FOR.POWER | .191 | .071 | .193 | 2.698 | .008 | | | |

a. Dependent Variable : Intention To Become Entrepreneur

Analysis of Multiple Regression Analysis (MRA), R is 0.983 shows excellent relationship. This is means that the respondent is good on the intention to become entrepreneur among UTeM engineering students. Furthermore, the positive sign of R implies a positive relationship. Only 96.5% of the variable affect in the intention to become entrepreneur. While the other 3.5% is contribute to the other independent variables which not discuss in this research. From ANOVA table, shows significance level of the Multiple Regression Analysis (MRA) test is below than P = 0.05 which is a 5% level of confident in the result. Based on Coefficient Table above, it shows the relationship between variables and the significant of each of independent variables that affect the intention to become entrepreneur. It can be analyse with P < 0.05 the coefficient are significant. The first factor, entrepreneurial role models is significant to the intention to become entrepreneur as its value 0.027, below than 0.05. The second factor which is family background is significant with value 0.000, below than 0.05. Third factor which is entrepreneurship education is significant with value 0.001, below than 0.05. Fourth factor which is need for achievement is insignificant to the intention to become entrepreneur with value 0.296, more than 0.05. Fifth factor which is need for affiliation is also insignificant with value 0.967.Lastly, the last factor which is need for power is significant with value 0.008, below than 0.05.

5. DISCUSSION AND RECOMMENDATION

5.1 Conclusion

This research is about the motivation factors affecting entrepreneurial intention among UTeM engineering students. The finding shows that there is a significant relationship between the intention to become entrepreneur (dependent variable) and external and internal motivation factors (independent variables). But, there is two factors that is not significant which are the need for achievement and the need for affiliation that has no effect with the intention to become entrepreneur among UTeM final year engineering students.

6. REFERENCES

Welter, F., Baker, T., Audretsch, D. B., & Gartner, W. B. (2017). Everyday entrepreneurship—a call for entrepreneurship research to embrace entrepreneurial diversity.

Musa, H., Mohamad, N., Rajiani, I., Hasman, N. S. B., & Azmi, F. R. (2015). The website usage among private sector: A case of Malaysian business organization. European Journal of Business and Management, 7(6), 121-125.

Rae, D., & Melton, D. E. (2017). Developing an entrepreneurial mindset in US engineering education: an international view of the KEEN project. The Journal of Engineering Entrepreneurship, 7(3).

Musa, H., Azmi, F. R., Abdullah, A. R., Sedek, M., & Saad, N. M. (2017). Emotional intelligence and stress among SME entrepreneurs in Melaka: A case of entrepreneurial education. Proceedings of Mechanical Engineering Research Day, 2017, 248-249.