

**ENTREPRENEURIAL INTENTION  
AMONG POSTGRADUATE STUDENTS OF UUM**

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**ENTREPRENEURIAL INTENTION  
AMONG POSTGRADUATE STUDENTS OF UUM**

**By**

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## ABSTRACT

The main purpose of this study is to analyze the entrepreneurial intention of postgraduate students of Universiti Utara Malaysia (UUM). The study is coherent with the effort to encourage the involvement of Malaysian in starting a business. Therefore, the study used the Theory of Planned Behaviour by Ajzen (1991) to identify the factors that influence the entrepreneurial intention among postgraduate students of UUM. 370 respondents comprising masters, DBA and PhD students were involved in this study. Using survey method, 370 questionnaires were distributed and only 352 responses were analyzed to test the hypothesis, hence achieve the objectives of the study. The findings show that attitude toward entrepreneurship, perceived behavioural control and subjective norms have positive relationship with entrepreneurial intention among postgraduate students of UUM. Based on the regression analysis, PBC is the strongest predictor for entrepreneurial intention while attitude of students on entrepreneurship is the weakest predictor for their intentions to become entrepreneurs. Further analysis on the differences of student's intentions to become entrepreneurs between two groups (students with business parents and students with non-business parents) shows a significant result. Students with business parents has higher intention to become entrepreneurs than the other group. The study hopes to assist the responsible parties that involve in the effort to encourage the entrepreneurial activities for example the university in developing and producing more graduates that have high interests on entrepreneurship.

**Keywords:** entrepreneurial intention, attitude toward entrepreneurship, perceived behavioural control, subjective norms, postgraduates, UUM

## ABSTRAK

Tujuan utama kajian ini ialah untuk menganalisa kecenderungan keusahawanan dalam kalangan pelajar pascasiswazah Universiti Utara Malaysia. Kajian yang dilaksanakan selari dengan usaha mengalakkan penglibatan rakyat Malaysia dalam bidang keusahawanan. Oleh itu, pengkaji memilih Teori tingkah laku terancang (TPB) daripada Ajzen (1991) bagi mengenalpasti faktor-faktor yang mempengaruhi kecenderungan keusahawanan dalam kalangan pelajar pascasiswazah di UUM. Seramai 370 responden yang terdiri daripada pelajar peringkat sarjana dan doktor falsafah telah terlibat dalam kajian ini dan daripada 370 borang soal selidik yang telah diedarkan hanya 352 soal selidik yang digunakan untuk analisis seterusnya. Dapatan kajian menunjukkan sikap terhadap keusahawanan, persepsi terhadap kawalan tingkah laku dan persepsi terhadap norma memberi kesan yang positif terhadap kecenderungan keusahawanan dalam kalangan pelajar pascasiswazah UUM. Melalui analisis regresi, persepsi terhadap kawalan tingkah laku ialah faktor utama dalam menentukan kecenderungan pelajar melibatkan diri dalam aktiviti keusahawanan. Sikap terhadap keusahawanan merupakan faktor paling kurang berkesan dalam membentuk kecenderungan keusahawanan pelajar. Hasil kajian juga mendapati, terdapat perbezaan yang signifikan diantara pelajar yang mempunyai ibu bapa terlibat dengan perniagaan dengan pelajar yang mempunyai ibu bapa bukan peniaga terhadap kecenderungan keusahawanan. Pelajar yang ibu bapa mereka terlibat dalam perniagaan mempunyai kecenderungan keusahawanan lebih tinggi berbanding pelajar yang ibu bapa mereka tidak terlibat dengan perniagaan. Dapatan kajian ini diharap dapat membantu pihak yang terlibat dalam menggalakkan aktiviti keusahawanan terutamanya pihak universiti bagi melahirkan lebih ramai graduan yang berminat berkecimpung dalam bidang keusahawanan.

**Kata Kunci:** kecenderungan keusahawanan, sikap, persepsi kawalan tingkah laku, norma, pascasiswazah, UUM

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## LIST OF ABBREVIATIONS

<b>ATE</b>	<b>Attitude toward Entrepreneurship</b>
<b>BCIC</b>	<b>Bumiputera Commercial and Industrial Community</b>
<b>DBA</b>	<b>Doctoral of Business Administration</b>
<b>EI</b>	<b>Entrepreneurial intention</b>
<b>EIQ</b>	<b>Entrepreneurial intention Questionnaires</b>
<b>FL</b>	<b>Factor Loading</b>
<b>GEM</b>	<b>Global Entrepreneurship Monitoring</b>
<b>H</b>	<b>Hypothesis</b>
<b>KMO</b>	<b>Kaiser-Meyer-Olkin</b>
<b>MARA</b>	<b>Majlis Agama Rakyat</b>
<b>PBC</b>	<b>Perceived behavioural control</b>
<b>PhD</b>	<b>Doctor of Philosophy</b>
<b>SME</b>	<b>Small-Medium Enterprise</b>
<b>SN</b>	<b>Subjective norms</b>
<b>SPSS</b>	<b>Statistical Packages for Social Science</b>
<b>TPB</b>	<b>Theory of Planned Behaviour</b>
<b>TUS</b>	<b>Graduate Entrepreneur Fund</b>
<b>UUM</b>	<b>Universiti Utara Malaysia</b>

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

According to the latest Malaysia Education Blueprint for Higher Education (2015-2025) which was presented by the current Prime Minister of Malaysia, Dato' Seri Haji Najib Abdul Razak, there are ten key shifts that will be the road map for Malaysia education. One of the ten shifts is to produce a holistic, entrepreneurial and balanced graduates. Based on the current blueprint, it highlights the importance of entrepreneurship for graduates to get involved with. This is one of the approaches by the government to encourage the graduates to acquire necessary skills and knowledge to be entrepreneurs thus increasing the number of start-ups in Malaysia.

The Minister of Education, Tan Sri Muhyiddin Yassin further elaborates on the Malaysia Education Blueprint for Higher Education or PPPM-PT (2015-2025):

*“The PPPM-PT can be done through the integration of graduates’ CGPA and entrepreneurial mind set. Besides that, the blueprint encourages students to be the job creators instead of job seekers.”*

The explanation clearly shows the high expectation and believes from the Government towards current and future graduates in Malaysia to create their own job.

Anchoring by a vision to be an Eminent Management University, Universiti Utara Malaysia is a public university that is expected to lead the effort on enhancing entrepreneurship culture among the students. Among the efforts are the establishment of Bachelor of Entrepreneurship for the undergraduate students and Masters of Technopreneurships for the graduates students (UUM, 2015). In addition, various programs and activities are designed by the university to develop the interests on entrepreneurship among UUM students. Entrepreneurship course is now available as an elective course for most of UUM students which is vital for the non-business students to enrol in that class in order to get a clear picture of entrepreneurship. Gibb (1999) proposed that there are three main objectives of entrepreneurship education which are to enhance the knowledge on entrepreneurship, to learn on how to think as entrepreneurs, and lastly to acquire the methods of starting and conducting a business.

According to Davidson (1995), the initial step to be an entrepreneur is the intention followed by the planning to become one. Therefore, with the various efforts from various parties to cultivate entrepreneurship culture among the students, it is a crucial step to identify the level of intention to become entrepreneurs among them by foreseeing the factors that contribute to the intention.

## **1.2 Problem Statement**

Entrepreneurial activity leads to positive outcomes such as growth of economy, increasing job opportunities and changes within an economy (Walker, Jeger & Kopecki,

2013). According to Peng (2012), the scholars and policy makers are focusing on entrepreneurship issues in recent decades because of the increasing roles of entrepreneurial activities to enhance both, economic and social development. Major economic downturn in key powerhouses such as United States and other developed countries really caused a heavy impact on other countries especially the developing country (Griffith-Jones & Ocampo, 2009) such as Malaysia who depending on foreign direct investments and strong export to boost its economy. Malaysia would continue to be in vulnerable state if our government did not provide incentives and campaigns to encourage Malaysian to get involved in business start-up. It is evidenced by Abdullah (1999) that states small business creation is the outcome of the entrepreneurial activities which is observed as one of the approaches in enhancing the income distribution, generating economy growth and restructuring the existing economy of a developing country like Malaysia. According to Minister of International Trade and Industry Datuk Seri Mustapa Mohamed, small and medium enterprises (SME) is a vital agenda for Malaysia because the contribution of this sector towards the gross domestic product (GDP) is significant, with 35% and is expected to increase up to 41% contribution to the GDP on 2020 (Malaysian Insider, 2015).

In Malaysia, efforts to encourage start-ups among Malaysian are not supported only by the government which is governed under Ministry of Domestic Trade, Co-operatives and Consumerism but also profit institutions such as SME Bank and Maybank and non-profit institutions for examples public and private colleges and universities and Majlis Amanah Rakyat (MARA). These joint efforts are vital to catalyse the rate of involvement in entrepreneurship among Malaysian public by providing



necessary and sound supports. Besides that, on a bigger scope, Malaysia has joined in the Global Entrepreneurship Monitor (GEM) since 2006. As a participant in the GEM, it allows the government of Malaysia to assess the entrepreneurial activity in Malaysia which permits a further improvement on existing entrepreneurship structures and plans.

Historically, entrepreneurship was more synonyms with Chinese people while the Malays dominated the agricultural activities in Malaysia during the ruling of British. During the colonial rule of Malaya, the British segregated economic activities according to racial lines where the Indian immigrants worked in rubber plantations, Chinese at the tin mines and conducted trading, while the Malays dominated the agricultural sector (Ariff & Syarisya, 2003). The economy segregation was slowly disappeared after Malaysia achieved independence in 1957 and from the era of Tunku Abdul Rahman until the current Prime Minister of Malaysia, Dato' Seri Najib Abdul Razak worked effortlessly to overcome this issue. Many entrepreneurship programs and business incentives were established by the government in enhancing the participation of other races in Malaysia especially Malay and other Bumiputera and also the Indians. Based on Economic Plan Unit (2001), an association known as Bumiputera Commercial and Industrial Community (BCIC) was proposed not only to assist the Bumiputera especially the entrepreneurs and professional workers, but also to enhance their income level.

According to EIM (2011), job creation, flexibility and competitiveness, innovativeness and job satisfaction are associated with the resurgence of entrepreneurship in Netherlands. The job creation is one of the major benefits of increasing the number of

business start-ups in Malaysia because of the high unemployment rate in recent years. Based on the statistics from Department of Statistics, until February 2014, there are 0.4 millions of Malaysian whose age fall into the range between 15 until 64 are found to be unemployed. Furthermore, many companies opted to hire foreign workers because of the belief on demanding job salary from the local people compared to the foreign employees which are mostly coming from Indonesia, Bangladesh and Philippines. This is proven by a worrisome statistics from the Statistics Department which shows the total number of foreign employees as of February 2014 has reached 6.7 million. Hence, the effort to encourage self-employment among Malaysian must be multiplied to a certain extent to overcome this unhealthy trend that could hurt the development of Malaysia economically and socially.

Besides that, the increasing number of graduates at various level in Malaysia also becoming a troublesome for the government in handling the unemployment issue despite their high academic qualification. According to the current prime minister of Malaysia in his presentation on Malaysia Budget of 2015, it is estimated that 53,000 graduates are still unemployed six month after their graduations (NST, 2014). Though the numbers of start-ups are increasing but not all the graduates have the same opportunity to be hired by employers as far as their courses are concerned. Hence, the continuous effort of many parties especially government of Malaysia to increase the number of start-ups by implementing various programs and incentives are also targeting a niche target group which are the students in public and private universities and colleges. Based on a study by Ooi and Shuhymee (2012), there are many barriers that inhibit the students to start a

business such as scarce financial resources, money, and limited supply chain network that make up the endogenous factors. Thus, the introduction of business fund like Graduate Entrepreneur Fund (TUS) is seen as a mechanism to reduce the anxiousness of students to start a new business (SME, 2015).

Another major issue is the academic literatures for entrepreneurial intention in Malaysia especially the study on postgraduate students are still low compared to the overseas literatures. The examples of study that were done by Maizura (2009) and Ooi and Shuhymee (2012) study on entrepreneurial intention among undergraduate students while Mahmoud and Farah (2014) studies on entrepreneurial intention of Nigerian postgraduate students in UUM. Although the setting is in Malaysia but the respondents sample did not cover the local postgraduate students. Therefore, this research paper is focusing on the entrepreneurial intention among postgraduate students that consisting both local and foreign students in all level for instances Masters, Doctoral of Business Administration (DBA) and PhD.

### **1.3 Research Questions**

The research questions for this study are:

1. Is there any relationship between attitude towards entrepreneurship and entrepreneurial intention among postgraduate students?
2. Is there any relationship between perceived behavioural control and entrepreneurship intention among postgraduate students?

3. Is there any relationship between subjective norms and entrepreneurship intention among postgraduate students?
4. Does parents' involvement in business make any differences on entrepreneurial intention among postgraduate students?

#### **1.4 Research Objectives**

According to Saunders, Lewis and Thornhill (2012), research objectives allow a researcher to operationalize the research questions by stating the intended steps in answering it. Based on the statement of problems discussed above, the research objectives for this study are as follow:

1. To analyse the relationship between attitude towards entrepreneurship (ATE) and entrepreneurial intention among postgraduate students
2. To analyse the relationship between perceived behavioural control (PBC) and entrepreneurial intention among postgraduate students
3. To analyse the relationship between subjective norms (SN) and entrepreneurial intention among postgraduate students
4. To identify if parents' involvement makes any differences on entrepreneurial intentions of the students

## **1.5 Scope of Study**

Based on the objectives of this study, the main focus is to investigate the level of intention to become entrepreneurs among postgraduate students of Universiti Utara Malaysia. Therefore, the study is limited only for the postgraduate students of UUM which include programs such as Master of Science, Master of Business Administration, DBA and PhD. This research is based on the Theory of Planned Behaviour (Ajzen, 1991) and its three antecedents which are attitudes toward entrepreneurship, perceived behavioural controls and subjective norms. Only these three antecedents is studied for this particular purpose. Other factors are not covered so that the main focus is satisfied by concentrating the research ideas and information regarding the main items. In addition, the study concentrates on 370 postgraduate students of Universiti Utara Malaysia which are pursuing their respective Masters, DBA and PhD studies.

Due to limited time, costs, and resources, the study only conducts among UUM postgraduate students. The findings of this study might not be enough to generalize to other universities in Malaysia as each university has its own system, syllabus and program that might lead to a difference result.

## **1.6 Organizations of the Study**

There are five chapters for this research paper. The summary for each chapter is as follow:

.Chapter 1 elaborates on background of the study and research problems. It then explains the research questions, objectives, scope of the study, and the overall structure for this study.

Chapter 2 focuses on the review of past literatures that are relevant to the study. It explains the dependent variable for this study which is entrepreneurial intention and also the independent variables which are attitude toward entrepreneurship, perceived behavioral control, and subjective norms.

Chapter 3 proposes the framework and the hypotheses for the study. Then, it presents the methodology for the study and justifies each method that has been used in this study. Besides that, this chapter also presents the population and sample of the study, data collection procedures and the development of the instrument. Finally, it covers the methods used for data analysis.

Chapter 4 covers the analysis of data screening and cleaning, response rate, descriptive analysis, data normality, factor analysis and reliability analysis on the research instruments. Then, it presents the application of correlation and regression analysis techniques through the use of SPSS software (version 20).

Chapter 5 discusses the findings of this research by suggesting past studies that support or not support the result for this study. Then, the researcher's justification are given to explain the result. Finally, the chapter concludes the study and proposes future recommendations for researchers and also the related parties to this study. The limitations of this study is briefly described at the end of this chapter.

### **1.7 Definition of Key Terms**

The study covers four main elements which are attitude toward entrepreneurship, perceived behavioral control, subjective norms and entrepreneurial intention. There are many definitions for each of the elements. However, for this specific study, the definition of the key terms are as follow:

- Attitude toward entrepreneurship: The extent of individual has favorable and unfavorable assessment towards entrepreneurship.
- Perceived behavioral control: Perceived ease or difficulty to perform a behavior, which in this study referring to entrepreneurship.
- Subjective norms: The belief of a person that specific individuals or groups (social pressure) think he should or should not perform the behavior.
- Entrepreneurial intention: Entrepreneurial intention is the commitment to start a business (Krueger & Carsrud, 1993)

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter elaborates on past researches that related to the topic, theories that being proposed by major scholars on entrepreneurial intention and the gap which is required to be filled by this research.

#### 2.2 Entrepreneur

The belief that entrepreneurs are born but not made was scientifically proven a fallacy as many studies such as (Charney & Libecap, 2000; Kolvereid & Moen, 1997; Van der Sluis, Van Praag & Vijverberg, 2005) that have been done by previous researches convinced that entrepreneurs can be developed or shaped, but not inherited from their parents (Barringer & Ireland, 2006). Entrepreneur is originated from a French word known as *entreprendre* which means 'to undertake' (Ahmad & Seymour, 2008). An Irish-French economist, Richard Cantillon in his book called *Essay on the Nature of Commerce* was believed to be the first person in the world to utilize the word "entrepreneur". Cantillon (1775) as cited from Ahmad and Seymour (2008) defines entrepreneurs as a people that buy a product at fixed priced and sell it back on a different price. However, most of the credit went to Jean Baptiste Say, a French economist who was



honoured as the founder of the term “entrepreneur” in the early 1800. From his perspective, the entrepreneur shifts economic resources out of an area of lower and into an area of higher productivity and greater yield. Similar with another management term “leadership”, there is no specific and unambiguous definition for entrepreneur (Wickham, 2001).

A detailed study on perspectives of academic, business leaders, and politician for entrepreneurship definition by Gartner (1990) has collected 90 different entrepreneur’s attributes and concluded that many pairs of definitions had no common attributes with each other. According to Fayolle (2007), the conception of entrepreneur has evolved over time. Table 2.1 shows some of the many definitions for entrepreneur.

**Table 2.1: Definitions of entrepreneur**

<b>Authors</b>	<b>Definition</b>
Schumpeter (1965)	A person that exploit the opportunity in the market using his or her technical or innovation of organization.
Drucker (1970)	“Individual who always searches for change, responds to it and exploits it as an opportunity”
Hull, Bosley and Udell (1980)	A person who organized and manages a business undertaking assuming the risk for the sake of profit
McMullan and Long (1990)	A self-employed person who has face uncertainty, and never be tied down to the traditional way of making deals
Kuratko (2007)	Individuals that are in dear need of change through recognition of opportunity in places others see problems, danger or confusion

Every research study should have a specific definition of entrepreneur for that particular study (Gartner, 1989). Therefore, relative to this study, entrepreneur is defined as a self-employed individual (McMullan & Long, 1990) who always searches for change, responds to it, and exploits it as an opportunity (Drucker, 1970) to organize and manage a business (Hull et. al, 1980).

### **2.3 Entrepreneurship**

The idea of entrepreneur has derived a number of key concepts such as entrepreneurship and entrepreneurial (Wickham, 2001). He cites that entrepreneurship concept covers on what the entrepreneur does while entrepreneurial describes how the entrepreneur undertakes what he or she does. Entrepreneurship is defined as “the creation of new enterprises” (Low & MacMillan, 1988) which is parallel with the definition of entrepreneurship by Gartner (1985) “the emergence of new organization”. The previous definition is extended by current researcher such as Onuoha (2007) defined entrepreneurship as “the practice of starting new organizations or revitalizing mature organizations, particularly new businesses generally in responses to identified opportunities”. Fred Wilson is an American businessman and the co-founder of Union Square Ventures and have ventures in many established Web 2.0 companies such as Twitter, Tumblr, and Foursquare has defined entrepreneurship as “the art of turning ideas into opportunities” (Barringer & Ireland, 2006). Many scholars defined the entrepreneurship concept as a process to identify or recognize and implement the opportunities (Gibb, 2002; Darren and Conrad, 2009; Ogundele, 2007).

The development of entrepreneurship concepts and activity in Malaysia is highly essential (Sandhu, Sidique & Riaz, 2011), because entrepreneurship is one of the driving factors for economic development and job creation (Zealelem, Temtime, Chinyoka & Shunda, 2004). Luthje and Franke (2003) in Mahmoud and Farah (2014) stated that nurturing entrepreneurship receives greater attention by policymakers among nations. According to Fini, Grimaldi, and Sobrero (2009), based on the entrepreneurship literatures, there are many scholars who studied on intentions. According to Shapero and Sokol (1982), intention comprises of perceived desirability and feasibility and the propensity to act on chances. While Ajzen (1991) defined intentions as “to capture the motivational factors that influence a behaviour, indicators of how hard people are willing to try, and their efforts that they try to plan in order to carry out the behaviour”.

Past studies prove that intentions is the best predictors for individual behaviours (eg., Ajzen & Fishbein, 1980; Ryan & Bonfield, 1980; Chandon, Morwitz & Reinartz, 2005), especially when the behaviour is unique, difficult to see or involves uncertain time lags (Krueger & Brazeal, 1994). This supported by Bagozzi, Baumgartner and Yi (1989) who refer intention as an unbiased predictor of anticipated action, regardless of the time gap existence. Intention predicts deliberate behaviours and is assumed to reduce the emotional factors which might influence ones behaviour. Besides that, Franco, Haase and Lautenschlager (2010) stated that intention is an important concept to understand the reasons for career of an individual. Therefore, for this study, intention is used to indicate the level of entrepreneurship for each individual students.

## **2.4 Entrepreneurial Intention**

Past researchers have used many methodologies to find the factors that lead an individual to start a company such as personality traits (Tateh, Latip & Awang, 2014; Akanbi, 2013; Owoseni, 2014), beliefs (Gasse & Tremblay, 2011), demographic variables such as age, gender (Singh, 2014; Agyemang, Deh & Yeboah, 2013), and level of studies (Bhandari, 2013) which were criticized for their problematic methodologies, concepts and low explanatory capacity (Karali, 2013). This is supported by Walker et al. (2013) as they reported that, economic factors, situational factors, individual factors, and demographic variables have low to average strength in predicting the entrepreneurial activity. From the entrepreneurship perspective, intention is an important element in establishing an organization (Katz & Gartner, 1988). Walker et al. (2013) stated that an individual who senses opportunities to start a business and feels capable to involve in entrepreneurship but lack of intention, might not involve himself in business. This shows that entrepreneurial intention is paramount to encourage entrepreneurship activity and start a new business.

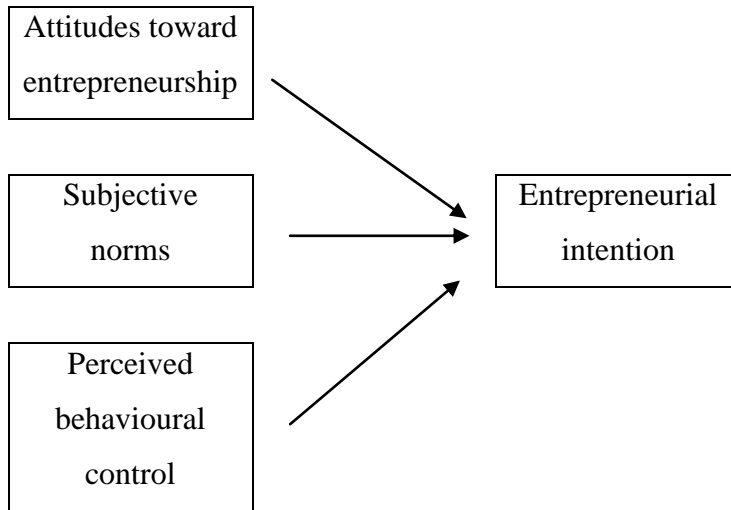
According to Krueger and Carsrud (1993), entrepreneurial intention is the commitment to kick off a business. Douglas and Fitzsimmon (2008) refer entrepreneurial intention as the action on attitudes of an individual on the results of that actions and individual self-efficacy. Despite the increasing interest on entrepreneurial intention of the graduates in the developed countries (Kolvereid, 1996; Krueger et. al, 2000), the studies on this area is still low in developing countries (Iakovleva et. al, 2011), and very

limited literatures on entrepreneurial intention that study on postgraduate students (Sandhu et. al, 2011). Among past studies on entrepreneurial intentions that focusing on postgraduate students are Mahmoud and Farah (2014), Nurhidayah, Norliya, and Nor Famiza (2013) and Amran, Rehman, Saif, Malekifar and Jabeen (2013). The entrepreneurial intention literatures are normally focusing on several factors (motivational, barriers, social) such as personality traits and the three elements of TPB Krueger (1993) and Ajzen (1991).

There are two major intention models that are widely used since 1990's namely Ajzen's theory of planned behaviour (TPB) and Shapero's model of the entrepreneurial event. For the TPB, intention is defined based on three antecedents which are attitudes towards the behaviours, subjective norms and perceived behavioural control (PBC). Ajzen (1991) defines attitudes as the extent of individual has favourable and unfavourable assessment of the actions. Subjective norms refer to the perceived social pressure to act or reject the actions. PBC represents the individual's control belief regarding the behaviour. The Shapero's model is derived from perceived desirability, perceived feasibility and propensity to act upon opportunities.

The theoretical specification for TPB has a greater depth and consistency compared to the Shapero's model (Gelderen, Brand, van Praag, Bodewes, Poutsma & van Gils, 2008). According to Ajzen (2001) and Kolvereid (1996), TPB can be applied to most of all voluntary behaviours and also the choice of professional career. Therefore, for this particular study, the study uses TPB where the entrepreneurial intention among

postgraduates are explained by the three elements as in Figure 2.1. For the purpose of this study, the TPB model by Ajzen (1991) is used to identify the entrepreneurial intention among postgraduate students at UUM.



**Figure 2.1: Ajzen's theory of planned behaviours (1991)**

## **2.5 Theory of Planned Behaviours**

The central construct of the theory of planned behaviours is the individual's intention to perform a given behaviour (Ajzen, 1991). Karali (2013) reported that TPB has emerged as one of the most popular conceptual framework in studying human action especially the intention of individuals to involve in various activities. As it has widely been applied in the field of entrepreneurship, the TPB provides validated and concrete research results Fayolle, Gailly & Lassas-Clerc (2006).

Recent studies on entrepreneurial intention among postgraduate students using the TPB antecedents show positive findings of association between the three elements of TPB and entrepreneurial intentions (Mahmoud & Farah, 2014; Nurhidayah et. al, 2013). In addition, comparative study was done by previous researchers which confirmed the usability of TPB to predict the intentions to become entrepreneurs. Iakovleva et. al (2011) conducted a study on developing countries and developed countries to observe the differences of entrepreneurial intention between the two groups. A comparative study on business and non-business students of UUM shows a positive relationship between the three dimensions of TPB and entrepreneurial intention (Maizura, 2009). The findings show that both groups agreed that TPB predicts their intention to be an entrepreneur. As mentioned earlier, the TPB postulates the following three predictors of entrepreneurial intention:

### **2.5.1 Attitudes toward Entrepreneurship**

Attitudes toward behaviours is defined as a respond by individual on the degree of acceptance and rejection or appraisal on behaviours. For this research, attitude is based on entrepreneurship where the respond by the individual measures their attitudes, either positively or negatively on entrepreneurship. Recent study by Yousef et. al (2015) shows a positive association between attitudes toward entrepreneurship and subjective norms and entrepreneurial intention. A study by Karali (2013) finds that entrepreneurship education programs mediate the positive significant relationship between attitudes

towards entrepreneurship, perceived behaviours control and subjective norm with entrepreneurial intention. This is supported by Zampetakis et al. (2013) which shows a positive relationship between attitudes on entrepreneurship among agriculture and related science students with the intention to become an entrepreneur.

A study by Remeikiene, Startiene and Dumciuviene (2013) have found that the attitude toward entrepreneurship is one of the personality traits that contribute to the intention to become entrepreneurs among students in Kaunas University of Technology in Lithuania. This study supports the finding of Basu and Virick (2008) who found that the positive relationship between attitude toward entrepreneurship and entrepreneurial intention is mediated by the entrepreneurship education at the university. The previous studies are coherent with the current finding by Mahmoud and Farah (2014) who studied on 158 Nigerian postgraduate students in Universiti Utara Malaysia as they found that the attitude toward entrepreneurship has a positive significant relationship with the intention to become entrepreneur.

Malebana (2014) found that attitude towards entrepreneurship is the strongest predictor of entrepreneurial intention compared to perceived control behaviour and subjective norms. Past studies found that the attitude towards entrepreneurship is affected by either extrinsic and intrinsic motivation or either one of the motivational factors for examples the freedom, self-actualization and gain a comfortable earning (Fretschner & Weber, 2013), earning and ownership (Douglas & Fitzsimmons, 2013), self-realization, role and recognition (Saeed et al., 2013). Individual might be affected by their



observations on existing entrepreneurs. Either positively or negatively affected, this will affect their attitudes towards entrepreneurship and hence entrepreneurial intention (Muofhe & du Toit, 2011; Lapista et al., 2012).

### **2.5.2 Perceived Behavioural Control**

According to Kolvereid (1996a), perceived behavioural control or PBC is defined as perceived ability to become an entrepreneur. It can be further elaborated as “perceived ease or difficulty of becoming an entrepreneur and the confidence to success”. According to Ajzen (2005, 2011, 2012), few internal and external factors that able to encourage or discourage the actions of a person are previous own or watching friends or close people experiences, resources availability, and others.

A study by Walker et al. (2013) using the Global Entrepreneurship Monitor (GEM) conceptual model along with the TPB indicated a significant relationship between PBC and entrepreneurial intention. Another studies by Karali (2013) and Zampetakis et al. (2013) also got the similar outcome for the relationship between PBC and the intention of students to be entrepreneurs. Therefore, as a postgraduate student who has been exposed with entrepreneurship environment since their first year as a degree student, a positive evaluation is expected for their PCB dimension unless they have bad experiences as entrepreneurs in the past or observed someone else failed as entrepreneurs.

In a cross cultural study to observe the function of culture on entrepreneurial intention at six different countries which are Germany, India, Poland, Iran, Netherlands and Spain, Moriano, Gorgievski, Laguna, Stephan and Zarafshani (2011) have found that PBC has a positive association with entrepreneurial intention across all the six countries involved in the study. This study supported a recent cross cultural study between Spain and Britain by Linan, Nabi and Krueger (2013) as they found a significant correlation between PBC and entrepreneurial intention in both countries.

The study by Linan et. al (2013) also found that the PBC is the strongest predictor for entrepreneurial intention among the respondents in Britain but it is a weaker predictor for entrepreneurial intention among the respondents in Spain. This is coherent with the latest study by Mahmoud and Farah (2014) as their finding show that the strongest predictor for entrepreneurial intention among Nigerian postgraduate students is the perceived behavioural control antecedent. These two findings support the previous study conducted by Sommer and Haug (2011) as perceived behavioural control was found to be the strongest predictor of entrepreneurial intention.

Other studies also found a positive relationship between perceived behavioural control and entrepreneurial intention (Paco, Ferreira, Raposo, Rodrigues & Dinis, 2011; Yurtkuru, Kuscu & Doganay, 2014; Lee, Lim, Lim Li & Ng, 2012).

### **2.5.3 Subjective Norms**

According to Ajzen and Fishbein (1980), there are two components of subjective norms which are normative beliefs and motivation to conform to the beliefs. Subjective norms derive from individual beliefs that a person's parents, spouse, family, closest friends, colleagues, and expert on behaviour of interest, which approve or disapprove the behaviour, or the social contexts themselves engages in or not (Ajzen, 2005). Furthermore, subjective norm can be refer as perceptions of reference people such as parents, spouse, family, friends or co-workers that would support the decision to be entrepreneur (Ajzen, 2001; Linan and Chen, 2009). For this research, subjective norms are derived from closest family, closest friends, people who are important to a person, and the university's environment. This group of people and the external context may become the supportive group who will be the backbone for the student to become entrepreneur or they might be a group of people and environment that will discourage a person from becoming an entrepreneur.

Walker et al. (2013) found a positive relationship between SN and PBC with the entrepreneurial intentions based on both correlation and regressions tests. This study is coherent with Karali (2013) who found that the five years of entrepreneurship education contributed to the positive relationship between subjective norms and intention to become entrepreneurs. In a more recent study, Malebana (2014) also found a positive contribution of SN and entrepreneurial intention. In addition, Peng (2012) found significant influence of SN of university students on their entrepreneurial attitudes and self-efficacy where

these factors exert a significant relationship on their entrepreneurial intention. A study on the effects of entrepreneurship education towards entrepreneurial intention by Marques et al. (2012) has found a negative relationship between SN and entrepreneurial intention. Coherently, a study on agricultural and related science students in University of Athens found the relationship between SN and entrepreneurial intention is insignificant and negatively associated (Zampetakis et al.,2013).

## **2.6 Impact of Parents Involvement in Business and Education on Entrepreneurial Intention**

Many assume individual who came from family that own businesses has a higher tendency to venture themselves in entrepreneurial activities (Gartner, 2004). This statement has been supported by previous studies as they found that entrepreneurial parents increase the probability of the child to become entrepreneur from 1.3- 3.0 factor (Arum & Mueller, 2004; Colombier & Masclet, 2008; Dunn & Holtz-Eaking, 2000; Sorensen, 2007; Lindsquist, Sol & van Praag, 2015). According to Bagheri and Zaidatol (2010), family is proposed to be the first place in enhancing awareness of the students on entrepreneurship. The flexibility and independence are the traits of entrepreneurs that are planted by the parents on the children since early of their ages, hence inspire them to become entrepreneurs like their parents (Hisrich et. al, 2005). Family is one of the key institutions that is linked to the formation of attitude toward entrepreneurships, develop capabilities and creativity to create new ideas in starting a new business which then lead to the establishment of the intention of becoming an entrepreneur (Bagheri & Zaidatol,

2010). Therefore, based on past literatures, parents' involvement in business is recognized as one of the factors that form the entrepreneurial intention. Besides that, it correlates with one of the TPB element which is the main theory that is used for this study. Hence, this study is also investigates the parents' involvement in business, whether the entrepreneurial intention between students with family business differs from the students with no business background.

Past studies show mixed findings as Marques, Ferreira, Gomes and Gouveia (2012) finds a negative association between family involvements in business on students' entrepreneurial intention. The finding is contrasted with previous studies which find a positive relationship between family involvements in business and the intention to be an entrepreneur (Hisrich, 1990; Matthews and Moser, 1996). Lindquist et. al (2015) finds that the parents who involve in business enhances the probability of the children to become entrepreneurs by 60% with both biological parents and adoptive parents contribute significantly on the children's entrepreneurship. Bagheri and Zaidatol (2010) studies on the influence of parents in entrepreneurial development and the finding shows that parents play a vital role in inspiring the children to become entrepreneurs, regardless of the parents' occupations. As previous findings show inconclusive results, this study hopes to confirm whether the involvement of parents on business makes any difference on students' intention to become entrepreneurs.

According to Kuratko (2005), the question whether entrepreneurship can be taught is obsolete. Various study proved that entrepreneurship education is one of the

important factors that develop the entrepreneurial intention among the students. The graduated college students who were trained to do business might choose to become officers or entrepreneurs because this would be determined by their intent (Zaharah, Nor & Fakhrul, 2013).

## **2.7 Conclusion**

The review on past literatures shows that, there have been many studies that were focusing on Theory of Planned behaviour to explain the intention of an individual especially in entrepreneurship area of study. Many researchers utilized the TPB to explain the intention of becoming entrepreneurs. However, the studies are mainly concentrated in developed countries which left the developing countries with lack of literatures on entrepreneurial intention especially based on the TPB antecedents. The three antecedents are attitude toward entrepreneurship, perceived behavioural control and subjective norms. Besides that, the study recognizes the inconsistency on the literatures on the role of parents involvement on student's intention to become entrepreneurs which lead to the fourth independent variable of the study. A further reading leads to another finding as there were very small number of studies in Malaysia that emphasizing on the postgraduate students as their sample. Therefore, this study willing to fill the gap by focusing only on postgraduate students as the research sample by examining their entrepreneurial intention based on three antecedents of the TPB.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the research methodology for this study. It begins with the discussion on the research design, theoretical framework and hypothesis, measurement of variables, data collection methods, population of the study, sample size and sampling techniques, reliability and validity test and finally, data analysis techniques.

#### **3.2 Research Design**

This is a descriptive quantitative research that studies on three factors of Planned Behaviour Theory which are attitudes towards entrepreneurship, perceived behavioural control and subjective norms that can leads to the intention on becoming entrepreneurs among postgraduate students. Furthermore, this study also investigates the influence of parents' involvement in business on postgraduate students' intention to be entrepreneurs. Quantitative research is an objective and systematic process where the findings are derived from numerical data. In contrast with qualitative approach where the subject to be investigate is guided by certain ideas, perspectives or intuition, a quantitative study tests theory deductively from the existing knowledge by developing hypothesis and proposed

the outcomes of study (Charoenruk, 2012). The independent variables for this study are based on the planned behaviour model of Ajzen (1991). As mentioned earlier, there are three elements in the model namely attitudes toward entrepreneurships, perceived behavioural control and subjective norms. The fourth independent variable is parents involvement in business. The three elements of Ajzen's model are employed to investigate their contribution on entrepreneurial intention which is the dependent variable for this study.

For the purpose of collecting data, this study used survey method through self-administered questionnaires. The survey method is used instead of other approaches because of time and financial constraints. According to Maizura (2009), self-administered questionnaires is cheaper and quicker than others and a popular method among qualitative researchers because data can be obtained by the researchers easily and each questionnaire response can be coded systematically. In addition, the questionnaires are a very useful data collection method especially when a study has a large number of respondents to be reached in different geographical location (Sekaran & Bougie, 2010). Hence, the researcher distributes the questionnaires to randomly selected respondents among postgraduate students in UUM to answer the questionnaires and collect them back after a week.



### 3.3 Research Framework

Based on the literature review on previous studies that are related with this study, the conceptual framework for this particular study is constructed to identify factors that lead to entrepreneurial intentions. Therefore, this study incorporates the original model of planned behaviour theory by Ajzen. Based on the TPB, there are independent variables which are attitudes toward entrepreneurship, perceived behavioural control, and subjective norms. Meanwhile, entrepreneurial intention among postgraduate students represents the dependent variable. In addition, the study also examines the effect of parents' involvement in business on students' entrepreneurial intentions. The research framework is as follows:

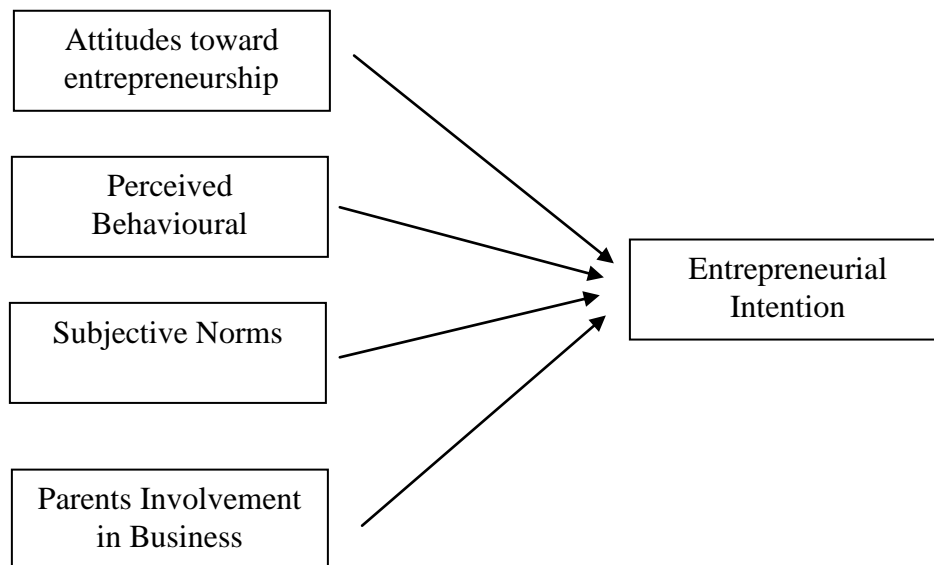


Figure 3.1: Research Framework for this Study

### **3.4 Hypothesis of the Study**

From the above research framework and the stated objectives of this study, four hypotheses are formulated:

**H<sub>1</sub>:** There is a positive relationship between attitudes towards entrepreneurship and entrepreneurial intention among postgraduate students.

**H<sub>2</sub>:** There is a positive relationship between perceived behavioural control and entrepreneurial intention among postgraduate students.

**H<sub>3</sub>:** There is a positive relationship between subjective norms and entrepreneurial intention among postgraduate students.

**H<sub>4</sub>:** There is differences on the entrepreneurial intention of between the students with business parents and students from non-business parents.

### **3.5 Population of the Study**

Population is an aggregate or totality of all objects, subjects or members which conform a set of specifications (Neuman, 2005). Therefore, the population of this study represents by all active postgraduate students of UUM including both full time and part time students who studying Master of Science, Master of Business Administration, Doctoral of Business Administration and PhD. Based on the Web.malaysia-students.com (2015), there are more than 4597 postgraduates students in UUM that comprises of local and international students. So, all 4597 students are the respondents for this study and have equal chances to be selected as respondents.

### **3.6 Sampling Techniques**

A simple random sampling is used to select the postgraduate students which are the respondents for the questionnaire. According to Moore and McCabe (2006), simple random sampling of size  $n$  comprises of  $n$  individuals from a population selected in such way that each individual has the equal chance and same probability to be the sample actually selected. Based on Krejcie and Morgan (1970) table, for a population of 4500 and above, the minimum sample for the study is 351. Therefore, the researcher decides to distribute the questionnaires to 370 postgraduate students from various backgrounds by randomly selected the respondents of this study to analyse their entrepreneurial intentions.

### **3.7 Measurement of Construct**

For this particular study, self-administered questionnaires with the total of 42-items were used to testify the hypotheses of the study. There are five sections for this 42-items questionnaires namely Section A: Personal details, Section B: ATE, Section C: PBC, Section D: SN, and Section E: Entrepreneurial Intention. The Section A consists of nine items that accumulate demographic profile of the respondents. The next three sections (B, C and D) represent the three independent variables of the study which consists of 23-items that correspond to the Ajzen's model of planned behaviour. The final section of the questionnaire is the Section E consists of 10-items that intends to measure the intention level of postgraduate students on becoming entrepreneurs.

### 3.7.1 Measurement of Demographic Factors

There are nine items in this research questionnaire to identify the demographic profiles of the respondents. The nine items include gender, age, race, religion, nationality, educational level, and family background including parents' involvement in business.

### 3.7.2 Measurement of Planned Behaviour Theory

The instrument to measure each component of the planned behaviour theory is obtained from the modified version of the previous studies on entrepreneurial intention. There are 23-items including reversed item are used to examine the three dimensions of the planned behaviour theory. For Section B, 9-items examine the attitudes toward entrepreneurships, while in Section C, 9-items measure the perceived behaviour control. The remaining five items in Section D is to measure the subjective norms of the respondents. Table 3.1 shows the three dimensions of planned behaviour theory and the codes of each question number.

Table 3.1: Three Elements of Planned Behaviour Theory and their Items Number

<b>Dimension</b>	<b>Positive items (Items number in questionnaire)</b>	<b>Negative items (Items number in questionnaire)</b>
Attitudes towards Entrepreneurship	B1,B3,B4,B5,B6,B7,B8,B9	B2
Perceived Behavioural Control	C1,C2,C3,C4,C5,C6,C7,C8,C9	
Subjective Norms	D1,D2,D3,D4,D5	-

Previous studies (Maizura, 2009; Lee et. al, 2012) used five-point likert scale and some have used seven point scale (Mahmoud & Farah, 2014) to measure each items in the planned behaviour theory section. In this study, the researcher used four-point scale instead of the more common five-point to measure the items of the questionnaires because according to Allen and Seaman (2007), the overall difference in response when comparing between these two scales is negligible. The four-point scale rates as 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree”, and 4 for “strongly agree”. The rating of 1 or strongly disagree indicates a very low level of attitude towards entrepreneurships, perceived behaviour control and subjective norms. On the other hand, the rating of 4 or strongly agree indicates a very high level of attitude towards entrepreneurship, perceived behaviour control and subjective norms. Table 3.2 represents the 33-items of planned behaviour theory and its dimensions.

Table 3.2: 33-items of Planned Behaviour Theory’s Dimensions and the Sources

<b>Dimensions</b>	<b>Items</b>	<b>Literature Source</b>
<b>Attitudes toward Entrepreneurship</b>	<p>“If I had the opportunity and resources I would love to start a business”</p> <p>“Among various options, I would rather be anything but an entrepreneur”</p> <p>“Being an entrepreneur would give me great satisfaction”</p> <p>“Being an entrepreneur implies more advantage than disadvantages to me”</p>	Linan et. al (2007)

	“Entrepreneurs are largely responsible for new innovations, technologies, and products”	Karimi et. al (2010)
	“Academic institutions should encourage students to consider entrepreneurship”	
	I am a risk taker	
	Entrepreneurship is an honourable profession	
	I seriously consider entrepreneurship as a career option	
<b>Perceived</b>	It seems easy to start my own business	Karimi et.
<b>Behaviour</b>	“I am ready to start a sustainable business”	al (2010)
<b>Control</b>	“I am able to control the creation process of a new business”	
	I know the necessary details to start my own business	
	If I start a business, I would have a high probability of success	
	“The number of events outside which could prevent me from starting a new business are very few”	
	I think developing a business idea is easy	
	I have the skills and capabilities required to succeed as an entrepreneur	Autio et. al (2001)
	“To start my own firm would be probably the best way for me to take advantage of my education”	
<b>Subjective Norms</b>	“I believe that my closest family thinks that I should	Kolvereid (1996b) in

pursue a career as an entrepreneur”	Karimi
“I believe that my closest friends think that I should	(2010) and
pursue a career as an entrepreneur”	Autio et. al
	(2001)
I believe that people who are important to me think	
that I should pursue a career as an entrepreneur	
“In my university, people are actively encouraged to	Gurbuz
pursue their own ideas”	and Aykol
“In my university, you get to meet a lot of people with	(2008)
good ideas for a new firm”	

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Table 3.3 below represents the summary of the four-point likert scale rating.

Table 3.3: Rating Scale and Description

Likert scale	Description
1	Strongly disagree
2	Disagree
3	Agree
4	Strongly Agree

### 3.7.3 Measurement of Entrepreneurial Intention

According to Krueger et. al (2000), different researchers have their distinctive perspectives in predicting entrepreneurial intention. Thus, an instrument is designed to analyse the entrepreneurial intention by Linan and Chen (2006) known as Entrepreneurial Intention Questionnaire (EIQ). In this particular study, the entrepreneurial intention's indicators are adopted from various authors in the field of entrepreneurial intention. The 10-items are based on Linan and Chen (2009), Kolvereid (1996), Leong (2008), and Zampetakis et. al (2013). Linan and Chen (2009) utilized an improved version of EIQ by Linan and Chen (2006). For the purpose of this study, the researcher formulates a 10-items questionnaire to examine the entrepreneurial intention among postgraduate students of UUM. The rating on entrepreneurial intention uses a four-point likert scale to observe the extent of agreement and disagreement on each statement in the entrepreneurial intention section. The rating on responses use the same rating scale as in the above Table 3.3. Table 3.4 shows the number of items for the entrepreneurial intention section.

Table 3.4: Number of Items for Entrepreneurial Intention Questionnaire

<b>Variable</b>	<b>Number of Items in Questionnaire</b>
<b>Entrepreneurial intention</b>	E1-E10



A respondent which rates 1 or strongly disagree indicates a very low level of entrepreneurial intention and respondent who rates 4 or strongly agree represents a very high level of entrepreneurial intention. Table 3.5 represents the 10-items statement to examine the entrepreneurial intention and the literature sources of the items.

Table 3.5: Items of Entrepreneurial Intention

<b>Variable</b>	<b>Items</b>	<b>Literature Source</b>
<b>Entrepreneurial Intention</b>	“I am ready to do anything to be an entrepreneur”	Linan and
	“My professional goal is becoming an entrepreneur”	Chen
	“I will make every effort to start and run my own business”	(2009)
	“I am determined to create a firm in the future”	
	“I am going to start my own business within one year of graduation”	Kolvereid (1996)
	“I would rather be my own boss than have a secure job”	Leong
	“I want the freedom to express myself in my own business”	(2008)
	“You can only make big money if you are self-employed”	
	“I read books on procedures for initiating business”	Zampetakis et. al
	“I dedicate time to learn how to create a business”	(2013)

### **3.7.4 Unit of Analysis**

The unit of analysis for this study is the individual level as every postgraduate students in UUM has equal chances to be selected as the respondents. Based on the hypotheses in Chapter 2, the study utilizes three different types of analysis in analysing each hypothesis. For the first three hypotheses ( $H_1$ - $H_3$ ), Pearson correlation and multiple linear regressions is used to test the relationship between independent variables (attitudes toward entrepreneurship, perceived behavioural control and subjective norms) and the dependent variable (Entrepreneurial intention) of this study. The researcher analyses  $H_4$  using the paired sample t-test in identifying whether there is a difference between the two groups (business parents and non-business parents. The study conducts all the analysis using the software of Statistical Package for the Social Sciences or SPSS version 20.

### **3.8 Data Collection Procedure**

The population for this study is all postgraduate students of Universiti Utara Malaysia in the Main Campus of Sintok, Kedah. The total population of active postgraduate students is 4597. Based on Krejcie and Morgan (1970) table, the sample of this study should at least consists of 351 respondents. However, the researcher distributed 370 questionnaires to the respondents to overcome errors during the data analysis such as incomplete answers, invalid respondents or outliers, and repetitive responds scales. These errors will affect the normality of the data hence the overall data analysis might be wrong or insignificant. The researcher obtained the information regarding the total number of

postgraduate students from the current record of Students Affairs Department. The researcher used the survey method through a 44-items questionnaire as the primary data collection method. The researcher conducts a pilot study on 30 postgraduate students to investigate the validity of this research instrument. The respondents for the pilot study are randomly selected at places such as the library, residence hall and in the class. The result for the pilot test is presented in the later section.

After that, for the actual study, the researcher distributes questionnaires to 370 respondents of UUM's postgraduate students using the random sampling technique. The questionnaires are in English language and distribute to respondents at specific places that have a high attendance of postgraduate students such as the library, colleges, and residence halls. Researcher waits until the respondents finished completing the questionnaires because some respondents demand further explanations on the study and some respondents need a guidance from the researcher to understand some items of the questionnaires. The average time taken for a respondent to answer the questionnaire is about 10-15 minutes. The researcher personally distributes the questionnaires to the respondents to ensure that all questionnaire would be collected back.

### 3.9 Reliability of the Instruments

Reliability examines the consistency and stability of each item in measuring the established variables of the study (Sekaran, 2003). Cronbach's alpha is a reliability coefficient that determines the extent of the questionnaire's items are positively correlated with each other. A closer value of Chronbach's alpha to 1 indicates a higher internal consistency reliability. Table 3.6 shows a detail information on Cronbach's alpha range.

Table 3.6: Criterion for Acceptability

<b>Alpha Coefficient Range</b>	<b>Strength of Association</b>
Less than 0.6	Poor
0.6 - 0.7	Moderate
0.7 - 0.8	Good
0.8 to - 0.9	Very Good
More than 0.9	Excellent

(Source: Zikmund, Babin, Carr & Griffin, 2010)

According to Cavana et. al (2001) respondents for pilot test should come from the target population or similar to the target population. Thus, a pilot study is conducted by the researcher to assess the internal reliability of the instruments. 30 respondents are randomly selected among postgraduate students of UUM and required to complete the 44-items questionnaires. Table 3.7 represents the findings on reliability test of the independent variables which are attitudes toward entrepreneurship, perceived behaviour

control, and subjective norms. Table 3.8 show the findings on the reliability test of the intention to become entrepreneur.

Table 3.7: Reliability Values of the Dimensions of Planned Behaviour Theory

<b>Factors</b>	<b>Reliability Values</b>	
	<b>Before</b>	<b>After</b>
Attitude towards Entrepreneurship	0.623	0.721
Perceived Behaviour Control	0.688	0.756
Subjective Norms	0.762	-

Based on the above table, there are two reliability values for attitude toward entrepreneurship and perceived behaviour because the first reliability test found a lower Cronbach's alpha that could effects the overall result of the study. Therefore, one item was eliminated from each variable (B1 and C8). After the items were removed, the Cronbach's alpha for both factors increased to a higher reliability values. Hence, the items for attitude toward entrepreneurship and perceived behavioural control are reduced to 9-items each.

Table 3.8: Reliability Value for Entrepreneurial Intention

<b>Variable</b>	<b>Reliability Value</b>
Entrepreneurial intention	0.744

### **3.10 Data Analysis**

Statistical Packages for Social Science (SPSS) software analyses the demographic factors, independent variables and the dependent variable of the study. Descriptive statistics analysis is used to analyse the demographic factors in the questionnaire. On the other hand, inferential statistics analysis is used to test the hypothesis of the study. However, before the researcher proceeds with the descriptive and inferential statistics analyses, a few other pre-data analysis are necessary to be implemented to ensure the collected data can be utilized to analyse the dependent and independent variables for this study.

#### **3.10.1 Data Normality**

Parametric tests assume that the numerical data cases are drawn from normally distributed populations. Therefore, normality test is used to check if the value of data for each quantifiable variable is distributed normally. The normality is checked using the values of skewness and kurtosis.

### **3.10.2 Descriptive Statistics Analysis**

According to Saunders et. al (2012), descriptive statistics describes and compares variables numerically. The statistics emphasizes on two aspects in describing a variable which are the central tendency and dispersion. The central tendency represents mode, median and mean. In addition, the measurement on the dispersion states the difference between the highest and lowest value of each item. For this study, descriptive analysis is used to determine the characteristics of respondents demographic. The demographic factors are gender, age, race, religion, nationality, education level of respondents, parents' involvement in business, education level of father and mother of respondents. Besides that, researcher uses the descriptive analysis to measure the level of entrepreneurial intention among postgraduate students of UUM by analysing the mean and standard deviation of the EI.

### **3.10.3 Inferential Statistics Analysis**

#### **1. Correlational analysis**

A correlation coefficient allows researcher to measure the strength of linear association between pairs of variables (Saunders et. al, 2012). Hence, for the purpose of this study, the correlational analysis is used to assess the strength of relationship between the three dimensions of Ajzen's planned behaviour theory with entrepreneurial intention. It is nearly impossible to achieve perfect correlation in business research (Saunders et. al, 2012). Therefore, Hair et. al (2006) developed range of correlation coefficient values as shown in Table 3.9.

Table 3.9: Correlation coefficient values (Hair et. al, 2006)

Values	Strength of relationship
+1	Perfect positive
$0.8 < r < 1$	Very strong positive
$0.6 < r < 0.8$	Strong positive
$0.35 < r < 0.6$	Moderate positive
$0.2 < r < 0.35$	Weak positive
0	Perfect interdependence
$-0.2 > r > -0.35$	Weak negative
$-0.35 > r > -0.6$	Moderate negative
$-0.6 > r > -0.8$	Strong negative
$-0.8 > r > -1$	Very strong negative
-1	Perfect negative

(Source: Hair et. al, 2006)

## 2. Multiple regressions analysis

The researcher uses multiple regression analysis to test the  $H_1$ ,  $H_2$  and  $H_3$ . In contrast with the correlation analysis, the regression analysis enables researcher to examine the strength of a dependent variable and one or more independent variables (Saunders et. al, 2012). Therefore, the multiple regression analysis is used to identify the influence of attitude towards entrepreneurship, perceived behaviour control, and subjective norms on the entrepreneurial intention. The study uses the significant level of 0.01 ( $p < 0.01$ ) to either reject or accept the hypotheses for this study.



### 3. Independent sample t-test

This analysis is used to assess if there is any difference on two distinct groups of descriptive variable. A large t statistic with a probability less than 0.05 indicates there is statistically significant difference between the two tested groups. Hence, the researcher utilizes the independent sample t-test to measure the  $H_4$  for this study. Then, to examine if parents involvement in business makes any differences on students' entrepreneurial intention.

Table 3.10: Summary of elements of the study and their respective types of data analysis

<b>Elements to be analysed:</b>	<b>Types of analysis</b>
Demographic factors of the study	Descriptive analysis- Frequency analysis
Hypothesis 1, Hypothesis 2 and Hypothesis 3	1. Correlational analysis 2. Multiple regression analysis
Hypothesis 4	Independent sample t-test

The above table shows the summarization of all required data analysis for this study to identify the respondents' characteristics and to examine the four hypotheses.

### **3.11 Conclusion**

This chapter has discussed on the research design, theoretical framework and hypothesis, measurement of variables, data collection methods, population of the study, sample size and sampling techniques, reliability and validity test and finally, data analysis techniques. A pilot test was conducted on UUM postgraduate students to assess confirm the reliability of the questionnaires before the real survey questionnaires are distributed and analysed. For this study, descriptive frequency analysis is used to observe the respondents' demographics, correlational and multiple regression are used to test the three hypotheses of the study while the independent sample t-test analyses the fourth hypothesis.

## **CHAPTER FOUR**

### **ANALYSIS AND PRESENTATION OF THE FINDINGS**

#### **4.1 Introduction**

This chapter presents the findings of the study based on the analyses of the collected data. The responses of 352 postgraduate students of Universiti Utara Malaysia were analyzed to identify their entrepreneurial intention based on three antecedents of TPB which are attitude toward entrepreneurship, perceived behavioral control and subjective norms (Ajzen, 1991). The analysis involves three major procedures: i) data screening and cleaning, ii) preliminary analyses iii) hypotheses testing. Steps (i) and (ii) are necessary to remove errors and more importantly to enhance the quality of the results for this study. The final step is to test four hypotheses of the study, hence answers the research questions for the study.

#### **4.2 Data Screening and Cleaning**

According to Pallant (2007), in data collection, data screening and cleaning is a method to check errors in the collected data. Before data analysis using the SPSS, the researcher conducts a preliminary data screening and cleaning on 356 responses. Based on the pre-analysis, four responses are eliminated due to several reasons such as data integrity and missing values. The remaining 352 responses are transferred into the SPSS software for further data screening and cleaning. Using descriptive analysis, the errors on the

minimum (1) and maximum (4) value of the transferred data are corrected. Frequency analysis is used to identify any missing values on the data and no missing value is detected based on the analysis. The 352 responses are found clean for further analysis.

### 4.3 Response Rate

The researcher randomly distributed 370 self-administered questionnaires to postgraduate students at UUM Sintok, Kedah. Within a week, 356 questionnaires are returned back to the researcher from the respondents. After preliminary data screening, four responses have been found not adequately and properly filled by the respective respondents, hence been rejected from further analysis. Therefore, only 352 respondents are considered to be analyzed for this study. The rate of response for this study is 95.1%. According to Krejcie and Morgan table (1970), for a total population of 4500 and above, the suggested sample of study is 351. Hence, the 352 responses are assumed to represent the total population of postgraduate students in UUM. Table 4.1 shows the details on the response rate for this study.

Table 4.1: Response rate on distributed questionnaires

	<b>Frequency/ Rate</b>
No. of distributed questionnaires	370
Not returned questionnaires	14
Returned questionnaires	356
Rejected questionnaires	4
Usable questionnaires	352
Response rate	95.1%

## **4.4 Descriptive Statistics Analysis**

### **4.4.1 Test of Non-response Bias**

Non-response bias test is important because previous studies had proven that there are some differences between the non-respondents and the respondents such as their attitudes, motivations, behaviors, personalities, demographic and psychographic which might affect the outcome of the study (Malhotra, Hall, Shaw, Oppenheim, 2006). According to Malhotra et. al (2006), non-response bias can be assessed by contrasting responses between the early returns and late returns of the questionnaires. The survey was conducted in the second week of May and in a week, 352 valid responses were collected back at different time. The first 165 responses are considered as early returns group while the last 165 responses are considered as late returns group. These two groups are analyzed using the paired samples t-test to identify if there is any non-response bias among the respondents. The result in Table 4.2 shows that there is no difference between the early returns responses and the late returns on all four variables of the study which are attitude toward entrepreneurship ( $t = 0.699, p < 0.486$ ), perceived behavioral control ( $t = 1.055, p < 0.293$ ), subjective norms ( $t = -0.231, p < 0.818$ ), and entrepreneurial intention ( $t = 1.298, p < 0.196$ ).

Table 4.2: Result on Test of Non-response bias

<b>Variables</b>	<b>Mean Difference</b>	<b>t-value</b>	<b>Significant value</b>
ATE	0.3704	0.699	0.486
PBC	0.5993	1.055	0.293
SN	-0.1576	-0.231	0.818
EI	0.8667	1.298	0.196

Notes: \*\*\* Significant at 0.01, \*\* Significant at 0.05, \* Significant at 0.1

#### **4.4.2 Profile of Respondents**

Descriptive and frequency analysis are conducted to identify the characteristics of the respondents of this study. It involves gender, age, race, religion, nationality, and level of study, parents' involvement in business, father highest education and mother highest education as shown in Table 4.3. According to Sekaran and Bougie (2009), the objective of frequency analysis is to examine the number of different respondents with different values that can be represented by the percentage rate. From 352 respondents of this study, 56.2 % or 198 of them are male respondents, 154 (43.8 %) are female respondents. Most of the respondents are between 25-35 years old with 229 (65.0%), 62 (17.6%) are below 25, 52 (14.8%) respondents are between the ages of 25-35, and the remaining 9 (2.6%) are 46 years old and above. There are 160 (45.5%) respondents who are in "Others" racial group which consists of Nigerian, Arab, Algerian, Somalian, Bangladeshi, Thais, and others. The Malay are the second biggest group for this study with 145 respondents (41.2%), 24 (6.8%) are Chinese, and 23 (6.5%) are Indian.

Majority of the respondents are Muslim with 296 (84.1%), 23 (6.5%) are Hindus, 18 (5.1%) are Buddhist, follow by Christian respondents with 8 (2.3%), and 7 (2.0%) are in “others” religion group. This study is equally divided into two groups of nationality as 176 (50%) respondents are Malaysian and the other 176 respondents are in other group. The respondents who are studying Master are 282 (80.1%), PhD 58 (16.5), and DBA 12 (3.4%). There are 207 (58.8%) respondents whose their parents do not own business and 145 (41.2%) respondents claimed their parents involve in business. For father highest education level, 151 (42.9%) reached Tertiary or college level, 113 (32.1%) at secondary level, 50 (14.2%) at primary, and 38 (10.8%) do not have formal education. Finally, for the mother highest education level, 132 (37.5%) at secondary level, 122 (34.7%) reached tertiary or college level, 51 (14.5%) have no formal education, and 47 (13.3%) stopped at primary school.

Table 4.3: Demographic statistics for the profile of respondents

<b>Items</b>	<b>Label</b>	<b>Frequency (N= 352)</b>	<b>Percentages (%)</b>
Gender	Male	198	56.2
	Female	154	43.8
Age	Below 25	62	17.6
	25-35	229	65.0
	36 – 46	52	14.8
	Above 46	9	2.6
Race	Malay	145	41.2
	Chinese	24	6.8
	Indian	23	6.5
	Others	160	45.5
Religion	Islam	296	84.1
	Buddha	18	5.1
	Hindu	23	6.5
	Christian	8	2.3
	Others	7	2.0

Nationality	Malaysian	176	50.0
	Others	176	50.0
Level of study	PhD	58	16.5
	DBA	12	3.4
	Master	282	80.1
Parents own business	Yes	145	41.2
	No	207	58.8
Fathers Highest Education Level	Tertiary/College	151	42.9
	Secondary	113	32.1
	Primary	50	14.2
	No formal education	38	10.8
Mother Highest Education Level	Tertiary/College	122	34.7
	Secondary	132	37.5
	Primary	47	13.3
	No formal education	51	14.5

Finally, the descriptive analysis finds that the mean for entrepreneurial intention for this study is at 2.91. The mean shows that the level of intention to become entrepreneurs among postgraduate students is above average and is quite strong. The details of the result as in Table 4.4 below.

Table 4.4: Descriptive analysis on Entrepreneurial Intention

	Mean	Standard deviation
Entrepreneurial intention	2.91	0.61



#### **4.4.3 Normality of Data**

A normal data has a symmetrical, bell-shaped curve, has the highest frequency in the middle of graph and lower frequencies at the both ends of the curve (Gravetter & Wallnau, 2000). According to Pallant (2005), the values obtained from the skewness and kurtosis column can assess the normality of the data. Therefore, for this study, the normality of the data is assessed using the skewness and kurtosis values from the descriptive analysis. The result shows that the skewness value is at 0.130 while the kurtosis value is 0.259. Coakes (2012) suggests that for data to be assumed as normal, the skewness and kurtosis values cannot be more than 3 or less than -3. Based on his suggestion, the values of skewness and kurtosis for this study are not exceeding 3 or less than -3, hence the data can be assumed as a normal data.

#### **4.4.4 Reliability Test**

Reliability also refers as internal consistency or degree of the items in the questionnaires 'hang together' (Pallant, 2005). She added that the Cronbach's alpha coefficient is an indicator to measure the internal consistency of the questionnaires. Based on the reliability test analysis for this study, the three independent variables which are attitude toward entrepreneurship (9 items), perceived behavioral control (9 items) and subjective norms (5 items) have respectively score of Cronbach's alpha 0.816, 0.853 and 0.816. The Cronbach's alpha coefficient for the 10-items of entrepreneurial intention (dependent variable) is 0.911. According to Nunnally and Bernstein (1994), the value of Cronbach's alpha from 0.6-0.7 is acceptable for an exploratory research, 0.7-0.9 is considered as satisfactory while 0.9 and above is assumed as excellent. Therefore, the reliability of the

three independent variables for this study are at satisfactory level. For the dependent variable, the reliability scale achieved excellent result. The detail findings on the reliability test and its interpretations are shown in Table 4.5.

Table 4.5: Descriptive Statistics of Reliability

<b>Variables</b>	<b>No. of Items</b>	<b>Cronbach's Alpha</b>	<b>Interpretation (Nunnally and Bernstein, 1994)</b>
Attitude toward entrepreneurship	9 items	0.816	Satisfactory
Perceived behavioral control	9 items	0.853	Satisfactory
Subjective norms	5 items	0.816	Satisfactory
Entrepreneurial intention	10 items	0.911	Excellent

According to Nunnally (1967), scores above 0.6 is an acceptable standard for constructs reliability. Hence, all reliability in this study are above the acceptable standard.

#### **4.4.5 Validity Test**

Validity in research study is useful to measure the accuracy of the underlying concepts to be measured, whether they reflect the conceptual and operational definitions of the study (Burns & Bush, 1995; Neuman, 1994). Content validity, construct validity, and criterion validity are the types of validity.

#### **4.4.5.1 Content Validity**

Before the questionnaires are distributed to the respondents, several processes were done by the researcher to validate the content validity of the questionnaires. Hair et. al (2010) suggests that the content validity is used to establish the degree of accuracy for a set of measures and the concepts of interests. As mentioned in the previous chapter, the study conducted a pilot study on 30 respondents who are postgraduate students in UUM that represent the real sample for the study. After the pilot test, few adjustments made by the researcher to enhance the content validity by removing two items (refer Chapter 3). The content validity is also important in ensuring the questions' clarity. A clear and understandable questions or items in the questionnaires is vital for a study to achieve the objectives.

#### **4.4.5.2 Construct Validity**

Nunnally and Bernstein (1994) refers construct validity as the extent of a measure to assess the constructs that it purports to assess. It has seen by many researchers to encompass all forms of validity (Westen and Rosenthal, 2003). The construct validity is established by correlating a measure of a construct and other measure that either theoretically associated with the measure or vary independently from it. The study performed construct validity on five constructs that represent the theoretical ideas which are attitude toward entrepreneurship, perceived behavioral control, subjective norms and entrepreneurial intention. . Besides that, the value of Kaiser-Meyer-Olkin (KMO) for this

study is 0.941 which termed as excellent by Kaiser (1974) and exceeds the recommended value of KMO at 0.60 (Kaiser, 1974; Maiyaki & Mouktar, 2011). As the value of KMO is 0.941, the data is regarded as fit for the factor analysis.

Factor analysis is used to analyze the five constructs of the study. For a study that has a sample more than 300, the minimum acceptable factor loading is 0.3 ( $S > 300$ ,  $FL > 0.3$ ), while for a sample less than 300, the factor loading must be more than 0.45 ( $S < 300$ ,  $FL > 0.45$ ) (Hair et.al, 2010). As the sample of the study is more than 300 therefore the factor loading must be more than 0.3 (Hair et. al, 2010). From the factor analysis on 352 respondents, the results are presented in Table 4.6.

Table 4.6: Constructs of the Study and their Factor Loading

Item No.	Factor Loading
<b>Attitude toward entrepreneurship</b>	
B1	0.854
B2	0.380
B3	0.814
B4	0.796
B5	0.611
B6	0.640
B7	0.621
B8	0.602
B9	0.767
<b>Perceived behavioral control</b>	
C1	0.682
C2	0.778
C3	0.766
C4	0.730
C5	0.710
C6	0.596
C7	0.619
C8	0.621
C9	0.617

**Subjective norms**

D1	0.833
D2	0.841
D3	0.821
D4	0.614
D5	0.667

**Entrepreneurial intention**

E1	0.813
E2	0.792
E3	0.797
E4	0.775
E5	0.732
E6	0.712
E7	0.760
E8	0.575
E9	0.744
E10	0.783

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Based on the above table, the factor loading for all items are more than 0.30 that confirmed each construct is measured by different variables.

#### 4.5 Correlation Analysis

According to Saunders et. al (2012), correlation coefficient allows researchers to measure the strength of linear relationship between pairs of variable. Based on Table 4.6, there is a relationship between attitude toward entrepreneurship and entrepreneurial intention ( $r = 0.657$ ,  $p < 0.01$ ), perceived behavioral control and entrepreneurial intention ( $r = 0.736$ ,  $p < 0.01$ ), and subjective norms with entrepreneurial intention ( $r = 0.682$ ,  $p < 0.01$ ). Hair et. al (2006) suggest that, if the correlation value is between 0.6 – 0.8, then there is a strong positive relationship between the variables. Therefore, the three independent variables (attitude toward entrepreneurship, perceived behavioral control, subjective norms) have

strong associations with the dependent variable (entrepreneurial intention). Another finding from the correlation analysis is, among the three independent variables of the study, perceived behavioral control has the strongest relationship with the entrepreneurial intention.

Table 4.7: Correlation analysis on the Variables

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>ATE</b>	1			
<b>PBC</b>	0.572**	1		
<b>SN</b>	0.506**	0.596**	1	
<b>EI</b>	0.657**	0.736**	0.682**	1

\*\*Correlation is significant at the 0.01 level (2-tailed)

## **4.6 Hypothesis Testing**

For this study, there are four hypotheses that are required to be analyzed by the researcher on achieving the research objectives. H<sub>1</sub>, H<sub>2</sub> H<sub>3</sub> are tested using regression analysis while the H<sub>4</sub> is tested with t-test analysis.

### **4.6.1 Regression Analysis**

According to Pallant (2005), multiple regression is based on the correlation that enables more advance exploration on the interrelationship between variables as it provides the information on the model as a whole and the contribution from individual variables that

make up the model. Table 4.8 presents the findings on regression analysis on the four variables of the study.

Table 4.8: Regression analysis on the Variables

<b>Model</b>	<b>Beta (Standardized)</b>	<b>t value</b>	<b>Significant</b>
(Constant)		-3.320	0.001
Attitude toward entrepreneurship (H1)	0.276	7.246	0.000**
Perceived behavioral control (H2)	0.395	9.651	0.000**
Subjective norms (H3)	0.306	7.859	0.000**

Note: \*\*  $p < 0.001$  \*  $p < 0.05$   $R^2 = 0.678$   $F = 247.77$  ( $p < 0.001$ ) Dependent variable: Entrepreneurial intention

The above proposed model is a good descriptor of the relationship between the dependent and independent variables. This is because given the value of  $R^2$  is 0.678 implies that the three independent variables explain about 67.8% of the variance in the entrepreneurial intention. Therefore, it is a good and respectable result. Based on the Table 4.7, the researcher decides to reject the null hypotheses and to support the alternate hypotheses ( $H_1$ ,  $H_2$ ,  $H_3$ ). This is because the table revealed that the F-statistics is very large and the corresponding p values are smaller than 0.01 and are highly significant ( $p < 0.01$ ) for all three relationships; attitude toward entrepreneurship ( $\beta = 0.276$ ,  $p = 0.000$ ), perceived behavioral control ( $\beta = 0.395$ ,  $p = 0.000$ ), and subjective norms ( $\beta = 0.306$ ,  $p = 0.000$ ).

Based on Hair et al (2014), the beta value between 0 – 0.3 gives low impact to the dependent variable, 0.3 – 0.7 impacts moderately on the dependent variable, and beta value between 0.7 – 1 gives a high impact on dependent variable. Hence, based on the beta values for the three independent variables, attitude toward entrepreneurship, perceived behavioral control and subjective norms have moderate impacts on the

intention to become entrepreneurs among postgraduate students of UUM. Furthermore, this indicates that the slope of the estimated linear regression model line is not equal to zero which confirmed that there is a linear relationship between entrepreneurial intention and the three independent variables (attitude toward entrepreneurship, perceived behavioral control, and subjective norms).

Based on Table 4.7, the largest beta coefficient is 0.395 which is for perceived behavioral control. This means that this variable makes the strongest predictor for entrepreneurial intention. The beta value for subjective norms is the second highest with 0.306. Lastly, the coefficient beta value for attitude toward entrepreneurship is the smallest with 0.276 and indicating that it made the least contribution to explain the entrepreneurial intention for this study.

#### **4.6.2 Independent Sample t-test**

The independent sample t-test is used to test the  $H_4$  by analyzes the differences on entrepreneurial intention between two groups of respondents which are students with parents that involve in business and students with no business background. There was a significant difference in entrepreneurial intention for students with their parents involve in business (Mean = 3.06, SD = 0.57) and students with non-business parents (Mean = 2.80, SD = 0.61);  $t(349)= 3.97, p= 0.000$ ). The magnitude of the differences in the means was quite large (eta squared = 0. 741). From the analysis, the mean for students with entrepreneurs' parents have higher intention to become entrepreneurs compare to the students with non-business parents The  $H_4$  is accepted as there is a difference between the two groups on entrepreneurial intention. The result as in Table 4.8 and Table 4.9 below.



Table 4.9: Mean Differences between the Two Group of Respondents

	Parents own business	N	Mean	Std. Deviation	Std. Error Mean
Mean_Intention	Yes	145	3.0566	.57371	.04764
	No	206	2.8000	.61088	.04256

Table 4.10: Independent sample t-test analysis between two groups of respondents on intention.

**Independent Samples Test (a)**

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Mean_Intention	Equal variances assumed	.109	.741	3.972	349
	Equal variances not assumed			4.016	321.651

**Independent Samples Test (b)**

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean_Intention	Equal variances assumed	.000	.25655	.06459
	Equal variances not assumed	.000	.25655	.06389

**Independent Samples Test (c)**

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	Upper
Mean_Intention	Equal variances assumed	.12952	.38358
	Equal variances not assumed	.13086	.38224

## 4.7 Conclusion

The study analyzed 352 respondents of UUM in order to examine the entrepreneurial intentions based on three factors which are attitude toward entrepreneurship, perceived behavioral control and subjective norms. There are few early analysis were done before the hypothesis testing which are normality of data, non-response bias, reliability of scales, and factor analysis. The correlation analysis shows that there is a strong relationship between the three factors and entrepreneurial intention. Next, the regression analysis was conducted to identify the contribution of the model on entrepreneurial intention and the individual impacts of each factor on entrepreneurial intention. The study found that the perceived behavioral control has the strongest impact on entrepreneurial intention among postgraduate students of UUM. The null hypotheses are rejected for  $H_1$ ,  $H_2$  and  $H_3$  as the study found that there is a positive significant relationship between attitude toward entrepreneurship, perceived behavioral control, and subjective norms with entrepreneurial intentions. The study found a significant differences on entrepreneurial intention between the two groups of respondents, where the mean for students with entrepreneur's parents have higher entrepreneurial intention than the students with non-business parents. Therefore, the  $H_4$  is accepted.

## **CHAPTER FIVE**

### **DISCUSSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter discusses the discussion of the findings based on the four objectives of the study. Then, the study states the conclusion and proposed recommendations for future researchers and finally the limitations of the study.

#### **5.2 Discussion**

The study is centralized on entrepreneurial intention which according to Ajzen (1991) can be developed from three factors which are attitude toward entrepreneurship, perceived behavioral control and subjective norms. She claimed that the entrepreneurial intention will lead to a certain behavior for instance, start a business. Based on the three antecedents from the intention model of Ajzen's Planned Behavior Theory, the main purpose of this study is to examine the entrepreneurial intention among postgraduate students of UUM. From the review on past literatures locally and internationally, there is a gap found by the researcher that needs to be filled. The gap is the scarce literature on the TPB in predicting entrepreneurial intention especially at the highest education level. Therefore, 352 respondents which consist of Master, DBA and PhD students in UUM are

involved in this study in attempt to investigate their entrepreneurial intention. Using the survey questionnaire method, this study developed four hypotheses in achieving the objectives of the study.

In testing the hypotheses of the study, several key data analysis were conducted by the researcher for instances, descriptive analysis (profile of respondents), correlational analysis, regression analysis and also paired sample t- test. Based on the findings in Chapter Four, the three ( $H_1$ ,  $H_2$  and  $H_3$ ) null hypotheses of this study are rejected as they achieved significant level ( $p < 0.1$ ). According to the correlation and regression analysis, the attitude toward entrepreneurship, perceived behavioral control and subjective norms contributes to the intention of postgraduate students in UUM to become entrepreneurs. The fourth hypothesis failed to reject the null hypothesis because the value for p is not significant, hence the issue whether parents involvement in business affects the intention to become entrepreneurs is insignificant. The discussion on findings of the study is required in observing the degree of agreement or disagreement between the current study and the previous one. This discussion is not just about finding past literatures to support the current findings but also to identify the usability of the research measure and its adaptability on local settings as it commonly used by international researchers.

### **5.3 Attitude toward Entrepreneurship**

Objective 1: To analyse the relationship between attitude towards entrepreneurship and entrepreneurial intention among postgraduate students

Attitudes toward behaviours are defined as a response by an individual on the degree of acceptance and rejection or appraisal on behaviours. For this research, attitude is based on entrepreneurship where the response by the individual will measure their attitudes, either positively or negatively on entrepreneurship. The results from the regression analysis and Pearson correlation analysis found that there is a positive significant relationship between attitude toward entrepreneurship and the intention to become entrepreneurs among postgraduate students of UUM. This finding supports the study by Zampetakis et al. (2013) which shows a positive relationship between attitudes on entrepreneurship among agriculture and related science students with the intention to become an entrepreneur. Besides that, the current result also parallels with other studies that found a positive relationship between the pair (Mahmoud, 2014; Youseff et al., 2015; Karali, 2013).

One of the possible reasons that establish the positive relationship is because of the positive experience they have seen, heard, or read through papers about the success of existing entrepreneurs which create positive feelings among the respondents on entrepreneurship. Either positive or negative observations on entrepreneurship, this will affect their attitudes towards entrepreneurship and hence entrepreneurial intention (Uygun & Kasimoglu, 2013; Muofhe & du Toit, 2011; Lapista et al., 2012). The positive attitude toward entrepreneurship can be resulted from personal motivation such as better financial position, freedom, and self-actualization if they achieved great success in their

business. Prior research has revealed that the attitude towards entrepreneurship are influenced by both extrinsic and intrinsic motivation and solely one of them such as independence, self-actualization, and financial success (Fretschner & Weber, 2013), income and ownership (Douglas & Fitzsimmons, 2013), self-realization, role and recognition (Saeed et al., 2013).

#### **5.4 Perceived Behavioural Control**

Objective 2: To analyse the relationship between perceived behavioural control and entrepreneurial intention among postgraduate students

According to Kolvereid (1996a), perceived behavioural control or PBC is defined as perceived ability to become an entrepreneur. It can be further elaborated as perceived ease or difficulty of becoming an entrepreneur and the confidence to success. The result found a positive and significant relationship between perceived behavioural control and entrepreneurial intention. This result supports the previous findings for instance study by Walker et al. (2013) using the Global Entrepreneurship Monitor (GEM) conceptual model along with the TPB which found a significant relationship between PBC and entrepreneurial intention. Another studies by Mahmoud and Farah (2014), Karali (2013) and Zampetakis et al. (2013) also found a positive relationship between PCB and entrepreneurial intention.

However, in contrast with the finding from Malebana (2014) study who found the attitude toward entrepreneurship as the best predictor for the entrepreneurial intention,

this study found that PBC as the strongest predictor for respondents' intention to become entrepreneurs. The contrast finding might be because the respondents for this study are exposed to many entrepreneurial programs and are acknowledged the facts that there are many opportunities for students to involve in business as far as the government incentives are concerned. All of these factors developed the courage or the respondents perceived that they have or could get the necessary tools, skills and resources to be an entrepreneur. Ajzen (2005, 2011, 2012) states that the factors which facilitate or discourage performance of behaviours may be external or internal including the availability of resources and opportunities, information, skills and abilities, emotions and compulsions, dependence on others, past experience with the behaviour, observing the experiences of acquaintances and friends and other factors that increase or decrease the perceived difficulty of performing the behaviour.

## **5.5 Subjective Norms**

Objective 3: To analyse the relationship between subjective norms and entrepreneurial intention among postgraduate students

According to Ajzen (1991), subjective norms can be defined as the belief of a person towards specific individuals or groups (referents) whether they think he or she should or should not perform a specific behaviour. The behaviour in this study refers to the intention to become entrepreneurs. The referent groups are normally refer to parents, spouses, family and friends. The analysis shows that there is a positive and significant relationship between subjective norms of the respondents and their intentions to become

entrepreneurs. This finding supports the previous studies as they found the pairs to have positive relationships (Karali, 2013; Malebana, 2014; Walker et. al, 2012; Peng, 2012). This finding shows that, as the postgraduate students are the respondents for this study, they have a higher maturity level and greater decision making skills. Therefore, the respondents feel more confident that their parents, spouses, and friends would support their decisions. This also indicates the belief of the respondents on the openness of the referent people. Besides that, the culture might influence the relationship as most of the respondents are Asian where it is normal to have the agreements from the parents (for single individual) and spouses (for married people). If the chance to get the agreement from the referent group is high then the subjective norms will be higher, hence higher intention to be entrepreneurs.

The finding does not support the studies by Zampetakis et. al (2013) and Marques et. al (2012) as they found a negative association between subjective norms and entrepreneurial intention. This might be cause by the setting of their studies as the studies were conducted in Europe. The culture of European is different from the Asian as they are more self-dependent and high individualism that reducing the roles and influences of family, friends, and other closest people on their decision making process, hence lead to a negative relationship on entrepreneurial intention. Besides that, the study by Zampetakis et. al (2013) was conducted during the economy recession in Greece and other European countries which resulting the respondents to think that their parents or other closest people to them would not agree with their decision to be entrepreneur because it involves a higher risk to start a business during the recession period.



## 5.6 Parents Involvement in Business

Objective 4: To identify if parents' involvement makes any differences on entrepreneurial intentions of the students.

In this study, the respondents were asked if their parents involved in business or not in order to examine the differences on entrepreneurial intention between students that have entrepreneurs' parents and students with non-business parents. Based on the independent sample t- test, there is a significant different between the two groups of respondents as the mean of students with entrepreneurs' parents have higher intention to become entrepreneurs compare to the group with non-business parents. This shows that the parents' involvement in business does influence student's intention to become entrepreneur. The finding supports the study by Lindsquit et. al (2015) and Bagheri and Zaidatol (2010) who find that the parent's involvement in business influences their children' entrepreneurial intention. However, the finding contrasted with the study by Marques et. Al (2012) who find that family involvements bring negative and insignificant differences on students' entrepreneurial intention.

Parents' involvement in business influences students' intention to become entrepreneurs might be because the students have seen the successfulness of their parents in conducting the business. The flexibility is one of the interesting traits as an entrepreneur that enhances the student's motivation to become entrepreneur hence, increasing their intention to be involved in business. The students that coming from a family with business background are potentially have been instilled by their parents on the skills to conduct a business. This could positively affect their perceived behavioral control as they perceived starting and running a business is easy and fun, besides the students have positive attitude on entrepreneurship. As their parents involve in business, the students will assume the parents will encourage them to become entrepreneurs in

future which directly enhances the subjective norm factor.

### **5.7 Limitations of the Study**

The study is limited only to postgraduate students in UUM, therefore the entrepreneurial intention among the postgraduate students of UUM is not sufficient to be generalized as the indicator for all postgraduate students in Malaysia on their intention to become entrepreneurs. Because of time constraints and lack of financial resources, the study on postgraduate students of UUM is not covering on the postgraduate students of UUM in other campuses in Kuala Lumpur. The sample size of the study is following the minimum requirement of the sampling table by Krejcie and Morgan because of limited time to complete the study within a semester.

### **5.8 Recommendations**

Based on the study, there are few recommendations for future researchers who are interested to study on entrepreneurial intention. Firstly, future researcher might introduce a moderating or mediating factor in the conceptual framework for instance, proposing intrinsic and extrinsic motivation as the moderating or mediating factor in the framework to examine if motivation will affect the relationship between the TPB antecedents and entrepreneurial intention.

Secondly, the study can be conducted using a larger sample at multiple universities to study the trends on each university. Local researchers should cooperate to conduct a study on all public universities in assessing the entrepreneurial intention among the students in local public institutions. The findings for the study is strong enough to be generalized as the indicator of entrepreneurial intention of public universities students in Malaysia.

Finally, a suggestion to UUM management especially the program coordinators of UUM to introduce entrepreneurship subject as one of the core subjects for all students of Universiti Utara Malaysia, regardless of their background of study. From the finding, the attitude toward entrepreneurship is the weakest predictor for entrepreneurial intention. This indicates that, the current entrepreneurship program is not working effectively. Therefore, by introducing an entrepreneurship subject as the core subject instead of an elective course, it gives the student the chance to learn and gain valuable knowledge about entrepreneurship and its benefits on them, society, Malaysia and to the global economy.

## **5.7 Conclusion**

The study examines the association between the Theory of Planned Behaviour' antecedents and the entrepreneurial intention of 352 postgraduate students in Universiti Utara Malaysia. This study supports the argument of the reliability of TPB in defining the entrepreneurial intentions as the finding shows a positive relationship for all antecedents of TPB with the intention to be entrepreneurs, which provides similar outcomes from previous studies either in developed nations or developing nations. In addition, as the study emphasizes on postgraduate students as the only sample, it will enhance the current body of knowledge especially the lack of studies on entrepreneurial intention in developing countries at postgraduate level. The result of this study will assist few related parties such as management of UUM or policy makers in enhancing their programs and efforts to raise the awareness among the students regarding the benefits of entrepreneurship. Awareness campaigns are much needed to educate not just the students but also the public especially parents on the advantages of involving in business. This is one of the approaches to increase the impacts of subjective norms on shaping the intentions of students in becoming entrepreneurs. There must be a continuous effort from the UUM management to improve the level of involvement among students on entrepreneurship especially with the introduction of 10 key shifts for Malaysian Highest Education blueprint by the current government as one of the 10 shifts is to produce a holistic, entrepreneurial and balanced graduate.

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