

The Relationship between Entrepreneurial Education and Entrepreneurial Self-Efficacy toward Entrepreneurial Intention among UTHM Students

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Abstract

This study explores the intricate relationship between entrepreneurial education, self-efficacy, and entrepreneurial intention among Universiti Tun Hussein Onn Malaysia (UTHM) undergraduate students. Recognizing the pivotal role of entrepreneurial intention in fostering an entrepreneurial environment and stimulating economic growth, the research delves into the multifaceted nature of entrepreneurial intention among Malaysian university students, with conflicting findings on the impact of entrepreneurial education on this aspect. Focusing specifically on UTHM students, the study employs the Theory of Planned Behavior (TPB) framework, utilizing entrepreneurial education and entrepreneurial self-efficacy as key variables to measure factors influencing entrepreneurial intention. By distributing 375 online questionnaires to UTHM undergraduate students and faculty on the main campus, the study collects and analyzes data using SPSS Statistics version 27 software. The findings reveal a positive and significant correlation between entrepreneurial education, entrepreneurial self-efficacy, and entrepreneurial intention, as evidenced by Spearman's rho correlation test. Despite the study's achievements, limitations such as time constraints and a relatively small sample size are acknowledged. Consequently, the research recommends extending the duration and broadening demographic segments to enhance the robustness and generalizability of the findings. This investigation contributes to the understanding of entrepreneurial intention in higher education, emphasizing the need for tailored educational approaches to cultivate a more conducive entrepreneurial environment among UTHM students.

1. Introduction

The significance of the Malaysian government's commitment to fostering entrepreneurial development in institutions, particularly higher education, is evident through significant investments and supporting structures (Song *et al.*, 2021). Resources like funding, support for SMEs, infrastructure, and advisory services are available, reflecting the government's recognition of entrepreneurship's role in stimulating the economy and societal change (Seth, 2019). The Entrepreneurship Action Plan of Higher Education Institutions (2016-2020) aims to engage young individuals in entrepreneurship.

However, there are contradicting findings on the relationship between entrepreneurial education and entrepreneurial intention. The available literature lacks strong statistical evidence to support the considerable impact of entrepreneurial education on people's propensity to engage in entrepreneurial activities (Maheshwari,

2021). While some researchers (Hasan, Khan, & Nabi, 2017; Hoang, Le, Tran, & Du, 2020; Zhang *et al.*, 2014) have made the case for a positive correlation between entrepreneurial education and the intention to pursue entrepreneurship, others have disputed this association, pointing out its lack of statistical significance. According to (Duong, 2021; Iwu *et al.*, 2020) studies found a decrease in the intention to start a business after receiving an entrepreneurship education. To improve our comprehension of this complex link, more study is urgently needed (Maheshwari, 2021). These contradicting findings impede the formulation of clear guidelines; therefore, this research is focused on determining the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention among university students.

The study's significance benefits students, future researchers, higher education institutions, and Malaysia's entrepreneurial ecosystem. By understanding these factors, stakeholders can design interventions to support aspiring entrepreneurs (Maheshwari, 2021). This comprehensive study focuses on UTHM undergraduate students across faculties at the main campus, distributing questionnaires online to collect responses about entrepreneurial education and self-efficacy's impact on entrepreneurial intention. The research defines entrepreneurial education as a process of nurturing an entrepreneurial mindset and acquiring the necessary knowledge and skills (Oganisjana & Matlay, 2012). As defined by Bandura (1986), entrepreneurial self-efficacy pertains to an individual's judgment of their capability to perform actions to achieve a specific goal. Entrepreneurial intention refers to the determined mindset focused on starting a new business (Esfandiar *et al.*, 2019).

2. Literature Review

2.1 Entrepreneurial Education

According to Hahn *et al.* (2017), entrepreneurial education is the implementation of pedagogic programs or educational processes to cultivate the attitudes and abilities necessary for starting a business. Entrepreneurial education is considered a pedagogical program that actively imparts crucial entrepreneurial skills, knowledge, talents, and ethics to students. It aims to enhance their ability to transform business concepts into entrepreneurial intention (EI) and tangible actions (Duong, 2021).

After graduation, there has been an increase in interest in entrepreneurship among students in recent years, but there is still a lack of drive to launch new businesses (Cheng *et al.*, 2009). Therefore, looking into the efficiency of entrepreneurship education (EE) and the methodologies used in its delivery is essential. Adelaja *et al.* (2018) defines entrepreneurship education as the systematic transfer of entrepreneurial concepts, skills, and information that people use to start or grow businesses. Compared to students who are not exposed to it, individuals who get an entrepreneurship education are more likely to choose entrepreneurial careers (Yasir *et al.*, 2019). According to research, entrepreneurship education significantly affects people's perceptions of themselves as entrepreneurs as well as their goals and behaviours (Kisubi *et al.*, 2021).

2.2 Entrepreneurial Self-efficacy

Self-efficacy is an individual's belief in their ability to take actions that can result in certain outcomes, reflecting their belief in their ability to exert control over motivation, behaviour, and the social environment (Yueh *et al.*, 2020). The definition of self-efficacy clarifies the involvement of individual beliefs in shaping the environment and the expected results of their actions (Rosalina *et al.*, 2021). Self-efficacy is the individual's self-judgment of their capacity to carry out a sequence of actions to achieve a desired goal (Bandura, 1986). Put simply, the focus is not on the skills an individual has but rather on the self-evaluation of their capacity to utilize these skills effectively to accomplish a goal (Liu *et al.*, 2019).

Bandura defines self-efficacy as an individual's belief in their capacity to exert control over motivation, cognition, and affect within their social environment. It encompasses the conviction that one can successfully execute tasks, achieve goals, and overcome obstacles. Measurement of self-efficacy can be instrumental in assessing the attainment of learning objectives (Gedeon & Valliere, 2018). Previous research suggests that individuals who have received entrepreneurship education exhibit higher confidence in their ability to excel in entrepreneurial endeavours (Mozahem & Adlouni, 2021).

2.3 Entrepreneurial Intention

Entrepreneurship intention (EI) refers to a person's aspiration to pursue entrepreneurship as a career option, marking the first step toward developing entrepreneurial behaviour. Ajzen (2011) mentions that intention is an individual's willingness to engage in specific actions. Krueger *et al.* (2000) define entrepreneurial intentions as personal belief in preparing for and actualizing entrepreneurial behaviour or planned behaviour to develop a new business (Liu *et al.*, 2019). According to Buttar (2005), from the cognitive aspect, entrepreneurial intentions serve as the most reliable predictors for explaining the process of pursuing an entrepreneurial career. The concept of intention plays a crucial role in comprehending human actions and attitudes (Wardana *et al.*, 2020).

Intention can be defined as an individual's inclination to carry out a purposeful plan or make a conscious decision (Saraih, 2019).

2.4 Theory of Planned Behavior (TPB)

The study's aim aligns with the Theory of Planned Behavior (TPB) due to its significant influence within the field (Bird, 1988; Ajzen, 1991). Given the intricacy associated with such selections, entrepreneurial endeavours often arise from deliberate choices rather than sudden decisions (Krueger *et al.*, 2000). As a result, TPB plays a crucial role in clarifying entrepreneurial intentions (Al-Jubari, 2019; Duong *et al.*, 2020; Lopes *et al.*, 2020). Ajzen's (1991) conceptualization of TPB, exploring and predicting factors affecting intentions, suits this study well. Moreover, TPB provides a suitable framework encompassing both individual and social factors for analyzing entrepreneurial intentions (Liñán & Chen, 2009). According to Ferreira-Neto *et al.* (2023), intention refers to an individual's mental concentration aimed at attaining a set objective. Thus, the act of putting a business concept into action originates from the aspiration to do so. When this form of determination emerges, it is identified as entrepreneurial intention. While university-led entrepreneurial education significantly boosts entrepreneurial skills and achievements (Chusimir, 1988; Galloway & Brown, 2002), this study employs entrepreneurial education and self-efficacy as independent variables to develop a comprehensive model for determining college students' entrepreneurial intentions. It broadens and complements TPB from the perspectives of learning and self-efficacy. The choice of TPB theory stemmed from its capacity to explain human behaviour and its relevance in outlining the impact of entrepreneurship education on the formation of entrepreneurial intentions. Ultimately, TPB was adopted because entrepreneurship primarily involves planned actions rather than impromptu decisions (Jena, 2020).

2.5 Hypothesis Development

2.5.1 Entrepreneurial Education

Nowinski *et al.* (2020) demonstrated that the inclusion of entrepreneurship education plays an important role in promoting the intention to become an entrepreneur. This is because it provides students with entrepreneurial knowledge and skills and effectively fosters their motivation to participate actively in entrepreneurship. The research finding shows that entrepreneurial education positively impacts entrepreneurial intention. Consequently, researcher propose the following hypothesis to examine the connections between entrepreneurial education:

H1: There is a positive relationship between entrepreneurial education and entrepreneurial intention among UTHM students.

2.5.2 Entrepreneurial Self-efficacy

The entrepreneurial self-efficacy of college students has a significant and positive impact on both their entrepreneurial attitude and their intention to engage in entrepreneurship (Liu *et al.*, 2019). Self-efficacy greatly affects a person's state of mind and emotional response, thus leading to one's entrepreneurial decision (Manajemen *et al.*, 2022). Extensive research conducted by Widodo and Rusmawati (2004) and Mahshunah (2010) has revealed a strong association between self-confidence and the pursuit of entrepreneurship. Therefore, higher education students with high levels of self-efficacy showed stronger entrepreneurial intentions.

H2: There is a positive relationship between entrepreneurial self-efficacy and entrepreneurial intention among UTHM students.

2.6 Research Framework

The conceptual framework represents a diagram that illustrates the relationship between dependent and independent variables. It serves as a blueprint for conducting a study. Fig. 1 presents a modified conceptual framework based on a literature review focusing on two dimensions that influence UTHM students' intentions toward entrepreneurship.

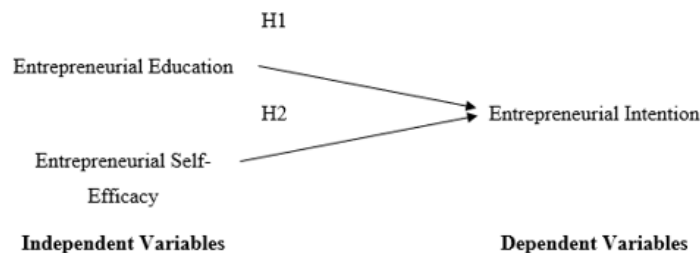


Fig. 1 Research framework

3. Research Methodology

3.1 Research Design

This research is descriptive research, which allows researchers to utilize quantitative data to gather information and characteristics about the population or phenomena under study. This study is classified as descriptive quantitative research, aiming to investigate the relationship of independent variables such as entrepreneurial education and entrepreneurial self-efficacy on entrepreneurial intention among UTHM students.

3.1.1 Quantitative Study

In this study, the quantitative method is adopted to achieve the main objective, which is to identify the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention among UTHM students.

3.1.2 Survey Method

In this study, all the survey questionnaires were distributed online through popular social media platforms like WhatsApp. The questions developed for this study aim to investigate the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention. A total of 375 questionnaires were distributed to selected respondents through Google Forms.

3.2 Respondent

In order to carry out this research, two essential steps are required to identify the respondent. Firstly, the population must be chosen in a specific area or nearby. Secondly, must select a sample from within this population.

3.3.1 Population

In the case of this research, the target population consists of students located at the main campus of UTHM in Parit Raja. The focus on this population is since, in Malaysia, all students in higher education institutions must enrol in at least one course pertaining to entrepreneurship. Therefore, by targeting this group, the researchers can gather suitable data for their study.

3.3.2 Sample

In this study, the population of interest consisted of UTHM students located at the main campus, with a total of 375 students. A simple random sampling was used to collect data from students. This means that each UTHM student had an equal opportunity to be chosen as a respondent.

3.3 Instrumentation

This survey is adopted from Liu *et al.*, 2019. The questionnaire in this research is divided into three parts. The first section, Section A, aims to gather demographic data from the respondents. Sections B and C evaluate the extent of agreement expressed by the respondents regarding the two factors influencing entrepreneurial intention. Lastly, Section D gauges the level of entrepreneurial intention among the respondents. Section A includes 6 questions, and sections B, C, and D each have 4 questions. This questionnaire has a total of 18 questions that must be answered by respondents. The evaluation was conducted using a 5-point scale: "1" represents Strongly Disagree; 2 represents Disagree; 3 represents Neutral; 4 represents Agree; 5 represents Strongly Agree.

3.4 Measurement of variables

Three scales nominal, ordinal, and interval would be used in this study to separate the different types of data.

3.4.1 Nominal Scale

In Section A of the questionnaire, this scale is employed to assess the demographic profile of the respondents, including variables such as gender, age, race, and faculty. Respondents are required to choose only one answer.

3.4.2 Ordinal Scale

In Section A of the questionnaire, respondents' demographic profiles, such as their prior self-employment experiences, are assessed using an ordinal scale.

3.4.3 Interval Scale

This research uses a five-point Likert scale in Sections B, C and D of the questionnaire to evaluate the dependent and independent variables. The table below show the measurement of variable.

Table 1 *Measurement of variable*

Section	Question	Type of scale
Section A	Demographic Profile: Gender	Nominal Scale
	Age	
	Race	
	Faculty	
Section A	Year of Study Demographic Profile: Prior Self- Employment Experience	Ordinal Scale
	Independence Variables: Entrepreneurial Education	
Section B and C	Entrepreneurial Self-efficacy Dependence Variables: Entrepreneurial Intention	Interval Scale (Likert Scale)

3.5 Validity and Reliability

There is general agreement that a minimum coefficient of internal consistency is 0.70. Consequently, it is typically advised that Cronbach's alpha score surpasses 0.70 for reliable research. If the score falls below 0.70, it is recommended that certain items be removed in order to increase the reliability score.

3.6 Pilot Test

In this study, a sample of 20 questionnaires was distributed to respondents online through Google Forms. The survey can be completed within approximately five minutes.

3.7 Data Collection

There are two main types of data sources: primary and secondary. This research only used the primary data collection method. The primary data was obtained by distributing an online survey questionnaire.

3.7.1 Primary Data Collection

In this study, a structured self-administered questionnaire is employed as a means of collecting relevant data from the target participants. The purpose of this research is to investigate the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention among UTHM students. A total of 375 questionnaires were created, consisting of closed-ended questions. Additionally, it was conducted in English and distributed using Google Forms. The respondents were to answer all 18 questions in the questionnaire. The survey took almost two and a half months to complete.

3.9 Analysis of Data

A structured questionnaire was utilized to gather data from UTHM students. The aim of the study was to identify the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial

intention among UTHM students. Once the pilot test was completed, data were collected and analyzed using the SPSS 27 software package for descriptive analysis and correlation analysis.

3.9.1 Descriptive Analysis

Descriptive analysis serves the purpose of understanding and exploring a given situation, providing a foundation for further investigation. Common techniques employed in descriptive analysis to assess and summarize large amounts of data include frequencies, means, medians, standard deviation, correlation, scatter plots, graphs, tables, charts, histograms, and more (Stoker, 2010).

3.9.2 Correlation Analysis

Correlation analysis was performed to examine the association between the independent variables (entrepreneurial education and entrepreneurial self-efficacy) and the dependent variable (entrepreneurial intention). The "SPSS" Correlation & Regression Guide was consulted. If the significance value is below 0.005, it indicates a significant relationship between the selected variables. However, a significance value above 0.05 suggests that there is no relationship between the chosen variables, guiding the decision to accept or reject the hypothesis.

4. Analysis and Findings

This chapter primarily centres on conducting data analysis, employing a systematic approach to examine the data acquired online and subsequently showcasing the study's discoveries. The outcomes are methodically illustrated through tables and pie charts.

4.1 Data Collection Process and Survey Response

Before commencing the actual data collection, a pilot study was executed to ensure the content validity of the research instrument, refining the questions, format, and scales. In July 2023, a pilot study involving 20 UTHM students was conducted. Subsequently, a reliability analysis was performed using the pilot test data, indicating that all instruments utilized in the study achieved a Cronbach's alpha above 0.6, meeting the acceptable criterion as outlined by Hair *et al.* (2006). This analysis confirmed the constructs' reliability and obtained content and face validity.

The practical gathering of actual data commenced in August 2023, and it took nearly two and a half months to procure the 280 valid questionnaires. The questionnaire was distributed via WhatsApp to specific respondents selected from the entire population.

The survey period was segmented into two parts. Initially, 140 valid questionnaires received between 11th August and 8th September were categorized as early responses. This resulted in a further 140 valid questionnaires gathered in the subsequent period, from 9th September to 23rd November. These distinct early and late respondent groups were then used for non-response bias examinations concerning the variables being studied. The upcoming sections detail the questionnaire's design process, as well as discuss the instrument's reliability and validity. Table 2 displays the response rate for this study.

Table 2 Response rate on distributed questionnaires

Item	Description
Population	10182
Sample Size	375
Questionnaire distributed	375
The questionnaire form that was returned to the researcher	280
Percentage of respondents' feedback	74.67%

4.2 Non-Response Bias

Response bias characterizes the inclination of survey respondents to inaccurately answer questions, introducing bias or distortion into the data. This can greatly hinder the reliability and accuracy of the collected information, making it challenging to derive dependable conclusions. Table 3 presents the results of the independent-sample t-test.

Table 3 Independent-sample t-test

Variables	Group	N	Mean	SD	Levene's Test for Equality of Variances	
					t	Sig.
Entrepreneurial Education	Early Response	140	3.3357	.79554	-3.428	<.001
	Late Response	140	3.6196	.53600		
Entrepreneurial Self-efficacy	Early Response	140	3.2214	.85246	-1.763	.080
	Late Response	140	3.4000	.64023		
Entrepreneurial Intention	Early Response	140	3.4446	.97268	-3.359	.001
	Late Response	140	3.8107	.78479		

4.3 Data Cleaning

Data cleansing is crucial while executing multivariate analysis. Careful data editing and screening are essential to the analysis's efficacy and importance. As a result, special emphasis was paid to handling outliers and missing data carefully and completely.

4.3.1 Detection of Missing Data

Researchers frequently face the challenge of missing data in research. The most effective strategy to address this issue involves devising methods to minimize the extent of missing data within a study (Papageorgiou *et al.*, 2018). The researcher implemented stringent measures throughout the data collection process to mitigate this issue. Employing Google Forms with all questions set as mandatory ensures respondents complete every aspect before submission. This method ensures a comprehensive dataset without missing values. This approach enabled the collection of complete information from 280 UTHM students' entrepreneurial education and self-efficacy toward entrepreneurial intention and their demographics. The absence of missing values allowed for a robust analysis of the correlation between entrepreneurial education and self-efficacy toward entrepreneurial intention, ensuring the reliability of the study's findings without the concern of incomplete or missing data influencing the results.

4.3.2 Outliers Analysis

Outliers, which are exceptional values deviating significantly from the majority of data points in a dataset, can significantly influence statistical analyses, potentially distorting the outcomes of hypothesis tests. Accurately recognizing potential outliers within the dataset and addressing them appropriately is crucial for obtaining precise results (Bhandari, 2023). In conclusion this study has no outlier.

4.4 Reliability Analysis

4.4.1 Pilot Study

Table 4 Reliability for pilot study result

Variables	Number of items	Cronbach's Alpha
Entrepreneurial Education	4	0.817
Entrepreneurial Self-efficacy	4	0.957
Entrepreneurial Intention	4	0.952

Table 4 displays various variables alongside their respective question counts and Cronbach's Alpha reliability test scores (α). Specifically, the survey consists of two independent variables: entrepreneurial education, comprising 4 questions and entrepreneurial self-efficacy, with 4 questions. The dependent variable, entrepreneurial intention, also comprises 4 questions. All the Cronbach's Alpha reliability test scores for the two

independent variables and the dependent variable surpass 0.6, indicating a high level of correlation among these variables.

4.4.2 Actual Study

Following the pilot study's conclusion that the questionnaires were valid and reliable, the actual investigation was carried out. The results of the reliability test carried out for the actual study are displayed in Table 5. Cronbach's alpha for entrepreneurial education is 0.785; entrepreneurial self-efficacy is 0.833, where the reliability of all the two factors is acceptable and good. At the same time, Cronbach's alpha value shows 0.924 for entrepreneurial intention.

Table 5 Reliability for actual study result

Variables	Number of items	Cronbach's Alpha
Entrepreneurial Education	4	0.785
Entrepreneurial Self-efficacy	4	0.833
Entrepreneurial Intention	4	0.924

4.5 Descriptive Analysis for Demographic

Descriptive and frequency analysis serves the purpose of succinctly summarizing survey-derived data and elucidating the demographic profiles of respondents within this study, encompassing variables such as gender, age, race, academic faculty, year of study, and prior self-employment experience.

4.5.1 Gender

Table 6 Respondents' gender

	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid Male	120	42.9	42.9	42.9
Valid Female	160	57.1	57.1	100.0
Total	280	100.0	100.0	

Table 6 shows that there is a total respondent of 280 respondents in the survey questionnaire. Of 280 respondents in this study, 120 (42.9%) are male. The remaining 160 respondents (57.1%) are female.

4.5.2 Age

Table 7 Respondents' age (years)

	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid 18-20	20	7.1	7.1	7.1
Valid 21-23	218	77.9	77.9	85.0
Valid 24-26	42	15.0	15.0	100.0
Total	280	100.0	100.0	

Table 7 shows the respondents' age group. Of 280 respondents in this study, there are 20 respondents (7.1%) who are 18-20 years. 218 respondents (77.9%) are 21-23 years old. The remaining 42 respondents (15.0%) are 24-26 years old.

4.5.3 Race

Table 8 Respondents' race

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Malay	160	57.1	57.1	57.1
	Chinese	98	35.0	35.0	92.1
	Indian	22	7.9	7.9	100.0
	Total	280	100.0	100.0	

Table 8 shows the respondents' race group. Of 280 respondents in this study, 160 (57.1%) are Malay. 98 respondents (35%) are Chinese, and the remaining 22 (7.9%) are Indian.

4.5.4 Faculty

Table 9 Respondents' faculty

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	FKAAB	35	12.5	12.5	12.5
	FPTV	18	6.4	6.4	18.9
	FSKTM	43	15.4	15.4	34.3
	FPTP	118	42.1	42.1	76.4
	FKEE	55	19.6	19.6	96.1
	FKMP	11	3.9	3.9	100
	Total	280	100	100	

Table 9 Shows the respondents' faculty group. Of 280 respondents in this study, there are 35 respondents (12.5%) came from the FKAAB. There are 18 respondents (6.4%) who came from the FPTV. There are 43 respondents (15.4%) who came from the FSKTM. There are 118 respondents (42.1%) who came from the FPTP. There were 55 respondents (19.6%) from the FKEE. The remaining 11 respondents (3.9%) came from the FKMP.

4.5.5 Year of Study

Table 10 Respondents' year of study

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Years 1	19	6.8	6.8	6.8
	Years 2	107	38.2	38.2	45.0
	Years 3	113	40.4	40.4	85.4
	Years 4	41	14.6	14.6	100.0
	Total	280	100.0	100.0	

Table 10 Shows the respondents' year of study group. Of 280 respondents in this study, 19 (6.8%) came from year 1. There are 107 respondents (38.2%) came from year 2. There are 113 respondents (40.4%) came from year 3. The remaining 41 respondents (14.6%) came from year 4.

4.5.6 Prior Self-Employment Experience

Table 11 Respondents' prior self-employment experience

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Yes	85	30.4	30.4	30.4
	No	195	69.6	69.6	100.0
	Total	280	100.0	100.0	

Table 11 Shows the respondents' prior self-employment experience group. Of 280 respondents in this study, 85 respondents (30.4%) had the prior self-employment experience. The remaining 195 respondents (69.6%) do not have prior self-employment experience.

4.6 Descriptive Analysis for Independent Variables and Dependent Variable

Table 12 Descriptive analysis data

Variables	N	Mean	Std. Deviation	Level
Independent Variables				
Entrepreneurial Education	280	3.4777	0.69186	Medium
Entrepreneurial Self-efficacy	280	3.3107	0.75780	Medium
Dependent Variables				
Entrepreneurial Intention	280	3.6277	0.90101	Medium

From Table 12, the result shows that the level of the mean for all dimensions (entrepreneurial education, entrepreneurial self-efficacy, and entrepreneurial intention) is medium. The highest mean is entrepreneurial intention (Mean= 3.6277, Standard deviation=0.90101). Next is entrepreneurial education (Mean=3.4777, Standard deviation=0.69186). Lastly, is entrepreneurial self-efficacy (Mean=3.3107, Standard deviation=0.75780).

4.7 Normality Test

The normality test is employed to ascertain the suitability of employing a parametric test. Two specific tests, namely the Kolmogorov-Smirnov (K-S) test and the Shapiro-Wilk (S-W) test. In this study, the Shapiro-Wilk (S-W) test is employed. A p-value greater than 0.01 indicates that the data conform to normality. Conversely, if the p-value is less than 0.01, it signifies non-normality, thereby prompting using Spearman's rho in correlation analysis. Consequently, based on the results depicted in Table 13, the data are inferred to be non-normally distributed.

Table 13 Test of normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Entrepreneurial Education	0.099	280	0.000	0.981	280	0.001 (non-normal)
Entrepreneurial Self-Efficacy	0.170	280	0.000	0.965	280	0.000 (non-normal)
Entrepreneurial Intention	0.160	280	0.000	0.949	280	0.000 (non-normal)

The above table shows that the Sig. value of the Shapiro- Wilk Test for all dimensions is smaller than 0.01, so the data is not normal. Hence, Spearman's rho was used in the correlation analysis and non-parametric test.

4.8 Correlation Analysis

Correlation analysis verifies the relationship between independent variables and the dependent variable, evaluating the proximity of this association. Spearman's rho was employed due to non-normal data in this study.

Table 14 Result of spearman's correlation coefficient

			Overall_Mean_IV_1	Overall_Mean_IV_2	Overall_Mean_DV_1
Spearman's rho	Overall_Mean_IV_1	Correlation Coefficient	1.000	.722**	.664**
		Sig. (2-tailed)		0.000	0.000
		N	280	280	280
	Overall_Mean_IV_2	Correlation Coefficient	.722**	1.000	.704**

	Sig. (2-tailed)	0.000		0.000
	N	280	280	280
Overall_Mean_DV_1	Correlation Coefficient	.664**	.704**	1.000
	Sig. (2-tailed)	0.000	0.000	
	N	280	280	280
	**. Correlation is significant at the 0.01 level (2-tailed).			

From the analysis, the correlation between entrepreneurial education and entrepreneurial intention is 0.664, which shows a strong relationship between both variables. The correlation analysis supports a significant positive relationship between entrepreneurial education and entrepreneurial intention. Therefore, H1 is accepted.

Next, the correlation between entrepreneurial self-efficacy and entrepreneurial intention is 0.704, which shows a strong relationship between both variables. The correlation analysis supports a significant positive relationship between entrepreneurial self-efficacy and entrepreneurial intention. Therefore, H2 is accepted.

4.9 Summary of the Hypothesis Testing

As a result of the three study objectives, two hypotheses were established for this investigation and were investigated in this research. Every theory that was produced has been accepted. The hypothesis's testing summary outcome is displayed in Table 15.

Table 15 Summary of hypothesis testing

Hypothesis	Summary
H1: There is a positive relationship between entrepreneurial education and entrepreneurial intention among UTHM students	Accepted
H2: There is a positive relationship between entrepreneurial self-efficacy and entrepreneurial intention among UTHM students.	Accepted

Based on Table 4.15, H1 and H2 are accepted. So, we can therefore deduce that the survey's questions are about entrepreneurial intention.

4.10 Summary

An analysis of the data gathered is presented in this chapter, exploring the three main categories mentioned in the questionnaire. These categories include entrepreneurial education, entrepreneurial self-efficacy, and entrepreneurial intention. Reliability assessments of the data from the pilot research and the actual study show an adequate degree of data reliability. Most respondents generally agreed that entrepreneurial education and entrepreneurial self-efficacy have a big influence on their entrepreneurial intention. However, the findings of the normality test notably point to a non-normal distribution, which is why Spearman correlation analysis was employed in this investigation. Lastly, the investigation results support all two hypotheses (H1 and H2).

5. Conclusion

The purpose of this chapter was to review and analyze the findings related to the study objectives. The aim was to conclude the research. This chapter also discussed limitations encountered and provided suggestions for enhancing future relevant research.

5.1 Discussions on the Main Findings

This research was conducted to determine the relationship between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention among UTHM students. The analysis conducted in the preceding chapter revealed a significant and positive correlation between entrepreneurial education and entrepreneurial self-efficacy with entrepreneurial intention among UTHM students.

5.1.1 Demographic of respondents

Based on the study completed by the research, the information on the respondents can be summarized as gender, age (Years), Race, Faculty, Years of Study, and prior self-employment experience. Female students of

UTHM make up the largest number of respondents. Based on the Statistik Pendidikan Tinggi 2020: Kementerian Pengajian Tinggi, the number of students intake by Gender for bachelor's degrees for 2020 shows that the female intake (63579) is more than the male intake (37522). The opposite of the study by Liu *et al.* (2019) shows that male students are the largest number of respondents. The age range of the respondents is mainly 21 to 23 years old. The age range for a bachelor's degree is from age 18+ or 19+ for three to five years (StudyMalaysia.com & WebWay E Services, 2022). Besides, Malay respondents had the largest number, followed by Chinese and Indian respondents. Based on Malaysia: Population by Ethnicity 2023 show that 70.1 per cent of Malaysians were classed as Bumiputera, 22.6 per cent as ethnic Chinese, and 6.6 per cent as ethnic Indians. Most respondents come from the faculty of Technology Management and Business (FPTP) and year 3 students. Lastly, most of the students have no prior self-employment experience.

5.1.2 Entrepreneurial Education

Entrepreneurship education aims to equip students with the necessary knowledge, skills, and motivation essential for fostering entrepreneurial success across diverse environments and contexts. H1 suggested a positive link between entrepreneurial education and entrepreneurial intention among UTHM students. The findings revealed a notably significant positive correlation coefficient of 0.664 ($p < 0.01$) between entrepreneurial education and entrepreneurial intention, thereby confirming the acceptance of H1. The results showed that there is a strong degree of correlation between entrepreneurial education and entrepreneurial intention. This is consistent with the findings of Liu *et al.* (2019) research, which claimed that extensive entrepreneurial education has the potential to boost college students' entrepreneurial intentions significantly.

However, according to previous research indicated by Nowinski *et al.* (2020), entrepreneurial education plays a pivotal role in enhancing the desire to pursue entrepreneurship by providing students with essential entrepreneurial knowledge and skills, thereby nurturing their motivation to engage in entrepreneurial endeavours. Moreover, recent studies by Duong (2021), Maresch *et al.* (2016), and Ratten and Usmanij (2021) also emphasize the potential of integrating entrepreneurship into educational programs. This indicates that entrepreneurial education stands as a direct influencer of students' intention to become an entrepreneur. Thus, entrepreneurial education constitutes one of the influencing factors guiding UTHM students to become entrepreneurs.

5.1.3 Entrepreneurial Self-efficacy

Entrepreneurial self-efficacy, denoting an individual's confidence in their ability to undertake tasks and fulfil roles to achieve entrepreneurial goals, is widely recognized as a significant determinant influencing individuals' pursuit of entrepreneurial careers and involvement in entrepreneurial activities (Newman *et al.*, 2019). H2 suggested a positive link between entrepreneurial self-efficacy and entrepreneurial intention among UTHM students. The findings revealed a notably significant positive correlation coefficient of 0.704 ($p < 0.01$) between entrepreneurial self-efficacy and entrepreneurial intention, thereby confirming the acceptance of H2. The results showed that there is a strong degree of correlation between entrepreneurial self-efficacy and entrepreneurial intention.

This outcome underscores self-efficacy as the most influential factor guiding students' choice to pursue entrepreneurship, aligning with various related studies (Elnadi & Gheith, 2021; Liu *et al.*, 2019). These studies consistently suggest that individuals possessing higher self-efficacy exhibit greater confidence in initiating their ventures and surmounting challenges encountered throughout their entrepreneurial journey, distinguishing them from those with lower levels of entrepreneurial self-efficacy. This indicates that entrepreneurial self-efficacy stands as a direct influencer of students' intention to become an entrepreneur. Thus, it can be inferred that entrepreneurial self-efficacy constitutes one of the influencing factors guiding UTHM students to become entrepreneurs.

5.2 Implications of Theoretic and Practical

5.2.1 Theory Implication

Theoretically, this study found that UTHM students' intention to become entrepreneurs was influenced significantly by entrepreneurial education and entrepreneurial self-efficacy. In this study, the theory of Planned Behavior (TPB) was utilized to describe the whole research framework on factors towards the entrepreneurial intention of UTHM students. As this study may be used as a reference, it can provide additional insights for future research on related themes. This study can also serve as a guideline for any similar research, particularly for research on entrepreneurial intention.

5.2.2 Practical Implication

Based on the findings, this study may benefit educational institutions because it can guide UTHM and other educational institutions in Malaysia on designing or enhancing entrepreneurial education programs to foster entrepreneurial intentions among students better. Besides, this study could directly benefit UTHM students by providing insights into the effectiveness of their entrepreneurial education in shaping their self-belief and intentions toward entrepreneurship. It might help them make informed decisions about their educational paths and career choices. In addition, authorities in the Malaysian government could assess the impact of current entrepreneurial education policies and possibly refine or develop new strategies to encourage entrepreneurship among students, contributing to economic development.

5.3 Limitation

The study faces several limitations that warrant consideration. Firstly, a constrained temporal span of 36 weeks restricted the depth of the research, limiting observations solely to UTHM students and hindering the extrapolation of findings to encompass all university students. Moreover, the small sample size, with only 280 out of 375 questionnaires returned, coupled with an overrepresentation of Malay students at UTHM, poses challenges in accurately representing the broader demographic of entrepreneurial intentions among university students. Issues encountered in online survey data collection, potentially due to respondent dishonesty or language barriers, could have compromised the accuracy of conclusions drawn. Additionally, reliance on foreign-based journals and a questionnaire solely in English might have introduced discrepancies and comprehension issues among respondents, leading to data inaccuracies.

5.4 Directions for Future Research

In terms of future research, several recommendations emerge from these limitations. Extending the research duration beyond the initial 36 weeks is crucial to allow for a more comprehensive survey and in-depth data analysis. This extended period permits meticulous planning, error identification, and rectification, thereby enhancing the accuracy and reliability of research outcomes. Additionally, expanding demographic segments to encompass diverse respondent groups from various universities can enrich data comparability and accuracy in understanding entrepreneurial intentions among a wider student population. Employing a multilingual questionnaire, available in Malay, Mandarin, and Tamil, would ensure greater inclusivity and comprehension among respondents from diverse ethnic backgrounds, fostering broader participation and more reliable data. Furthermore, future studies should consider incorporating additional independent variables relevant to entrepreneurial intentions, ensuring these variables directly align with the research focus to provide a comprehensive understanding of influential factors without compromising the study's outcomes.

5.5 Conclusion

This research has been conducted for 36 weeks, and the objective of this study is to determine the impact of two independent variables (entrepreneurial education and entrepreneurial self-efficacy) on the dependent variable (entrepreneurial intention). Overall, it successfully answered every research question and provided empirical data showing the relationships between entrepreneurial education and entrepreneurial self-efficacy toward entrepreneurial intention among UTHM students.

This research accomplished its objective through correlation analysis. The study's conclusions show that entrepreneurial intention positively relates to each of the two independent variables, which are entrepreneurial education and entrepreneurial self-efficacy. The hypotheses were validated through Spearman's rho test. Notably, the two independent variables demonstrate a strong association with entrepreneurial intention. Overall, these outcomes align with previous studies' findings, thereby confirming the research objectives.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** T.Q.Y. and J.N.; **data collection:** T.Q.Y.; **analysis and interpretation of results:** T.Q.Y.; **draft manuscript preparation:** T.Q.Y. and J.N. All authors reviewed the results and approved the final version of the manuscript.

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