# Self-Entrepreneurial Competencies and Entrepreneurial Mindset Among University Students

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#### **ABSTRACT**

Entrepreneurship has been widely being practice especially amongst young people. They penetrating into business environment through start-up or small business. One of the factors that influence their intention to choose a career in entrepreneurship or business is due to the scarcity of jobs vacancy. The employment are not guaranteed upon graduating. This has been an issue since 30% of local public university graduates remained unemployed for 6 months (New Economic Model, 2008). Due to that, Ministry of Higher Education (MOHE) urge all public and private higher learning institutions to develop entrepreneurial mindset through entrepreneurship education in the institutions. Rationally, these students can be independent and able to create their own jobs and be self-employed. Hence, this study will explore the level of self-entrepreneurial competencies and entrepreneurial mindset among university students. This research used a quantitative research method to answer the research questions. Data were collected through self-administered questionnaire by using cluster random sampling, for a 150 sample of respondents. Findings indicated that university students partially have high level of entrepreneurial mindset and discovered that the level of each dimensions of self-entrepreneurial competencies was pretty moderate. The findings from the correlation analysis between each dimension of self-entrepreneurial competencies with entrepreneurial mindset also showed that there is a high correlation between those two variables. Followed by the regression analysis, it was found that there is a significant different self-entrepreneurial competency with entrepreneurial mindset, with four predictors of entrepreneurial mindset have been determined through the analysis which are innovative employee, connectedness, evaluation, and entrepreneurial knowledge. The research findings from this study provides elements or reason to be used by the educational stakeholders to plan a program or scheme to support the development of entrepreneurship among students in the higher learning institutions.

Keywords: Entrepreneurship, Entrepreneurial Mindset, Entrepreneurial competencies, Entrepreneurship Education, University students.

# INTRODUCTION

The aim of this study is to investigate the level of self-entrepreneurial competencies and entrepreneurial mindset among students from the higher learning institutions (HLIs). Replicating from the previous research study that aim's to explore the significant predictors of university student's entrepreneurial mindset, however this study will be looking at from different paradigm which focusing more on their level of self-entrepreneurial competencies and entrepreneurial mindset with different setting and population for a variety of the research findings.

# 1.1 BACKGROUND OF STUDY

Entrepreneurship is a term whereby business ideas are turned into profitable business ventures or start-ups. Being an entrepreneur was not just someone who just starts a business or owns it; everybody can be entrepreneurs including corporate employers or employees. Nowadays it attracts the attention of academicians and policy makers to include entrepreneurship educations (EE) as one of the subjects or main course in the colleges or universities (Harsono, 2013). Undoubtedly, entrepreneurship does help students and graduates in generating their own income. Nowadays peoples are aware on the values that entrepreneurship had in which it can promote economic growth of an individuals if fully utilized it. In the Malaysian universities context, there are many public and private universities that offer entrepreneurship education (EE) as elective subjects or main course to be taken by the students, as there are many benefits to be offered for other generations through entrepreneurship, especially for a career development.

Entrepreneur is someone who start-up their own business with their sources of funding with revenues as their focus. To be a successful entrepreneurs, they possesses necessary skills, creativities, innovations, motivations, attitudes and behaviors (Alexander Harsono, 2013). To date, entrepreneur is defined as an individual who, rather than working as an employee, owns and runs a small business, assuming all the risks and rewards of the venture (Scott and Marshall, 2009) .Becoming an entrepreneur was not necessary someone who decide entrepreneurship as the first choice of career's because everybody can be an entrepreneur as long as they have all those skills and knowledge to be an entrepreneurs' (Presentation on Technopreneurship Study Mission – South Korea, 2012). Undoubtedly, entrepreneurs' are created with an entrepreneurial intention and competencies that are essential in entrepreneurship for them to be involve in businesses. In short, an entrepreneur is someone who are able to take risk, accept the challenges in business environment, independent, and has strong will not to be easily discourage when facing difficulties in doing business. In the meanwhile, for entrepreneurship, it is all about creativity, innovation and growth, a way of thinking and acting relevant to all parts of the economy and society as well as the whole surrounding ecosystem (Alexander Harsono, 2013). Alexander Harsono (2013) also stated that entrepreneurship is a process that results in creativity, innovation, and growth. There are four requirements in the process; money, target market analysis, staff, and environment (Presentation on Technopreneurship Study Mission – South Korea ,2012). Growth in entrepreneurship research over the past decades has expanded the scope of entrepreneurial studies and during the last 25 years there has been an explosion of interest in the entrepreneurship field in the United States of America (USA that has led to the institution of courses and degrees at several levels for undergraduate and graduate (Iacobucci D. and Micozzi A., 2012).

The entrepreneurial spirit is not something that needs to be instructed by a trainer or instructor, however, it is something that needs to be developed within yourself. To date, entrepreneurial is the ability or skills to make money through opportunities and risk taken in order to start a new business. Similarly, a process of business creation and development shows the entrepreneurial values that entitled someone as an entrepreneur. In an article wrote by Matt Erchlichman titled '5 Characteristics of Entrepreneurial Spirit', one of the distinct characteristics of entrepreneurial spirit to be a successful entrepreneurs' is being optimistics to all possibilities. The ups and downs in start-up needs to be handled by someone who are optimistics more than ever. This will determine the sustainability of a business and its success in the future. In the previous research by Osemeke M. (2012), he wrote that someone who wishes to start or expand a business is the focus of an entrepreneurial development.

The objectives of entrepreneurship education (EE) is to nurture graduates who are able to be self-employed or intelligent workers. Indirectly, it does relate to nature of entrepreneurship which is to equip students or graduates to be self-employed in regards to the

current economic situations. Due to that reasons, government mandated higher education to nurture their students with entrepreneurial skills in order for them to be competence in entrepreneurship. There is no single definition to state or explain entrepreneurship education (Cheng and Chan, 2011). Entrepreneurship education (hereafter termed as (EE) is different from the normal business management programs as it requires a different teaching pedagogy and different sets of education objectives (Kirby, 2002; Cheng and Chan, 2004). If the objective of EE is to provide entrepreneurial knowledge, then one attains it though attending workshops, classes, lectures and seminars. However, if the objectives are to equip students with entrepreneurial skills which are directly applicable to the businesses, then the program is practical through relevant entrepreneurial training processes and doing it themselves or via business simulations and roles execution (Cheng and Chan, 2004).

Competencies can determine the output of performances on certain things. Selfentrepreneurial competencies instill in students will influence their behavior and intentions toward entrepreneurship. The objective of Ministry of Higher Education (MOHE) for graduates to create jobs through entrepreneurship can be achieved when our graduates are equipped with entrepreneurial skills for their future career development. Then, a mindset of being an entrepreneur is a must for every student to create a society of young entrepreneurs among our students in higher education can be happening. There are lots of research study regarding entrepreneurship education (EE) and entrepreneurial intentions especially on students; theoretically and practically explained. According to the Malaysian Education Blueprint for Higher Education (2015-2025), to ensure a reformation in the education system, ten shift of factors that will influence the reformation system are introduced to produce a multi-talented graduates in the future. Due to that, entrepreneurship education has been widely being introduced in each level of education. In the tertiary level of education especially in higher learning institutions level, the objective of exposing them with entrepreneurship was to develop an entrepreneurial mindset among them. Indirectly, having an entrepreneurial mindset will equip students or graduates to be self-employed in the future. Moreover, the objective by the Ministry of Higher Learning Education (MOHE) for the students to create jobs through entrepreneurship can be achieved.

Entrepreneurial mindset or intention are derived from our experience in entrepreneurship. In order for us to understand what entrepreneurial mindset is, both of the terms must be defined separately. Entrepreneurial mindset simply defined as the feelings and the belief in a particular ability to think out of the box (Lackéus, 2016; 2013). Nowadays, students thought on entrepreneurship are quite overwhelming. Some of them are even starting a small business and had those entrepreneurial skills at such a young age. However, not every students or graduate naturally had that entrepreneurial skills, not to mention having an entrepreneurial intention regardless of their family and education background. Other than that, Boyle (2007) and Baron (2012) described entrepreneurial knowledge, innovation and imagination, as three factors which required other elements of creativity and innovation in order to become a successful entrepreneur. Besides that, the entrepreneurial intention is also important that could help them to consider entrepreneurship as one of their line of career development in the future. Having the thoughts to be entrepreneur's does helping them to be self-employed in the future without hoping to get employed in this challenging working environment.

Prior to the previous research that define entrepreneurial mindset in a broader field of entrepreneurship, it specify the meaning of entrepreneurial mindset which is considered a holistic perception of generating novel ideas, evaluating opportunities and risks, or starting and running a business, whereby an individual internally assesses his or her perceptions based on holistic rather than functional attributes among students from the higher learning institutions (HLIs) (Pihie and Arivayagan, 2016). Entrepreneurship mindset does possess different

meaning from different researchers. Others will look at what 'entrepreneurial' is and what 'mindset' is and how mindset correlate with entrepreneurial. As Carol Dweck (2006) states fixed mindset explains how we knew that we own certain abilities or talent, while growth mindset explain how we knew that it can be developed. Due to that, entrepreneurial which can be define as the description of our perceived performance or actions towards entrepreneurship; we do can relate entrepreneurial and mindset as the perception or paradigm that we had towards entrepreneurship which explain or define the interpretation of what is entrepereneurial mindset.

Indirectly, competencies possess by someone in entrepreneurship does influence their mindset in entrepreneurship. It it the matter of strength in form the each competencies had by the individuals that affected the different level of entrepreneurial mindset of an individuals. Thus, this study will investigate student's level of self-entrepreneurial competencies and level of entrepreneurial mindset as well as the significant of self-entrepreneurial competencies towards entrepreneurial mindset.

# PROBLEM STATEMENTS

Undoubtedly, the employment rates among graduates alarming peoples concern (Hanapi and Nordin, 2014) as the unemployment rate have reached to 10.7% in 2015 (D.H. Mohd Ibrahim, and M.Z Mahyuddin,2016). Each year the number of graduates graduating from various colleges and universities are growing big. It was such an issue as they need to compete with each other in order to get employed as the vacancies provided by the industries cannot accommodate the number of graduates produced. According to D.H. Mohd Ibrahim and M.Z Mahyuddin (2016), most number of unemployed young jobseekers among 273,373 graduates in 2015 are graduates in Bachelor's Degree with unemployment rates at 27.9%; the highest records amongst graduates of all qualifications. As time goes by, these values are decreasing. However, although the unemployment rate have been decreasing, the number of unemployed graduates are increased (Department of Statistics, Malaysia, 2011). Due to that concern, graduates was urged to create jobs through entrepreneurship education which has been introduced in the higher learning institutions (Annual Report of Malaysian Education Blueprint 2013-2025, 2014).

Entrepreneurship is one of the alternative to solve the unemployment issue amongst graduates. Because of that reason, by involving in a business by becoming an entrepreneur's means they need to equip themselves with a proper knowledge and skills in business start-up. This statement can be supported through a study by Solesvik et. al (2013) which indicated the benefits of entrepreneurship education for an outcome such as entrepreneurial mindset, competency to start a new firm, and/or involve in entrepreneurial activities from different aspects. However, failure in business among young people nowadays are due to lack of knowledge and appropriates skills for their start-up. Owing to that statement, to ensure a success in business start-up, one's must be familiar with entrepreneurial competencies, as mentioned in a study by Mitchelmore and Rowley (2010), entrepreneurial competencies are known as a specific group that are relevant to a successful entrepreneurship. Therefore, with adequate entrepreneurial knowledge and appropriate entrepreneurial competencies, it is one of the success factors for a person to involve in entrepreneurship. Thus, knowledge in entrepreneurship education is important for students to overcome this unemployment issue in the future. Supported from a study by Carland and Carland (2004), entrepreneurship education has a big influence towards economic growth that provides evidence on the rising awareness on the importance of entrepreneurship as a career choice. The issue's of unemployment amongst graduates had prompted past researcher to find the alternatives that can minimizing the unemployment issue through entrepreneurship leverage students', competencies, as well as their entrepreneurial mindset (Pihie and Arivayagan, 2016).

However, to produce graduates with entrepreneurial skills are quite impossible as the readiness of graduates towards entrepreneurship and self-employed are being questioned. As stated in a previous study done by Norasmah et al. (2012), it was mentioned that only a few of graduates, specifically Bumiputera graduates' are willing to be an entrepreneur although entrepreneurship education has been implemented in the higher learning institutions (HLIs) for quite some time. Although entrepreneurship has been introduced at public and non-public higher learning institutions, the entrepreneurial intention among students is still low. It can be seen through a statistic from a tracer study of Malaysian graduates in 2010 which showed that only 1.22% graduates are self-employed (source: Kementerian Pengajian Tinggi Malaysia (2006), "Statistik IPTA dan IPTS"). The statistic shown are very alarming. Looking at the situation, Mohd Fauzi et al. (2007), the implementation of entrepreneurship education have failed to nurture entrepreneurial values among students.

Other than that, few elements relating to the entrepreneurial skills also made contributions for the issue. He or she seems might lack adequate skills or competencies that is needed in order to be successful entrepreneurs. As described by Mitchelmore and Rowley (2010) in their study, entrepreneurial competencies is important to business growth and success and well understanding of its concept can produce a practical consequence for practice in entrepreneurship. Thus, this paper will investigate more on the empirical study on self-entrepreneurial competencies and entrepreneurial mindset among university students.

# LITERATURE REVIEW

Lots of previous study focuses on the field of entrepreneurship and for this reason, their studies will be used as references for this research on entrepreneurial competencies and entrepreneurial mindset among students at university level. In addition, theoretical framework related to the topic of this research and conceptual framework constructed by the researcher will be the base of this study as well as act as the guidelines for the researcher while conducting the study.

# 2.2 REVIEW OF LITERATURE

# 2.2.1 ENTREPRENEURIAL COMPETENCIES

Competence is defined as the level of ability or skills to perform something well. The way we act or intention towards achieving something and our level of motivation to get it done does give an impact on the level of competencies. From the perspective of entrepreneurship, competencies is shown when we are able to understand the concept of entrepreneurship and able to transfer the knowledge in entrepreneurship through the skills and ability to act like an entrepreneurs. Noted that entrepreneurial skills was an important element in starting a new business. Moreover, entrepreneurial competencies is the individual's capability to involve in the creation and development of a business venture. Referring to past research by Inyang and Enuoh (2009), they described self-entrepreneurial competencies as "cluster of associated knowledge, attitudes, and skills which an entrepreneur must obtain through managerial training and development that will enable students to produce outstanding performance and maximize profit". In the meanwhile, a study by Pihie and Arivayagan (2016) categorized self-entrepreneurial competencies into thirteen competencies as stated below:-

- 1. Scanning
- 2. Connectedness
- 3. Evaluation

- 4. Risk Perception
- 5. Risk Propensity
- 6. Core Self-evaluation
- 7. Entrepreneurial knowledge
- 8. Creativity
- 9. Financial Literacy
- 10. Managing Ambiguity
- 11. Marshalling of Resources
- 12. Planning
- 13. Innovative Employee

Rationally, entrepreneurial competencies is important for sustainability and business growth. It becomes the determinant that ensure the success of businesses. Identifying the core elements of entrepreneurial competencies will improve the quality management of entrepreneurship from the economical aspect as it can be further developed by both organization and higher learning institutions (Roblesa, L., & Zárraga-Rodrígueza, M. 2015). There are various entrepreneurial competencies which has been developed that are essential to achieve the effectiveness in entrepreneurship. The developed competencies can be a helpful reference to develop the ability in society involvement, life management, and career for a business start-up.

#### 2.2.2 ENTREPRENEURIAL MINDSET

The most important elements to take into account when venturing into business is to have a business-mentality. In such a way by having that mentality, it shows our readiness in challenging ourselves to take the risk in the creation and development of economic. Similarly, a business mindset also enables someone to express their way of thinking through attitudes or opinions over something. From the entrepreneurship paradigm, believing in own abilities to bear the odds in venturing into start-up will guide and favors individuals in developing the knowledge in entrepreneurship to be an entrepreneurs'. In other words, entrepreneurial mindset can be shown through the skills and abilities to create and develop small business or start-up for an economic growth despite all the risks that will come ahead in the future.

In a study by Lackeus (2016), he conceptualizes entrepreneurial mindset as the ability to think out of the box through the feelings and the belief of particular ability. Entrepreneurial mindset is important to any individuals, organizations or firms for a growth in different aspects. Relating to this research study, the rationality of having students as participants is that they need to be equipped with entrepreneurship knowledge and experience for the future growth. Consequently, it attracts employers' attention as these students are already equipped with entrepreneurial mindset which shows that they are responsible and committed for their actions as well as a risk taker. This can be supported by a research study from Pihie and Arivayagan (2016) that defines entrepreneurial mindset a holistic perception of generating novel ideas, evaluating opportunities and risks, or starting and running a business, whereby an individual internally assesses his or her perceptions based on holistic rather than functional attributes. Entrepreneurs who possess a growth mindset will have a greater understanding of reality and are able to face the challenges and long routes to achieve success.

# 2.2.3 RELATIONSHIP BETWEEN SELF-ENTREPRENEURIAL COMPETENCIES AND ENTREPRENEURIAL MINDSET

Nowadays, entrepreneurship education are widely introduced at every level of education in our education system. In addition, the main purpose of entrepreneurship education is to expose students with entrepreneurship experience and also to equip them with entrepreneurial competencies. However, teaching and learning for entrepreneurship education differ according to level of education. This is because to ensure the delivery of entrepreneurial knowledge for each student can be carried out effectively.

Self-entrepreneurial competencies is important for each students to have in order for them to venture into small business start-up. Entrepreneurial competencies in terms of knowledge, attitudes, and skills can be obtain through training in different medium; formal education and non-formal education. In the meanwhile, entrepreneurial mindset is where the feelings and belief of owns ability to think out of the box can influence individuals' performance and their actions in facing the challenging world of business. In addition, the integration of entrepreneurial mindset with self-entrepreneurial competencies would enhance students' experience to discover a variety of better opportunities in entrepreneurship. Agreed by a research done by von Graebenitz, et al, 2010, on the importance of self-entrepreneurial competencies (Creativity, Risk Perception, Risk Propensity, Evaluation and Managing Ambiguity) and entrepreneurial mindset for students as it has a positive impact by simplifying the process of knowledge transfer to new information that can stimulate students' entrepreneurial mindset to discover better chances in the future.

There was few past research that showed their focus of study that are related to this study which is on self-entrepreneurial competencies with entrepreneurial mindset. Some of the research narrowing their focus of study to the factors that describes entrepreneurial competencies influences on the operations of an organizations. A research in the entrepreneurial competencies indicates that the distinct reason that effect someone entrepreneurial behavior is both entrepreneurial and managerial competencies, which are important to get a hold of these strong elements that determines the growth of the business as well as to support a continuous improvement of business growth (Mitchelmore and Rowley, 2010). As times goes by, entrepreneurship has been widely used and attracts attention of researchers to do their research and explore more on this field. They also target the outcomes of the research in entrepreneurship in the educational settings especially in the higher educational institutions. Rationally, they knew once these students graduating from their respective courses, the probability of getting hired upon graduating are low. Thus, they saw the opportunities of entrepreneurship through entrepreneurship education that will influence students' entrepreneurial mindset and competencies which affected their focus of research study. Prior research done by Solesvik, et al., (2013) has highlighted several entrepreneurial competencies interaction with entrepreneurship-specific education (EFE) that affected the intensity of entrepreneurial mindset of the subjects in the research.

# **METHODOLOGY**

# 3.1 INTRODUCTION

The aim of this research is to get an empirical data on the self-entrepreneurial competencies and entrepreneurial mindset among university students. It is crucial to choose the relevant research method in doing this research to ensure the smoothness throughout the research study. The best research method ensures the best outcome for the results. From this research methodology section, the process of conducting the research will be carefully explained by the researcher.

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#### 3.2 RESEARCH DESIGN

The research design is important as it determines how the data collection will be conducted by the researcher. Research design are important as it determine how the data collection will be conducted by the researcher. Other than that, in order to do the data collections or information, the procedures are necessary to obtain the needed information to construct and solve the research problems. In the meanwhile, according to an article titled, 'What is Research Design?, www.nyu.edu, viewed 25 November 2015, the function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible. Also from the article's, there are two types or research stated which was descriptive research and explanatory research. Descriptive research encompasses much government sponsored research including the population census, the collection of a wide range of social indicators and economic information such as household expenditure patterns, time use studies, employment and crime statistics and the like. While for explanatory research it focuses on why questions; for example, it is one thing to describe the crime rate in a country, to examine trends over time or to compare the rates in different countries.

In short, the research design for this study is a correlational research design as it focuses on the relationship between self-entrepreneurial competencies and entrepreneurial mindset among university students. Moreover, this study will be adopting a quantitative research method as a researcher will quantify the data from the sample of the targeted population.

# 3.3 SAMPLING DESIGN

This section explains the sampling design of the study to provide a clear picture on the methods used to conduct the research; the targeted populations for the study, sampling technique used for study as well as the approach used in distributing the instrument of the study to the respondents.

#### 3.3.1 TARGET POPULATION

The target population is also known as the actual population of the area. In a book called" *How to Design and Evaluate Research in Education*" written by Fraenkel et al, the actual population that almost all researchers used to generalize is rarely available and the author also mentioned the population which researcher able to generalize is called as accessible population. Due to that, authors also suggested to define the population of interest in detail by narrowing it. The detailed definition of the population of interest are as stated below:-

- **Research problem to be investigated:** Level of self-entrepreneurial competencies and entrepreneurial mindset among university students.
- Target population: All undergraduate students in one public university in Malaysia.
- Accessible population: All undergraduate students in the Faculty of Education from Universiti Teknologi MARA (UiTM), Selangor.

# 3.3.2 SAMPLING TECHNIQUE

For this research study, researcher will use cluster random sampling technique. Cluster random sampling are quite similar to random sampling. However what makes it differ from random sampling is that instead of randomly selected individuals, in this types of sampling technique, groups are randomly selected as a sample. From the populations of undergraduate students from Faculty of Education, there are 8 groups from different phase of study distributed over the population. The researcher then randomly selected 3 groups from different phase of study (Part 3, Part 5, and Part 8) and all students categorized under the selected groups then constitute the sample. 150 sets of questionnaires are

then distributed to those students from the Faculty of Education, Universiti Teknologi MARA(UiTM), Selangor. The process of selecting the samples for the study are illustrated as in Figure 3.1 below.

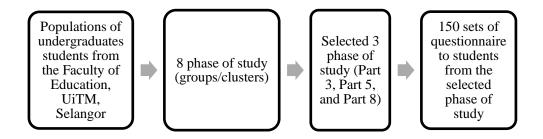


Figure 3.1: Process of selecting sample size for cluster sampling

# 3.4 INSTRUMENTATION

Researcher use a survey-method through questionnaires in which the data are observed or collected directly from first-hand experience or unpublished data. The instrument used, which was the questionnaire (See: Appendix B) are obtained and was adapted from a study by Covin and Slevin (1989), Dohme, P. A. E. (2015) and Pihie and Arivayagan (2016) as the preferred measurement tools to measure the level of self-entrepreneurial competencies and entrepreneurial mindset among university students for this study. Self-administered questionnaire is the approach used by the researcher for this study.

#### 3.4.1 Part 1: Demographic Profile

The items used in Part 1 was adapted from a study by Covin and Slevin (1989). According to their study on 'Measuring Entrepreneurship Orientation', following the original Covin and Slevin (1989) questions, a set of demographic variables was measured. These included age, gender, programme, level of studies (bachelor/master), phase of studies (in academic years), nationality, institute within the university and work experience. However, for the suitability of this study, several variable of the demographic variables was made into changes into 4 variables which are Gender, Age Group, Course/Programme, and Phase of Study.

- Gender
- Age Group
- Course/Programme
- Phase of Study

# 3.4.2 Part 2: Self-Entrepreneurial Competencies and Entrepreneurial Mindset

Whereas for Part 2, the items used in the questionnaire was adapted from a study by Dohme, P. A. E. (2015) and Pihie and Arivayagan (2016). Some of the items used in the original study by the researcher was made into changes to make it related for the questions or items for Self-Entrepreneurial Competencies and Entrepreneurial Mindset variables. The five-point likert scale is used as the measurement scales. The five-point scales are; 1: "Strongly Disagree", 2: "Disagree", 3: "Neutral", 4: "Agree", 5: "Strongly Agree".

The part was divided into items for independent variables dimensions and dependent variable dimensions which are self-entrepreneurial competencies (scanning, connectedness,

evaluation, risk-perception, risk propensity, entrepreneurial knowledge, creativity, financial literacy, managing ambiguity, marshalling of resources, planning, and innovative employee) and entrepreneurial mindset (entrepreneurial mindset and core self-evaluation) respectively.

#### **3.4.2.1 Scanning**

'Scanning' was the first dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of scanning through six items as listed in Table 3.1.

Table 3.1: List of items under the dimension of scanning

Table 3.1. List of the	ms under the dimension of scanning
Dimension	Scanning
Items	1.I have frequent interactions with others
	to acquire new information
	2.I always keep an eye out for new
	business ideas when looking for
	information
	3.I read news, magazines, or trade
	publications regularly to acquire new
	information
	4.I browse the internet everyday
	5.I am an avid information seeker
	6.I am always actively looking for new
	information

#### 3.4.2.2 Connectedness

'Connectedness' was the second dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of connectedness through three items as listed in Table 3.2.

Table 3.2: List of items under the dimension of connectedness

Dimension	Connectedness
Items	1. I see links between seemingly
	unrelated pieces of informationI always keep an eye out for new business ideas
	when looking for information
	2. I am good at " connecting dots"
	3. I often see connections between
	unconnected domains of information

#### 3.4.2.3 Evaluation

'Evaluation' was the third dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of evaluation through four items as listed in Table 3.3.

Table 3.3: *List of items under the dimension of evaluation* 

Dimension	Evaluation
Items	1.I have a gut feeling for potential opportunities
	2.I can distinguish between profitable opportunities and not-so-profitable opportunities
	3.I have a knack for telling high - value opportunities apart from low-value opportunities
	4. When facing multiple opportunities, I am able to select the good ones

# 3.4.2.4 Risk Perception

'Risk Perception' was the fourth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of risk perception through three items as listed in Table 3.4.

Table 3.4: List of items under the dimension of risk perception

Dimension	Risk Perception
Items	1 Starting a new business is very risky
	2. I see the possibility of starting a
	business as a potential loss
	3. The probability of a new venture doing
	poorly is very high.

# 3.4.2.5 Risk Propensity

'Risk Propensity' was the fifth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of risk propensity through three items as listed in Table 3.5.

Table 3.5: List of items under the dimension of risk propensity

Dimension	Risk Propensity
Items	1 I see the possibility of starting a
	business as a potential opportunity to
	pursue
	2.If I do not start my own business, I may
	be missing a great opportunity
	3.In overall, I would label the option of
	starting a business as something positive

# 3.4.2.6 Entrepreneurial Knowledge

'Entrepreneurial Knowledge' was the sixth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of entrepreneurial knowledge through three items as listed in Table 3.6.

Table 3.6: List of items under the dimension of entrepreneurial knowledge

Dimension	Entrepreneurial Knowledge
Items	1 I understand the role of entrepreneurs in
	our society
	2.I understand that there are several
	reasons for one to start business
	3.Understand that some ideas catch on,
	and others do not

# **3.4.2.7** Creativity

'Creativity' was the seventh dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of creativity through three items as listed in Table 3.7.

Table 3.7: List of items under the dimension of creativity

Dimension	Creativity
Items	1 I can think of new ideas
	2. I can think of new or innovative
	solutions
	3. I can think of a new approach

# 3.4.2.8 Financial Literacy

'Financial Literacy' was the eight dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of financial literacy through three items as listed in Table 3.8.

Table 3.8: List of items under the dimension of financial literacy

Dimension	Financial Literacy
Items	1 I can read and understand financial
	documents
	2.I can draw up a financial plan for a new
	one project
	3.I can manage project expenses

# 3.4.2.9 Managing Ambiguity

'Managing Ambiguity' was the nineth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of managing ambiguity through three items as listed in Table 3.9.

Table 3.9: List of items under the dimension of managing ambiguity

Dimension	Managing Ambiguity
Items	1 I can deal with unexpected changes and surprises 2. I can work under stress and pressureI can draw up a financial plan for a new one project 3. I can continue working even if problem
	arise

# 3.4.2.10 Marshalling of Resources

'Marshalling of Resources' was the tenth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of marshalling of resources through three items as listed in Table 3.10.

Table 3.10: List of items under the dimension of marshalling of resources

Dimension	Marshalling of Resources
Items	1 I can enter into long-term partnerships to
	achieve goals
	2.I can network (get acquainted and
	exchange information with others)
	3. I can make new contacts

# **3.4.2.10** Planning

'Planning' was the eleventh dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of planning through three items as listed in Table 3.11.

Table 3.11: List of items under the dimension of planning

Planning
1 I can design a project plan
2.I can determine project goals
3.I can plan tasks in a project
3.1 can plan tasks in a project

# 3.4.2.12 Innovative Employee

'Innovative Employee' was the twelfth dimension of self-entrepreneurial competencies under Part 2. This dimension asked students competency from the aspect of innovative employee through three items as listed in Table 3.12.

Table 3.12: List of items under the dimension of innovative employee

Dimension	Innovative Employee
Items	1 I would like to have profession later on
	where I can solve problems in my own
	way
	2. I would like to have profession later on
	where I can work on my own ideas3.I can
	plan tasks in a project
	3.I would like to have profession later on
	where I can decide what I do

# **3.4.2.13** Entrepreneurial Mindset

'Entrepreneurial Mindset' was the first dimension of entrepreneurial mindset under Part 2. This dimension asked students from the aspect of entrepreneurial mindset through three items as listed in Table 3.13.

Table 3.13: List of items under the dimension of entrepreneurial mindset

Dimension	Entrepreneurial Mindset	
Items	1.I am often the first to come up with a	
	solution for a problem	
	2.I keep trying until I have found the	
	solution to a problem	
	3. I see opportunities where others see	
	problemsI can plan tasks in a project	

# 3.4.2.14 Core Self-Evaluation

'Core Self-Evaluation' was the second dimension of entrepreneurial mindset under Part 2. This dimension asked students from the aspect of core self-evaluation through six items as listed in Table 3.14.

Table 3.14: List of items under the dimension of core self-evaluation

Dimension	Core Self-Evaluation
Items	1. I'm sure I'm going to make it in life
	2. If I try something, it usually works
	3. I perform tasks successfully
	4. In general, I am satisfied with myself
	5. I feel that I have a grip on my life
	6. I can solve most of my problems
	myself

# 3.4.3 RELIABILITY AND VALIDITY OF THE INSTRUMENT

This section is where the reliability and validity of the instrument used was tested to see whether it can be proceed for further process. Pilot testing was important to conduct by the researcher to test the reliability of the questionnaires before conducting the real one. However, by conducting pilot test it would not guarantee a success in the main study; yet it does increase the probability of success. Thus, it is a must for every researcher to conduct this test in order to ensure the success of the whole research. To date, pilot testing was done for this research study and through the whole process in the test, it was found out that the questionnaire use for this research study is reliable to be used for the whole research process. Two test have been done in the preliminary analysis which are reliability test and validity test.

#### 3.4.3.1 RELIABILITY ANALYSIS

Reliability analysis is important for every researcher to conduct the test in order to prevent the research from any errors through the instrument used in the study. A good measurement in the questionnaires must not contain any errors. However, if there are any errors in it, the analysis results for the data will not be perfect. It was done in the pilot testing process which was conducted to 30 respondents to test the reliability of each item in the questionnaire to ensure the research study are prevented from any errors and to ensure the questionnaire are reliable when conducting the research. It was calculated using a software called IBM SPSS Statistics version 20.

Table 3.15: Reliability Statistics

Cronbach's	Cronbach's	N of Items
Alpha	Alpha Based	
	on	
	Standardized	
	Items	
.930	.933	49

Table 3.16: Value of correlation coefficient

<b>Correlation Coefficients ®</b>	Strength of Relationship	
< 0.20	None	
0.21-0.35	Weak positive	
	Moderate positive	
0.36-0.60	Very strong positive	
0.61-0.80	Perfect positive	
	· · · · · · · · · · · · · · · · · · ·	

Source: Hair et al.(2006)

According to Table 3.15, the value of Cronbach's Alpha among the items is 0.930 for 49 items in the construct of Self-Entrepreneurial Competencies and Entrepreneurial Mindset. Referring to Table 3.16 of the indicator table for the value of correlation coefficient, as the value for cronbach's alpha is 0.933, the overall internal consistency value is perfect positive.

#### 3.4.3.2 VALIDITY ANALYSIS

Validity are used to determine the genuineness of the data tested through the given questionnaires. It was important for the collected data to be valid in order to get the best accurate and interpreted data. The instrument used in this study have been validated by the supervisor and other lecturer to examine and determine the validity of the questionnaire. Several comments have been made by to show how the questionnaire can be used for the further progress. Firstly, all the items used in the questionnaire are relevant to be used. Secondly, 5-point likert scale is suitable for data analysis. Thirdly, not to label dimensions in the questionnaire to avoid bias answer from the students while answering the questionnaire. Through validity, there will be two part which was external and internal validity. Each type of validity holds different meaning yet with the same concept.

# 3.5 DATA COLLECTION PROCEDURE

After the reliability and validity test was conducted towards the instrument used, the researcher administered another 150 sample using cluster random sampling. The researcher received assisstence from the lecturer from Faculty of Education, UiTM, Selangor, while conducting the study. The data collection process lasted for two weeks and the collected data has been key in into IBM SPSS software to be analyzed. The data collection procedure was illustrated as in Figure 3.2.

Researcher develop research objectives and formulated research questions based on the research objectives.

Researcher makes adjustment on the questionnaire's used which was adapted from the previous to suit with the current study.

Researcher validated the questionnaires by giving the instrument (questionnaire) to the experts to check and judge on the suitability of the instrument used with the research topic.

Researcher make corrections on the questionnaire

Researcher administered to 30 questionnaires for pilot testing and conducted reliability test right after the getting the pilot testing data

Researcher run reliability test to get the overall internal consistency value of the instrument used for the research study

Researcher distributed the rest of 150 set of questionnaires to the respondents

Researcher collected the answered questionnaires after two weeks

Researcher started to analyze the data

Figure 3.2: Data Collection Procedure

# 3.6 DATA ANALYSIS

Once the data has been collected, the data must be analysed by the researcher to achieve an accurate data for the best research results by answering its research objectives and research questions. Then, to interpret the data, the researcher will be using both descriptive analysis and inferential analysis.

# 3.6.1 DESCRIPTIVE STATISTICAL ANALYSIS

Descriptive statistics are used to present an amount of quantitative data into a simple summary. It includes the calculation of mean and standard description, and the presentation of graphs, charts, and tables. For this study, the researcher will use descriptive analysis to calculate and interpret the data for demographic data and research question 1 until research question 14 as shown in Table 3.17.

Table 3.17: Summary of Descriptive Statistical Data Analysis

Items	Types of Analysis
RQ1: What is the level of entrepreneurial mindset among UiTM students? RQ2: What is the level of core self-evaluation among UiTM students? RQ3: What is the level of scanning competency among UiTM students? RQ4: What is the level of connectedness competency among UiTM students? RQ5: What is the level of evaluation competency among UiTM students? RQ6: What is the level of risk perception competency among UiTM students? RQ7: What is the level of risk propensity competency among UiTM students? RQ8: What is the level of risk propensity competency among UiTM students? RQ8: What is the level of entrepreneurial knowledge competency among UiTM students? RQ9: What is the level of creativity competency among UiTM students? RQ10: What is the level of financial literacy competency among UiTM students? RQ11: What is the level of managing ambiguity competency among UiTM students? RQ11: What is the level of marshalling of resources competency among UiTM students?	Descriptive: Mean and Standard Deviation

<b>RQ</b> <sub>13</sub> : What is the level of planning competency among UiTM students?	<b>Descriptive</b> : Mean and Standard
RQ14: What is the level of innovative	Deviation
employee competency among UiTM	
students?	

# 3.6.2 INFERENTIAL STATISTICAL ANALYSIS

Inferential statistics comprises the use of statistics to make inferences concerning some unknown aspect of a population from a sample. Commonly used inferential statistical analysis techniques are t-test, analysis of variance, correlation, and multiple regression. For this study, Pearson's correlation test and multiple regression tests were also used to interpret the data to determine the significance difference and relationship. The summary of the data analysis was shown in Table 3.18.

Table 3.18: Summary of Inferential Statistical Data Analysis

Items	Types of Analysis
RQ15: What is the relationship between dimensions of self-entrepreneurial competencies with entrepreneurial mindset of UiTM students?  RQ16: Is there any relationship between self-entrepreneurial competencies with entrepreneurial mindset of UiTM students?	Pearson's correlation : Pearson product moment correlation coefficient value (r-value)
RQ17: What are the predictors' entrepreneurial mindset of UiTM students?	Multiple Regression Test (MRA)  - R <sup>2</sup> -value, Adjusted R <sup>2</sup> -value, and F-value  - y = a + bx <sub>1</sub> + bx <sub>2</sub> + bx <sub>3</sub>

# 3.7 SUMMARY

In this chapter, brief explanation and procedure for conducting this research are explained in this chapter. It was all about the data collection method through the first stage of research such as the research design, the sampling design, instrument used, reliability and validity analysis of the instrument, data collection procedure and the data analysis for the research questions.

# **EMPIRICAL RESULTS**

In this chapter, the results for the data analysis on the research study will be discussed. The data had been gathered for the past weeks through questionnaires distributing approach to over 150 respondents. The information is gathered through the answered questionnaires given to the selected respondents.

The analysis of the results will be focused on the research objectives and research questions of this research study on self-entrepreneurial competencies and entrepreneurial mindset among UiTM students.

Table 4.1: List of Research Objectives and Research Questions

Research Objectives	Research Questions
1) To determine the level of entrepreneurial mindset (entrepreneurial mindset and core self-evaluation) among UiTM students.	<ol> <li>What is the level of entrepreneurial mindset among UiTM students?</li> <li>What is the level of core self-evaluation among UiTM students?</li> </ol>

Table 4.1 Continued

# Research Objectives

2) To determine the level of self-entrepreneurial competencies (scanning, connectedness, evaluation, risk perception, risk propensity, entrepreneurial knowledge, creativity, financial literacy, managing ambiguity, marshalling of resources, planning and innovative employee) in developing entrepreneurial mindset among UiTM students.

# **Research Questions**

- 3. What is the level of scanning competency among UiTM students?
- 4. What is the level of connectedness competency among UiTM students?
- 5. What is the level of evaluation competency among UiTM students?
- 6. What is the level of risk perception competency among UiTM students?
- 7. What is the level of risk propensity competency among UiTM students?
- 8. What is the level of entrepreneurial knowledge competency among UiTM students?
- 9. What is the level of creativity competency among UiTM students?
- 10. What is the level of financial literacy competency among UiTM students?
- 11. What is the level of managing ambiguity competency among UiTM students?
- 12. What is the level of marshalling of resources competency among UiTM students?
- 13. What is the level of planning competency among UiTM students?
- 14. What is the level of innovative employee competency among UiTM students?

Table 4.1 Continued

Research Objective	Research Questions
<ul> <li>4) To investigate if there is any relationship between self-entrepreneurial competencies with entrepreneurial mindset of UiTM students.</li> <li>5) To investigate what are the predictors of entrepreneurial mindset of UiTM students.</li> </ul>	dimensions of self-entrepreneurial competencies with entrepreneurial mindset of UiTM students?

# 4.2 DESCRIPTIVE STATISTIC ON DEMOGRAPHIC

Descriptive analysis is done to identify the common features for every respondent for the research study. This analysis will help to shows the common demographic features for the gathered data as well as for the whole results from the distributed questionnaires regarding the research study which was the Self-Entrepreneurial Competencies and Entrepreneurial Mindset.

This section will features respondents demographic profiles which includes their gender, age group, course/programme and phase of the study which will be treated as private and confidential by the researcher. Below is the descriptive analysis in Table 4.1 of all demographic features listed in the questionnaire.

Table 4.2: Demographic Data Analysis

		Frequency	Percentage (%)
Gender	Male	48	32.0
	Female	102	68.0
Total		150	100
Age Group	Below 20 years old	0	0
	21-23 years old	97	64.7
	24-26 years old	53	35.3
	27-29 years old	0	0
	30 years and above	0	0
Total		150	100
Course/	ED241	0	0
Programme	ED242	7	4.7
	ED246	58	38.7
	ED247	3	2.0
	ED248	28	18.7
	ED249	18	12.0
	ED260	36	24.0
Total		150	100
Phase of Study	Part 1	0	0
	Part 2	0	0
	Part 3	50	33.3
	Part 4	0	0
	Part 5	50	33.3
	Part 6	0	0
	Part 7	0	0
	Part 8	50	33.3
		150	100

According to Table 4.2, for all 150 respondents, the number of answered questionnaires based on 4 constructs for demographic profiles are shown. The most answered questionnaires holds 68.0%; for 102 respondents which are female. Whereas 32.0% are for 48 respondents are male. While for the age group data, most answered questionnaires are students from the age ranging from 21-23 years old with the percentage of 64.7% and frequency of 97 students followed by students from the age ranging from 24-26 years old with the percentage of 35.3% and frequency of 53 students. There are 7 courses are offered by the Faculty of Education, Universiti Teknologi MARA (UiTM), Selangor, and all classes are involved in this study. The statistics are as shown in the table above. The statistic data for all classes are starting from ED241 with percentage of 0% and frequency of 0 student, from ED242 with percentage of 4.7 % and frequency of 7 students, from ED246 with percentage of 38.7% and frequency of 58 students, from ED247 with percentage of 2.0% and frequency of 3 students, from ED248 with percentage of 18.7 % and frequency of 28 students, and from ED260 with percentage of 24.0% and 36 students respectively. As for phase of study, due to the sampling technique used which have been explained in Chapter 3, only statistic values for the selected phase of study are shown in the table above. To date, the percentage value for those who are answered the questionnaires from Part 3, Part 5, and Part 8 are 33.3% with the frequency of 50 students respectively.

# 4.3 ANALYSIS OF MAIN FINDINGS

To begin the elaboration on the analysis of the main findings, researcher refers to RO simultaneously with RQ to analyze and quantify the data. The data is analyzed using both descriptive statistical data analysis and inferential statistical data analysis, based on seventeen research questions. For the purpose of data analysis and interpretations, the flow of elaboration of the results' will be guided by the lists of research questions tabulated in Table 4.1 above.

# 4.3.1 RESEARCH QUESTION 1

#### **RQ1:** What is the level of entrepreneurial mindset among UiTM students?

'Entrepreneurial mindset' is the first dimension of dependent variable for this study which are entrepreneurial mindset. This particular dimension was intended to answer the following research question, 'What is the level of entrepreneurial mindset among UiTM students?'. The research finding is illustrated in Table 4.3 below.

Low Level	Moderate Level	High Level
(1.000 - 2.339)	(2.34 – 3.669)	(3.67 - 5.00)

Figure 4.1: Rating Scale

Table 4.3: Mean and Standard Deviation for Entrepreneurial Mindset

	Mean	SD	Level
ENTREPRENEURIAL MINDSET	3.66	.63	Moderate

According to Table 4.3, the mean score, standard deviation and the level of entrepreneurial mindset among university students are presented. While Figure 4.1 shows the rating scale indicator by Gravetter and Wallnau (2009) to guide the researcher in interpretating the level of entrepreneurial mindset among UiTM students. The data shown in the tables below showed that the mean score for Entrepreneurial Mindset for these students is 3.66 while the standard deviation is .63. From the result, it indicated a moderate level of Entrepreneurial Mindset among UiTM students as the mean score falls under the range of high level between 3.67 and 5.00 on the rating scale. This means the development of entrepreneurial mindset among UiTM students are well developed and awareness of the entrepreneurship values in their daily lives.

# 4.3.2 RESEARCH QUESTION 2

# **RQ2:** What is the level of core self-evaluation among UiTM students?

'Core self-evaluation' is the second dimension of dependent variable for this study which are entrepreneurial mindset. This particular dimension was intended to answer the following research question, 'What is the level of core self-evaluation among UiTM students?'. The research finding is illustrated in Table 4.4 below.

Table 4.4: Mean and Standard Deviation for Core Self-Evaluation

	Mean	SD	Level
CORE SELF-	3.79	.61	High
EVALUATION			

Table 4.4, presented the mean score, standard deviation and the level of core self-evaluation among UiTM students are presented. From the table, Core Self-Evaluation among UiTM students are high with the mean score 3.79 and standard deviation of .61. It showed that the self-confident of these students on their ability are high. Other than that, from the results, it indicated that they are able to be independence without depending much on others assisstance.

# 4.3.3 RESEARCH QUESTION 3

# **RQ3:** What is the level of scanning competency among UiTM students?

'Scanning' is the first dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of scanning competency among UiTM students?'. The research finding is illustrated in Table 4.5 below.

Table 4.5: Mean and Standard Deviation for Scanning

	Mean	SD	Level
SCANNING	3.78	.50	High

Table 4.5, presented the mean score, standard deviation and the level of scanning competency among UiTM students are presented. From the table, scanning competency among UiTM students are high with the mean score 3.78 and standard deviation of .50. It shows that they are actively looking for new informations which favors them in terms of finding ideas for projects or other important things related to business start-up. In harmony with the definition of 'scanning', this research result proves that these students awareness on the advantages of entrepreneurship are high.

# 4.3.4 RESEARCH QUESTION 4

#### **RQ4:** What is the level of connectedness competency among UiTM students?

'Connectedness' is the second dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of connectedness competency among UiTM students?'. The research finding is illustrated in Table 4.6 below.

Table 4.6: Mean and Standard Deviation for Connectedness

	Mean	SD	Level
CONNECTEDNESS	3.38	.54	Moderate

Table 4.6, presented the mean score, standard deviation and the level of connectedness competency among UiTM students are presented. From the table, connectedness competency among UiTM students are moderate with the mean score 3.38 and standard deviation of .54. It shows that their ability in applying what have been learned by them into practice are moderate. This might be due to different academic background factor which influence their performance on entrepreneurship related activities.

# 4.3.5 RESEARCH QUESTION 5

# **RQ5:** What is the level of evaluation competency among UiTM students?

'Evaluation' is the third dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of evaluation competency among UiTM students?'. The research finding is illustrated in Table 4.7 below.

Table 4.7: Mean and Standard Deviation for Evaluation

	Mean	SD	Level
EVALUATION	3.58	.56	Moderate

Table 4.7, presented the mean score, standard deviation and the level of evaluation competency among UiTM students are presented. From the table, evaluation competency among UiTM students are moderate with the mean score 3.58 and standard deviation of .56.

# 4.3.6 RESEARCH QUESTION 6

# **RQ6:** What is the level of risk perception competency among UiTM students?

'Risk perception' is the fourth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of risk perception competency among UiTM students?'. The research finding is illustrated in Table 4.8 below.

Table 4.8: Mean and Standard Deviation for Risk perception

	Mean	SD	Level
RISK PERCEPTION	3.41	.76	Moderate

Table 4.8, presented the mean score, standard deviation and the level of risk perception competency among UiTM students are presented. From the table, risk perception competency among UiTM students are moderate with the mean score 3.41 and standard deviation of .76.

# 4.3.7 RESEARCH QUESTION 7

# RQ7: What is the level of risk propensity competency among UiTM students?

'Risk propensity' is the fifth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of risk propensity competency among UiTM students?'. The research finding is illustrated in Table 4.9 below.

Table 4.9: Mean and Standard Deviation for Risk propensity

	Mean	SD	Level
RISK PROPENSITY	3.86	.57	High

Table 4.9, presented the mean score, standard deviation and the level of risk propensity competency among UiTM students are presented. From the table, risk propensity competency among UiTM students are high with the mean score 3.86 and standard deviation of .57.

# 4.3.8 RESEARCH QUESTION 8

**RQ8:** What is the level of entrepreneurial knowledge competency among UiTM students? 'Entrepreneurial knowledge' is the sixth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of entrepreneurial knowledge competency among UiTM students?'. The research finding is illustrated in Table 4.10 below.

Table 4.10: Mean and Standard Deviation for Entrepreneurial knowledge

	Mean	SD	Level
ENTREPRENEURIAL	3.99	.56	High
KNOWLEDGE			

Table 4.10, presented the mean score, standard deviation and the level entrepreneurial knowledge competency among UiTM students are presented. From the table, entrepreneurial knowledge competency among UiTM students are high with the mean score 3.99 and standard deviation of .56.

# 4.3.9 RESEARCH QUESTION 9

# **RQ9:** What is the level of creativity competency among UiTM students?

'Creativity is the seventh dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of creativity competency among UiTM students?'. The research finding is illustrated in Table 4.11 below.

Table 4.11: Mean and Standard Deviation for Creativity

	Mean	SD	Level
CREATIVITY	3.68	.74	High

Table 4.11, presented the mean score, standard deviation and the level of creativity competency among UiTM students are presented. From the table, creativity competency among UiTM students are high with the mean score 3.68 and standard deviation of .74.

# 4.3.10 RESEARCH QUESTION 10

# RQ<sub>10</sub>: What is the level of financial literacy competency among UiTM students?

'Financial literacy' is the eighth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of financial literacy competency among UiTM students?'. The research finding is illustrated in Table 4.12 below.

Table 4.12: Mean and Standard Deviation for Financial literacy

	Mean	SD	Level
FINANCIAL LITERACY	3.18	.80	Moderate

Table 4.12, presented the mean score, standard deviation and the level of financial literacy competency among UiTM students are presented. From the table, financial literacy competency among UiTM students are moderate with the mean score 3.18 and standard deviation of .80.

# 4.3.11 RESEARCH QUESTION 11

# RQ11: What is the level of managing ambiguity competency among UiTM students?

'Managing ambiguity' is the nineth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of managing ambiguity competency among UiTM students?'. The research finding is illustrated in Table 4.13 below.

Table 4.13: Mean and Standard Deviation for Managing ambiguity

	Mean	SD	Level
MANAGING	3.53	.77	Moderate
AMBIGUITY			

Table 4.13, presented the mean score, standard deviation and the level of managing ambiguity competency among UiTM students are presented. From the table, managing ambiguity competency among UiTM students are moderate with the mean score 3.53 and standard deviation of .77.

# 4.3.12 RESEARCH QUESTION 12

# RQ12: What is the level of marshalling of resources competency among UiTM students?

'Marshalling of resources' is the tenth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of marshalling of resources competency among UiTM students?'. The research finding is illustrated in Table 4.14 below.

Table 4.14: Mean and Standard Deviation for Marshalling of resources

	Mean	SD	Level
MARSHALLING OF	3.65	.64	Moderate
RESOURCES			

Table 4.14, presented the mean score, standard deviation and the level of marshalling of resources competency among UiTM students are presented. From the table, marshalling of resources competency among UiTM students are moderate with the mean score 3.65 and standard deviation of .64.

# **4.3.13 RESEARCH QUESTION 13**

# RQ13: What is the level of planning competency among UiTM students?

'Planning' is the eleventh dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of planning competency among UiTM students?'. The research finding is illustrated in Table 4.15 below.

Table 4.15: Mean and Standard Deviation for Planning

	Mean	SD	Level
PLANNING	3.56	.72	Moderate

Table 4.15, presented the mean score, standard deviation and the level of planning competency among UiTM students are presented. From the table, planning competency among UiTM students are moderate with the mean score 3.56 and standard deviation of .72.

# 4.3.14 RESEARCH QUESTION 14

# RQ14: What is the level of innovative employee competency among UiTM students?

'Innovative employee' is the twelfth dimension of independent variable for this study which are self-entrepreneurial competencies. This particular dimension was intended to answer the following research question, 'What is the level of innovative employee competency among UiTM students?'. The research finding is illustrated in Table 4.16 below.

Table 4.16: Mean and Standard Deviation for Innovative employee

	Mean	SD	Level
INNOVATIVE	3.66	.75	Moderate
EMPLOYEE			

Table 4.16, presented the mean score, standard deviation and the level of planning competency among UiTM students are presented. From the table, planning competency among UiTM students are moderate with the mean score 3.66 and standard deviation of .75.

# 4.3.15 RESEARCH QUESTION 15

# RQ<sub>15</sub>: What is the relationship between dimensions of self-entrepreneurial competencies with entrepreneurial mindset of UiTM students?

The Pearson product moment correlation coefficient (r-value) was used to show the relationship between each dimension of self-entrepreneurial competencies with an entrepreneurial mindset (See: Appendix A). The value of the correlation matrix between entrepreneurial mindset (dependent variable) and self-entrepreneurial competencies (independent variable) are presented in Table 4.17. According to the results shown in Table 4.17, there was a moderate and strong positive relationship between every 12 dimensions of self-entrepreneurial competencies with an entrepreneurial mindset. However, the most significant value are presented by the dimension of Risk Propensity. It shows that the correlation value between Risk Propensity are perfect positive. The determination on the strength of the relationship was determined based on the guidelines in Table 4.18 that show the value of correlation coefficient by Hair et al. (2016) as the guidelines on interpretations on the strength of the relationship between the variables.

Table 4.17: Correlation between dimensions of self-entrepreneurial competencies with entrepreneurial mindset

No.	Relationnship Between Dimensions of Self-	r		
	Entrepreneurial Competencies with Entrepreneurial			
	Mindset			
1	Scanning + Entrepreneurial Mindset	.41**		
2	Connecting + Entrepreneurial Mindset	.45**		
3	Evaluation + Entrepreneurial Mindset .52**			
4	Risk Perception + Entrepreneurial Mindset 1.33			
5	Risk Propensity + Entrepreneurial Mindset	.48**		
6	Entrepreneurial Knowledge + Entrepreneurial Mindset	.57**		
7	Creativity + Entrepreneurial Mindset	.53**		
8	Financial Literacy + Entrepreneurial Mindset .46*			
9	Managing Ambiguity + Entrepreneurial Mindset .37**			
10	Marshalling of Resources + Entrepreneurial Mindset .56**			
11	Planning + Entrepreneurial Mindset .59**			
12	Innovative Employee + Entrepreneurial Mindset	.57**		

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Table 4.18: Value of correlation coefficient

Correlation Coefficients	Strength of Relationship
< 0.20	None
0.21-0.35	Weak positive
0.36-0.60	Moderate positive
0.61-0.80	Very strong positive
=1	Perfect positive
	G 1 (200 c)

Source: Hair et al, (2006)

# **4.3.16 RESEARCH QUESTION 16**

# RQ16: Is there any relationship between self-entrepreneurial competencies with entrepreneurial mindset of UiTM students?

The Pearson product moment correlation coefficient (r-value) was used to show the relationship between self-entrepreneurial competencies with entrepreneurial mindset. The value of the correlation matrix between self-entrepreneurial competencies (independent variable) and entrepreneurial mindset (dependent variable) are presented in Table 4.19. According to the results shown in Table 4.19, there was a very strong positive relationship between self-entrepreneurial competencies (independent variable) with entrepreneurial mindset (dependent variable).

Table 4.19: Correlation between self-entrepreneurial competencies with entrepreneurial mindset

		MEAN	MEAN
		SEC	ENT.
			MINDSET
MEAN	Pearson Correlation	1	.764**
SEC	Sig. (2-tailed)		.000
	N	150	150
MEAN ENT.	Pearson Correlation	.764**	1
MINDSET	Sig. (2-tailed)	.000	
MINDSEI	N	150	150

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# 4.3.17 RESEARCH QUESTION 17

# RQ17: What are the predictors' entrepreneurial mindset of UiTM students?

R-Square (R2) is the proportion of variance in the dependent variable which can be predicted from the independent variable. From the table, the R2 value of .643 implies that 64.3% of the variance in the entrepreneurial mindset scores can be predicted from the scanning, connectedness, evaluation, risk perception, risk propensity, entrepreneurial knowledge, creativity, financial literacy, managing ambiguity, marshalling of resources, planning and innovative employee.

The standardized regression between coefficients was also presented. It is essential to refer the standardized coefficient for comparative purpose because the values for each variable were consistent on the same scale of a value 0 for mean and standard deviation of 1. The higher the beta coefficient of an independent variable, it implied that the variable was greatly contributed to the prediction of the dependent variable.

The relationship between the variables in the simple regression analysis for the study was proposed as:

Equation 1: 
$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + b_{10}x_{10} + b_{11}x_{11} + b_{12}x_{12}$$
.

#### Where:

y = entrepreneurial mindset

 $x_1 = scanning$ 

 $x_2$  = connectedness

 $x_3$  = evaluation

 $x_4$  = risk perception

 $x_5$  = risk propensity

x<sub>6</sub> = entrepreneurial knowledge

 $x_7$  = creativity

 $x_8$  = financial literacy

 $x_9$  = managing ambiguity

 $x_{10}$  = marshalling of resources

 $x_{11} = planning$ 

 $x_{12}$  = innovative employee

Therefore, the simple regression for the study was modified in terms of the variable used. The regression equation is shown as below:

Equation 2: 
$$y = -.073 + .166 x_2 + .163 x_3 + .147 x_6 + .200 x_{11} + .265 x_{12}$$

Where:

y = entrepreneurial mindset

 $x_2$  = connectedness

 $x_3$  = evaluation

 $x_6$  = entrepreneurial knowledge

 $x_{11}$  = planning

 $x_{12}$  = innovative employee

Table 4.20 showed that the amount increased in entrepreneurial mindset would be predicted by a 1 unit increased in the predictors. The standardized coefficient for connectedness was .166. Hence, for every unit increased in connectedness, it was expected .166 point increased in the entrepreneurial mindset scores. This was statistically significant at t = 2.690, p < 0.05. For evaluation, the beta coefficient value was .163. Hence, every unit increased in evaluation, it was expected .163 increased in the entrepreneurial mindset. This was statistically significant at t = 2.246, p < 0.05. The beta coefficient value for entrepreneurial knowledge was .147. Therefore, for every unit increased in entrepreneurial knowledge, it was expected .147 point increased in the entrepreneurial mindset scores. This was statistically significant at t = 2.010, p < 0.05. For planning, the beta coefficient value was .200. Therefore, for every unit increased in planning, it was expected .200 point increased in the entrepreneurial mindset scores. This was statistically significant at t= 2.606, p<0.05. For innovative employee, the beta coefficient value was .265. Therefore, for every unit increased in innovative employee, it was expected .265 point increased in the entrepreneurial mindset scores. This was statistically significant at t=3.848, p<0.05.

Through the regression analysis findings, it clarifies that, the dimension Innovative Employee in the self-competencies received the strongest weight in the prediction (Standardized  $\beta$  = .265,p< .05), followed by Connectedness (Standardized  $\beta$ =.166,p< .05), Planning (Standardized  $\beta$  = .200,p< .05), Evaluation (Standardized  $\beta$ =.163,p< .05), and Entrepreneurial Knowledge (Standardized  $\beta$  = .147,p< .05) as portrayed in Table 4.20. These five variables showed statistically significant relationship in making a significant unique contribution to the prediction of entrepreneurial mindset. It can be concluded that 64.3% of the variance in self- entrepreneurial competencies can be explained by entrepreneurial mindset. However, there are still 35.7% variation of entrepreneurial mindset can be explicated by other variables which is not carried out in this research.

Consequently, the respondents have agreed that self-entrepreneurial competencies do influence students' entrepreneurial mindset. They have the same perspective where students' must exhibit their internal competencies towards entrepreneurship to show that they are capable in both academic and entrepreneurial skills teacher to show their enthusiasms in improving their future without dependency in employability where they can be their own boss or self-employed. Basically, through the quantitative data researcher identified that self-entrepreneurial competencies do contribute to students' entrepreneurial mindset.

Table 4.20: Estimates of Coefficients for Entrepreneurial Mindset

Model		Unstandardized		Standardized t	Sig.			
		Coeffi	cients	Coefficients				
		В	Std. Error	Beta				
	(Constant)	073	.295		248	.804		
	S1M	.105	.070	.097	1.509	.134		
	C1M	.167	.062	.166	2.690	.008		
	EV1M	.158	.070	.163	2.246	.026		
	RPE1M	012	.042	016	282	.778		
	RPO1M	.010	.070	.011	.149	.882		
1	EK1M	.145	.072	.147	2.010	.046		
	CR1M	.056	.051	.076	1.114	.267		
	FL1M	.000	.047	.001	.010	.992		
	MA1M	001	.046	002	025	.980		
	MR1M	.070	.069	.082	1.015	.312		
	P1M	.151	.058	.200	2.606	.010		
	INNE1M	.191	.050	.265	3.848	.000		

F = 20.527 (p <0.05), Adjusted R-squared = .611,  $R^2 = .643$ 

# 4.4 Summary

In this chapter, the results of this research for Self-Entrepreneurial Competencies and Entrepreneurial Mindset are determined through several tests of analysis. Although this research replicating a study from the previous research with different participant and research site, the results obtained from the data analysis does shows a positive results. Perhaps, it shows that although different participant, different research site and different sampling techniques are used, the generated results are still showing that we are able to answer the research objectives and research questions generated for this study with a success.

Consequently, we are able to identify the alternative to the research problem through students' self-entrepreneurial competencies and their entrepreneurial mindset as the most important things that can solve the problems in finding the alternative to the employability among students upon graduating are through several solutions listed later in Chapter 5 towards skills and knowledge in entrepreneurship theoretically and practically explained.

# **CONCLUSION**

#### 5.1 INTRODUCTION

This chapter discussed on the main findings of the data gathered from a survey using a questionnaire to answer the formulated research questions. This chapter also provides conclusion, implications and recommendations for the research and for the future studies.

# 5.2 DISCUSSION OF THE RESEARCH FINDINGS

All the data analysis and interpretation in Chapter 4 are done by using the application of Statistical Package of Social Sciences (SPSS) version 20. Apparently, the test of analysis used for all 4 research questions generated for this study comprises from two main test of statistical analysis which are descriptive analysis and inferential analysis.

Table 5.1: List of Research Objectives and Research Questions

Research Objectives	Research Questions
1) To determine the level of	1. What is the level of entrepreneurial
entrepreneurial mindset	mindset among UiTM students?
(entrepreneurial mindset and core	2. What is the level of core self-
self-evaluation) among UiTM	evaluation among UiTM students?
students.	

able 5.1 Continued

# Research Objectives **Research Questions** 2) To determine the level of self-3. What is the level of scanning entrepreneurial competencies (scanning, competency among UiTM students? connectedness, evaluation, risk 4. What is the level of connectedness perception, risk propensity, competency among UiTM students? entrepreneurial knowledge, creativity, 5. What is the level of evaluation financial literacy, managing ambiguity, competency among UiTM students? 6. What is the level of risk perception marshalling of resources, planning and innovative employee) in developing competency among UiTM students? entrepreneurial mindset among UiTM 7. What is the level of risk propensity students. competency among UiTM students? 8. What is the level of entrepreneurial knowledge competency among UiTM students? 9. What is the level of creativity competency among UiTM students? 10. What is the level of financial literacy competency among UiTM students? 11. What is the level of managing ambiguity competency among UiTM students? 12. What is the level of marshalling of resources competency among UiTM students? 13. What is the level of planning competency among UiTM students? 14. What is the level of innovative employee competency among UiTM

students?

Table 5.1 Continued

	. Toolitinaea
Research Objective	Research Questions
3) To investigate the relationship between	15. What is the relationship between
dimensions of self-entrepreneurial	dimensions of self-entrepreneurial
competencies with entrepreneurial	competencies with entrepreneurial
mindset of UiTM students.	mindset of UiTM students?
4) To investigate if there is any	16. Is there any relationship between self-
relationship between self-entrepreneurial	entrepreneurial competencies with
competencies with entrepreneurial	entrepreneurial mindset of UiTM
mindset of UiTM students.	students?
5) To investigate what are the predictors	17. What are the predictors'
of entrepreneurial mindset of UiTM	entrepreneurial mindset of UiTM
students.	students?

# 5.2.1 Research Objective 1: To determine the level of entrepreneurial mindset (entrepreneurial mindset and core self-evaluation) among UiTM students.

Firstly, the test of statistical analysis used for research objective 1 is descriptive statistical analysis. From the findings of research questions for research objective 1, which is 'To determine the level of entrepreneurial mindset (entrepreneurial mindset and core self-evaluation) among UiTM students', the research results indicated that students' awareness on entrepreneurship are positive as the level of both their entrepreneurial mindset dimension and core self-evaluation are partially contributing to a positive influence on entrepreneurial mindset. This is due to various approach done by the instructors (entrepreneurship coordinators/head of program) in the community by exposing them to the activities done to promote entrepreneurship experience in the university compound such as 'Entrepreneurship Day' and a section prepared in the student's rest room for entrepreneurship activities. This finding is in agreement with Teixeira and Davey (2008) findings which showed that entrepreneurs' are created through their environment and experience, as they learn and develop it impacted from their mentors, guardians, tutors and instructors role models.

# 5.2.2 Research Objective 2: To determine the level of self-entrepreneurial competencies (scanning, connectedness, evaluation, risk perception, risk propensity, entrepreneurial knowledge, creativity, financial literacy, managing ambiguity, marshalling of resources, planning and innovative employee) in developing entrepreneurial mindset among UiTM students.

Secondly, the test of statistical analysis used to answer research objective 2 also based on the descriptive statistical analysis test. Based on the research results of twelfth research questions for research objective 2 which is 'To determine the level of self-entrepreneurial competencies (scanning, connectedness, evaluation, risk perception, risk propensity, entrepreneurial knowledge, creativity, financial literacy, managing ambiguity, marshalling of resources, planning and innovative employee) in developing entrepreneurial mindset among UiTM students.', it shows that different level of strength for each of the self-entrepreneurial

competencies are detected. One of the highest level of competencies is entrepreneurial knowledge. Noted that entrepreneurial knowledge is important for any individuals who have intentions to venture into business. It plays an important factor and role for someone to succeed in the business with an entrepreneurial knowledge. Owing to that statement, it can be seen that the management of the universities plays an important roles in providing their support to ensure the knowledge transfer and skills in entrepreneurship is happening to ensure students' future career development (Nurmi and Paasio 2007). Ministry of Higher Education (MOHE) aim's to urge students creating jobs through entrepreneurship education can be achieved with support from the stakeholders (students, teachers, lecturers, policy makers, etc.). However, it was also found out that through the findings, the level of literacy in finance among students are still lacking. Rationally, it was understandable that not everyone have the ability to excel in financial aspect. Being a finance literate is important because in order to penetrate into the business world, skills and knowledge in financial are an important determinant to be a successful entrepreneurs'. The present finding seem to be consistent with other research which found that ability in planning and finance are related to the entrepreneurial skills (Moberg, 2014).

# 5.2.3 Research Objective 3: To investigate the relationship between dimensions of self-entrepreneurial competencies with entrepreneurial mindset of UiTM students.

Thirdly, the test of statistical analysis used to answer research objective 3 is correlation statistical test of analysis, which is one of the inferential types of analysis. The research results also showed that there are positive and moderate relationship between dimensions of self-entrepreneurial competencies with entrepreneurial mindset. There are several possible explanations for this results. From the findings, it indicated that each of the 12 competencies listed does correlate to entrepreneurial mindset. These findings further support the idea of the integration of several competencies of knowledge, skills and attitudes which can be regarded as behaviors that implies each individuals can develop sense of entrepreneurship to a certain level (Dohme, 2015). The observed correlation between self-entrepreneurial competencies and entrepreneurial mindset might be explained in this way. This is due to the several effort that has been made by the entrepreneurship coordinator in the university that influence students' performance towards entrepreneurship activities. The findings also highlighted that risk perception plays a role in students' belief towards entrepreneurship as they are aware of the risk in venturing into the business, either having the possibilities of loss or vice versa (Pihie and Arivayagan, 2016).

# 5.2.4 Research Objective 4: To investigate if there is any relationship between self-entrepreneurial competencies with entrepreneurial mindset of UiTM students.

The test of statistical analysis used to answer research objective 4 are also correlation statistical test of analysis. Based on the research findings, it showed that the antecedents of entrepreneurial competencies does gives a positive feedback on entrepreneurial related research study. The influence of competencies in entrepreneurship indirectly produce a positive outcome on someone's entrepreneurial mindset due to the effectiveness of entrepreneurship education influences towards entrepreneurial skills and knowledge. Thus, significantly, entrepreneurship education does gives an impact towards entrepreneurial mindset among young peoples which can influence their decisions towards their careers, leveraging their social status and economic (Europian Union, 2012, p.7).

# 5.2.5 Research Objective 5: To investigate what are the predictors of entrepreneurial mindset of UiTM students.

Last but not least, the test of statistical analysis used to answer research objective 5 is multiple regression statistical test of analysis. The research question, 'What are the predictors of entrepreneurial mindset of UiTM students?', the results has shown that there is a statistically significant different between self-entrepreneurial competencies with entrepreneurial mindset. Further analysis showed that from the multiple regression analysis, it revealed that there are four dimensions that shows significant different with entrepreneurial mindset. The current findings also add to the development of literature on the relationship between entrepreneurial competencies with entrepreneurial mindset. Solesvik et al. claims that from the regression results, in reference with economical context, the availability of entrepreneurial mindset among students.

# 5.3 CONCLUSION

To date, this study is undertaken with the aim to find the alternative to reduce the number of unemployed job seekers through students' self-entrepreneurial competencies that influence their entrepreneurial mindset. Justification on the reason of the aim of this study which is to investigate the influence of self-entrepreneurial competencies on students' entrepreneurial mindset is because of researcher intended to determine how students' entrepreneurial competencies affected their entrepreneurial minds. Even though we want to know the level of entrepreneurial mindset of an individual, indirectly the results of the study will produces a positive results because whenever they have those mindset instill in their behavior, it was certain that they do possess those related entrepreneurial skills to make someone as a successful entrepreneurs.

In-depth explanation on this situation is explain by Patricia (2016) in her lecture's on Four Approaches to Teaching Entrepreneurship as a Method, by which she describes "Entrepreneurship is often thought of as a process of identifying an opportunity, understanding resource requirements, acquiring resources, planning, and implementing. Of course, a "process" assumes known inputs and known outputs, as in a manufacturing process. For example, building a car on an assembly line is a manufacturing process. You know all the parts; you know how they fit together; and you know the type of car you will have at the end. A process is quite predictable" Thus, the rationality of the investigation on these two variables (self-entrepreneurial competencies and entrepreneurial mindset) is to determine how from the entrepreneurial competencies listed that are possesses by the students affect their entrepreneurial mindset and performance. With that, researcher will be able to distinguish the competencies that most reflected students behavior and their performance towards entrepreneurship.

In addition, this study able to quantify the data for the research through the data analysis done for the study. In overall, research results reveals that self-entrepreneurial competencies have a positive influence on the entrepreneurial mindset among university students. It does correlate to each other that makes up the entrepreneurial mindset of students; derived from the statistical data of the research results. In addition, the aim of this study which is to find the alternative to reduce the number of unemployed job seekers through students' self-entrepreneurial competencies that influence their entrepreneurial mindset have been achieved through the structured questionnaires which were done through a self-administered questionnaire approach for the undergraduate students from the Faculty of Education, Universiti Teknologi MARA (UiTM), Selangor. However, the sample of participants for this study have been selected from different phase of study yet it still covers all students in the

Faculty of Education with different course. It means that, everyone have an equal chances in taking their parts for this research study. In addition, this study was conducted to fulfill four main objectives and research questions of this research study respectively. Each of the four research objectives and research questions generated for this study are carefully being explained and summarized by the researcher. Based on the results from the generated research questions for this study, in-depth explanation on the consequences or implications from the findings are done by the researcher for better understanding of the research progress.

# 5.4 IMPLICATION OF THE STUDY

The findings of this study have several numbers of important implications for future practice. Firstly, the implication when there is high level of entrepreneurial mindset among university students, the objectives of the Ministry of Higher Education (MOHE) to promote entrepreneurship as one of the career choice can be achieved. It shows that students are open to receive the new knowledge in entrepreneurship education which influence their intention to be an entrepreneurs' as an alternative to the employment. Indirectly, it can be seen that the entrepreneurship culture is implemented in the university and it is well received by the students and instructional leaders and other university stakeholders. Other than that, students welcomed the approach in promoting the culture of entrepreneurship among graduates in the universities.

Secondly, higher level of entrepreneurial knowledge among university students shows that entrepreneurship education is well received by the students. With that reason, it is effective for entrepreneurship education (EE) to be taught in any educational institutions from different level of education as a formal medium of knowledge transfer in entrepreneurship. When the level of entrepreneurial knowledge is high, they are able to involve in small business start-up due to prior knowledge in entrepreneurship.

Thirdly, due to the level of financial literacy among students are not satisfying, they would find difficulties later in understanding financial statements, or related matters. Owing to that reason, the risk in managing their business or start-up might be affected. It definitely not recommended for these young people to involve or venturing into business if they have scarce knowledge in finance.

Fourthly, underpinning findings that shows a moderate and positive relationship between self-entrepreneurial competencies and entrepreneurial mindset among university students will results in producing a business-minded graduates and instill the culture of entrepreneurship in the university's environment.

Last but least, significant findings between self-entrepreneurial competencies and entrepreneurial mindset will result in improvement by the upper management of the universities, and other stakeholders for various entrepreneurship related programs to show their supports in promoting entrepreneurship culture in the universities as urge for the mission by the Ministry of Higher Education (MOHE) in exposing students with entrepreneurial skills for future career development.

# 5.5 RECOMMENDATIONS

Findings from this study suggest several courses of action for recommendation in different aspects. To increase the interest in entrepreneurship among university students, several outlines are presented for further action for current study and future research.

#### 5.5.1 RECOMMENDATIONS BASED ON RESEARCH

#### 5.5.1.1 Activities Or Programmes Related To Entrepreneurship

Firstly, it was recommended that lots of activities or programmes related to entrepreneurship needs to be developed by the university stakeholders in order to promote entrepreneurship beneficial value among students. Due to the high level of entrepreneurial mindset amongst university students, plan of action is needed to be done by the upper university's management to implement all the entrepreneurship activities. This is because when there are supports from the external factors and for this case, how the supports from the upper management of the university that will favors students' entrepreneurial knowledge and skills is truly a motivating factors that will influence the growth of entrepreneurship culture among students in the university. In addition, when the entrepreneurial atmosphere can be applied in the university, indirectly it calls upon the Ministry of Higher Education (MOHE) exclamation which is the encouragement of entrepreneurship practices amongst students can successfully be achieved.

# 5.5.1.2 Improvement on Students' Literacy in Financial Through Teaching Curriculum

Secondly, to leverage the level of financial literacy among students, supports and improvement from the aspects of teaching curriculum need to be enhanced so that these students are able to be a finance literate as one of the important skills that needs to be instill in someone who are interested in joining or create their own businesses.

#### 5.3.2 RECOMMENDATIONS FOR FUTURE RESEARCH

# 5.3.2.1 Larger Sample Of Participants

Thus, from the discussion above, further research might explore larger sample of participant from different level educational institutions with a specified competencies or other factors that influence entrepreneurial mindset among students from different perspectives.

# 5.3.2.1 Exploring Other Factors or Antecendents That Influence Students Entrepreneurial Mindset

It would be interesting to assess the effects of other factors or antecedents in entrepreneurship on entrepreneurial mindset. More information on these factors or antecedents would help us to establish a greater degree of accuracy on this matter.

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