

Entrepreneurship Education and Entrepreneurship Intention: A Case Study of Changemakers Mindset (Design Thinking) Module

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ABSTRACT

The Changemakers Mindset (Design Thinking) module was first implemented during interim session and was made compulsory to all first-year diploma students of Universiti Teknologi MARA (UiTM). The main objective of the module is to expose the students to entrepreneurial attitude, behaviour, and skills. Therefore, this study aims to examine the level of the Changemakers Mindset (Design Thinking) module and also to assess the relationship between the outcome of the module and the level of entrepreneurship intention. In addition, this study also aims to examine if there is any significance difference between male and female students in term of the entrepreneurship intention level. In particular, at the end of the module (30th July 2018), a survey study on a sample of 200 students was conducted and the data have been analyzed using Statistical Package for Social Sciences (SPSS) to obtain the descriptive analysis and correlation analysis that describe the proposed relationship. T-test also has been performed to assess the significance differences in term of gender in the level of entrepreneurship intention. The findings revealed that the level of the module was at strong and good level. Second, there was a significant and positive correlation between the module and the level of entrepreneurship intention, and finally, the entrepreneurship intention was found to have no significant difference across gender. Since there is a lack of study to analyze the public

universities students' entrepreneurship intention in Malaysia, this study attempts to fill this gap. In addition, the study also aims to improve the current module and to assess the strengths and weaknesses of the module.

Key Words: Design Thinking, Entrepreneurship Education, Entrepreneurship Intention, & Gender.

1. INTRODUCTION

Unemployment among the graduate students is regarded as a serious problem in Malaysia. Every year many students graduated from institutions of higher learning are left unemployed. According to the report by the Central Bank of Malaysia, in 2015, unemployment rate among youths had increased by 1.2 percentage (%) from an estimated 9.5% to 10.7% and unemployment rates for young graduates also tend to be higher than non-graduates (The Star Online, 2017, March 27). Due to this problem, the Malaysian government have taken several initiatives to create entrepreneurs among the graduate students and entrepreneurship is accepted as an important strategy to create jobs and improve financial income of young people (Kuratko & Hodgetts, 2004; Schaper & Volery, 2004; Venkatachalam & Waqif, 2005). Entrepreneurship can be defined as “a dynamic process of vision, change, and creation that require an application of energy and passion towards the creation and implementation of new ideas and creative solutions” (Kuratko & Audretsch, 2009, p. 21). As a result, courses in entrepreneurship are also becoming popular and many entrepreneurial courses have been introduced with the main purpose to promote entrepreneurial thinking and mindset. For instance, Yaman, Kamarudin, Besar, Bujang, Salam, Siraj, and Mohamad' (2014) study on 177 students has revealed that 50.3% of the respondents agreed that their soft skills have improved and 25.6% of the respondents had agreed that their interest in entrepreneurship has increased after the implementation of entrepreneurship course.

In Malaysia, entrepreneurial skill is considered as an important element in education in Malaysia. The Malaysian Ministry of Higher Education (MOHE) also has urged that each of the subjects offered by any programs need to comprise elements of managerial and entrepreneurial skills. In view of this recent development, Malaysian Academy of SME & Entrepreneurship Development (MASMED) of Universiti Teknologi MARA (UiTM) has produced a new teaching module named Changemakers Mindset (Design Thinking) module. The main objective of this course is to expose the students to entrepreneurial skills and to excite interest among the students to apply entrepreneurial skills in their future career.

In this sense, this study aims to measure the level of the changemakers mindset (design thinking) module and also to examine the relationship between the module and the level of entrepreneurship intention of the first year of the Diploma in Public Administration and Corporate Administration students at the Faculty of Administrative Science and Policy Studies (FSPPP), Universiti Teknologi MARA (UiTM), Seremban Campus. The influence of demographic characteristics such gender on the students' entrepreneurship level is also examined. In Malaysia, studies examining the entrepreneurship intention among graduate entrepreneurs are sparse (Zain, Akram, & Ghani, 2010). In addition, several studies also have discovered that the entrepreneurship intention among students is low to moderate and the current entrepreneurship educational courses are still weak and fragile (e.g., Othman, Hashim, & Abd. Wahid, 2012; Rahman, Othman, Pihie, & Wahid, 2016). For instance, based on a survey study on 355 undergraduate students from five Malaysian public universities, Rahman, Othman, Pihie, and Wahid (2016) found that the entrepreneurship intention of higher education students are at the moderate level. Similarly, Othman, Hashim, and Abd. Wahid' (2012) study on the readiness of students and the internal environment of Malaysian public universities in the implementation of entrepreneurship education has discovered that the readiness for entrepreneurship education remains weak and requires significant improvement. Finally, Yu Cheng, Sei Chan, and Mahmood (2009) also have discovered that entrepreneurship education in Malaysia is not effective in providing the expected skills and competencies to the students and the findings also indicated that the level of understanding on entrepreneurship is still low. Therefore, we hope that this study could deliver new knowledge to the current literature as well as help us in assessing the effectiveness of our changemakers mindset (design thinking) module.

2. CHANGEMAKERS MINDSET (DESIGN THINKING)

“Changemakers mindset (design thinking)” is a mandatory module that is implemented to the first year of the Diploma in Public Administration and Corporate Administration at the Faculty of Administrative Science and Policy Studies (FSPPP), Universiti Teknologi MARA (UiTM), Seremban Campus, Negeri Sembilan, Malaysia. The module is a part of several initiatives that have been planned by Malaysian Academy of SME & Entrepreneurship Development (MASMED) FSPPP UiTM Seremban. The main purpose is to inculcate entrepreneurial skills through a design thinking module. The duration of the module is 8 hours with each session being carried once a week. The module is identical for all the groups and the students are randomly divided into a group of 6-10 members and they start working on the idea of a business project that will be presented at the end of the session. The module covers five main topics which include: 1) empathize, 2) define, 3) ideating, 4) prototyping, and 5) testing/pitching. In the first part of the module (week 1), the lecturer introduces some theoretical

concepts on design thinking which covers five stages of design thinking, whereas the second part of the module (week 2) is dedicated to the group establishment and each group are required to select one product or services and they need to conduct interviews with the users in order to understand the user's needs and demand and also to define the existing problems. The third part of the module (week 3) is dedicated in ideating the possible solutions in order to resolve the identified problems. The following to this matter, the groups then are required to develop a prototype and solutions to the problems. In the last module of design thinking (week 4), every member must participate in the public presentation (25-30 minutes). At the end of each presentation, the lecturers provide comments and the other groups also are allowed to give comments in order to maintain the attention of the students and encourage development of their critical acumen.

3. ENTREPRENEURSHIP INTENTION AND ENTREPRENEURSHIP COURSES

Thompson (2009) defines entrepreneurship intention as “a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future (p. 676).” A plethora of studies has found that the university plays an importance role in supporting entrepreneurship intention and to increase the student awareness on the entrepreneurship (Azmi, Yusof, Salleh, Salleh, & Omar, 2016; Rasli, Khan, Malekifar, & Jabeen, 2013; Tawil, Hassan, Ramlee, & K-Batcha, 2015). Many universities have begun to develop various entrepreneurship education courses and programs with the purpose to promote entrepreneurial thinking and mindset. Entrepreneurship education program can be defined as any pedagogical program or process of education for entrepreneurial attitudes and skills, which involve developing certain personal qualities (Fayolle, Gailly, & Lassas-Clerc, 2006). Krueger and Brazeal (1994) believed that the support from university in terms of training, seminars on business plans, contacts with companies, the initial financial push, and other mechanisms can inculcate intrinsic motivation for enhancing students' entrepreneurship intention.

In assessing the effectiveness of UKM-CESMED (Centre of Entrepreneurship Development and SMEs) course, Tawil, Hassan, Ramlee, and K-Batcha (2015) found that 80% students agreed that the course can provide the basic knowledge of entrepreneurship and stimulate interest in students to become entrepreneurs in the future. Next, based on the data obtained from 400 graduating students at the Faculties of Engineering, Education, Management, and of Social Science in UTM, Rasli, Khan, Malekifar, and Jabeen (2013) found that the role of entrepreneurship education has been recognized as one of the critical factors that help the students to understand and foster an entrepreneurial attitude. This finding also found that males rated financial success and innovation significantly higher than did females.

Then, based on Ajzen's theory of planned behaviour to identify the factors influencing the entrepreneurship intention of these students, Kadir, Salim, and Kamarudin (2010) discovered that there is a strong positive and significant relationship between the educational support (i.e., syllabus, pedagogy, and co-curriculum) and entrepreneurial intention. Finally, Azmi, Yusof, Salleh, Salleh, and Omar' (2016) study on 120 University Kuala Lumpur (UniKL) MICET, has discovered that the university roles have contributed to students' entrepreneurship inclination. For instance, 72.5% of the respondents agreed that the creative university atmosphere inspire them to develop ideas for new business. From that, the following hypothesis emerged:

H1: The entrepreneurship course (changemakers mindset-design thinking) could help to increase the level of entrepreneurship intention.

4. ENTREPRENEURSHIP INTENTION AND GENDER DIFFERENCES

Much research has suggested the influence of gender towards the level of entrepreneurship intention. Women have relatively lower entrepreneurship intention than men, which may be explained by women having lower level of self-efficacy and perceived self-control, and lack of external support (BarNir, Watson, & Hutchins, 2011; Hu & Ye, 2017; Shinnar, Hsu, & Powell, 2014). Maes, Leroy, and Sels (2014) summarized that female students are less driven towards entrepreneurship by beliefs of internal control that are more dominant in predicting perceived control. Westhead and Solesvik (2016) discovered that females were significantly less likely to report high intensity of intention due to unwillingness to take a risk.

Leong' (2008) survey has also confirmed males continue to be the most active group in terms of entrepreneurship and the role of entrepreneurial role models in the family has a positive effect on the entrepreneurial perception and intentions. Similarly, Lo, Sun and Law' (2017) study on 411 engineering students from three universities in Hong Kong, showed that male and female students are different in terms of entrepreneurial attitudes, social norms, and entrepreneurial intentions. This study also suggested that teaching strategies to foster entrepreneurship intention of females should emphasize female entrepreneurship, provide female entrepreneurial models, and create an entrepreneurial culture in campus. Therefore, we can conclude that many studies have indicated the differences between male and female intentions to become entrepreneurs. Therefore, our last proposed hypothesis is as following:

H2: There is a significant difference in the level of entrepreneurship intention across gender

Based on the literature review, there are two main variables in this study. The conceptual model of this study is presented in Figure 1.

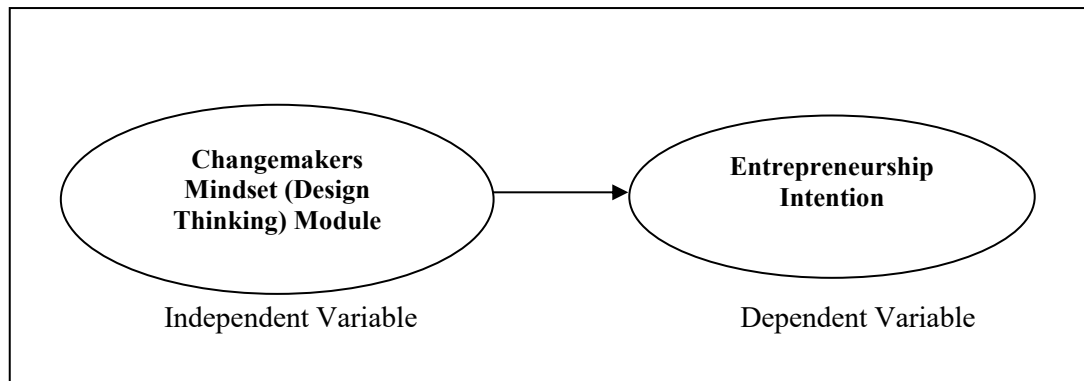


Figure 1: The Conceptual Framework on Assessing the Relationship between the Changemakers Mindset (Design Thinking) Module and the Level of Entrepreneurship Intention.

5. METHODOLOGY

This study employed a questionnaire to collect the data. The survey composed of 22 questions, of which 4 questions are assessing the demographic profiles, 9 questions assessing the entrepreneurship course on a 5-Point Likert-type scale, 9 questions assessing entrepreneurship intention scale on a 5-Point Likert-type scale, and 1 open-ended question. The measures were adapted and adopted based the previous scales (see Table 1). In particular, a sample of 200 respondents was drawn from the population which is the first semester diploma students. A majority of studies preferred sample sizes of 100 to 400 for purposes of testing hypotheses (Berman, 2007). A total of 166 responses were received. It constitutes a response rate of 83 percent (%). The respondents in the study included a composition of male (19.9%) and female (80.1%). More than half of the respondents’ age group was 17 until 20 years (98.2%) whereas rest those was 21 and above (1.8%). Most of the respondents (71.7%) were from Diploma in Public Administration and the rest of them (28.3%) were from Diploma in Corporate Administration.

Table 1 Measurement of the Variable

Variables	Measure	Scale of Measure
Entrepreneurship Course - Changemakers Mindset (Design Thinking) Module	9-items adapted from Ooi, Syuhymee, Hoe, & Norashidah (2014)	5-point Likert scale 1= strongly disagree 2= disagree 3= no opinion 4=agree 5= strongly agree
Entrepreneurship Intention	9-items Entrepreneurial Intention Scale (EIS) (Lans, Gulikers, &	5-point Likert scale 1= strongly disagree 2= disagree

	Batterink, 2010; Lin~a'n & Chen, 2006; Wang, Peng, & Liang, 2014)	3= no opinion 4=agree 5= strongly agree
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Then, we examine the mean level for each item to assess the effectiveness of the module. For the main analysis, since the objective of the study is to examine the relationship between the changemakers mindset (design thinking) module and the level of entrepreneurship intention, a correlation analysis was conducted to establish the relationships among the variables.

6.RESULT

6.1 The Analysis of Entrepreneurship Course - Changemakers Mindset (Design Thinking) Module

Table 2 Descriptive Analysis (Mean)

	M	SD
1) The instructor is experienced and competent course presenter.	3.95	0.79
2) As a result of taking this course, have better understanding about business.	3.97	0.75
3) The instructor did a good job of making this course relevant to the real world.	4.01	0.74
4) The course developed entrepreneurial knowledge and skills.	4.07	0.72
5) The instructor did stimulate interest in entrepreneurship through the course.	3.91	0.74
6) Interest towards entrepreneurship has been raised after taking the course.	4.10	0.75
7) The course provided a new and different experience.	4.04	0.76
8) The course taught to deal with ambiguity in the real world.	3.93	0.74
9) The course provided an opportunity to learn by doing.	4.08	0.77

The respondents were asked to rate the statements that describing the entrepreneurship course - changemakers mindset (design thinking) module based on their level of from 1 to 5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. Based on Table 2, mean for item 1 until 9 were more than 2.5 and all exceed 3.5 which indicated that majority of the respondents were agreeing that the module was at the strong and good level.

6.2 The Analysis of the Relationship between the Changemakers Mindset (Design Thinking) Module and the Level of Entrepreneurship Intention

Table 3 Correlation Analysis

	Entrepreneurship Intention
Entrepreneurship Course - Changemakers Mindset (Design Thinking) Module	0.304***

Note. N=170; ***Correlations are significant at the 0.01 level (three-tailed)

Correlation analysis is conducted to establish the relationships among the variables. Based on Table 3, there was a significant and positive correlations between the changemakers mindset (design thinking) module and the level of entrepreneurship intention ($r=0.305$, $p=0.000$). Therefore H1 (the entrepreneurship course (changemakers mindset-design thinking) could help to increase the level of entrepreneurship intention) was accepted.

6.3 The Analysis of the Significant Difference in the Level of Entrepreneurship Intention across Gender

Table 4 Independent Samples Test

	M	SD
Female	3.51	0.59
Male	3.68	0.52
t	1.45	
df	164	
Sig.	0.15	

An independent-samples t-test was conducted to compare the entrepreneurship intention level for male and female group. There was no significant difference in the scores for male ($M=3.68$, $SD=0.52$) and female ($M=3.51$, $SD=0.59$); $t(164) = 1.45$, $p = 0.15$. Specifically, our results suggest that entrepreneurship intention was found to have no significant difference across gender. Therefore, H2 (there is a significant difference in the level of entrepreneurship intention across gender) was rejected.

7.DISCUSSION

The results of this study first revealed that the level of entrepreneurship course - changemakers mindset (design thinking) module was at strong and good level. Second, there was a significant and positive correlation between the changemakers mindset (design thinking) module and the level of entrepreneurship intention which also consistent with the previous studies (e.g., Azmi, Yusof, Salleh, Salleh, & Omar, 2016; Rasli, Khan, Malekifar, & Jabeen, 2013). Finally, in contrast to BarNir, Watson, and Hutchins' (2011) and Hu and Ye' (2017) studies, the entrepreneurship intention was found to have no significant difference across gender. As a result, we can conclude that the university entrepreneurship educational course and environment are very important (Tawil, Hassan, Ramlee, & K-Batcha, 2015) and gender differences do not affect the level of entrepreneurship intention. In addition, based on the instructors' experience in handling the module, some difficulties have been identified. These include inadequate learning facilities, lack of manpower since there are only two instructors to handle about 500 students, no document or learning material to assist the instructors, and the instructors do not receive enough training.

As for the implications, the universities should continuously emphasize improvement in the governance of entrepreneurship education such as 1) providing training to students, 2) arranging conferences, seminars and workshops on entrepreneurship, 3) implementing entrepreneurship day/week, 4) inviting guest lecture/speaker, 5) creating linkage with the

industry, 6) motivating student to become an entrepreneur, 7) providing funding and credit assistance, 8) creating mentor-mentee program, 9) providing enough facilities to both students and instructors, 10) providing comprehensive training to the instructor, 11) creating structures for sharing knowledge with industry, 12) developing new and innovative approaches to teaching entrepreneurship, and other efforts. In addition to the universities roles, there are other factors that could help the effort in supporting the entrepreneurship among students which covers supportive government policy, availability of logistic infrastructure, financial support, corporate physical assets, R&D laboratories, and others.

8. CONCLUSION

This study aims to examine the relationship between the changemakers mindset (design thinking) module and the level of entrepreneurship intention. Investigating and proving the relationship inspires the higher education institution to inculcate and to implement more educational programs as it could support one of the program's learning outcomes which is to inculcate the element of managerial and entrepreneurial skills. As previously discussed, this study also offers new contribution for the current academic literature as well as to the UiTM itself since this was the first survey conducted to investigate the influence of the changemakers mindset (design thinking) module towards students' entrepreneurship intention. Although the findings are interesting, there are some limitations need to be addressed. First, sample was limited to the first semester Diploma in Corporate Administration and Public Administration students at the Faculty of Administrative Science and Policy Studies, UiTM Seremban 3 Campus. Future research needs to enlarge the scope of study. Then, employing a self-administered survey and cross-sectional study could have limited our knowledge on causality effect. Further investigation using mixed method study, multilevel study or longitudinal research would address these issues. Finally, future studies may also improve the proposed model by adding further variables that could more comprehensively explain the relationship between the entrepreneurship education module and the level of entrepreneurship intention. By doing this, the power of the model could be increased.

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