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**ESTIMATING THE EFFECT OF ENTREPRENEURSHIP
EDUCATION, INTENTION AND COMMUNICATION
APPREHENSION ON THE CAREER CHOICE
OF GRADUATES AS ENTREPRENEUR**



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**Thesis Submitted to
School of Economics, Finance and Banking,
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Degree of Doctor of Philosophy**

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ABSTRACT

Entrepreneurship has been recognized as a catalyst for the economic growth of a nation and is becoming an important field in Malaysia. Graduates' involvement in entrepreneurial activities is encouraged and the Malaysian government has invested millions of Ringgit in support of this agenda. Using the Theory of Planned Behaviour, students' entrepreneurial intention, before and after they graduated, could be predicted. However, the statistics showed that, as of 2013, only 1.7 percent of graduates were self-employed, compared to the 5 percent aspired by the government. It is therefore imperative to study the factors influencing graduates' choice to become entrepreneur. This study attempted to fill the research gaps by differentiating between the intentions and the actual choice to become an entrepreneur. The analysis included the effects of the types of entrepreneurship education and communication skill. Data analysis using logistics and multinomial logistics models were carried out with a sample of 2,300 graduates (including those pursuing entrepreneur degrees). The findings showed that most of the respondents agreed that entrepreneurship education (formal and informal) was an important factor to produce graduate entrepreneurs with different effects. The findings also showed that a communication skill among graduates is not a necessary condition to become an entrepreneur. Moreover, the relationship between graduates' academic achievements and the tendency to become an entrepreneur is negative. This study provides theoretical contributions to studies of entrepreneurial intention and actual choice of becoming entrepreneurs among graduates. Therefore, it is essential for graduates to understand that their actual behaviour is triggered by intention. In addition, measures should be taken by the universities in Malaysia to facilitate the government in promoting education of entrepreneurship so that the level of entrepreneurship education among Malaysian could produce future entrepreneurs who are successfully educated.

Keywords: graduates, intention, actual choice, entrepreneurship education, generic skills

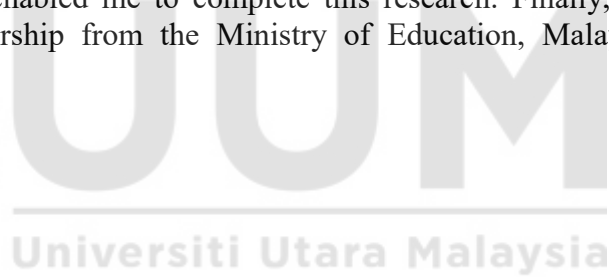
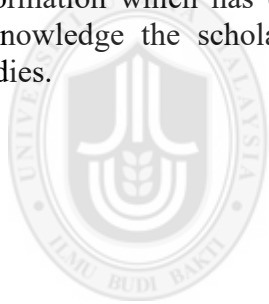
ABSTRAK

Keusahawanan telah diiktiraf sebagai pemangkin kepada pertumbuhan ekonomi sesebuah negara dan menjadi bidang yang penting di Malaysia. Penglibatan graduan dalam aktiviti keusahawanan amat digalakkan dan kerajaan Malaysia telah melaburkan jutaan ringgit bagi menyokong agenda ini. Teori Tingkah Laku Dirancang digunakan bagi meramal niat keusahawanan pelajar sebelum dan selepas tamat pengajian. Walau bagaimanapun, statistik menunjukkan bahawa pada tahun 2013, hanya 1.7 peratus graduan yang bekerja sendiri berbanding 5 peratus yang disasarkan oleh kerajaan. Oleh itu, adalah penting untuk mengkaji faktor-faktor bagi mengisi jurang penyelidikan dengan membezakan diantara niat dengan pilihan sebenar untuk menjadi seorang usahawan. Analisis ini melibatkan kesan daripada jenis pendidikan keusahawanan dan kemahiran komunikasi. Analisis data menggunakan model logistik dan logistik multinomial telah dijalankan dengan sampel seramai 2,300 orang graduan (termasuk yang mengikuti pengajian peringkat ijazah keusahawanan). Dapatan kajian menunjukkan bahawa kebanyakan responden bersetuju bahawa pendidikan keusahawanan (formal dan tidak formal) merupakan faktor penting untuk melahirkan graduan usahawan dengan kesan yang berbeza. Dapatan kajian turut menunjukkan bahawa kemahiran komunikasi dalam kalangan graduan bukanlah satu syarat yang perlu untuk menjadi seorang usahawan. Tambahan pula, hubungan antara pencapaian akademik graduan dan kecenderungan untuk menjadi seorang usahawan adalah negatif. Kajian ini memberikan sumbangan berbentuk teori bagi kajian kecenderungan keusahawanan dan pilihan sebenar untuk menjadi usahawan dalam kalangan graduan. Adalah penting bagi graduan untuk memahami bahawa tingkahlaku sebenar mereka dicetuskan oleh niat. Di samping itu, universiti- universiti di Malaysia perlu mengambil langkah yang bertepatan untuk membantu kerajaan dalam mempergiatkan lagi pendidikan keusahawanan di kalangan pelajar bagi melahirkan usahawan yang berjaya pada masa hadapan.

Kata kunci: graduan, niat, pilihan sebenar, pendidikan keusahawanan, kemahiran sendiri

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DEDICATION

Especially dedicated to my dearest husband, Akhtar Ahmad Darwis. Thank you for your love and patience and for being there for me. You are my source of strength and inspiration.

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LIST OF ABBREVIATIONS

CAP	Critical Agenda Project
CEDEFOP	European Centre for the Development of Vocational Training
CGPA	Cumulative Grade Point Average
ENT	Entrepreneur
FMIE	Family involve in entrepreneurship
FRIE	Friend involve in entrepreneurship
FT	Employed full-time
GLCs	Government Linked Companies
GTP	Government's Transformation Programme
HEIs	Higher Education Institutions
INSKEN	National Institute of Entrepreneurship
MoE	Ministry of Higher Education
MOF	Ministry of Finance
NDP	National Development Policy
NEP	New Economic Policy
NFT	Not full-time employed
OLS	Ordinary Least Squares
PCA	Principal Component Analysis
PRCA 24	Personal Report Communication Apprehension (24)
PSPTN	National Higher Education Action Plan
PUNB	<i>Permodalan Usahawan Bumiputera Nasional</i>
RBBS	Ran business before study
RBDS	Ran business during study
TPB	Theory Planned Behaviour

TRA	Theory of Reasoned Action
TUS	<i>Tabung Usahawan Nasional</i>
Uem	Unemployed
UUM	Universiti Utara Malaysia
VDP	Vision Development Policy
%	Percentage



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

During a time of global economic reforms, such as increased integration of world economies resulting in borderless business opportunities, entrepreneurship has emerged as the newest driver of a country's economic growth (Gerba, 2012; Helms et al., 2011; Satwinder et al., 2011; Linan, 2008; Matlay, 2006). The key function of entrepreneurship undertakings is to boost a country's development, and to generate wealth and employment opportunities, especially in emerging nations such as Malaysia (Ahmad & Xavier, 2012; Muhammad Mu'az et al., 2011; Sandhu et al., 2010).

In keeping with the national transformation agenda of Malaysia, entrepreneurship is regarded as a leading factor that can transform the country from being a middle-income economy to a high-income one by the year 2020 (Ooi & Shuhymee, 2012; Berma et al., 2012). Researchers, specialists and policy makers should intensify their efforts to nurture an entrepreneurial outlook among members of the society (Davey et al., 2011; Zalealem et al., 2004). As stated by the Department of Statistics (2009), the population of Malaysia grew from 14.65 million in 1982 to 30.30 million in 2014 (Ministry of Human Resources, 2015), while the active labour force grew from 5.25 million to 13.93 million.

Therefore, to cater to the employment demand, different initiatives and policies were launched to help propel the entrepreneurship undertakings in the economy (Department of Statistics, 2009). For instance, –Majlis Amanah Rakyat” (MARA), –Tabung Ekonomi Kumpulan Usaha Niaga Nasional” (TEKUN), and –Permodalan Usahawan Nasional Berhad” (PUNB) were set up to offer monetary assistance to those seeking to initiate and boost entrepreneurial activities. According to the statistics for 1982–2008, less than 26 per cent of the working age population were entrepreneurs (Department of Statistics, 2009). In other words, Malaysians are less likely to become entrepreneurs and are more inclined towards working as paid employees (Department of Statistics, 2009). According to Fatoki (2010), there is a need to encourage graduates to start small businesses as a career option instead of relying on the government for already inadequate employment opportunities.

Small and medium-sized businesses have a key part to play in the economy of any nation (Wong & Aspinwall, 2004). Worldwide, the role of such enterprises is gaining importance (Veskaisri et al., 2007). As stated by Reider (2008), the two key reasons for the presence of small firms are as follows: (i) to offer goods and services to cater to consumers’ needs in such a way that they will continue to use and endorse the company’s products (in other words, customer service businesses), and (ii) to produce the required goods and services which make it possible to convert the investments in the company into cash as early as possible (in other words, cash conversion businesses). According to the Asia-Pacific Economic Cooperation 2010, small and medium-sized enterprises account for more than 90% of total enterprises (Mohammad, 2012).

In the economically advanced countries, the demand for such enterprises is growing, and these firms have become quite noteworthy (Omar et al., 2009). For instance, in the US, small and medium-sized enterprises signify a vast majority of all businesses, accounting for around 50% of the GDP. In Thailand, small and medium-sized enterprises encompass more than 90% of the total number of businesspersons across almost all business sectors and employ more than 60% of the workforce (Veskairi et al., 2007). In some nations, the term, ‘small and medium businesses’, is used (Syed et al., 2012). The definition and categorisation of businesses are typically based on measurable attributes like sales volume, number of personnel, or value of assets (Rahman, 2001). However, there is no consistent definition of small and medium-sized enterprises that can be observed in the literature (Jan Khan & Khalique, 2014).

In the US, enterprises with less than 500 staff are termed as small and medium-sized enterprises. In the European Union, enterprises with less than 250 staff are termed as small and medium-sized enterprises (Khalique et al., 2011b). SMEs in Malaysia are divided into two sectors, namely, the manufacturing sector (sales turnover not exceeding RM 50 million or full-time employees not exceeding 200 workers); and the services and other sectors (sales turnover not exceeding RM 20 million or full-time employees not exceeding 75 workers) (SME Corp. Malaysia, 2014).

Few of the developed nations have progressed because small and medium-sized enterprises constitute an important part of the economy, encompassing more than 98% of the total number of enterprises and more than 65% of the employment as well as over 50% of the GDP (SME International Malaysia, 2013). Even though these statistics may be lower in Malaysia, small and medium-sized enterprises have

the ability to make immense contributions to the economy and can offer a robust basis for the progress of new industries as well as boost current ones. To address the problem of unemployment and ensure the advancement of the Malaysian economy, small and medium-sized enterprises are vital, and are deemed to be the mainstay of industrial development (Rose et al., 2006; Omar et al., 2009).

In order to boost entrepreneurial activities, the government formulated the SME Master Plan in 2014 (SME Corp. Malaysia, 2016). The objective of this plan is to increase the contribution of SMEs towards the economy from 32 per cent of the GDP today to 41 per cent by the year 2020. During the period 2004 to 2012, the overall rise in the GDP due to the contributions of SMEs rose at a rapid pace from 5 per cent to 6.6 per cent. Owing to the execution of the plan, the SME growth is likely to gather pace. The SME Master Plan is different from the current design, considering it is centred on public-private partnership, wherein the lead agencies will implement the plan in collaboration with the private sector. Furthermore, the plan is aimed at involving youths aged between 18 to 40 years in entrepreneurial activities.

A distinctive programme known as Tunas Usahawan Belia Bumiputera (TUBE) has been designed to assimilate entrepreneurship, trigger a radical shift from employment seekers to employment providers, and cultivate resilience and sustainability in businesspersons (SME Corp. Malaysia, 2016). Graduates, in particular, can seize these opportunities to improve their entrepreneurial expertise and know-how. Therefore, in order to stimulate and boost entrepreneurship activities among the new generation, the government, through the Malaysian Ministry of Education (formerly known as the Ministry of Higher Education), in collaboration with higher learning

institutions has undertaken various efforts to shape the minds and intentions of students to become entrepreneurs. For example, the government has launched a policy for the establishment of entrepreneurship development institutes in Higher Education Institutions (HEIs) (National Higher Education Action Plan Phase 2 (PSPTN) (2011- 2015). This policy aims to promote education, development and entrepreneurship skills among HEIs using a holistic approach (PSPTN, 2007). It also proposes to create graduates with the values, thoughts and characteristics of an entrepreneur, while simultaneously increasing the number of actual graduate entrepreneurs.

In addition, the entrepreneurship policy approach that has been implemented in HEIs among the graduates aims to develop the attitudes and abilities of graduates to engage in entrepreneurship activities (Mitra et al., 2011). Thus, the participation of graduates in entrepreneurship activities can encourage them to become job creators rather than job seekers upon graduation, thus reducing unemployment among graduates (Zakaria et al., 2011).

1.2 Definition of Entrepreneurship

The definition of entrepreneurship can be traced back to the 18th century. The term “entrepreneur” was coined by an Irish-French economist, Richard Cantillon, in 1725 (Newin, 2013). The term was derived from a French word which means to work or to try. Since then, the definition of entrepreneurship has continued to expand. Generally, there is no specific definition to construe and interpret the exact meaning of entrepreneurship since entrepreneurship carries a different meaning depending on the context (Davidson, 2004; Henry et al., 2005; Matlay, 2005; Schied-Biefait,

2004). Although the definition of entrepreneurship may be different depending on the perspective, entrepreneurship is often expressed as a process of certain activities. Schumpeter (1934) refers to entrepreneurship as the power of creative destruction. He explains the concept of creative destruction as the process of the mutation of industries, whereby the structure of the economy is being continuously revolutionized from within, with the previous one being destroyed and a new one being created continuously. Besides, Schumpeter's view on entrepreneurship is always related to the role of innovation (Croitoru, 2012). In his earlier work, Schumpeter suggested that the principle of entrepreneurship has to do with the introduction of different uses of resources, where these resources are withdrawn from their conventional use and subjected to new combinations (Filion, 1998). Hence, compared to other theorists, Schumpeter provided a more radical view of entrepreneurship (Casson, 2003).

Vesper (1982) referred to entrepreneurship as the process of creating organization. Vesper (1980) also suggested that the creation of an organization in terms of entrepreneurship can be divided into two types, namely: 1) the entrepreneur creates a chain of similar ventures associated with a mutual technology or setting of an industry; and 2) different venture sequences are created and the ventures that follow are not related. Sexton and Bowman-Upton (1991) defined entrepreneurship as a process that identifies the chances in the market, allocates resources and exploits such opportunities through action. Entrepreneurship can also be described as the process of creating something new and different for the purpose of personal wealth creation and value-added activities for the society (Kao, 1995). Kao's approach suggests that whether or not the person owns a venture, if he or she can commit to

the process of change, value-adding and wealth creation, such a person should be qualified as being entrepreneurial. Meanwhile, Hart et al. (1995) defined entrepreneurship as the process of taking the risk to venture into business regardless of the current resources acquired by the individuals. Syed Zamberi (2013) defined entrepreneurship activity as a combination of all resources to create several reforms without taking into consideration the probability of success or failure. The Organization for Economic Co-operation and Development (OECD) (1997) also stated that entrepreneurship is a dynamic process of recognizing opportunities and taking action upon those opportunities by developing, producing and selling goods and services.

On the other hand, Coulter (2000) explained entrepreneurship as a process where an individual or a group of individuals use organized efforts to find opportunities, create values and grow by meeting needs and wants through uniqueness and innovation regardless of the resources. Misra and Kumar (2000) suggested that entrepreneurship can be a process of identifying opportunities and exploiting those opportunities through the creation of organizations. Kuratko and Hodgetts (2004) described entrepreneurship as a dynamic process of vision, change, and creation. Besides, Baron (2012) explained that entrepreneurship is a process that includes at least three stages: a pre-launch phase, launch phase and post-launch phase. The pre-launch phase includes activities at the beginning of a new venture, such as the identification and evaluation of opportunities. The launch phase includes activities associated with the actual launching of a venture and the initial period of operations, such as deciding on the legal form of the venture and planning the marketing strategy. The post-launch phase includes the activities after the start-up period, such as retaining the

quality of employees and planning exit strategies. Entrepreneurship can also be regarded as the process of providing job opportunities to people, creating new ideas and inventions, and increasing and stimulating the national income, which in turn affects the development of the economy (Abosede & Onakoya, 2013). It has been reported that this process can have a positive impact on economic development and the standard of living (Abosede & Onakoya, 2013).

The Malaysian government acknowledges that entrepreneurship activities contribute significantly in terms of employment creation and economic growth (Syed Zamberi & Xavier, 2012). According to Kobe (2005), even on a small scale, entrepreneurship activities make a significant contribution towards increasing the participation of the labour force and the gross domestic product (GDP), which is defined as the market value of the goods and services produced by the workforce, and the value reflects the production of the economy. For example, according to Beaugrand (2004), although countries such as Bangladesh, Bhutan, Cambodia, Laos PDR, the Maldives, Swaziland and Yemen have low technology, they have made relatively impressive progress in terms of entrepreneurship by creating new businesses, thus contributing to their economic growth. This development is evidence that entrepreneurship activities affect economic growth, although on a modest scale. In brief, entrepreneurship can be viewed as recognizing change, pursuing opportunities, taking risks and responsibilities, innovating, making better use of resources, and creating new values to generate profit. Thus, this study defines entrepreneurship as the ability and willingness of an individual to start and organize business activities, to take any risks in a business venture, and also to introduce innovation to produce profits.

1.3 Graduate Unemployment in Malaysia

1.3.1 Status of Graduate Unemployment in Malaysia

According to the Malaysian Labour Force Survey, unemployed people include those who are available for work but are not actually working during a particular reference period. This could be because they might be actively seeking work or may not be working at all (Noor Azina, 2011). Graduate unemployment in Malaysia has been a persistent problem (Lim et al., 2007).

Morshidi et al. (2011), Lim and Muszafarshah (2013), Lim and Normizan (2004), Lim (2007), Lim (2010), and Lim (2011) found that a degree scroll is no longer a guarantee of a job placement. Mariana and Siti Akmar (2013) indicated that based on statistics from the Labour Force Survey conducted in 2004, graduate unemployment increased from 42,500 in 2000 to 68,000 in 2003 and 74,182 in 2004. Table 1.1 presents the graduate employment status from 2009 to 2013.

Table 1.1
Graduate Employment Status (Tracer Study), 2009– 2013

Year	Number	Fresh graduates			Unemployment in Malaysia*
		Employed	Unemployed	Percentage Unemployed (%)	
2009	64318	45588	18730	29.12	418000 (3.7)
2010	64322	46599	17723	27.55	404400 (3.3)
2011	64833	48281	16552	25.53	391400 (3.1)
2012	65754	45059	20695	31.47	396300 (3.0)
2013	65017	42976	22041	33.90	424600 (3.1)

Source: Ministry of Education (2014), Department of Statistics, 2009 until 2013

Note:

1. *Values in parenthesis are unemployment rates

Table 1.1 shows the status of graduate employment from 2009 to 2013. The number of unemployed graduates decreased from 2009 to 2011. However, the number of unemployed graduates increased starting from 2012 to 2013. The increase in the number of unemployed graduates is a serious issue which needs to be urgently

addressed. A research by Lim (2011) linked the problem of unemployment to a waste of resources. Unemployment among graduates reflects a drop in investments made by the government in the education sector, particularly in public universities, and this may also cause an erosion of skills, leading to poor quality graduates (Lim, 2011).

1.3.2 The Issue of Graduate Unemployment in Malaysia

Today, for Malaysian graduates, a reasonable academic qualification is no longer a guarantee for securing employment (Noor Azina, 2011). Although it serves as an advantage for graduates, it does not promise employment and does not even substantiate that these graduates can execute the tasks assigned by their employers (Noor Azina, 2011). According to Rahmah et al. (2011), one of the reasons for the issue of joblessness among Malaysian graduates is the quality of these graduates.

According to Ranjit (2009), Malaysian graduates primarily exhibit nine limitations with regard to problem-solving, management, leadership, communication, critical thinking, creativity, self-confidence, pro-activeness, and interaction skills. These factors pose challenges for graduates in securing jobs as per their qualifications. According to Nasrudin (2004), there are eight aspects which trigger the issue of unemployment among graduates: brisk rise in the number of graduates joining the workforce; inadequate work-related training; inadequate rapport between educational establishments and the industry; brisk growth in the population rate and fall in the mortality rate; educational advancement; recession; level of education; competence; and expertise and personalities.

As Wong and Hamali (2006) stated, there are four key concerns pertaining to the employment of graduates in Malaysia: rising joblessness among graduates; incongruity between employer's expectations and graduates' expertise; aptness of graduate employment; and contraction of employment in economic growth. Previous studies have pointed out that the three important drivers of graduate unemployment are generic skills (Ranjit, 2009), mismatch between the curriculum of universities and industry demands (Nasrudin, 2004; Wong and Hamali, 2006), and reducing market demand (Wong and Hamali, 2006).

In conclusion, an academic qualification is no longer a ticket to a job placement. It is an indisputable fact that academic qualifications can provide benefits to graduates, but they neither guarantee that the graduates will be employed nor prove that the graduates have the abilities to complete the tasks assigned by their employers. Nowadays, graduates are unemployed because of their own quality, their inability to meet the requirements set by their employers and other external factors. These factors have hampered opportunities for graduates to secure jobs in the market. Hence, concerns have been raised about the employment of graduates in Malaysia. According to Pindyck and Rubinfeld (2013), unemployment is a primary indicator of a nation's economic health. If there is high unemployment, an economy would not be able to make full utilisation of the workforce and to attain the desired productivity levels. Unemployment among graduates is a grave concern economically as it signifies a waste of valuable resources and also indicates a low return¹ on enormous investments made by the government on public universities.

¹ The government invests in public higher education and one of the returns is the increase of quality of workforce. However, if the graduates are unemployed and not able to join the workforce, this return will be deteriorated; thus, a low return of investment (Lim, 2011).

Moreover, fresh graduates are obviously just starting out in the labour market and hence, the loss of expertise due to unemployment could be extensive. In studies by Zuhairah Ariff et al. (2014) and Ismail (2011), it was noted that the rate of unemployed among fresh graduates will rise when the number of graduates is more than the market demand because of insufficient jobs on offer. Unemployment also poses several issues for the government as well as the general public, such as problems of law and order, an increase in the number of crimes, and other social issues (Ishfaq et al., 2010). In other words, unemployment plays a crucial part as a criminal motion factor in the country (Mohamad Idham et al., 2014).

Table 1.2, which is an extension of Table 1.1, presents the various reasons why undergraduates were unemployed from 2009 to 2013, namely, still seeking for a job, waiting for a placement for further studies, taking a break, other reasons, jobs offered were unsuitable, family responsibilities, lack of self-confidence in facing working environment, health problems, choosing not to work, not interested in working, and refusal to move to another place. The statistics in Table 1.2 show that the majority of graduates were left seeking for job placements (83.2 per cent in 2009; 82.8 per cent in 2010; 80 per cent in 2011; 80.9 per cent in 2012; and 81.8 per cent in 2013).

Table 1.2
Reasons for Unemployed Malaysian Graduates (Tracer Study), 2009- 2013

Reason for not working	2009		2010		2011		2012		2013	
	Graduates	(%)	Graduates	(%)	Graduates	(%)	Graduates	(%)	Graduates	(%)
Still seeking for a job	15,585	83.2	14,677	82.8	13,159	80.0	16,744	80.9	18,028	81.8
Other reasons:										
Waiting for placement for further studies	1,161	6.2	984	5.6	632	3.8	623	3.0	494	2.2
Taking a break	504	2.7	548	3.1	640	3.9	959	4.6	1,104	5.0
Others	471	2.5	411	2.3	559	3.4	551	2.7	465	2.1
Jobs offered were not suitable	393	2.1	358	2.0	426	2.6	523	2.5	590	2.7
Family responsibilities	355	1.9	476	2.7	654	4.0	824	4.0	892	4.0
Lack of self-confidence in facing work environment	101	0.5	108	0.6	112	0.7	144	0.7	109	0.5
Health problems	67	0.4	69	0.4	113	0.7	110	0.5	105	0.5
Choosing not to work	55	0.3	57	0.3	92	0.6	120	0.6	124	0.6
Not interested in working	38	0.2	35	0.2	56	0.3	88	0.4	98	0.4
Refusal to move to another place	-	-	-	-	-	-	-	-	32	0.1
Total Not Working	18,730	100	17,723	100	16,443	100	20,686	100	22,041	100

Source: Ministry of Education (2014)

According to Matlay (2005), entrepreneurship is the answer to the creation of jobs and is the driver of economic prosperity. Hence, in this regard, opting for entrepreneurship could be one of the ways to address the issue of joblessness among graduates. Zuhairah Ariff et al. (2014) noted that entrepreneurship undertakings can help address the issue of unemployment. According to Sandhu et al. (2010), joblessness among graduates can be tackled if they show a willingness to venture into business activities. Fatoki (2010) suggested that graduates can have multiple opportunities to explore entrepreneurship using their creativity, and hence, they should make entrepreneurship their preferred option for a career.

Graduates should develop a proper outlook with regard to entrepreneurship and work towards moulding themselves as entrepreneurs on completion of their studies instead of hunting for jobs. Given the current entrepreneurship policies which are favourable to entrepreneurs, graduates should ideally seize the prospects (Consortium for Entrepreneurship Education, 2012). This could then trigger positive changes in the situation of joblessness among graduates and benefit the economy, thus endorsing social stability.

1.3.3 Higher Education Entrepreneurship Development Policy

The government of Malaysia has employed various policies in order to develop entrepreneurship in Malaysia. Some of the policies are the New Economic Policy (NEP) (1971- 1990), the National Development Policy (NDP) (1991- 2000), and the New Economic Model (NEM) (2010).

Besides, on 13 April 2010, Ministry of Education (MOE) launched the Higher Education Entrepreneurship Development Policy to enhance the development of more comprehensive and well-structured entrepreneurship programmes.

Particularly, the policy is implemented with the purpose of producing graduates from Higher Education Institutes (HEIs) who are thoughtful and with the entrepreneurial characteristics. The policy also aims to increase the number of entrepreneurs among graduates who are involved in business.

To meet these objectives, the policy has introduced six thrusts (MOE, 2013). Firstly, Entrepreneurship Institute is established in every Higher Education Institute (HEI). Secondly, the policy provides comprehensive and well-structured entrepreneurship programs and development. Thirdly, the policy aims to encourage entrepreneurship programs and development. The fourth thrust is to establish an effective measuring mechanism. The fifth thrust is to offer a favourable ecosystems and environment for the development of entrepreneurship. The last thrust is to improve the competency of entrepreneurship trainers.

After launching the policy, both MOE and HEIs have taken several incentives to instigate entrepreneurship development and education to boost the number of entrepreneurs among the Malaysian graduates, thus, the engagement of students in the entrepreneurship programs has improved (Siti Farhah, et al., 2015). Nonetheless, there are still concerns and problems in making sure the agenda of entrepreneurship to be achieved.

Some of the concerns are in the contexts of management and strategy of entrepreneurship development, the effectiveness of the Entrepreneurship Centres in every HEIs (Cheng et al., 2009), strategic cooperation between academy and industry, entrepreneurship as a career choice, the competency of the trainers, the government's policy and internal organizational rules as well as the existence of conducive ecosystem (Siti Farhah, et al., 2015).

On 21 April 2013, Strategic Plan on Entrepreneurship Development in Higher Education (2013- 2015) was introduced to ensure that the entrepreneurship education in the Malaysian Higher Educational Institutions is successfully implemented. This Strategic Plan seeks to enhance the six thrust that have been employed by suggesting fifteen key strategies after considering the present achievement and problems of HEIs. The enhanced six thrusts are shown below (see Table 1.3 and Table 1.4).

Table 1.3
The Six Thrusts for 2010 and 2013

Year 2010	Year 2013
1. Establish an Entrepreneurship Institute in every HEI	1. Empowering Entrepreneurship Institute in every HEI
2. Provide holistically and well- planned entrepreneurial education and programs	2. Provide holistically and well-planned entrepreneurial education and programs
3. Empowering the entrepreneurial development programs	3. Empowering the entrepreneurial development programs
4. Create an effective measuring mechanism	4. Enhance the competency of HEIs' entrepreneurship trainers and facilitators
5. Provide a conducive environment and ecosystem for entrepreneurship development	5. Provide a conducive environment and ecosystem for entrepreneurship development
6. Enhance the competency of entrepreneurship trainers.	6. Increase the effect of the implementation of HEIs' entrepreneurial education and development

Source: Ministry of Education (2013) in Siti Farhah et al. (2015)

Table 1.4

The Improved Six Thrusts and the Fifteen Proposed Strategies

Year 2010	Year 2013
1. Empowering Entrepreneurship Institute in every HEI	a. Boost the function of the Entrepreneurship Institute in every HEI b. Improve the Entrepreneurship Institute planning and informing system
2. Provide holistically and well-planned entrepreneurial education and programs	c. Integrate entrepreneurial values and attributes in the teaching method across curriculum and faculty d. Increase the practical element in entrepreneurship education e. Increase the involvement of industrial workforce in the teaching and learning process f. Increase active student involvement in entrepreneurship programs
3. Empowering the entrepreneurial development programs	g. Strengthen the support system for student's business h. Offer high impact interventional programs to the students who have higher tendency towards an entrepreneurship career i. Encourage the development of entrepreneurship programs that are based on businesses, which are beneficial to the students, small and medium-sized enterprises (SMEs) as well as the society
4. Enhance the competency of HEIs' entrepreneurship trainers and facilitators	j. Increase the number of trainers and facilitators that are competent and skilful k. Bridge the gap of entrepreneurial theory and practical knowledge among HEIs' trainers l. Improve the skills and competencies of the entrepreneurship trainers and facilitators
5. Provide a conducive environment and ecosystem for entrepreneurship development	m. Improve commitment of the higher management of HEIs n. Improve the commitment and involvement of every person in the HEIs
6. Increase the effect of the implementation of HEIs' entrepreneurial education and development	o. Establish a suitable instrument to measure the effect and impact of HEIs entrepreneurship education and development programs

Source: Ministry of Education (2013) in Siti Farhah et al. (2015)

1.3.4 Importance of Graduate Entrepreneurship in Malaysia

As reported by the Malaysian Department of Statistics (2009), a graduate entrepreneur is a person who possesses tertiary education and is engaged in entrepreneurial undertakings. So, university graduates who are self-employed can be

termed graduate entrepreneurs. In keeping with the Government Transformation Programme (GTP) of Malaysia, a Critical Agenda Project (CAP) that seeks to encourage entrepreneurial education and development has been implemented by the Ministry of Education.

To raise the number of graduate entrepreneurs, the government is offering different kinds of entrepreneurship assistance in the form of physical infrastructure, funding, and business consulting (Ooi & Shuhyme, 2012). Different entrepreneurial entities (Muhammad Mu'az et al., 2011; and Sandhu et al., 2010), including the National Institute of Entrepreneurship, Graduate Entrepreneur Fund (*Tabung Usahawan Siswazah (TUS)*), and *Permodalan Usahawan Bumiputera Nasional*, which offer platforms such as the “*Skim Graduan*” graduate programme, have been set up for this purpose.

The CAP, which fell under the National Higher Education Action Plan Phase 2 (PSPTN, 2011–2015), was aimed at increasing the entrepreneurship of undergraduates by over 300% (from 1.6% to 5%) throughout the term of the PSPTN. Unfortunately, on average, during the five-year period of 2009–2013, the number of graduates did not reach the desired mark (see Table 1.5). At the end of 2013, merely 1.7% of graduates were self-employed, thus indicating that only a few fresh graduates had opted for entrepreneurship. The CAP in the PSPTN 2011–2015 was aimed at raising the number of students who became entrepreneurs by over 300%. Thus, there existed a major gap in the attainment of this target.

Table 1.5

Employability Status of Graduates (Malaysians), Graduates Tracer Study, from year 2009 to 2013

Employment status	2009		2010		2011		2012		2013	
	Total	%	Total	%	Total	%	Total	%	Total	%
Permanent	16,893	55.2	18,908	56.8	20,801	55.7	17,156	49.8	15,772	50.0
Contract	7,806	25.5	7,753	23.3	8,379	22.5	8,158	23.7	7,476	23.7
Temporary	5,227	17.2	5,818	17.5	7,192	19.3	8,003	23.2	7,082	22.5
Self-employed	367	1.2	425	1.3	597	1.6	535	1.6	529	1.7
Working with family	266	0.9	338	1.9	347	0.9	573	1.7	685	2.2
Total	30,609	100	33,242	100	37,316	100	34,425	100	31,5144	100

Source: Ministry of Education (2014)



In addition, in terms of the labour force as a whole, the statistics on the percentage distribution of entrepreneurs by education from 1982 to 2008 in Malaysia (see Figure 1.1) shows that less than 10 per cent of the entrepreneurs in Malaysia possessed a tertiary education as compared to others level of education (Malaysian Department of Statistics, 2009). This seems to indicate that those with tertiary education tend to be less active in entrepreneurship upon completion of their studies.

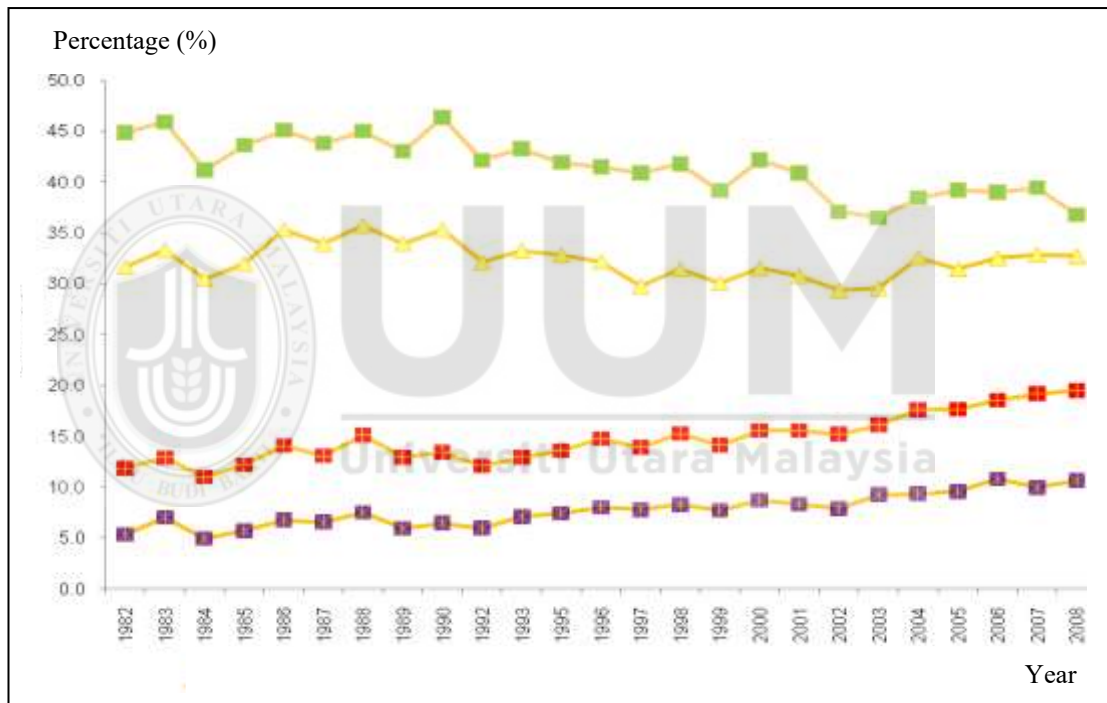


Figure 1.1

Entrepreneurs by Education Level from year 1982 to 2008 (%)

Source: Malaysian Department of Statistics, 2009

Note:

- Informal education
- Primary
- Secondary
- Tertiary (graduate entrepreneurs)

There have also been calls for studies to examine the determinants of the choice of graduates to become entrepreneurs. Clearly, in terms of the number of graduate entrepreneurs, there is a huge gap between what is targeted by the government (five per cent) and what has been achieved in reality (1.7 per cent) as of 2013.

1.3.5 Entrepreneurship Programmes in HEIs in Malaysia

In brief, entrepreneurship education in HEIs is defined as a formal education that has a clear educational structure according to specifications and is ultimately accredited by the policy makers (Ngaka et al., 2012). In line with Lackeus and Middleton (2015), entrepreneurship education has been found to be a major learning process in the creation of entrepreneurship activities.

Syed Zamberi (2013) mentioned that entrepreneurship education will help graduates to have an in-depth understanding of entrepreneurship activities, for example, to what extent entrepreneurship activities are related to the economy and the community, and how the activities of the entrepreneurship structure are integrated in the marketplace. Entrepreneurship education is a medium for the transfer of the knowledge, mentality and entrepreneurship skills that must be mastered by an entrepreneur (Young, 1997; Anderson & Jack, 2008).

Apart from the development of the students' knowledge of business, more emphasis has to be given to the enhancement of entrepreneurial attributes, behaviours and skills (Ismail, 2011). The steps that can be applied comprise of the introduction of course and modules precisely designed to cultivate the characteristics and awareness of the entrepreneur in the students (Kirby, 2004).

Hence, the teaching approaches and content for entrepreneurship education have to be planned specifically and they have to differ from other general courses of business management. The proposed content of entrepreneurship education has to associate the relationship personality structure and attitude towards entrepreneurship that eventually affects the entrepreneurial intent and aspiration to begin a business project (Ismail, 2011). Thus, entrepreneurship education is an important factor for developing the capacity of an entrepreneur among graduates in the future (Collins et al., 2004). In addition, Packham et al. (2010) said that the main focus of entrepreneurship education is to develop the knowledge and examine the processes needed to create a new business, and to help expand existing entrepreneurship activities.

Therefore, it is not surprising that many universities are offering entrepreneurship as one of their important programme (Kolvereid & Moen, 1997). The evidence indicates that more than 400 colleges and universities in the United States are offering entrepreneurship programmes and, at the same time, the number of students who are taking these programmes is increasing (Matlay, 2006). They also indicate that the possibility of those students becoming actual entrepreneurs is higher since they have chosen entrepreneurship education. There has been a quick growth in the development of entrepreneurship in Malaysia since the offering of entrepreneurship education in the mid-1990s (Mohd Khairuddin & Syed Azizi, 2002; Armanurah et al., 2005; Mahmood, Kastner & Yeboah, 2010; and Nor Aishah, 2013). Several universities in Malaysia have been playing major roles in entrepreneurship. Table 1.6 below shows the entrepreneurship programmes in HEIs in Malaysia.

Table 1.6

Entrepreneurship Courses and Programmes in HEIs in Malaysia

Higher Education Institution	Type of courses/ programmes
<i>Universiti Utara Malaysia (UUM)</i>	<ul style="list-style-type: none"> • Compulsory university courses: Basics of entrepreneurship (Undergraduate) • Bachelor of Entrepreneurship with Honours • Core courses in Bachelor of Business Management with Honours • Elective courses for Post Graduate
<i>Universiti Teknologi Mara (UiTM)</i>	<ul style="list-style-type: none"> • Compulsory university courses for Diploma
<i>Universiti Teknologi Malaysia (UTM)</i>	<ul style="list-style-type: none"> • Elective courses for Bachelor of Entrepreneurship with Honours • Elective courses for Bachelor of Marketing with Honours • Master of Technopreneur • Field of research (Post Graduate)
<i>Universiti Putra Malaysia (UPM)</i>	<ul style="list-style-type: none"> • Area of specialization for Bachelor of Business Administration with Honours • Field of research (Post Graduate)
<i>Universiti Malaysia Sabah (UMS)</i>	<ul style="list-style-type: none"> • Compulsory courses in Bachelor of Business with Honours and Bachelor of Economic with Honours • Field of research (Post Graduate)
<i>University Kebangsaan Malaysia (UKM)</i>	<ul style="list-style-type: none"> • Elective courses for Bachelor of Administration Business with Honours • Minor programme • Field of research (Post Graduate)
<i>Universiti Malaya (UM)</i>	<ul style="list-style-type: none"> • Elective courses for Bachelor of administration Business with Honours • Elective courses for MBA programs • Field of research (Post Graduate)
<i>Universiti Islam Antarabangsa (UIAM)</i>	<ul style="list-style-type: none"> • Elective courses for Bachelor of Administrations Management with Honours
<i>Universiti Pendidikan Sultan Idris (UPSI)</i>	<ul style="list-style-type: none"> • Core courses for Bachelor of Education (Entrepreneurship) with Honours
<i>Universiti Sains Islam Malaysia (USIM)</i>	<ul style="list-style-type: none"> • Field of research (Post Graduate)
<i>Universiti Malaysia Terengganu (UMT)</i>	<ul style="list-style-type: none"> • Entrepreneurship and Business programme: core courses for Bachelor of Chemical Engineering (Biotechnology) • Entrepreneurship and Engineering programme: core courses for Bachelor of Mechanical Engineering • Cyber Entrepreneurship programme: core courses for Diploma of Computer Technology (Software Engineering) • Entrepreneurship programme: elective program for Bachelor of Electrical Engineering (electronics)
<i>Universiti Malaysia Perlis (UNIMAP)</i>	<ul style="list-style-type: none"> • University compulsory courses: Engineering Entrepreneurship (Undergraduate)
<i>Universiti Teknikal Malaysia Melaka (UTEM)</i>	<ul style="list-style-type: none"> • Entrepreneurship skills courses; core courses of the program: <ol style="list-style-type: none"> a. Bachelor of Software Development b. Bachelor of Computer Networks c. Bachelor of Database d. Bachelor of Interactive Media • Master of Science in entrepreneurship • Field of research Post Graduate

Table 1.6 (continued)
Entrepreneurship Courses and Programmes in HEIs in Malaysia

Higher Education Institution	Type of programme
<i>Universiti Tun Hussein Onn Malaysia (UTHM)</i>	<ul style="list-style-type: none"> • Programme of Business and Entrepreneurship: core courses for Diploma • Programme of Basics Business and Entrepreneurship: core courses for Diploma
<i>Universiti Malaysia Kelantan (UMK)</i>	<ul style="list-style-type: none"> • Bachelor of Entrepreneurship (Commerce) with Honours • Bachelor of Entrepreneurship (Tourism) with Honours • Bachelor of Entrepreneurship (Hospitality) with Honours • Bachelor of Entrepreneurship (Health) with honors • Bachelor of Entrepreneurship (Business Logistics & Distribution) with honors • Bachelor of Entrepreneurship (Retail) with honors • Bachelor of Business Administration (Banking and Finance) with Honours • Bachelor of Entrepreneurship with Honours • Master of Business Administration (MBA)

Source: Adopted from Armanurah et al. (2005) in Nor Aishah (2013); *Universiti Malaysia Kelantan* (2016)

Table 1.6 shows that 15 universities in Malaysia are offering entrepreneurship programmes in terms of compulsory, core and elective courses. UUM is the first public university that offers a full degree in entrepreneurship while other universities offer entrepreneurship either as a major or minor programme (Berma et al., 2012). Nor Aishah (2002) emphasized that entrepreneurs are important for economic diversification and the development of certain economic sectors to generate the national income and create a new employment market.

Thus, it is not surprising that various efforts have been undertaken by the Malaysian government to develop graduate entrepreneurs. Graduate entrepreneurs are clearly important for the development of a country (such as creating job opportunities, reducing unemployment and developing the economy). Conversely, an ineffective education system will limit the ability of an individual to contribute to national development.

Therefore, with the provision of entrepreneurship education in HEIs in Malaysia, why is the number of graduate entrepreneurs still not encouraging (increasing)? This study examined to what extent entrepreneurship education affects the participation of graduates in entrepreneurship.

1.3.6 Graduate Entrepreneurs and the Theory of Planned Behaviour

Currently, the number of unemployed graduates has increased, and this has raised concerns globally (Zaliza & Mohd Safarin, 2014; Lim et al., 2007). Nooriah and Zakiyah (2015) reported that more graduates entered the labour market when the number of higher education institutions in Malaysia increased. Hence, a degree qualification and a good academic performance are no longer a pass to securing employment (Collins et al., 2004; Noor Azina, 2011; Lim, 2011). Besides, the quality of the graduates also poses a problem as the graduates are unable to meet the requirements of industries, and this has led to an increase in the number of unemployed graduates (Rahmah et al., 2011). Hence, entrepreneurship may help to solve the issue of unemployed graduates as it can lower the dependency of graduates towards limited job (Lebusa, 2011).

As stated by Hardy et al. (2015), the Malaysian Ministry of Higher Education understands the fact that entrepreneurship education is fundamental to stimulating entrepreneurship development and the nation's economy. Hence, entrepreneurship subjects have been made compulsory for all students in public universities. Moreover, the participation of students in entrepreneurship activities is encouraged in universities such as through seminars, conferences, entrepreneurship events, trainings and short courses (Hardy et al., 2015).

Wilson et al. (2007) argued that the perceived behavioural control, intentions and attitudes of students toward entrepreneurship can be significantly raised by entrepreneurship education, and this has led to an increase in the interest of students to choose entrepreneurship as a career. Through an investigation of the entrepreneurial behaviour of students from Malaysian universities, Norasmah and Faridah (2010) brought up some suggestions on the usefulness of entrepreneurship education in opening up the minds and interest of potential entrepreneurs. Specifically, reality and a hands-on approach are needed for students so that they can have an early exposure in order to gain more confidence and understanding in business (Norasmah & Faridah, 2010).

Collaborations between higher education institutions and the business sector to offer internship programmes can expose students to a business culture (Norasmah & Faridah, 2010). Such exposures are expected to help the students to develop an entrepreneurial mind-set and attitude to meet the goal of the nation in developing 5 per cent of entrepreneurs from local graduates (Harian, 2006 in Hardy et al., 2015). Hardy et al. (2015) suggested that the outcomes from these actions can reduce the number of unemployed graduates and raise business opportunities in the nation, which eventually will have a direct implication on the goal of achieving developed nation status.

Entrepreneurship programs have been shown to increase the entrepreneurial intentions, attitudes and the probability of students actually choosing entrepreneurship as a career at some point in their life (Souitaris et al., 2007). The feasibility and perception of the desirability of starting up a business among

graduates can be increased by their participation in entrepreneurial educational programmes (Peterman & Kennedy, 2003). Entrepreneurial intention is the forerunner of entrepreneurial behaviour; it allows one to take the initiative to start new ventures. To investigate the factors that drive the intentions of an individual and his subsequent behaviour, social psychology literature covering the Theory of Planned Behaviour (Ajzen, 1991; Wong et al., 2014) was used as the theoretical framework.

The Theory of Planned Behaviour (TPB) is one of the established theories that are appropriate for elaborating on intention as a motivational factor. It is an extension of the Theory of Reasoned Action, and it is a psychological model that is used to predict an individual's intention to perform behaviour at a specific time and location (Ajzen, 1991). The TPB explains that a behavioural action depends on the intention, where intention is the best predictor that drives an individual to perform the action, particularly to become a graduate entrepreneur (Pribadi, 2005). Intention is also a guideline for measuring the readiness and willingness as to what extent an individual is trying to do something. For example, the stronger an individual's intention to perform the behaviour, the stronger the behaviour will likely be carried out (Ram Al Jafri et al., 2010).

Nevertheless, the theories are not without their limitations (Werner, 2004). Werner (2004) listed three limitations in the TPB. Firstly, intention is not limited to attitudes, subjective norms and perceived behaviour control but there may be other factors that influence behaviour. For instance, a study by Werner (2004) demonstrated that only 40 per cent of variance in behaviour could be explained

using the TPB. A second limitation is that there is a huge gap between intention and actual behaviour. In other words, intention does not exactly translate into actual choice due to the time gap, where the individual might change his or her intention. Studies by Lim and Hussin (2004) also stated that intention does not necessarily translate into actual choice. A third limitation is that both these theories (TRA and TPB) take into account the actions of individuals based on their particular criteria, whereas they do not always behave according to the criteria (Werner, 2004).

1.4 Problem Statement

As shown in Table 1.5, in terms of the number of graduate entrepreneurs, there is a huge gap between what was targeted by policy makers (5 per cent) and what has been achieved (1.7 per cent) as of 2013. The need to increase the number of graduate entrepreneurs is obvious. The most fundamental problem is what can be done to increase the number of graduate entrepreneurs.

Three relevant gaps were raised in this study. First, the effects of formal or informal entrepreneurship education on a graduate's intention and choice to be an entrepreneur; second, whether the graduate's intention to be an entrepreneur is translated into an actual choice; and third, the effects of communication apprehension on the graduate's intention and choice to be an entrepreneur. The gaps are explained in detail in the subsequent paragraphs. A few studies have been carried out on the effectiveness of entrepreneurship education. However, these studies have had contradictory findings. In particular, some of these studies

mentioned that formal entrepreneurship education is not sufficient for increasing the number of entrepreneurs among graduates.

Studies by Henry et al. (2003) found that the entrepreneurship education offered in most HEIs is not efficient and has produced a less positive impact. Their studies suggested that to become more effective, formal entrepreneurship education should take into account teaching strategies that are based on real situations such as informal entrepreneurship education (e.g. entrepreneurship experience). Unstructured learning and a flexible approach, such as informal entrepreneurship education, inspire graduates to become entrepreneurs (Sexton & Bowman-Upton, 2001). However, the problem is that the effect of informal entrepreneurship education is not evaluated simultaneously with formal entrepreneurship education.

In addition, Cheng et al. (2009) stated that entrepreneurship education in Malaysian HEIs has been unsuccessful in attracting the participation of graduates in entrepreneurial challenges after their graduation. Cheng et al. (2009) added that more skills need to be acquired by the graduates as the formal entrepreneurship education does not match the expectations of industries (to be successful graduate entrepreneurs). Their findings also revealed that there is no relationship between entrepreneurship education and the tendency of graduates to become entrepreneurs. Thus, this proves that the formal entrepreneurship education conducted in Malaysia is unable to have a positive impact on the tendency of graduates to become entrepreneurs. This situation will have a negative impact on various authorities, such as the government, where there is a waste of investment

in efforts to increase the number of graduates who become entrepreneurs. Moreover, it also has a negative impact (wasted investment) on the graduates themselves as they will not be applying the knowledge acquired during their entrepreneurship education at the university when they enter the job market. The question is can the formal entrepreneurship education system in Malaysia have a positive influence on increasing the number of graduates embarking on entrepreneurship after graduation? Thus, this is a gap that needs to be addressed.

The mixed evidence (positive and negative impacts) on the effect of entrepreneurship education (formal and informal) on a graduate's intention to be an entrepreneur indicates that although the Malaysian government has initiated efforts in terms of providing formal entrepreneurship education, this is not a guarantee that graduates will actually become entrepreneurs. Thus, the government should also take into account the informal entrepreneurship education to exponentially increase the number of graduates who become entrepreneurs.

An evaluation of the effects of entrepreneurship education is urgently needed. Although there have been studies on the effects of entrepreneurship education on the intention of graduates to be entrepreneurs, these studies have mostly focused exclusively either on formal (Syed Zambri, 2013; and Lackeus & Middleton, 2015) or informal (Cheng et al., 2009) entrepreneurship education. Thus, other important factors may have been omitted such as informal entrepreneurship education, for studies that focused exclusively on formal education. Therefore, this study focused on both formal and informal entrepreneurship education in

influencing the tendency of graduates to become actual entrepreneurs after completing their studies.

Secondly, the other fundamental problem is the effects of the intention to be an entrepreneur on actually becoming one. There is a lack of comprehensive studies on the factors that influence a graduate's choice to be an entrepreneur. In this area, studies in Malaysia, in particular, studies that link the intention to the actual choice to be an entrepreneur, are largely lacking. Previous studies on graduate entrepreneurs have mostly focused on the intention to be an entrepreneur, i.e., they investigated the factors influencing the intention to get involved in entrepreneurial activities. However, to what extent does the intention to be an entrepreneur translate into actual behaviour among graduates to engage in business activities?

According to Armstrong (2014), intention is a motivational element that can push an individual to perform a behaviour. The study stated that intention is also able to serve as a proxy of the level of efforts that a person is willing to invest in order to perform the behaviour. For example, the intention of graduates to become entrepreneurs will direct them to engage in venture activities (Pribadi, 2005; Hattab, 2014). Barbara Bird (1992), the founder of the entrepreneurial intention model, stated that entrepreneurial intention is directly related to the attention, experience and behaviour in their business. Krueger and Brazel (1994) stated that intention is the most important indicator which influences actual human behaviour, and it is the power of the mind to implant actual entrepreneurship activities.

Autio et al. (2001) also agreed that intention is the best forecaster for graduates to start their entrepreneurship activities. The intention to be an entrepreneur might be an important factor to encourage graduates to choose to be entrepreneurs. However, in this context, the participation of graduates in entrepreneurial activities is not a guarantee that they will actually choose to become entrepreneurs. In a similar vein, the factors that influence the intention may be different from the factors that influence the actual choice. Studies on graduate entrepreneurs need to focus not only on the intention, but also on the actual choice made. The problem is that without knowing to what extent intention translates into actual behaviour, the effectiveness of entrepreneurship education cannot be determined. Thus, this study investigated to what extent the intention to be an entrepreneur is translated into the actual choice to become an entrepreneur among graduates.

Third, relating to the effects of the communication apprehension on graduate's intention and choice to be an entrepreneur. Communication skills is considered to be one of the important skills needed to be developed by graduates especially to find an opportunity in paid jobs (Shuib, 2005). Most of employers are concerned about the levels of communication skill in group discussion, conducting meeting, interpersonal skills and also skills of public speaking in their organizations (Azleen et al., 2013). Lacking in communications skills will be a barrier for those who are poor in these skills to get a job (Blume et al., 2013). For example, Muhd Amirul (2014) reported that only seven out of 300 Malaysian graduates are able to communicate effectively during interview sessions. Kamsah (2004) in her findings also found that most of graduates have poor communication skills during

the process of interview. Lack of communication skill is due to fear, anxiety and having less confidence, when an individual communicates with other people and this feeling refers to communication apprehension (McCroskey et al., 1985). Graduates with low communication skills will have limited choices in terms of career options especially in paid job (Azleen et al., 2013; Blume et al., 2013; Muhd Amirul, 2014; Kamsah, 2004). Thus, it is imperative to estimate the effects of communication apprehension in choosing to be entrepreneurs among the graduates.

1.5 Research Objectives

The general objectives of the present study were to investigate the factors influencing the choice (intentional or actual) of graduates to be entrepreneurs. Specifically, the objectives of this study were:

- a. To investigate to what extent entrepreneurship education (formal or informal) and communication apprehension, increase the intention of graduates to be entrepreneurs.
- b. To investigate to what extent entrepreneurship education (formal or informal) and communication apprehension, increase the choice of graduates to be entrepreneurs.
- c. To analyse to what extent the intention to be a graduate entrepreneur translates into actual choice.

1.6 Research Questions

Based on the aforementioned problem statement, the following research questions were developed:

- a. To what extent does formal and informal entrepreneurship education and communication apprehension, increase the intention of graduates to be entrepreneurs?
- b. To what extent does formal and informal entrepreneurship education and communication apprehension, increase the choice of graduates to be entrepreneurs?
- c. To what extent does the intention to be an entrepreneur translate into actual choice?

1.7 Significance of the Study

It is important for policy makers to know and understand the factors behind the tendency of graduates to participate in entrepreneurship activities in the country. An efficient and effective graduate entrepreneurial policy can be formulated based on this understanding. With large investments being made in the field of education, in particular, this study focused on the impact of formal and informal entrepreneurship education on increasing the involvement of graduates in the field of entrepreneurship.

Most studies have focused solely either on formal or informal entrepreneurship education, and the bias mentioned before may still exist. This study focused on both formal and informal entrepreneurship education to estimate their effects on the intention and choice of graduates to become entrepreneurs. Thus, the major

contribution of this study is that it has shed more light on the effectiveness of entrepreneurship education through the incorporation of informal entrepreneurship education.

This study also adds to the literature that can contribute towards solving the mixed evidence (perhaps due to failure in using formal and informal entrepreneurship education simultaneously) concerning the effectiveness of entrepreneurship education. In addition, this study also emphasizes the extent to which the effect of the intention to be entrepreneurs is translated into actual behaviour among graduates. This study also contributes to the literature by linking the intention to be an entrepreneur to the actual choice. Previous studies on graduate entrepreneurship have mostly focused on the intention to be entrepreneurs, and have extensively explored its determinants. The link between intention and actual choice needs to be unveiled in order to understand fully the process of cultivating a graduate entrepreneur.

To become a graduate entrepreneur, one should have good generic skills, particularly communication skills. This study intends to unearth the effects of generic skills in driving graduates to be involved in entrepreneurship activities. Thus, this study highlights whether generic skills are important determinants that influence a person to become an entrepreneur. This study provides essential information on the determinants to be a graduate entrepreneur. On the policy front, this study can assist policy makers, either at university or national level, to increase the number of young graduate entrepreneurs for national development in

line with the Economic Transformation Programme (ETP). Thus, this study can be a useful reference to help stakeholders in making decisions.

1.8 Operational Definitions

For this particular research, the operational definitions of the variables examined were adapted from definitions by the experts.

1.8.1 Graduate Entrepreneur

This study defines a graduate entrepreneur as an individual who has received tertiary education from any higher education institution and who has indicated his or her job status as being ‘_self-employed’.

1.8.2 Intention to be an Entrepreneur

Intention means the purpose or intent of something in the heart. However, it is not known if the intention has been translated into action or not. What is done willingly or by choice describes such intent. Every desire to be executed must start with an existing intention. This is similar to someone who has the intention to become an entrepreneur. The intention to be an entrepreneur coupled with a proactive attitude, a desire to succeed, and a willingness to take risks and make decisions lead to exceptional individuals who can attain success in entrepreneurship. Thus, this is interpreted in this study to mean that graduates have the intention to become entrepreneurs but have not yet become actual entrepreneurs.

The intention can be categorized into talent and innovator. First, talent is natural ability. Individual who possesses entrepreneurship talent has benefits and this benefit will turn a person into a more efficient person. Even though an individual may be talented, other characteristics are needed for him or her to become a successful entrepreneur such as interpersonal skills, knowledge, vision and abilities.

Therefore, this study claims that talent needs to be complemented with a clear vision, lots of knowledge related to the entrepreneurship, abilities and a good personality. Second, with regard to the term innovator; Innovator is a person who seizes an opportunity and converts it into a workable idea to earn rewards. Therefore, this is interpreted in this study to mean that a graduate who seizes the opportunity and has the capability to apply entrepreneurial ideas is an innovator.

1.8.3 Formal Education

Formal education is defined as the process of teaching and learning which is officially implemented according to the system specified by the government. This process takes place in an institution that has the chronological and hierarchical structure commencing from primary to university level with a curriculum that is approved by the authorities. The process of formal education ends with the award of a degree from the government Malaysian Qualifications Register - states that students are required to obtain a minimum of 120 credit hours as set by the Malaysian Qualifications Register in order to receive a degree from Malaysian higher education institutions.

Besides, apart from the final reward, in terms of qualifications and awards such as a degree, students from universities are encouraged to be involved in entrepreneurship projects such as seminars, conferences, trainings, entrepreneurship events and short courses in their respective universities. Thus, this study defines graduates who have received formal entrepreneurship education as those graduates who have received the Degree of Entrepreneurship, and have undergone entrepreneurship training at *Universiti Utara Malaysia*, which enabled them to receive a certificate related to entrepreneurship.

1.8.4 Informal Education

Informal education is always described in contrast to formal education. Informal education is a process of learning that takes place in a spontaneous and unstructured manner. People can acquire and enhance their knowledge, skills and attitudes as well as their daily knowledge-based views, regardless of whether the process takes place around them or at their place of study, work, school, learning centre or in recreation areas. For example, if a person can gain experience and change his or her behaviour by reading and surfing the Internet, then it can be said that he or she has received non-formal education via media channels. Therefore, this study also looks at the experience of a person in the business field (has engaged in business, shared the experience of close family members or has seen friends involved in business) that has enabled them to receive informal entrepreneurship education.

1.8.5 Communication Apprehension

Communication apprehension is an individual's level of fear or anxiety associated with either real or imagined communication with another person or persons'. Communication apprehension also is a fear that obstructs an individual's communication with others and affects his or her ability to acquire, succeed and be satisfied with the job. There are four types of communication apprehension: group discussion, meeting skills, interpersonal and public speaking (McCroskey et al., 1985). Thus, with four types of communication apprehension, this study interpreted that graduates who are apprehensive about participating in communicative situations are less able to communicate effectively.

1.8.6 Types of Employment

Unemployed

Unemployment describes the state of a worker who is able and willing to accept work but is unable to find work (Department of Statistics Malaysia, 2016).

Employed (Full-Time)

A full-time employee has on-going employment and works, on average, around 38 hours each week -. The actual hours of work for an employee in a particular job or industry are agreed on between the employer and/or set by an award or registered agreement. Paid employment jobs are those jobs where the incumbents hold explicit (written or oral) or implicit employment contracts, which give them a basic remuneration that is not directly dependent on the revenue of the unit for which they work (this unit can be a corporation, a non-profit institution, a

government unit or a household) (International Labour Office (ILO) Geneva, 2015).

Employed (Part-Time)

A part-time employee is an individual who is working and whose number of work hours is less than that of a full-time employee (ILO, 1994).

1.9 Thesis Outline

The present study is reported in six chapters. The opening chapter, which is Chapter One, provides a brief introductory background of graduate entrepreneurs in Malaysia, followed by the problem statement, research objectives, research questions, significance of the study and operational definitions.

Chapter Two provides the theoretical framework for the Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), and Utility Maximization Theory, followed by an extensive review of previous studies related to the area of the present study. The chapter also describes the development of the research framework.

Chapter Three presents a description of the methodology employed in this study, the justifications and rationale for the research design. Chapter Four presents the results of the data analysis, which include the descriptive statistics analysis of the findings.

Chapter Five seeks to explain the analysis, which include multiple regressions regarding the intention of graduates to be entrepreneurs, and an analysis regarding the actual choice of graduates in selecting entrepreneurship as their career by using binary logistic and multinomial logistic regressions.

The final chapter summarizes the major findings of the present study, and reinforces the inferences towards policy making. The research limitations and the direction for future research are also discussed.

1.10 Summary

To summarize, it is important to have entrepreneurship graduates for the success of the national economy in the future, and higher education institutions (HEIs) are the key players in ensuring that this objective is achieved (Rae & Naomi, 2012). According to the CAP in PSPTN 2011–2015, an increase of more than 300% was expected in the number of students pursuing entrepreneurship. However, as shown in Table 1.5, a significant gap could be seen between the years 2011 (1.6%) and 2015 (5%) with regard to the number of graduates who actually pursued entrepreneurship. Thus, this study focused on three important variables, namely (i) entrepreneurship education (the roles of formal and informal entrepreneurship education), (ii) graduate entrepreneurship behaviour (the extent to which entrepreneurial intention is transformed into actual behaviour), and lastly (iii) communication apprehension.

Based on the Theory of Reasoned Action and the Theory of Planned Behaviour, which pertain to an individual's choice in making decisions, the main objective of

this study was to examine to what extent the influence of the intention of graduates to become entrepreneurs will be translated into actual behaviour. Further elaboration and examples of the behaviour of graduates with regard to intention and the making of a choice in previous studies are given in Chapter Two. The results of this study will provide answers to three research questions and research objectives. The next chapter will be a literature review dealing with the concept of variables, and later, how these variables are related to one another based on previous studies and theoretical perspectives.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The present study focuses on graduates' intentions and their actual behaviour towards becoming an entrepreneur. Hence, this chapter presents the theoretical and empirical reviews relating to the graduates' intentions towards being an entrepreneur and their actual choice of becoming an entrepreneur. This study will begin with a discussion of the intention of graduates to find a job, which will be followed by how these intentions turn into job creators.

The relevant theories are also presented. The theories behind the present study are the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB), and it will be shown how these are related to entrepreneurship education, choice to be an entrepreneur, communication apprehension and Utility Maximization Theory (UMT). TRA and TPB were chosen because these two theories focus on individual choice in making decisions. In the context of this study, TRA and TPB could provide guidance for the intention and decision to become an entrepreneur, and UMT was chosen because it is a utility model of human decision-making that postulates that individuals will select the course of action which promises, in prospect, the greatest psychic satisfaction or maximal utility (Eisenhauer, 1995; Pindyck & Rubinfeld, 2013). In addition, UMT could help explain the role of entrepreneurship education, intention, and communication

apprehension which may affect the level of a graduate's utility in becoming an entrepreneur or the opposite.

Intent is a typical attribute of mental conditions and experiences, particularly seen in what is usually termed as being "mindful" or "cognizant" (McIntyre & Smith, 1989; Bird, 1988). It is the single best aspect in projecting start-up performance (Linan & Rodriguez-Cohard, 2015). Simeon (2013) states that a job is the typical work an individual does for a clientele or an entity, primarily to attain some kind of compensation, such as money.

The employee receives employment opportunities, which include the compensation that the position offers, hours of work, benefits, and working conditions (Zaretsky & Coughlin, 1995). An analysis by Afidatul Isma (2015) noted that graduates aged 19 to 24 tend to take up a job following the completion of their studies. Thus, with a conscious state of mind, graduates intend to find a job and receive a salary in return. This scenario triggers the process among graduates of searching for a job. A job search is a process which seeks to match employment seekers with appropriate job prospects (Green et al., 2011). According to Lau and Pang (2000), a job search is a premeditated and rational activity based on a student's mindfulness regarding a range of alternatives and prospects, even though career objectives and plans could be less precise during the initial phase of the career. Ultimately, the individual looking for a job aims to find one which matches his/her own and money-related expectations (Blau, 1994; Schwab et al., 1987). An effectual matching mechanism means that the person

gets the job which maximises his/her earnings as well as productive contribution, in turn making the society more prosperous (Green et al., 2011).

2.2 Issues Related to Job Searches

The intricacies of the labour market have long been acknowledged in the theories of job searching and unemployment (Lim, 2008). Workforces are heterogeneous with respect to their capabilities, preferences, and other aspects, whereas jobs are varied with regards to their requirements and compensation packages (Lim, 2008).

Those looking for a job do not have exhaustive information regarding the labour market, and employers also do not possess indefinite information (Coonfield, 2012). For example, Lim (2008) points out that workers are not aware of all the scenarios of the labour market, including how many vacancies there are or what kinds of opportunities are available. Because of these heterogeneities and the deficiency of information, there is a need to do some matching in the labour market. Thus, workers need to spend more time looking for suitable job opportunities.

According to Bills (2003) and Brown (2001), for graduates, the job search factor is based on educational qualifications, whereby graduates vie to trade their human capital for economic gains. Coonfield (2012) warns that employers might hamper the process by unethically or imprecisely evaluating the qualifications, competences, and testimonials of applicants. Personal attributes are yet another concern for employment seekers as employers usually have their own distinctive views and inclinations regarding the type of applicant they are looking for.

A few employers have a negative opinion of graduates, and complain that these lack the appropriate expertise and qualifications to meet the requirements of the industry (Rahmah et al., 2012). Furthermore, graduate individuals are not strong when it comes to employability expertise and do not exhibit a reasonable performance at work.

A Central Bank of Malaysia (2002) study noted that Malaysian graduates have less expertise than international ones. Over 75% of employers prefer recruiting employees who have experience (National Association of Colleges and Employers, 2009). Employment records are stated as being the most significant factor in a graduate's resume (McKeon & Lindorff, 2011); this makes the task of finding a job even more difficult for those who do not have any such experience. Moreover, the job market might be susceptible to saturation as the number of graduates is rising every year.

According to McKeon and Lindorff (2011), the process of seeking a job becomes impractical in the long term. Graduate students initially tend to have exaggerated opinions of themselves and their competence, and overrate what they can achieve with their degree. They assume that there will be several jobs available (McKeon & Lindorff, 2011). Unfortunately, they later come face-to-face with the mismatch and ultimately take up any job for the sake of gaining a foothold in the market (McKeon & Lindorff, 2011) or stay unemployed.

Today, joblessness among graduates is a concern not just in Malaysia but elsewhere as well (Mohamad Idham, 2014). If a nation has a high unemployment

rate, it means that its labour reserve is not being entirely exploited. In theory, a nation which is not competently exploiting its resources does not attain the maximum level of productivity. Thus, total employment should be considered a macroeconomic objective if a nation seeks to maximise its productivity (Lim, 2008).

Unlike other advanced nations, Malaysia can be said to be moving towards total employment, given the unemployment rate of 3.1% as per the August 2013 figures submitted by the Department of Statistics (Mohamad Idham, 2014). As Datuk Ismail Mutalib, the Deputy Human Resources Minister, states, Malaysia attained total employment by bringing the rate of unemployment to fewer than 4%, according to the benchmark of the International Labour Organisation (Mokhtar, 2013). Nevertheless, joblessness among graduates remains a concern. In 2013, a total of 22,041 graduates were said to be unemployed, accounting for 34% of the overall unemployed workforce, according to the Ministry of Education (2014). According to Tan Sri Fong Chan Onn, Minister of Human Resources, the National Economic Action Council and the Department of Human Manpower together carried out a census in 2005 and it is found that around 59,000 diploma holders and graduates were unemployed. Furthermore, 30,000 graduates were working in a field which did not correspond to their higher education credentials (Zaliza & Mohd Safarin, 2014). Hence, graduates should develop alternatives instead of depending on paid employment.

An effectual option recommended by experts in economics is self-employment (Aldrich & Cliff, 2003; and Matlay, 2006). The tendency towards taking up self-

employment is highest among the inoperative and second highest among jobless graduates (Anderson & Wadensjo, 2006). Entrepreneurship (self-employment) can provide a significant volume of output across the world, including in China (Zhengxia et al., 2012) and in Malaysia (Ooi et al., 2011; Ishfaq et al., 2010).

It is believed that a career driven by entrepreneurship can certainly provide individuals with abundant prospects to enjoy self-reliance, procure better monetary returns, and help develop the overall economy by contributing through job enrichment, innovation, and economic growth (Ishfaq et al., 2010). For emerging nations, entrepreneurship functions like an engine that drives economic prosperity, employment generation, and social fine-tuning. A positive relationship exists between entrepreneurship intents and personality attributes (Yosuf et al., 2007). Fatoki (2010) states that graduates should be given encouragement to establish a small business as a career instead of relying on the government to provide jobs' opportunities. In this regard, opting for entrepreneurship is a positive solution for addressing the issue of unemployment among graduates.

Zuhairah Ariff et al. (2014) noted that entrepreneurship undertakings could help in tackling the issue of unemployment. According to Sandhu et al. (2010), graduate unemployment can be controlled if the graduates take up entrepreneurship. Institutes that offer higher education play a crucial part in fostering an entrepreneurial culture. At the graduate and postgraduate levels, these institutes can inculcate a sense of understanding among their students regarding the perils and incentives of business generation and the causes that lead to failures. Furthermore, they can help nurture entrepreneurial attributes in students and offer

the required networking support for businesspersons as well as legitimacy to their efforts. Institutes that offer higher education play a useful part in endorsing entrepreneurship education to foster societal and regional economies (Abubakar & Mitra, 2010; Muller, 2008; Co & Mitchell, 2006). According to Mahlberg (1996) and Autio et al. (1997), schools and universities have a crucial part to play in endorsing entrepreneurship, as educational entities are usually considered places which mould entrepreneurial cultures and ambitions among students while these are learning to survive in today's competitive environment. Universities offer a basic environment for entrepreneurship and can train students in how to think and conduct themselves as entrepreneurs (Bygrave, 2004).

Much research has evaluated the effects of entrepreneurship education on actual entrepreneurial performance (Matlay, 2008), entrepreneurial outlooks, entrepreneurial intents (Kolvereid & Moen, 1997), entrepreneurship competence, and motivation (Oosterbeek et al., 2010). The majority of research highlights the positive and crucial relationship between students and businesspersons who have applied for entrepreneurship programmes (Bilic et al., 2011). As Dixxon et al. (2005) state, entrepreneurship programmes empower graduates with proficiencies which improve their main entrepreneurial competencies, intent to create new businesses, and business proprietorship.

Linan et al. (2008) point out that the information pertaining to entrepreneurs and the establishment of a new undertaking is attained through entrepreneurship courses. Friedrich and Visser (2005) contend that education regarding entrepreneurship would improve the tendency of students towards becoming

entrepreneurs at a certain stage post-graduation. This is substantiated by the extensive spread of entrepreneurship programmes in various fields, signifying that considerable changes can be achieved if entrepreneurship is taught and mainstreamed in the syllabuses of schools (Solomon, 2007).

To endorse entrepreneurship among graduates and propel the rate of employment through entrepreneurship, one needs to determine to what degree the entrepreneurial intent of university students would transform into their concrete choice of selecting entrepreneurship as their livelihood. Therefore, this study, through pertinent theories, will deliberate to what degree the intent among graduates to be a businessperson transforms them into an actual businessperson.

2.3 Theory of Reasoned Action and Theory of Planned Behaviour

Introduced by Fishbein in 1967 and revised in 1975 by himself and Ajzen, the Theory of Reasoned Action (TRA) is one of the most effective models available to predict human behaviour and behavioural characteristics (Gerry Segal et al., 2005). The theory stated that the behavioural intention that influences behaviour is initially an outcome of the combination between the subjective norm and the attitude about the act. The subjective norm is about the expectations from those people who are important to the person and his/her desire to fulfil such expectations. The attitude about the act, on the other hand, is his/her perception of the consequences pertaining to the behaviour (Gerry Segal et al., 2005). The TRA model has been widely used in empirical studies associated with social psychology as well as entrepreneurship (Gerry Segal et al., 2005; Werner & Kay, 2006; Smith et al., 2007).

However, according to Ajzen (1991) and Chiou (1998), there is a limitation in predicting behaviour and behavioural intention if the person's behaviour is beyond his/her volitional control. The Theory of Planned Behaviour (TPB) was thus introduced by Ajzen (1985) to complement TRA. This second theory considers the perceived behavioural control which may influence behaviour and behavioural intention. According to TPB, a person's perceived behavioural control in decision-making may influence his/her behavioural intention. Chiou (1998) also believed that perceived behavioural control significantly affects a person's behavioural intention, especially if it is beyond his/her volitional control. For example, in engaging entrepreneurship, a graduate should also have self-confidence and other factors to help him/her make good decisions, in addition to having knowledge and capital (Chiou, 1998). Perceived behavioural control is necessary in predicting his/her behavioural intention under these circumstances. On top of that, according to Chatzisarantis et al. (2007), TPB has been evidently useful in predicting behavioural intention. This can be seen in the various meta-analytic reviews in various fields, for example in social behaviour (Armitage & Corner, 2001) and health behaviour (Hagger et al., 2002).

Kolvereid (1996) employed TPB in his study to predict the career path of his respondents by predicting their intentions to end up either employed or self-employed. In his study, such intention was linked to factors including past self-employment experience, family background, and gender. Kolvereid hypothesized that higher perceived behavioural control, which is the result of attitudes and subjective norms supporting self-employment, leads to a higher intention of becoming self-employed. He found that all the independent variables in his study

notably influenced the variation of intention, thus proving the effectiveness of TPB in predicting employment selection intention. He reiterated that TRA and TPB can be effective in explaining a person's behaviour with regard to decision-making and that the study of graduate entrepreneurship could employ these two theories (Kolvereid, 1996). Sommer (2011) also supported the use of TPB. Based on his review, this model is employed in various types of behaviour for the purpose of understanding how certain people behave. He even claimed that it was among the most outstanding theories in the field of social psychology in terms of human behaviour prediction. In addition, many researchers have also utilized this theory in their study on entrepreneurial intention (Carsrud & Brannback, 2011; Engle et al., 2010; Wei-Loon et al., 2012; Linan & Chen, 2009; Moriano et al., 2012; Shook & Bratianu, 2010; Wei-Loon & Izaidin, 2014). Figure 2.1 shows the structure of TPB.

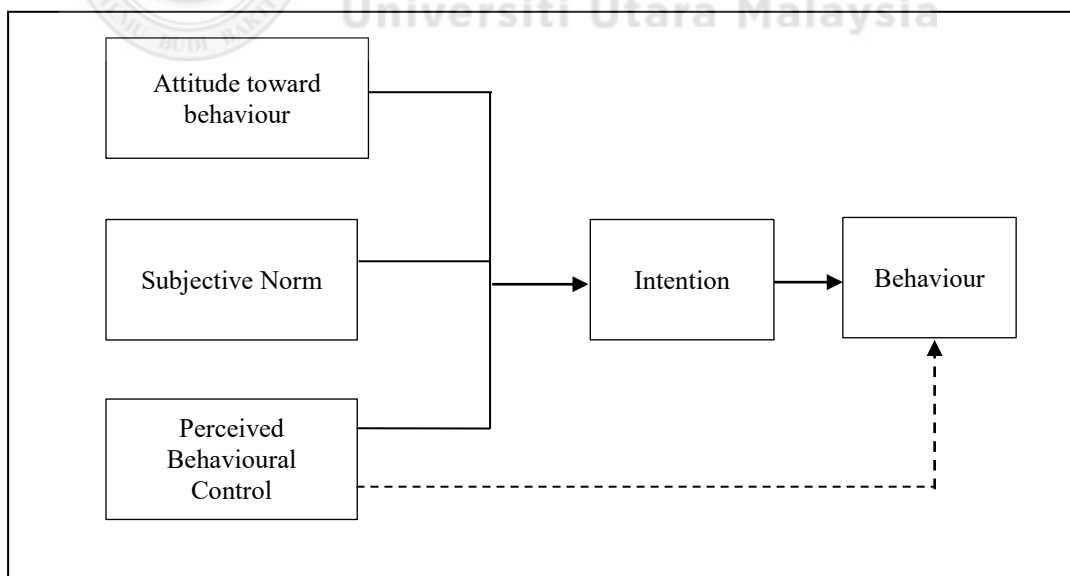


Figure 2.1
Theory of Planned Behaviour
Source: Ajzen (1991)

2.3.1 Usefulness of the Theory Planned Behaviour

Attitude towards Behaviour

In TPB, there are three factors influencing the intention and actual behaviour of a graduate towards entrepreneurship, i.e. attitude towards a behaviour, subjective norm associated to the behaviour, and perceived behavioural control. Kolvereid (1996) defined attitude as the positive/negative evaluation of engaging in a behaviour.

Two types of belief result from the evaluation of the execution of a behaviour: favourable (profitable) or unfavourable (not profitable). In other words, if it is favourable, profitable, or beneficial for the individual to conduct the behaviour, the person will strengthen his/her intention to do it (Ajzen & Fishbein, 1980). In contrast, if the evaluation has a negative outcome, then his/her intention will weaken or diminish.

The definitions of the associated beliefs for exact behaviours are determined by the researchers due to a lack of elaboration on these beliefs (Sentosa & Nik Kamariah, 2012). A study on the attitude towards the contribution of *zakat* by Ram Al Jafri et al. (2010) revealed that businessmen who hold the belief that paying *zakat* provides their businesses with blessings will evaluate it as favourable (positive attitude). In contrast, if they do not see how the *zakat* payment benefits them, a negative attitude will emerge. The positive attitude increases their intention to pay *zakat* while the negative attitude reduces their intention to do so.

Subjective Norms

Subjective norms can affect some behaviour. Hee Yeon and Jae-Eun (2011) defined it as the social pressures surrounding a person which influence the engagement of the person in certain behaviour. Ajzen (2005) earlier defined it as a person's perception of the people important to him/her regarding a behaviour. The assessed opinions of these people will influence the person's decision to engage in the behaviour. There is a direct relationship between the subjective norm constructs and the intention of someone (Ajzen & Fishbein, 1980) because one's behaviour depends greatly on the perceived behaviour of others.

If others perceive behaviour positively, it will encourage the person to conduct the behaviour as well. Subjective norms are based on Social Learning Theory. This theory implies that a person is inclined to implement behaviours he/she observes in family, close friends, and mentors, even more so if the results of such behaviours are favourable or profitable (Bandura, 1977b). Cialdini and Trost (1998) reiterated that social norms represent the highest influence in situations where the conditions are uncertain, such as in activities related to entrepreneurship. Entrepreneurial intent can be explained by social norms, which may manifest in the forms of family experience, family support or perhaps the knowledge of others who hold businesses.

In paying taxes, a person's intention is influenced by the social perception of such behaviour (Hanno & Violette, 1996). Bobek and Hartfield (2003) supported this finding, stating that the intention to pay taxes definitely has a positive relationship with the subjective norms. In terms of the behaviour in paying business *zakat*,

Ram Al Jafri (2010) also reported a similar inclination to do so due to subjective norms. The perceptions of important people surrounding the businessmen, such as parents, spouses, and friends, influence their intention to fulfil the *zakat* contribution. Such positive perception will increase their intention to pay *zakat* while a negative perception will have the opposite effect. Researchers agree that there is a close relationship between behavioural intention and subjective norms (Bamberg et al., 2003; Hillhouse et al., 2000; Nurul Huda et al., 2012). For example, according to Nurul Huda et al. (2012), a person's perception of certain issues is the result of subjective norms, regardless of his/her actions towards the issues. TPB also states that the perception of important associated people greatly influences a graduate's intention and behaviour towards entrepreneurship.

Perceived Behaviour Control

Perceived behavioural control is the perceived ability of an individual regarding a behaviour and how easy or difficult it is for the individual to implement it (Ajzen, 1991; 2005). The evaluation depends on internal/external factors including skills, experience, opportunities, and resources. The lack of control over such factors will reduce one's intention to act. In contrast, a person with a better control over these factors will have a higher intention to engage in the behaviour (Ajzen, 1991). In fact, sometimes perceived behavioural control can have a direct impact on behaviour because these factors can be used to measure a person's actual control in implementing a behaviour in real situations (Ajzen & Driver, 1992).

In the context of paying business *zakat*, perceived behavioural control and intentions are also important influences (Ram Al Jafri, 2010). Among the factors

related to perceived behavioural control are knowledge, capability, capacity, and resources. Apparently, the external and internal factors that exist within and around the business influence the decision made by businessmen to pay *zakat*. For example, regarding the difficulties in assessing the business *zakat*, businessmen who have such knowledge will perceive paying *zakat* as an easy task compared to businessmen without the knowledge. In other words, the more perceived behavioural control possessed by the businessmen to pay *zakat*, the stronger their intention to perform this obligation.

Graduate entrepreneurs are expected to have the same criteria in their behaviour. Graduates with higher control over the internal and external factors are predicted to have a stronger intention to engage in entrepreneurship. Similarly, a lower control over these factors will have the opposite effect. Based on TPB, perceived behavioural control is anticipated to have a direct influence on the behaviour of graduate entrepreneurs.

Intention and Behaviour

Intention is the single best factor in predicting start-up behaviour and intention models have been utilized by various researchers in explaining the decision to engage in a business (Linan & Rodriguez- Cohard, 2015; Krueger, et al., 2000; Bird, 1988; Krueger & Brazeal, 1994; Krueger et al., 2000; Autio et al., 2001; Kolvereid, 1996). In the field of social psychology, planned individual behaviours can be best predicted with intentions, especially if this involves behaviours of an unusual nature, as in they are rare, hard to observe, or involve unpredictable time lags (Krueger et al., 2000).

There are several definitions of intention. One of these is a person's willingness to carry out the cognitive description of a behaviour (Ajzen & Fishbein, 1980). Also, according to Ajzen (1991), intention is a person's willingness to try implementing a behaviour because it contributes towards the actual implementation of the behaviour. As for entrepreneurial intention, Bird (1988) defined it as the state of mind that directs and guides a person's actions towards developing and implementing new business ideas. Attitudes precede intentions, and external factors, such as demographic, traits, education, and situational variables, influence attitudes (Ajzen, 1991; Kolvereid, 1996; Krueger, 2003; Segal, Borgia & Schoenfeld, 2005; Linan & Chen, 2006; Souitaris et al., 2007), in addition to other factors such as values, needs, habits, wants, and beliefs (Lee & Wong, 2004) as well as cognitive variables (Ajzen, 1991).

Based on the definitions provided, it seems that intention guides a person's willingness to implement a behaviour (Ajzen, 2005; Sheeran, 2002; and Bird, 1988). TPB is one of the most widely used intention models in research (Ajzen, 1988; 1991). The performance of TPB in predicting entrepreneurial intentions is evident in various entrepreneurial-related studies (Bagozzi & Warshaw, 1990; Autio et al., 2001; Engle et al., 2010; and Wong et al., 2014). In this study, intention is also a decisive factor in predicting the graduates' actual behaviour in pursuing entrepreneurship.

2.3.2 Limitation of Theory Planned Behavior

Similar to other theories, TPB also has its limitations. In general, there is a large gap between whether or not an intention is converted into an actual choice. Boston

University School of Public Health (2013) has listed more limitations: (1) TPB assumes that the person readily possesses the opportunities and resources to implement the behaviour successfully and thus it does not consider other factors that may also influence the person's intention and motivation to engage in the behaviour, such as past experience, fear, threat, or mood; (2) although TPB takes subjective norms into account, it excludes economic and environmental factors; (3) behaviour, in reality, changes over time due to many factors but TPB does not take this into account and simply assumes that behaviour is the result of a linear decision-making process. On top of that, it does not include the consideration of time between the intention and the actual behavioural action. In their study, Warshaw and Davis (1985) thought that there is a possible distinction between the intention and expectation related to behaviours. However, their theory has yet to be proven. Gollwitzer (1993) introduced the idea of implementation intention and his idea has been successfully utilized by several researchers. Results have shown that implementation intention could enhance the probability of implementing a behaviour as well as the rate of behaviour initiation.

This study aims to investigate the extent to which intentions to become entrepreneurs among graduates are being translated into actual choices. Regardless of the limitations in TPB, this theory is still able to provide a solid theoretical foundation and framework that can reliably analyse the behaviour of Malaysian graduates in choosing entrepreneurship as their career. This study is expected to significantly help academics and policymakers and serve as a guide for them to develop more practical and effective programs for the purpose of increasing the intention of graduates to pursue entrepreneurship after they

graduate. In addition, this study lays out an example of how TPB, which was introduced by Ajzen (1985; 1991), can be used to predict Malaysian graduates' decisions to pursue entrepreneurship as a career.

2.4 Theory of Utility Maximization

The Theory of Utility Maximization is a utility model of human decision-making which postulates that people will choose to act upon a course that has a higher tendency to provide the greatest psychological satisfaction or maximum utility (Eisenhauer, 1995; Pindyck & Rubinfeld, 2013). However, dissatisfaction or disutility may occur from some elements in a course of action. These irritating elements, to a certain degree, will ruin the utility contributed from the pleasant elements in the course of action (Eisenhauer, 1995). According to this theory, a person makes a decision by considering the aspect of utility maximization.

In other words, the person chooses something that gives him/her the highest utility (Becker, 1965). A graduate will opt for entrepreneurship if the utility resulting from choosing entrepreneurship (U^{en}) is higher than from choosing others (U^{nen}), with the assumption that the graduate has the liberty to choose entrepreneurship or otherwise, subject to labour market constraints such as job availability. The formula is as follows:

Utility Maximization: $U^{en} > U^{nen}$ subject to the labour market constraints

Based on the formula, the Theory of Utility Maximization implies that the potential determinants for graduates to choose entrepreneurship are the factors

related to the utility of being an entrepreneur or non-entrepreneur as well as the labour market constraints. Past studies on the reasons people choose entrepreneurship as their career have mostly revolved around the subjects of sociology and psychology. Some recent studies involved the economic perspective of choosing entrepreneurship as a career (Baumol, 1990; Gifford, 1993).

Another example of a more recent study on entrepreneurship from the economic perspective is that reported by Douglas and Shepherd (2002). According to them, the decision to pursue entrepreneurship as a career is an individual's choice that involves utility maximization. It means that a person will choose entrepreneurship if the sum utility (e.g. income, perquisites, freedom, work effort, risk bearing) they expect to get is greater than what they could possibly obtain from being employed.

Douglas and Shepherd (2002) further elaborated that an individual's main expectation of utility is the income, which will then be converted into goods or services. The individual also expects to gain utility or disutility from freedom, work effort, risk bearing, and other working conditions. They identified an individual's utility function as the following to express the individual's current-period choice between self-employment and being employed in the next period:

$$U_{ij} = F(Y_{ij}, W_{ij}, R_{ij}, I_{ij}, O_{ij}) \quad \dots\dots (2.1)$$

Where:

U_{ij} represents the utility anticipated in the i^{th} period from the j^{th} job;

Y_{ij} represents the income anticipated in the i^{th} period from the j^{th} job;

W_{ij} represents the work effort anticipated in the i^{th} period from the j^{th} job;

R_{ij} represents the risk anticipated in the i^{th} period from the j^{th} job;

I_{ij} represents the independence anticipated in the i^{th} period from the j^{th} job;

O_{ij} represents the net perquisites anticipated in the i^{th} period from the j^{th} job;

$i = 1, 2, 3, \dots, n$ represents the different periods out to the time horizon (n), and $j = 1, 2, 3, \dots, m$ represents the different jobs available in any period. Note that the individual may have a different job (j -value) in each period, or may persist in the same job for several or all periods.

The individual should picture $k = 1, 2, 3 \dots z$ career paths with each of them represented by a job or a sequence of jobs from the current moment until a fixed moment of time in the future. A job from which the individual expects to gain maximum utility is chosen among the z career paths. With the k^{th} career path, the expected utility from them can be expressed as a function of income, work effort, risk bearing, freedom, or perquisites from each job in every period until a fixed moment in the future.

$$\sum U_{ij} = F(\sum Y_{ij}, \sum W_{ij}, \sum R_{ij}, \sum I_{ij}, \sum O_{ij}) \quad \dots (2.2)$$

This information only applies to uncomplicated cases where only one job (j -value) is involved throughout all time periods. After scanning all job opportunities, the

individual then chooses the j-valued job which has the maximum total utility using the formula in Eq. (1). The above model is discussed before describing the research method used in collecting responses, generating a set of utility-maximizing models, and testing the explanatory ability of the model in the aspects of career decision and the diverseness in entrepreneurial intention.

The objective of this study is to perform an empirical investigation on entrepreneurship as a utility-maximizing response and to try to fill the gap in the theoretical debate on this subject. According to this theory, a graduates' decision to choose entrepreneurship is determined by factors such as education, entrepreneurial skills, and social demographic variables. This study aims to determine whether the graduates' choice of career is influenced by their intention towards entrepreneurship, attitudes towards formal and informal entrepreneurship education, as well as communication apprehension. What causes some graduates to have the intention to become self-employed? Is graduates' utility positively affected by the presence of intention, entrepreneurship education, and communication apprehension?

2.5 Factors Influencing a Graduate's Intentions and Choice to become an Entrepreneur

The main focus of the empirical reviews in this study is on formal and informal entrepreneurship education, intention, actual behaviour, and communication apprehension.

2.5.1 The Entrepreneurship Education (Formal and Informal) factor towards Intention and Actual Behaviour

Entrepreneurship education comprises the educational activities which enable a person to absorb and develop knowledge, values, skills, and understanding which allow him/her to define, analyse, and solve a broad range of issues (Garavan, Costine & Heraty, 1995; Stuart & Sorenson, 2003; Abubakar & Mitra, 2010). According to Fenton and Barry (2011), entrepreneurship education is the most vital first step for nurturing innovativeness in higher education institutions (HEIs). Having an entrepreneurship education allows a person to perform the core activities in entrepreneurship, i.e. to understand, elaborate, interpret, and incorporate new information using novel approaches (Roxas, 2014). Entrepreneurship education can be done formally or informally (Hynes, 1996; Nor Aishah Buang, 2005; and Jimenez et al., 2015).

2.5.1.1 The Formal Entrepreneurship Education factor towards Intention and Actual Behaviour

Formal entrepreneurship education is available in HEIs for the purpose of nurturing and developing the appropriate entrepreneurial characteristics and potential in graduates to suit the needs of the community (Pittaway & Edwards, 2012; Cooney & Murray, 2008). It focuses on developing a personal attitude and aptitude to engage in entrepreneurial activities (Mitra et al., 2011; Henderson & Robertson, 2000; Syahrina et al., 2012; Gabadeen & Raimi, 2012). In a survey by Hills (1988) involving 15 top entrepreneurship educators in the United States, he identified two main objectives of such education programs, i.e. to improve the awareness and understanding of how to start and manage a new business and to

make students aware that small business ownership is also a serious option as a career.

Formal entrepreneurship education offered in HEIs is constructed to provide students with the right entrepreneurial knowledge and skills as well as the competency required to become successful entrepreneurs (Linan, Rodriguez-Cohard and Rueda-Cantuche, 2011). It provides the theoretical and conceptual frameworks of entrepreneurship using common educational methods such as lectures and literature readings (Hynes, 1996). The role of an educator is to instruct and facilitate the learning process. The means of assessment are formal examinations that test the acquired knowledge and aptitude after a series of learning processes (Hynes, 1996), with awards and qualifications such as a degree as the final reward (Lans, 2004; MoE, 2007).

In addition to achievements and qualifications, such as a bachelor degree, university students are advised to get involved in the different kinds of entrepreneurship activities provided at their universities, which include training, seminars, short courses, conferences, and events for entrepreneurship (Hardy et al., 2015). Thus, the characteristics and thinking of students can be developed in entrepreneurial terms since these are explorations of entrepreneurship (Ertuna & Gurel, 2011).

The available literature resources provide insufficient and conflicting views on the impact of entrepreneurship education on entrepreneurial intentions as well as on the actual entrepreneurial behaviour of initiating new businesses (Harris et al.,

2008; Kautonen, et al., 2011; Linan, et al., 2011). As with many other subjects, most past studies are basically exploratory and explanatory in nature, which inhibits the underlying inferences that are important in evaluating the relevance and effectiveness of these entrepreneurship courses (Fayolle & Lassas-Clerc, 2006; Luthje & Franke, 2003). The actual precursor for the decision to initiate a business has always been debatable. Therefore, topics regarding the effects of entrepreneurship courses on formal entrepreneurship education continue to receive great interest, especially with respect to theory, pedagogy, and policy (Roxas, 2014).

Heuer and Kolvereid (2014) made a comparison between graduates who majored in entrepreneurship and those who had other business majors. They reported that those majoring in entrepreneurship had a higher entrepreneurship intention and were more likely to initiate an actual business. In fact, according to McMullan and Gillin (1998), students who initially did not consider such a career could change their minds after going through a series of entrepreneurship education.

There is a positive relationship between entrepreneurship education and actual entrepreneurship behaviour (Klofsten, 2000; Varela & Jimenez, 2001). Noel (2002) reported that entrepreneurship graduates possess a higher intention to start a business after graduating compared to other graduates. This finding was supported by Soutaris et al. (2007), who confirmed the increase of intentions among students to start own businesses after participating in an entrepreneurship program. They validated this finding by having a control group which did not show the same development. Even with these reports and findings, the underlying

effects of entrepreneurship education on entrepreneurial intention that is later translated into actual entrepreneurial behaviour are still not well understood.

In a study by Karimi et al. (2012), TPB was applied to predict and identify the entrepreneurship behaviour of graduates. They confirmed a significant relationship between formal entrepreneurship education and subjective norms as well as perceived behavioural control. According to them, formal entrepreneurship education is a significant and positive influence on entrepreneurial intentions and actual behaviour. They concluded that universities are able to inculcate and shape the entrepreneurship intentions and abilities of students through formal entrepreneurship education. However, Heuer and Kolvereid (2014) reported differently. Based on their study, the TPB seemed to fail the sufficiency test due to the fact that entrepreneurship education itself has a direct influence on entrepreneurial intention. They provided three reasons for their findings. First, the theory itself is lacking. Secondly, the measures are weak. Finally, it is highly probable that entrepreneurship students already possess entrepreneurial intentions prior to pursuing entrepreneurship education.

This study focuses on the question of whether or not a formal entrepreneurship education provides a positive influence on developing the intention of an individual to start a business. It is based on the argument in the existing literature that entrepreneurship intention can be used to predict entrepreneurial behaviour, including initiating a new business (Fayolle et. al., 2006; Harris et al., 2008; and Linan et. al, 2011). However, this study delves deeper into this topic by putting forth an argument that the relationship between entrepreneurship education and

entrepreneurial intention may not be direct. It tries to provide a more in-depth explanation of how potential entrepreneurs can be developed through formal entrepreneurship education.

2.5.1.2 Informal Entrepreneurship Education

Contrary to formal education, informal education is a learning process through unstructured and spontaneous means (Hynes, 1996). According to Hynes (1996), informal entrepreneurship education focuses on building skills, developing attributes, and changing behaviours. The process of outcome involves knowledge, abilities, skills, and job performance.

Another definition of informal education was given by Tjepkema (2002), stating that it is an implicit, unintentional, and unstructured learning that happens while working or cooperating with others, during a business plan competition (Edwards & Muir, 2005), or during coaching for individuals who wish to initiate a business. Cheetham and Chivers (2001) conducted a study on informal learning involving 452 professional workers from six types of professions. According to them, informal learning occurs in three main forms, namely learning from experienced co-workers, on-the-job learning, and through teamwork.

There are contradicting arguments regarding the effects of formal and informal entrepreneurship education on the entrepreneurial intention and actual behaviour of graduates. It was reported that lower entrepreneurial potential is seen among students with higher academic results while higher entrepreneurial potential is seen among students with lower academic results (Zaidatol et al., 2001).

In Malaysia, a study by Cheng et al. (2009) reported the failure of the local entrepreneurship education in influencing students to pursue entrepreneurship. Based on the insignificant relationship they found between them (correlation coefficient = 0.072, p -value 0.214), they concluded that the courses and programs provided in Malaysia are not successful in influencing students to pursue entrepreneurship.

Many entrepreneurship education programs lack a positive educational impact, hence the ineffectiveness (Matlay, 2006). This ineffectiveness may affect students of ethnic minorities because such entrepreneurship education is not structured to meet their needs (Pittaway et al., 2006; Hannon, 2007). However, there are many entrepreneurial programs and courses available that have not been tested and, therefore, it would be unfair to come to such conclusions simply by testing a small number of programs or courses (Zainalabidin et al., 2012). Thus, informal entrepreneurship education is also considered in this study by taking the individual experiences into account such as past engagement in business. This could be their personal experiences of doing business or perhaps they are only the part of a business conducted by family or friends.

a. Entrepreneurship Experiences

Compared to being a witness of others or a reader of their stories, experiential learning theory holds the values of personal, direct, and active experiences (Kolb, 1984; and Corbett, 2005). Kolb (1984) described it as a cyclical process where the person alternates between opposing modes, such as between action and reflection or thinking and feeling. An experiential learning framework may bring about

changes in a person's beliefs and attitudes over time as he/she faces new information and situations (Politis & Gabrielsson, 2009). Individuals who have engaged in business during their life as students have a higher tendency to pursue entrepreneurship upon graduation because they have experienced the process of conducting a business and they have polished the skills to distinguish and exploit business opportunities (Jovanovic, 1982). The direct needs, experience, and possibilities in this field influence the learning of an entrepreneur (Lans et al., 2004).

According to Evans and Jovanovic (1989), some people are born with initial amounts of business thinking and such people have the tendency to develop entrepreneurial intentions and pursue entrepreneurship as a career. MacMillan (1986) earlier stated that experienced entrepreneurs are expected to have learned the "art" of entrepreneurship from past start-ups. In addition, they are expected to be able to experience and have a good judgment of the outcomes of their decisions and actions (Russo and Schoemaker, 1992; Sitkin, 1992). These are all parts of experiential learning. Ajzen and Fishbein (1980) defined entrepreneurial experience as a personal experience of participating or getting involved in a business. Experience may also be an outcome of inertia that provides guidance for human behaviour. Oruoch (2006) reiterated the importance of situational variables, including experience and support networks, in making the decision to initiate a business. He then added that a business start-up is the combined result of attitudes and situation factors.

A study by Ndigangu and Bosire (2004) involving 50 students who were running their own businesses at Egerton University, Kenya, revealed that 90% of them considered the viability of self-employment as an alternative to being formally employed. Therefore, it can be said that the students' attitudes towards entrepreneurship can be reinforced or positively influenced by their experiences in operating a business, which will then also greatly increase their intention to start a business upon graduation.

Alsos & Elisabet (2006) also proposed that entrepreneurial experience is associated with abilities and entrepreneurial intention. He applied the Theory of Planned Behaviour, which was introduced by Ajzen, to 252 secondary school students in Northland Country, Norway, to investigate the effect of experience of youth enterprise on their entrepreneurial intentions. Of the 252 students, 115 had never had any experience in business while the rest had had experience in youth enterprises. The findings showed that students who had involvement with youth enterprises had a more positive attitude towards behaviour, subjective norms, and perceived behavioural control. Therefore, this study aims to determine whether or not informal entrepreneurship education, i.e. entrepreneurship experience, has a significant relationship with entrepreneurial intentions and acts as a catalyst for graduates to become actual entrepreneurs.

b. Family Influenced

Family businesses have a large and lasting impact on future generations and the impact is more than just about inheritance (Carr & Sequeira, 2007). Not only the financial rewards and independence obtained from it, but the resource shortfalls as

well as the time allocated for family businesses also bring about this impact on the social and psychological development of the family members involved (Aldrich & Cliff, 2003; Dyer & Handler, 1994). People who are from families that run businesses are most probably aware of such impacts (Fairlie & Robb, 2005). Their opinions on business ownership depend on how they incorporate their experiences to positively or negatively manifest their attitudes and behaviours towards entrepreneurial action. In other words, such influence may affect the attitudes and subjective norms with regard to pursuing entrepreneurship as a career (Fairlie & Robb, 2005). As stated by Ajzen and Fishbein (1980), the attitudinal and behavioural mechanisms that make a family business can shape or influence the entrepreneurial intentions of the next generation.

Family business is defined by Chua et al. (1999) as a business that is controlled or managed by a dominant alliance under one family or multiple families, with the objective of shaping and achieving the vision of the business, making it sustainable across generations of the family or families. As stated by Carr and Sequiera (2007), having a family business highly influences the career path chosen by its family members, especially the children in that family. If a person views his/her family business experience positively, the person will perceive a business start-up as something feasible and desirable.

In addition, frequent relocation during childhood also brings about a positive effect on how the person perceives autonomy and attitudes towards being self-employed (Drennan et al., 2005; Turker & Selcuk, 2009; Pruett et al., 2009). Alsos et al. (2011) indicated that entrepreneurial intentions and action can be

developed among family members with a family business. Zainalabidin et al. (2012) also found that having an entrepreneurship family background significantly affected the intentions of their respondents to become entrepreneurs. Respondents with such backgrounds were more motivated to become entrepreneurs through entrepreneurship education ($\chi^2 = 9.345$, $p < 0.05$). According to Matlay (2008), close family members and distant relatives have a strong influence, positively or negatively, on the career choice of an individual.

A good influence from the family, combined with personal experiences related to entrepreneurship, yields a higher inclination towards entrepreneurship (Basu & Virick, 2008; Gasse, 1985; Yeng Keat, et al., 2011). Therefore, this study aims to determine whether or not informal entrepreneurship education, i.e. family background, has a significant relationship with entrepreneurial intentions and acts as a catalyst for graduates to become actual entrepreneurs.

c. Friend Influences

When comparing different groups within one locality, Lafortune et al. (2013) claimed that having entrepreneurial friends seems to have the same effect when measured as deviations from the average stemming from the random drawing of the non-tracking group. Individuals who work at new venture-supported firms have a higher likelihood of becoming entrepreneurs (Gompers et al., 2005).

Similar outcomes can be seen for individuals whose co-workers become entrepreneurs (Nanda & Sorensen, 2010) or who have a lot of people becoming entrepreneurs in the region where they work (Giannetti & Simonov, 2009).

Friend effects are essential determinants of entrepreneurial behaviour (Lerner & Malmendier, 2012). Consistent discoveries related to friend effects have been made in other fields of finance involving the interactions among mutual fund managers as well as stock analysts (Cohen et al., 2010). Therefore, this study aims to determine whether or not informal entrepreneurship education, i.e. friend influence, has a significant relationship with entrepreneurial intentions and acts as a catalyst for graduates to become actual entrepreneurs.

2.5.2 Graduate Intention and Actual Behaviour towards Entrepreneurship

Entrepreneurial intention is an important element that determines entrepreneurial behaviour (Pribadi, 2005). It greatly influences a person's decision to implement entrepreneurial behaviour (Bird, 1988; Baron, 2004). It directs an individual's focus, experience, and behaviour towards a business concept (Bird, 1988; and Engle et al., 2010). The intention to implement such behaviours is influenced by factors such as values, needs, habits, wants, and beliefs (Lee & Wong, 2004), situational variables (Linan & Chen, 2006), as well as cognitive variables (Ajzen, 1991).

Numerous researchers have validated the weight of entrepreneurial intention towards entrepreneurial behaviour, e.g. Shapero (1975), Shapero and Sokol (1982), Bird (1988), Krueger (1993), Krueger et al. (2000), Tkachev and Kolvereid (1996) and Kolvereid (1996). Some precursors to entrepreneurial intention identified by Shapero (1975) are personal feasibility and social desirability while Bird (1988) included personal characteristics, abilities, and experience as precursors.

Entrepreneurial intention has become one of the most researched topics with regard to graduate entrepreneurship because it is able to provide a prediction of entrepreneurial behaviour (Krueger et al., 2000), complementing the limitations of earlier research where only elements such as personality traits and demographics were utilized to predict behaviour (Nabi et al., 2006). Recent studies have widely incorporated entrepreneurial intention models based on the Theory of Planned Behaviour introduced by Ajzen (1987, 1991).

TPB utilizes intentions to explain an individual's action by confirming a link between attitudes and behaviour (Hattab, 2014). The theory is based on how human behaviour can be predicted by understanding the intention towards the behaviour, with the assumption that human behaviour is planned (Izquierdo & Buelens, 2008). It is especially important to use this theory for behaviours that are rare, hard to observe, and involve irregular time lags (Basu & Virick, 2008).

Several empirical studies have proven that it is possible to accurately predict intentions by measuring the attitudes towards behaviour, subjective norms, and perceived behavioural control (Albarracin et al., 2001; Armitage & Conner, 2001). Kolvereid (1996) tested the three precursors proposed by Ajzen (attitudes towards behaviour, subjective norms, and perceived behavioural control) in his study involving business undergraduate students in Norway and concluded all three of them to be significant. Tkachev and Kolvereid (1999) repeated the test among engineering and medical students in Russia and also verified the significance of all three precursors to entrepreneurial intention.

Ajzen's model was also used by Fayolle et al. (2006) in determining the effectiveness of entrepreneurship education programs in France. A study conducted by Autio et al. (1997) incorporated the model for a survey involving business students. They reported autonomy as a significant precursor to entrepreneurial intention in France, Sweden, and Finland, while conviction is able to predict entrepreneurial intention in Thailand, Finland, and the USA. Another study by Autio et al. (2001) reported perceived self-control to be the most significant influence on entrepreneurial intention in the USA and Ireland.

In actuality, intentions have been widely used in the prediction of various behaviours, such as occupational choice (LaRocco, 1983), consumer and leisure decisions (Warshaw & Davis, 1984), blood donation (Warshaw, Calantone & Joyce, 1986), weight loss (Bagozzi & Warshaw, 1990), voting (Bassili, 1995), physical activity (Norman & Smith, 1995), diet (Conner & Sparks, 1996), smoking (Norman, Conner & Bell, 1999), as well as academic activities and achievement (Sheeran, Orbell & Trafimow, 1999).

Sheeran (2002) conducted a study on intention with regard to health-protective behaviours. They found that out of all the respondents who intended to use condoms, undergo cancer screening or exercise, 26–57% failed to translate those intentions into actual behaviours. Prior to that, Sheeran and Orbell (1998) tried to predict condom use among their respondents and found no difference between the mean amount of variance accounted for by behavioural expectation (18%) and by behavioural intention (19%). They argued that correlations have the tendency to make the nature of the intention–behaviour gap unclear because correlational and

regression analyses revealed that positive intention scores are associated with a higher probability of behavioural performance and vice versa (Sheeran, 2002).

In order to encourage graduates to opt for entrepreneurship, it might be important to focus on their intention to become entrepreneurs. However, graduates who participate in entrepreneurial activities may not necessarily end up as entrepreneurs. Moreover, the factors that influence intention and the factors that influence the actual choice may not be the same. In this context, Komatsu et al. (2013) claimed that intention has only an indirect influence on actual behaviour. Therefore, studies involving graduate entrepreneurs should focus both on the intention as well as the actual choice. The problem arises when the effectiveness of entrepreneurship education cannot be determined because the extent to which intention is translated into actual behaviour is not known. Hence, this study tries to determine the extent to which the intention of becoming entrepreneurs among graduates is translated into the actual choice.

2.5.3 Communication Apprehension towards Graduate' Intention and Actual Behaviour

The rapid changes in the industrial environment have led to changes in employment requirements (Agarwala, 2008). Graduates should not only have excellent academic qualifications, they must also be equipped with added values such as independence and having a competitive spirit, a pleasant appearance, and good generic skills (Agarwala, 2008). Employers nowadays have their sights set beyond academic qualifications. They seek employees with interesting personalities and other added values (Morshidi et al., 2011; Lim & Muszafarshah,

2013; Lim & Normizan, 2004; Lim, 2007; Lim, 2010; Lim, 2011). Good communication skills support other added values (Morshidi et al., 2011; Lim and Muszafarshah, 2013; Lim and Normizan, 2004; Lim, 2007; Lim, 2010; and Lim, 2011).

Good communication skills help employees to conduct themselves well in complicated working situations (Mohd Sahandri & Saifuddin, 2009; Yassin et al., 2008; and Nabi & Bagley, 1998). Even the Australian Chamber of Commerce has ascertained that professional workers are required to have proficiency in a variety of generic skills (Mohd Sahandri & Saifuddin, 2009).

Communicative skill is defined by Lans et al. (2004) as the proficiency in communication that is needed by entrepreneurs to interact with varying stakeholders. Each step of business development requires good communication, especially during the initial stages of entrepreneurship (Holt & Macpherson, 2010; Lee & Jones, 2008; Roodt, 2005). Baron (2007) categorized it as a type of social skill and further divided it into four: (1) social perception—being able to accurately perceive people; (2) impression management—being able to make a good first impression; (3) expressiveness—being able to clearly and openly express emotions; and (4) social adaptability—being able to proficiently adapt actions to the current social context.

However, in actual situations, Azleen et al. (2013) found that graduates are not only nervous during interviews, they also lack the confidence and communication skills that would help win the job. Byron (2005) earlier stated that university

graduates who step into the employability market are still having difficulties in communicating proficiently. Much is known about the importance of communication skills, but little is known about how students actually face difficulties in their efforts to improve their skills (Stanga & Ladd, 1990). The main hurdle is known as communication apprehension (CA) (Hassall et al., 2000). CA is a type of fear that hinders a person from communicating with others and this fear affects his/her abilities in succeeding and achieving satisfaction in the job (McCroskey, 2005).

High apprehension in communication leads to low job satisfaction as a result of the negative tendencies, such as tenseness, that arise from it (McCroskey et al., 1976). People with high CA have a fear to communicate, which causes them to become more quiet because people naturally avoid doing what they are afraid to do (Richmond & McCroskey, 1989). Hence, people with high CA tend to choose jobs such as working with computers, which do not require them to communicate a great deal (Daly & McCroskey, 1975). In contrast, people with low CA prefer jobs that allow them to communicate to a greater extent.

Even without good communication skills, graduates may still survive by creating their own jobs and becoming self-employed through entrepreneurship. According to Agarwala (2008), there are two options in choosing a career: (1) the availability of other alternatives; and (2) personal priority towards the career. In this study, the alternative career for individuals with low communication skills is to become entrepreneurs. However, Swanson and Gore (2000) listed some factors that limit

individuals' options in choosing a career, such as socio-cultural factors and personality traits.

Thus, this study poses a question: Will a graduate who could not become employed due to his/her lack of communication skills choose to become an entrepreneur? Researchers agree that one of the main characteristics of an entrepreneur is good communication skills (Clarke & Cornelissen, 2011; Stracke & Kumar, 2014; Azleen et al., 2013; Fulgence, 2015; Davidson & Honig, 2003; Siegal & Sorenson, 1994). For that reason, it seems that the real-life situation (graduates with low communication skills tend to choose entrepreneurship due to career limitations) is contradictory with the common perception (entrepreneurs must have good communication skills). Past studies clearly state that graduates with low communication skills have difficulties in getting employed. However, few studies relate low communication skills to choosing entrepreneurship as an alternative after failing to get a job for the same reason. Hence, this study aims to determine the relationship between the level of communication apprehension, and the graduates' choice of entrepreneurship as a career.

2.6 Research Gaps

There are a few research gaps which the present study attempts to fill in. First, the various yet contradicting (positive and negative) findings on the impacts of formal and informal entrepreneurship education on graduates' intentions to choose entrepreneurship as a career indicates that the government should also consider incorporating informal entrepreneurship education to boost the number of graduates who actually choose entrepreneurship as a career.

There is an urgent need to re-evaluate the impacts of entrepreneurship education. Most of the existing literature focuses either on formal or informal entrepreneurship education, exclusively (Cheng et al., 2009; Syed Zambri, 2013; and Lackeus & Middleton, 2015). Most studies do not include both types of education in one study and thus there is a possibility that some facts are missing. In order to provide a more comprehensive understanding of the impacts of entrepreneurship education in influencing graduates to become entrepreneurs upon graduation, both formal and informal entrepreneurship education is included in this study.

Secondly, intention is not always translated into actual choice because intention might have changed during the process. Graduates who participate in entrepreneurial activities may not necessarily end up as entrepreneurs. Moreover, the factors that influence intention and the factors that influence actual choice may not be the same. Therefore, studies involving graduate entrepreneurs should focus both on intention as well as on actual choice. The problem arises when the effectiveness of entrepreneurship education cannot be determined because the extent to which intention is translated into actual behaviour is not known. Hence, this study tries to determine the extent to which the intention of becoming entrepreneurs among graduates is translated into the actual choice.

Finally, there is the effect of communication skills. Hypothetically, graduates with low communication skills have limited options in choosing a career. If they fail to get hired due to their lack of communication skills and choose to pursue entrepreneurship as an alternative, the quality of graduate entrepreneurs would,

unfortunately, be low. If the effect of communication skills is proved to be negative, there is evidence for the poor quality of graduate entrepreneurs. This quality dimension of communication skills has been largely ignored in the previous studies. Hence, this study aims to determine the relationship between communication apprehension and the graduates' choice of entrepreneurship as a career.

2.7 Summary

This chapter first laid out the theoretical foundations of the study, which consists of the Theory of Reason Action (TRA), Theory of Planned Behaviour (TPB) and Utility Maximization Theory. Then, the explanatory and dependence variables were explained and examined. The three variables involved are entrepreneurship education (the effects of formal and informal entrepreneurship education on entrepreneurial action), graduate entrepreneurship behaviour (the extent to which entrepreneurial intention is translated into actual choice), and lastly communication apprehension. The following chapter outlines and discusses the research methodology used for this study. It consists of subtopics including research design, instrumentation, sampling technique, data collection procedure, and data analysis.

CHAPTER THREE

DATA AND METHODOLOGY

3.1 Introduction

Chapter three describes the methods and procedures that were utilized to identify the factors influencing graduates' intentions and their actual behaviour towards becoming an entrepreneur. The chapter discusses the sampling, data analysis procedure and a description of the instrument selected for each variable. In addition, the chapter also includes an instrument reliability report based on the findings of the pilot study and the data screening procedures of the actual study. Finally, the chapter provides a report on the reliability and initial variables' validity of the instruments based on the actual data.

3.2 Research Design

This study employs a quantitative, field research scheme by gathering primary data that responds to the research questions and attains the goals. A quantitative approach looks for grounds and facts from an external or global perspective (Vindich & Lyman, 1994). A field study involves correlational studies conducted in organisations (Sekaran, 2003). These procedures ensure that the analysis is carried out in a genuine or natural scenario. Moreover, a field study scheme exhibits greater external legitimacy, which means that the outcome can be generalised, or extended to other scenarios (Churchill et al., 2010). Data were

collected by means of a questionnaire. A survey technique that encompassed the collection of cross-sectional data was deployed to explore the relationships between communication apprehension and formal as well as informal entrepreneurship education. This indicated the intent among the graduates to be an entrepreneur and to what degree the intent was moulded into actual action.

3.3 Theoretical framework of the Study

The theoretical framework in this study is adopted and modified from the TPB as presented in Figure 3.1.

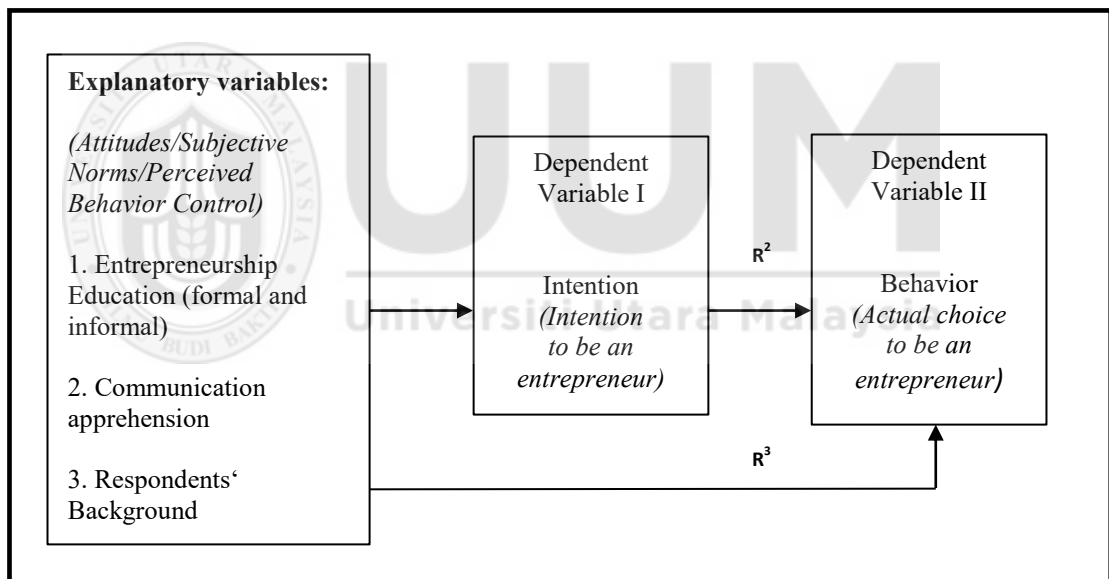


Figure 3.1

Theoretical Framework

Source: Adapted and modified from Theory Planned Behavior, Ajzen (1991)

Notes:

1. R^1 refers to Relationship One
2. R^2 refers to Relationship Two
3. R^3 refers to Relationship Three

Two categories of variables are present in this study—dependent variables and explanatory variables—and these variables are well represented by the theoretical framework. Attitudes constitute the explanatory variables and they consist of

formal and informal entrepreneurship education, communication apprehension, and the background of respondents. The dependent variables are further segregated into two: (1) dependent variable I (intention) and (2) dependent variable II (actual outcome). The theoretical framework illustrates an actual behavior and contains the relationship between subjective norms, attitudes, perceived behavioral control, intention, and behavior with graduate entrepreneurs as the final outcome. The three relationships between explanatory and dependent variables are labeled as R^1 (relationship 1), R^2 (relationship two), and R^3 (relationship three).

R^1 shows that graduates' intention to pursue entrepreneurship (DVI) relies on three important factors, i.e. subjective norms, attitudes, and perceived behavioral control. However, due to the fact that these factors are not directly measurable, they are represented by formal and informal entrepreneurship education, communication apprehension and the background of respondents.

R^2 shows a direct relationship between the intention to become an entrepreneur (DVI) and the actual outcome behavior of becoming one (DVII). The relationship shows the importance of intention factor (DVI) in influencing the graduates to choose the career path of entrepreneurship or self-employment.

R^3 shows that graduates' actual choice to pursue entrepreneurship (DVII) is the direct influence of subjective norms, attitudes, and perceived behavioral control, which are represented by control variables known as formal and informal entrepreneurship education, communication apprehension, and the background of

respondents. These control variables are used to rationalize factors other than the theoretical variables that may give explanation on the variance in dependent variable (Inmyxai & Takahashi, 2011). The control variables, namely entrepreneurial intention, entrepreneurship education, and communication apprehension, are expected to greatly influence graduates in choosing entrepreneurship as their career.

3.4 Sampling Design

The targeted population for the present study were graduates from *Universiti Utara Malaysia* (UUM). Based on the Malaysia Qualifications Register 2009 (Berma et al., 2012), UUM is the first university in Malaysia to offer a full undergraduate degree in entrepreneurship since 2004². Moreover, the undergraduate student population at the various public universities in Malaysia is homogeneous; for instance, in terms of ethnic groups, age and other socio-demographic characteristics. This ensures that the sample has at least an acceptable level of representativeness for the public universities in Malaysia. The respondents were approached with the best efforts to ensure that the sample would have sufficient numbers of graduate entrepreneurs.

3.5 Data Collection Procedure

The data were collected through self-administered questionnaires. The questionnaires were distributed by the researcher and with the assistance of ten undergraduate students. Questionnaires were used as the targeted population was

² This group of entrepreneurship students ensures that the present study will have a sufficient number of respondents for evaluating the effectiveness of entrepreneurship education, while the other non-entrepreneur program will serve as a comparison group. Without a sufficient number of respondents in degree of entrepreneurship, the dummy variables of entrepreneurship degree cannot be included in the model (low variation).

large (more than five thousand). To enhance the response rate, the distribution of the questionnaire was self-administered (whereby the researcher and assistants could encourage the voluntary participation of respondents). This situation helped to alleviate the respondents' fears regarding the information solicited in the questionnaire. Questionnaires were distributed as the respondents were lining up to take their academic robes from 30th September to 9th October, 2012. Regarding the sample size calculation, Krejcie and Morgan (1970) stated that a total sample size of 357 to 361 is required for a population size of 5,000 to 6,000. The number of responses collected was 2,300. When compared to the population size of 5,819 graduates, the sample size represented 39.5% of the population, which is considered adequate according to Krejcie and Morgan (1970).

In terms of the sample distribution of the respondents, statistically, the sample was found to be a good representation of the targeted population (see Table 3.1). Table 3.1 presents the distribution of the fields of degree between the sample and the population. The degree of Business Administration (sample, 15.69 percent; population, 14.05 percent) is the largest group in the population with a response rate of 44.13 percent and the degree of Industrial Statistics (sample 0.43 percent; population, 0.68 percent) was the smallest group in the population with a response rate of 25 percent. In this case, respondents with the type of degree that had a higher percentage in the population also had a higher percentage in the sample. Similarly, respondents with a type of degree that had a lower percentage in the population also had a lower percentage in the sample. No noticeable differences were found between the sample and the population distribution by fields of degree (see Table 3.1). The χ^2 goodness of fit test in distribution of type of degree

between sample and population showed no sufficient evidence that the sample and population varied significantly (p. value of 0.77). Thus, the sample collected is a good representation of the population in terms of type of degree.

Table 3.1
Distribution of Type of Degree in UUM, 2012

Type of degree	Sample	Population	Response rate (%)	Chi-square test	
				Sample (%)	Population (%)
Business Administration	361	818	44.13	15.69	14.05
Technology Management	219	231	94.80	9.52	3.96
Human Resource Management	175	265	66.03	7.62	4.55
Accounting	150	379	39.57	6.52	6.51
Public Management	137	341	40.17	5.95	5.86
Economics	132	300	44.00	5.73	5.15
Entrepreneurship	106	116	91.37	4.6	1.99
Business Administration: Logistics and Transportation)	100	131	76.33	4.34	2.25
International Business Management	79	309	25.5	3.43	5.31
Development Management	79	214	36.91	3.43	3.67
Finance	62	195	31.79	2.69	3.35
Islamic Finance and Banking	61	81	75.30	2.65	1.39
Hospitality Management	18	144	12.50	2.65	1.39
International Affairs Management	60	226	26.54	2.6	3.88
Education	57	273	20.87	2.47	4.69
Muamalat Administration	43	99	43.43	1.86	1.70
Marketing	43	191	22.51	1.86	3.28
Social Work Management	43	106	40.56	1.86	1.82
Information Technology	39	172	22.67	1.69	2.95
Banking	38	97	39.17	1.65	1.66
Communication	38	162	23.45	1.65	2.78
Risk Management and Insurance	35	42	83.33	1.52	0.72
Accounting: Information System	34	108	31.48	1.47	1.85
Decision Science	32	96	33.33	1.39	1.64
Media Technology	26	96	27.08	1.13	1.64
Operations Management	24	93	25.08	1.04	1.59
Law	23	93	24.73	1.00	1.59
Counselling	18	46	39.13	0.78	0.79
Agribusiness Management	16	35	45.71	0.69	0.60
Multimedia	16	111	14.41	0.69	1.90
Tourism Management	16	162	9.87	0.69	2.78
Business Mathematics	10	47	21.27	0.43	0.80
Industrial Statistics	10	40	25.00	0.43	0.68
Total	2300	5819	39.53	100	100

3.6 Questionnaire

Existing literature (McCroskey et al., 1985; Linan & Chen, 2006; Graduate Tracer Study, 2011; and Lim & Muszafarshah³, 2013) was used as a set of guidelines in systematically developing the questionnaire. The process started with identifying the right scales used in similar studies in the past.

Section A of the questionnaire represents the background information of the respondents. This information includes demographics, education level, course of study, jobs, as well as the expectation they have towards entrepreneurship education.

Section B, which covers the main variables (i.e. generic skills), was based on the studies by Lim and Muszafarshah (2013) as well as on *Laporan Kajian Pengesanan Graduan 2010* (2011). This section consists of information in regards to the generic skills possessed by the graduate respondents that may influence their actual performance in the labour market.

Section C, which covers another main variable (i.e. entrepreneurial intention), was based on the studies by Linan and Chen (2006) and Ajzen (1991). Linan and Chen (2006) incorporated the Theory of Planned Behaviour in developing a scale to test entrepreneurial intention. The instrument was based on existing theoretical and empirical literature which incorporated the Theory of Planned Behaviour in studying entrepreneurship.

³ The items of this paper referred to 2012 (whereby this paper was still unpublished at that time). The items were obtained directly from the authors. This paper was published on 2013. Thus, the year of publication (2013) of this paper is after the year of data collection (2012) of the present thesis.

Linan and Chen (2006) scrutinized the instruments applied by other researchers in the past such as Chen et al., (1998), Kickul and Zaper (2000), Krueger et al., (2000), and Veciana et al., (2005). In this study, Ajzen's works published in 1991, 2001, and 2002 were used as the main references in solving any inconsistencies between the various instruments. Hence, the questionnaire was considered relevant in collecting information to accurately answer the research questions and was incorporated in this study.

Section D, which covers the variable of respondents' communication apprehension, was based on the studies by McCroskey et al., published in 1985 and 2005. In their studies, an individual's communication apprehension (CA) was measured as a fear obstructing a person from communicating with others which influences the person in deciding his/her career path. Four contexts of communication were included, namely interpersonal, meeting, group discussion, and public speaking. Hence, the questionnaire was considered relevant in collecting information to accurately answer the research questions and was incorporated in this study. The 7-point rating scale was used in Section B, C, and D, with the value of 1 indicating "strongly disagree" and 7 indicating "strongly agree". For these three sections, the respondents were asked to answer two parts, i.e. before and after they entered the labour market, in order to analyse the impact of generic skills, intention to be an entrepreneur and communication apprehension (that were measured before entering the labour market) on the employment outcomes of being entrepreneur, i.e. after entering the labour market, if they chose to be self-employed.

3.7 Variables

The dependent variables and independent variables came from the items in the questionnaire.

Dependent Variables

In this study, the two dependent variables are intention and actual choice to become entrepreneurs. Linan and Chen (2006) incorporated the Theory of Planned Behaviour in developing and testing an instrument to measure entrepreneurial intention. The scales for the key constructs applied in this study were adopted from Linan and Chen (2006) to measure the entrepreneurial intention. Employed (salaried work) and unemployed are differentiated using the term self-employed (Thurik et al., 2008).

Independent Variables

Independent variables can be defined as the external influences that act upon the dependent variables. Demographics (e.g. gender, family background) are believed to have some effect on the dependent variables (Lorz, 2011). Throughout the study, the model specifications used different subsets of 25 variables as independent variables. These variables are considered most relevant in examining the effect of intention to be an entrepreneur and the actual outcome of being entrepreneurs.

The variables can be further categorised as: a) respondent's demographics; and b) perception variables. These variables capture the effect of gender, age, ethnicity, CGPA, type of degree programme, Malaysian University English Test (MUET),

language proficiency level (*Bahasa Melayu, English, Mandarin and others*) and parents' occupational status.

The perception related variable captures current information and retrospective information. Current information is represented by "after" graduates enter the employment market, i.e. after completing their study; and retrospective information by "before" the graduates enter the employment market, which is during their final semester at UUM. The related perception variables are entrepreneurship education (the roles of formal and informal), intention to be an entrepreneur, communication apprehension and generic skills. Appendix A presents the details of these independent variables, including their measurements.

3.8 Pilot Study

A pilot study was conducted in September 2012 in order to check the reliability of the items, with 60 respondents comprising final year students at UUM. Final year students were selected for the pilot study for the following reasons. First, the existing graduates were scattered around the whole of Malaysia and had graduated some time ago. Second, the final year students were in their final stage of studies and were likely to be a good proxy for fresh graduates. Third, the main purpose of the pilot test was to evaluate the reliability of the items, instead of checking the labour market experiences. The reliability of the scale was observed through the Cronbach's alpha values. According to Ary et al., (2002), Cronbach's alpha is often used to obtain the reliability of the instrument and Nunnally (1978) stated that a value between 0.6 and 0.8 is acceptable. Table 3.2 indicates the results of the reliability measure based on this pilot study. The Cronbach's alpha for generic

skills was 0.96 (before and after), intention was 0.97 (before and after) and communication apprehensions were 0.88 (before) and 0.91 (after).

Table 3.2
Reliability of Generic Skills, Intention and Communication Apprehension: Pilot Study

Variables	After		Before	
	Reliability (α)	Items	Reliability (α)	Items
Generic skills	0.96	16	0.96	16
Intention	0.97	19	0.97	19
Communication apprehension	0.91	24	0.88	24

Note:

1. After: refers to after entering the labour market, which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to the respondent's final semester (7th September 2011- 19 January 2012).

3.9 Data Analysis

This subtopic describes the methodology utilized in this study. Factor analysis, cluster analysis and descriptive analysis provide an overview of the data which will be analysed using multivariate regression such as Ordinary Least Squared regression, Logistics regression and Multinomial Logistics regression.

3.9.1 Factor Analysis

The most vital task in data analysis is to identify all the facets of the model's variable or relationships in the empirical research. According to Hair et al., (2010), Chua (2009), and Hair et al., (1998), factor analysis intends to determine the relationship between the structures amid a large amount of items.

This study outlines the common fundamental elements, known as factors, as specified by George and Mallery (2008). The factor analysis was carried out to ascertain the fundamental factorial setup of the scale. The outcome of the study indicated two aspects (talent and innovator) with Eigen values higher than 0.5.

The factors attained were checked for internal consistency through a 7-point scale based on a reliability coefficient (Cronbach's alpha). The aim was to ascertain whether the items were trustworthy by evaluating the uniformity of homogeneousness within the items (Cooper & Schindler, 1988). An alpha value ranging from 0.52 to 0.77 was recorded for the determinants of entrepreneurial intents (Davidsson, 1995).

Regarding post validity and reliability analyses, the aspects were further verified through multiple regression analyses on the basis of research objectives and questions. The factor analysis in this study only concentrated on Section C, which was the perception of intention to be an entrepreneur. This dimension consisted of 19 items and, after the factor analysis, two domains were used, namely talent and innovator.

Intention was divided into two categories (i.e. talent and innovator). Talent according to Rosty and Chelli (2005), talent can be considered a natural gift. However, having talent alone is not adequate in order to become a good entrepreneur (Boyatzis et al., 2006). Other attributes, such as being visionary and knowledgeable as well as having certain abilities and interpersonal skills, are equally important.

Therefore, this study argues that talent must be accompanied by entrepreneurial knowledge, abilities, a pleasant personality, and clear vision. Innovator according to Zahra et al. (2008); Timmons and Spinelli (2003); Schumpeter (1934), an innovator grabs an opportunity and translates it into a feasible idea so that he/she

can obtain a reward from it. In this study, innovator was further defined as a graduate who grabs the opportunity and has the aptitude to turn entrepreneurial ideas into reality. Pallant (2011) suggests that there are three main steps to conducting a factor analysis, which are: i) examine the data for appropriateness that complies with the assumptions required, such as the size of the sample, correlation between the variables, attainment of the condition of linearity and checking for outliers; ii) factor extraction with appropriate techniques to identify the minimum number of factors and the interrelationships between the items; and iii) factor rotation and interpretation.

This study used the Principal Component Analysis (PCA), similar to most other researchers, to verify the smallest number of factors (see Hair et al., 2010; Pallant, 2007; Pallant, 2011; and Chua, 2009), and a mathematical model (Tabachnick & Fidell, 2007). The final step is using factor analysis or factor rotation and interpretation (Pallant, 2011). This step is to repeat the rotation when the value of the factor loading is high. Table 3.1 presents the PCA of intention to be an entrepreneur comprising the two domains: talent and innovator, before and after graduates enter the employment market.

Table 3.3
PCA for Intention to be an Entrepreneur (Section C), Main Study

Intention	After		Before	
	Factor 1: Talent	Factor 2: Innovator	Factor 1: Talent	Factor 2: Innovator
V1	0.77		0.78	
V2	0.80		0.81	
V3	0.76		0.79	
V4	0.82		0.82	
V5	0.82		0.83	
V6	0.82		0.83	
V7	0.81		0.82	
V8	0.80		0.80	
V9	0.77		0.77	
V10	0.68		0.70	
V11	0.76		0.76	
V12	0.69		0.71	
V13		0.58		0.66
V14		0.73		0.74
V15		0.66		0.65
V16		0.75		0.76
V17		0.73		0.76
V18		0.74		0.76
V19		0.74		0.75
Percentage of variance explained	28.4		28.7	
KMO	0.97		0.96	
Bartlett's Test of Sphericity	***46839.1		***47911.8	
Df	171		171	
Total Variance Explained	5.40		5.47	

Note:

1. After: refers to after entering the labour market, which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. Factor 1 refers to Talent; Factor 2 refers to Innovator
4. Measured with a 7-point rating scale (1 being strongly disagree and 7 being strongly agree).

In Table 3.3, 19 items are divided into the designated factors with total loading values ranging from 0.66 (V13) to 0.83 (V5 and V6) before graduates enter the employment market and loading values ranging from 0.58 (V13) to 0.82 (V5 and V6) after graduates enter the employment market.

The value represents the initial verification of validity of the instrument. The value of Kaiser Meyer Olkin (KMO) indicates a value of 0.96 (before) and 0.97 (after), thus proving the sampling adequacy in this study. The Barlett's Test of Sphericity value of 47911.8 (before) and 46839.1 (after) are both significant at the one percent ($p= 0.000$) level. Therefore, the results prove that there is a correlation matrix and not an identity matrix (Hair et al., 2006). Thus, PCA could be implemented in this study.

3.9.2 Cluster Analysis

Cluster analysis is an approach for creating significant subgroups of persons or objects. To be specific, the aim is to categorise a sample of persons or objects into a tiny number of mutually exclusive groups on the basis of the resemblances among the persons or objects (Hair et al., 2010; Chua, 2009; Everitt et al., 2001; and Aldenderfer & Blashfield, 1984).

A commonly deployed technique of cluster analysis is the k-means method, in which data points are chosen in a random manner as initial seeds or centroids, and the balance data points are ascribed to the closest centroid based on the distance amid them (MacQueen, 1967). K-means is utilised when the observations are over 250. The two-step clustering aids the researcher in formulating and splitting pre-clustering into groups (Chua, 2009).

To determine the extent of intent (high/medium/low) among the graduates in terms of becoming an entrepreneur, this research deployed an individual-oriented, data-derived methodology along with cluster analysis to categorise the graduates

into various identity status groups and ascertain to what degree intent transforms into actual progress towards becoming a businessperson.

3.9.3 Descriptive Statistics

Descriptive statistics analysis allows the researcher to explore, describe, and summarize the collected data. According to Pallant (2007), descriptive analysis can be used to elaborate the various attributes of the data, validate any inconsistencies towards the primary assumptions regarding the statistical methods involved, and answer certain research questions. The descriptive analysis in this study involves the central tendency and variation statistics including ranges, means, and standard deviation, in addition to frequencies and percentages input for nominal data.

3.9.4 Multiple Regression Model (Intention to be an Entrepreneur)

The multiple regression models using an estimation of Ordinary Least Squares (OLS) were used to estimate the effect of independent variables on the dependent variable (intention to be an entrepreneur). The OLS was used because the intention to be an entrepreneur was measured using the rating scale and could be treated as a continuous variable. Gujarati (2006) says that:

—Although there are several methods of obtaining the sample regression function (SRF) as an estimator of the true population regression function (PRF), in regression analysis, the method that is used frequently is least square (LS), more popularly known as the method of Ordinary Least Squares (OLS).” (p. 146)

The model of intention to be an entrepreneur in this study is shown as below:

$$Y_j^* = \beta'x + u \quad (3.1)$$

Where,

Y^* = intention to be an entrepreneur ($j= 1$, for talent before entering employability market, $j= 2$ for innovator before entering employability, $j= 3$ for talent after entering employability market and $j= 4$ for innovator after entering employability market).

x = a matrix of independent variables consisting of:

Formal Entrepreneurship Education:

x_{1i} = Degree of entrepreneurship

x_{2i} = Entrepreneurship training

Informal Entrepreneurship Education:

x_{3i} = Ran business during study (RBDS)

x_{4i} = Ran business before study (RBBS)

x_{5i} = Family involved in entrepreneurship (FMIE)

x_{6i} = Friend involved in entrepreneurship (FRIE)

Communication Apprehension:

x_{7i} = Group discussion skills

x_{8i} = Meeting skills

x_{9i} = Interpersonal skills

x_{10i} = Public speaking skills

Generic Skills:

x_{11i} = Creative and analytical skills

x_{12i} = Time and group management skills

x_{13i} = ICT skills

Respondent's Demographics

x_{15i} = Male

x_{16i} = Age

x_{17i} = Race

x_{18i} = Marital status

x_{19i} = Cumulative Grade Point Average (CGPA)

x_{20i} = Malaysia University English Test (MUET)

x_{21i} = Malay language proficiency

x_{22i} = English language proficiency

x_{23i} = Chinese language proficiency

x_{24i} = other language proficiency

x_{25i} = Father economically active

x_{26i} = Mother economically active

μ_i = error term

The coefficients of equation (3.1) are estimated using OLS that minimizes sum of square as follows:

$$\min \sum \text{SSE} = \min \sum (Y - \hat{Y})^2 = \min \sum u^2 \quad (3.2)$$

3.9.5 Logistic Regression Model (Choose to become an Entrepreneur)

Logit regression analysis was used to examine how a dependent variable may affect the graduate's actual behaviour towards being an entrepreneur. Since the actual choice to be an entrepreneur (being self-employed) could be measured in a binary category (being self-employed or not), the logit model is used. According to Maddala (1992), the logit model is as below:

$$Y_{ij}^* = \beta'x_i + u_i \quad (3.3)$$

Y^* is the latent variable that represents the graduates' underlying choice to be an entrepreneur (unobservable) and observable actual outcome, Y^* , which is $Y^*= 1$ (if the graduate is self-employed) and $Y^*= 0$ (if otherwise). x_i is the matrix of independent variables.

By assuming the error term u_i is distributed logitics, the probability of choosing whether to be an entrepreneur or not an entrepreneur ($\text{Prob}(Y= 1)$) for an individual depends on the independent variables and thus, the logit model specification is as follows:

$$\begin{aligned} & \text{Prob}(Y= 1 | x) \\ &= \text{Prob}(Y > 0 | x) \\ &= \text{Prob}(\beta'x + u > 0 | x) \\ &= \text{Prob}(u > \beta'x | x) \\ &= \text{Prob}(u < \beta'x | x) \\ &= F(x\beta) \end{aligned} \quad (3.4)$$

To obtain the area under the function, we have:

$$\text{Prob}(y_i = 1|x_i) = \frac{\exp(x_i\beta)}{1+\exp(x_i\beta)} = \frac{1}{1+\exp(-x_i\beta)} \quad (3.5)$$

Maximum likelihood estimation is used to obtain the probability, x and β required.

Likelihood equation is as follows if observations are independent:

$$L(\beta|y, X) = \prod_{i=1}^N P_i \quad (3.6)$$

If the P_i is replaced in the function $L(\beta | y, x)$, the values obtained are:

$$L(\beta|y, X) = \prod_{y=1} \text{Prob}(y_i = 1|x_i) \prod_{y=0} [1 - \text{Prob}(y_i = 1|x_i)] \quad (3.7)$$

The function is replaced by the probability of observing the likelihood function and forms the following equation:

$$L(\beta|y, X) = \prod_{y=1} F(x_i\beta) \prod_{y=0} [1 - F(x_i\beta)] \quad (3.8)$$

3.9.6 Multinomial Regression Model (Choose to become an Entrepreneur)

The choice to become an entrepreneur refers to graduates who are self-employed.

In addition to being self-employed (entrepreneur), there are other employment

states such as unemployed, employed full-time and not full-time employed. In this

context, the choice set could be expanded to more than two categories: self-

employed (entrepreneur), unemployed, employed full-time, and not full-time

employed. The multinomial logit model is used. Similar to the logit model, the

multinomial logit model could be specified using the latent variable model:

$$y^* = \beta'x + u_i \quad (3.9)$$

Where,

$$Prob (y^* = j) = \frac{\exp(\beta'_j z_i)}{1 + \sum_{j=1}^4 \exp(\beta'_j z_i)} \quad (3.10)$$

$$Prob (y^* = 0) = \frac{1}{1 + \sum_{j=1}^4 \exp(\beta'_j z_i)} \quad (3.11)$$

With $j= 1, 2, 3$ and 4

The model is estimated using ML (Maximum Likelihood) with the function of ML as in the equation below:

$$L (\beta_1, \beta_2, \beta_3, \beta_4 | y, z) = \prod_{i=1}^n P_i = \prod_{j=1}^4 \prod_{y_i=j} \frac{\exp(\beta'_j z_i)}{\sum_{j=1}^4 \exp(\beta'_j z_i)} \quad (3.12)$$

n = sample size

P_i = probability observation

3.10 Summary

This chapter discusses the methodology of the research by specifically addressing the data collection procedure, questionnaire design, specification of variables and data analysis techniques that enable the researcher to answer the research questions that have been identified.

The main objective of this study is to investigate to what extent the intention to be an entrepreneur is translated into the actual choice of becoming an entrepreneur among graduates. A survey method was chosen to gather information for the study.

A set of questionnaires was distributed among 2,300 graduates who had already completed their studies at UUM. This chapter reported that the pilot study was

conducted among 60 respondents. A report on the reliability and initial evidence of validity for the main data was also included in this chapter. In the next chapter, the findings of this study are reported. Further analyses, specifically those involving the testing of models, involve multiple regressions.

Objective one will utilize the ordinary least squares methodology, objective two will utilize logistic methodology and multinomial logistics methodology and objective three will utilize cross tabulation analysis between categories of intention (classified by cluster analysis: low, moderate and high) and graduate's choice to be an entrepreneur (classified by two categories: self- employed or not).



CHAPTER FOUR

DESCRIPTIVE ANALYSIS

4.1 Introduction

This chapter begins with the presentation of the descriptive analysis, covering the characteristics of respondents, educational background, employment status with monthly income and types of degree, entrepreneurship education (formal and informal), statistical mean test and further profiling of graduate entrepreneurs.

4.2 Characteristics of Respondents

Table 4.1 presents the characteristics of respondents. The sample comprises 70 percent female and 30 percent male. 84 percent respondents are 20 to 25 years old and only 16 percent respondents are 26 to 30 years old. 64.5 percent of respondents obtained second upper class in their academic achievement. The majority (67.3 percent) of respondents are Malays, followed by Chinese (24.7 percent), Indians (5.6 percent) and other races (2.4 percent). There are 92.4 percent respondents claimed that they are single and only 7.6 percent are married; 58.5 percent of the respondents' fathers are still working with permanent status and only 20.1 percent of the respondents' mother working with permanent status.

Table 4.1
Characteristics of Respondents

Variable	Category	Frequency	(%)
Gender	Male	670	30.0
	Female	1630	70.0
	Total	2300	100.0
Age	20 – 25	1931	84.0
	26 – 30	369	16.0
	Total	2300	100.0
Cumulative Grade Point Average (CGPA)	2.00- 2.99	655	28.5
	3.00- 3.66	1488	64.6
	3.67- 4.00	159	6.9
	Total	2300	100.0
Races	Malay	1547	67.3
	Chinese	569	24.7
	Indians	128	5.6
	Others	56	2.4
	Total	2300	100.0
Marital Status	Single	2126	92.4
	Married	174	7.6
	Total	2300	100.0
Father economically active	Employed (Full-time: Permanent)	1345	58.5
	Employed (Full-time: Contract)	64	2.8
	Employed (Full-time: Part Time)	30	1.3
	Employed (Full-time: Temporary)	15	0.7
	Self-employed	584	25.4
	Unemployed and not active find a job	211	9.2
	Unemployed and active find a job	51	2.2
	Total	2300	100.0
	Mother economically active	Employed (Full-time: Permanent)	462
Employed (Full-time: Contract)		35	1.5
Employed (Full-time: Part-Time)		39	1.7
Employed (Full-time: Temporary)		20	0.9
Self-employed		281	12.2
Unemployed and not active find a job		1406	61.1
Unemployed and active find a job		57	2.5
Total		2300	100.0

4.3 Language Proficiency and Malaysia University English Test (MUET)

As stated by Clement and Murugavel (2015); Wijerwardene et al. (2014); Zarina et al. (2011), language proficiency especially in English is important for a graduate in employment sector. In Malaysia, Morshidi Sirat et al. (2010) also found that low proficiency in English language is a key determinant of graduates' unemployment. In addition, the important of communication skills could be seen

from the perspective of English language proficiency. There are extensive studies about the impact of language proficiency on probability of being full-time employee (Clement & Murugavel, 2015; Wijerwadene et al., 2014; Zarina et al., 2011). However, it has only a very limited study on how this language proficiency has influenced the choice of graduate to be an entrepreneur (self-employed). The study of Zarina et al (2011) has examined this issue. According to Zarina et al (2011), respondents who are less proficient in English language choose to be an entrepreneur as an alternative, after fail to obtain paid employment in the job market. Hence, this study aims to determine the relationship between communication skills and graduates' choosing entrepreneurship as a career. With the other languages (*Bahasa Malaysia*, Chinese and others) as a control variable⁴, Table 4.2 presents the language proficiency of English among the respondents. The command of language is measured by using nine scales adapted from the International English Language Testing System (IELTS) (see Appendix 1). They are presented in numbers and percentage of respondents according to their language competency. Table 4.2 shows around a quarter of the respondents' are good (24.7 percent) in English. More than half of the respondents (51 percent) declared themselves as expert users of *Bahasa Malaysia* language and for Chinese language proficiency majority of respondents are non-users (67.5 percent). In terms of Malaysian University English Test (MUET), majority of the respondents obtained Band 3 (36.9 percent) and followed by Band 2 (36.7 percent). Only 12 respondents obtained Band 6 (highly proficiency user).

⁴ These languages are acted as control variables statistically. Literally, a control variable is the one element that is not changed throughout an experiment, because its unchanging state allows the relationship between the other variables being tested to be better understood. Statistically, the estimating the partial coefficients in the multiple regression that includes these languages as independent variables are controlling the effect of these languages (Gujarati, 2004, p.205-6).

Table 4.2
Respondents' Language Proficiency and MUET Achievement

Variable	Category	Frequency	Percentage (%)
English language proficiency	Expert user	181	7.9
	Very good user	401	17.4
	Good user	567	24.7
	Competent user	482	21.0
	Modest user	442	19.2
	Limited user	149	6.5
	Extremely limited user	40	1.7
	Intermittent user	21	0.9
	Non- user	17	0.7
	Total	2300	100.0
<i>Bahasa Malaysia</i> proficiency	Expert user	1173	51.0
	Very good user	540	23.5
	Good user	267	11.6
	Competent user	145	6.3
	Modest user	88	3.8
	Limited user	56	2.4
	Extremely limited user	17	0.7
	Intermittent user	14	0.6
	Non- user	0	0
	Total	2300	100
<i>Chinese language</i> proficiency	Expert user	277	12.0
	Very good user	147	6.4
	Good user	77	3.3
	Competent user	59	2.6
	Modest user	52	2.3
	Limited user	24	1.0
	Extremely limited user	41	1.8
	Intermittent user	70	3.0
	Non- user	1553	67.5
	Total	2300	100.0
Others language proficiency	Expert user	142	6.2
	Very good user	70	3.0
	Good user	45	2.0
	Competent user	67	2.9
	Modest user	63	2.7
	Limited user	49	2.1
	Extremely limited user	59	2.6
	Intermittent user	43	1.9
	Non- user	1762	76.6
	Total	2300	100.0
Malaysian University English Test (MUET)	Band 6 (Highly proficient user)	12	0.5
	Band 5 (Proficient user)	54	2.3
	Band 4 (Satisfactory user)	386	16.8
	Band 3 (Modest user)	848	36.9
	Band 2 (Limited user)	843	36.7
	Band 1 (Very limited user)	157	6.8
	Total	2300	100.0

4.4 Current Employment Status with Monthly Income and Types of Degree

Table 4.3 to Table 4.5 presents the summary of respondents' employment status with their monthly income and types of degree.

4.4.1 Current Employment and Unemployment Status with Types of Degree

Table 4.3 presents the result of respondents' employment status which are employed and unemployed with 33 undergraduate degrees in *Universiti Utara Malaysia*. For example, among the 361 respondents who are business administration, 250 are employed and 111 are unemployed. The rest of the respondents' employment status by the various types of degree is as presented in Table 4.3.

Table 4.3
Current Employment and Unemployment Status with Types of Degree

Types of degree	Total Respondents	Employment status	
		Unemployed Frequency/ Percentage (%)	Employed Frequency/ Percentage (%)
Business Administration	361	111 (10.49)	250 (20.12)
Technology Management	219	104 (9.82)	115 (9.25)
Human Resource Management	175	100 (9.45)	75 (6.03)
Accounting	150	73 (6.89)	77 (6.19)
Public Management	137	46 (4.34)	91 (7.32)
Economics	132	64 (6.04)	68 (5.47)
Entrepreneurship	106	44 (4.15)	62 (4.99)
Business Administration: Logistics and Transportation	100	35 (3.30)	65 (5.23)
International Business Management	79	30 (2.83)	49 (3.94)
Development Management	79	43 (4.06)	36 (2.89)
Finance	62	27 (2.55)	35 (2.81)
Islamic Finance and Banking	61	16 (1.51)	45 (3.62)
International Affairs Management	60	41 (3.87)	19 (1.52)
Education	57	49 (4.63)	8 (0.64)
Marketing	43	24 (2.26)	19 (1.52)
Social Work Management	43	34 (3.21)	9 (0.72)
<i>Muamalat</i> Administrations	43	22 (2.07)	21 (1.69)
Information Technology	39	20 (1.89)	19 (1.52)
Banking	38	13 (1.22)	25 (2.01)

Table 4.3 (continued)
Current Employment and Unemployment Status with Types of Degree

Types of degree	Total Respondents	Employment status	
		Unemployed	Employed
		Frequency/ Percentage (%)	Frequency/ Percentage (%)
Communication	38	22 (2.07)	16 (1.28)
Risk Management and Insurance	35	18 (1.70)	17 (1.36)
Accounting (Information System)	34	19 (1.79)	15 (1.20)
Decision Science	32	17 (1.60)	15 (1.20)
Media Technology	26	10 (0.94)	16 (1.28)
Operations Management	24	12 (1.13)	12 (0.96)
Law	23	15 (1.41)	8 (0.64)
Hospitality Management	18	10 (0.94)	8 (0.64)
Counseling	18	11 (1.03)	7 (0.56)
Agribusiness Management	16	5 (0.47)	11 (0.88)
Multimedia	16	9 (0.85)	7 (0.56)
Tourism Management	16	9 (0.85)	7 (0.56)
Business Mathematics	10	2 (0.18)	8 (0.64)
Industrial Statistics	10	3 (0.28)	7 (0.56)
Total	2300	1058 (100)	1242 (100)

4.4.2 Current Employment Status and Monthly Income

Table 4.4 presents respondents' employment status, which is divided into unemployed (46 percent), salaried employee (47.2 percent) and self-employed (6.8 percent) and their monthly income. In term of monthly income, more than half of the respondents (51.5 percent) stated that their range of income is between RM 1,001.00 to RM 2,000.00 per month. Only 0.8 percent respondents stated that their income is more than RM 4,001.00 per month.

Table 4.4
Current Employment Status and Monthly Income

Variable	Category	Frequency	Percentage (%)
Employment's status	Unemployed	1058	46.0
	Salaried employee	1086	47.2
	Self employed	156	6.8
	Total	2300	100.0
*Monthly income	RM1.00- RM 1000.00	268	21.5
	RM1001.00 – RM 2000.00	640	51.5
	RM2001.00 – RM 3000.00	263	21.2
	RM3001.00 – RM 4000.00	60	5.0
	More than RM4001.00	11	0.8
	Total	1242	100.0

Note: *Monthly income is for those who were employed.

4.4.3 Current Monthly Income with Types of Degree

Table 4.5 presents the respondents' monthly income according to the types of degree. More than half (640) of respondents from various degree claimed their monthly income starting from RM1.00 to RM 1, 000.00.

Table 4.5
Current Monthly Income with Types of Degree

Types of degree	Monthly Income (RM)					Total
	1 - 1000	1001 -2000	2001 -3000	3001 -4000	More Than 4001	
Business Administration	53	122	62	10	3	250
Technology Management	17	79	11	7	1	115
Human Resource Management	19	41	11	4	0	75
Accounting	15	45	15	2	0	77
Public Management	21	28	27	11	4	91
Economics	14	40	12	2	0	68
Entrepreneurship	17	21	18	6	0	62
Business Administration (Logistics and Transportation)	5	43	16	1	0	65
International Business Management	2	35	10	2	0	49
Development Management	11	19	4	1	1	36
Finance	3	19	12	1	0	35
Islamic Finance and Banking	6	31	5	3	0	45
International Affairs Management	9	8	2	0	0	19
Education	5	2	1	0	0	8
Marketing	7	4	6	2	0	19
Social Work Management	5	2	1	1	0	9
<i>Muamalat</i> Administrations	10	9	0	1	1	21
Information Technology	3	8	4	3	1	19
Banking	7	10	8	0	0	25
Communication	2	8	6	0	0	16
Risk Management and Insurance	2	10	4	1	0	17
Accounting (Information System)	4	8	3	0	0	15
Decision Science	2	7	6	0	0	15
Media Technology	7	7	2	0	0	16
Law	4	3	0	1	0	8
Hospitality Management	4	4	0	0	0	8
Counseling	2	2	2	1	0	7
Agribusiness Management	5	3	3	0	0	11
Multimedia	1	2	4	0	0	7
Operations Management	1	7	4	0	0	12
Tourism Management	2	5	0	0	0	7
Business Mathematics	3	3	2	0	0	8
Industrial Statistics	0	5	2	0	0	7
Total	268	640	263	60	11	1242

4.5 Entrepreneurship Education (Formal and Informal)

Table 4.6 summarizes the entrepreneurship education in term of formal and informal education. The formal entrepreneurship education consists of two: entrepreneurship degree and involvement in formal entrepreneurship programme. Meanwhile, informal entrepreneurship education involves running business during study, running a business before study, involvement of family in entrepreneurship and involvement of friend in entrepreneurship.

Table 4.6
Entrepreneurship Education: Formal and Informal Entrepreneurship Education

Entrepreneurship education	Variables	Category	Total	Percentage (%)
Formal	Degree	Entrepreneurship	106	4.6
		Non entrepreneurship	2194	95.5
		Total	2300	100.0
	Entrepreneurship training	Involved in entrepreneurship	936	41.3
		Not involved in entrepreneurship	1328	58.7
		Total	2264 ⁵	100.0
Informal	Ran business during study (RBDS)	Ran business during study	804	35.0
		Do Not ran business during study	1496	65.0
		Total	2300	100.0
	Ran business before study (RBBS)	Ran business before study	619	26.9
		Do Not ran business before study	1681	73.1
		Total	2300	100.0
	Family involved in entrepreneurship (FMIE)	Family are involved in entrepreneurship activities	911	39.6
		Family are not involved in entrepreneurship activities	1389	60.4
		Total	2300	100.0
	Friend involved in entrepreneurship (FRIE)	Friend are involved in entrepreneurship activities	1161	50.5
		Friend are not involved any entrepreneurship activities	1139	49.5
		Total	2300	100.0

⁵ There are 36 of respondents' did not provide answer in entrepreneurship training

In term of formal entrepreneurship education (see Table 4.6), 95.5 percent respondents were non-entrepreneurship degree and only 4.6 percent of respondents were entrepreneurship degree. A total of 41.3 percent respondents stated that they were involved in formal entrepreneurship training and activity during their study. On the other hand, 58.7 percent of respondents stated that they have not been involved in formal entrepreneurship programs and entrepreneurial activity during their study.

Only 35 percent stated that there were running entrepreneurial activities during their study and gained the business experiences. Around 26.9 percent respondents stated that they ran their own business before entering into university. There are 60.4 percent respondents claimed that their family did not involved in entrepreneurial activities and 39.6 percent of respondents said that their family are involved in entrepreneurship. 50.5 percent respondents claimed that their friends are involved in entrepreneurship and 49.5 percent respondents stated that their friend did not involve in entrepreneurial activities. Thus, it is found that there are variations in the level of entrepreneurship education among the graduates. It clearly shows that there is a substantial portion of graduates who have been exposed to formal and informal entrepreneurship education.

4.6 Statistical Test of Means Difference between Generic Skills, Intention to be an Entrepreneur and Communication Apprehension Before and After Respondent's Enter the Employment Market

In order to test whether the generic skills, intention to be an entrepreneur and communication apprehension of the graduates have changed significantly or not after entering the employment market, a series of paired t-tests (Tijani, et al. 2012; Lepoutre, et al. 2010) are conducted with the retrospective pre-test (before) and post-test (after) values of each of these variables. This is described in sub-sections 4.6.1, 4.6.2 and 4.6.3.

4.6.1 Statistical Test of Means Difference between Generic Skills Before and After Respondents Entering the Employment Market

A paired-samples t-test was conducted to compare the respondents' agreement level (7- point rating scale) towards their generic skills before and after their entering the employment market. Table 4.7 presents the paired sample T- Test on the respondents' generic skills.

Table 4.7
Paired Sample T- Tests on the Respondents' Generic Skills

	Generic skills			
	Mean/ SD		Differences (A-B)	p value
	After	Before		
<u>Creative and Analytical Skills:</u>				
Overall mean	5.89	5.70	0.19	-
	5.83	5.69		
I can think critically	(1.02)	(1.03)	0.14	6.87***
	5.86	5.68		
I can think creatively	(0.96)	(1.03)	0.18	9.95***
	5.95	5.75		
I can solve my own problems	(0.93)	(1.02)	0.20	11.22***
	6.11	5.89		
I like to add knowledge	(0.93)	(1.00)	0.22	12.00***
	5.86	5.65		
I can analyze well	(0.99)	(1.04)	0.21	11.57***
	5.91	5.70		
I can make good decisions	(0.99)	(1.05)	0.21	11.48***

Table 4.7 (continued)
Paired Sample T- Tests on the Respondents' Generic Skills

	Generic skills			
	Mean/ SD		Differences (A-B)	p value
	After	Before		
I am capable of evaluating	5.82 (0.96)	5.65 (1.03)	0.17	9.78***
Overall mean	5.96 6.06	5.75 5.83	0.21	-
I can work in groups	(0.95)	(1.01)	0.23	12.72***
I use time wisely	5.94 (0.96)	5.73 (1.02)	0.21	11.06***
I am very disciplined in time management	5.96 (0.97)	5.75 (1.03)	0.21	11.40***
I am capable of good planning	5.77 (0.98)	5.60 (1.07)	0.17	9.69***
I am responsible	6.07 (0.94)	5.87 (1.04)	0.20	11.45***
ICT skills:				
Overall mean	5.88	5.70	0.18	-
I have technology skills to search for information	5.87 (0.99)	5.65 (1.07)	0.18	11.56***
I have technology skills in information processing	5.82 (1.01)	5.65 (1.08)	0.17	9.93***
I have technology skills in providing information	5.86 (0.99)	5.67 (1.08)	- 0.19	9.35***
I can communicate well	5.99 (0.96)	5.79 (1.04)	0.20	10.65***

Note:

1. After: refers to the after entering the labour market which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. Measured with 7-point rating scale (1 being strongly disagree and 7 being strongly agree).
4. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
5. SD refers to: Standard Deviation.
6. Overall is the average of the values items.

From the Table 4.7, it is found that all scales of the items measured in respondents' generic skills shows an increment⁶, ranging from 0.14 (skill of "I can think critically") to 0.23 (skill of "I can work in groups"). For example, there is a significant increase in the scores for "I like to add knowledge" in after respondents entering the employment market (mean= 6.11, SD= 0.93) as compared to before respondents entering the employment market (mean= 5.89, SD= 1.00), with p-value of almost zero (p-value = 0.000). These results suggest that respondents agreed that after they

⁶ The differences of graduates' generic skills before and after him or her enter the employment market. It aims to measure whether the employment market will influence their skills.

have entered the employment market, their generic skills increases. Specifically, this result suggests that employment market increases the generic skills among the graduates. These results reveal that the graduates experience significant increase of their generic skills after entering employment market.

4.6.2 Statistical Test of Means Difference between Intention to be an Entrepreneur Before and After the Respondents Enter into the Employment Market

In this section, paired- samples t-test also applied to compare the respondents' agreement level (7- point rating scale) towards their intention to be an entrepreneur before and after entering into the employment market (see Table 4.8).

Table 4.8
Paired Sample T- Tests on the Respondents' Intention to be an Entrepreneur

	Mean/ SD		Generic skills	p value
	After	Before	Differences (A-B)	
	Talent			
Overall mean	5.30	5.18	0.11	-
Career in entrepreneurship really interest me venture into	5.39 (1.33)	5.25 (1.39)	0.14	7.01***
Entrepreneurship fits well with me	5.26 (1.32)	5.17 (1.32)	0.09	4.89***
I started looking for opportunities to trade their own after graduation	5.15 (1.47)	5.09 (1.43)	0.06	2.70**
I love the business as self-employed independent	5.33 (1.40)	5.22 (1.36)	0.11	5.50***
I'm planning to start own businesses	5.20 (1.50)	5.10 (1.44)	0.10	4.94***
My ultimate goal is to become an entrepreneur	5.15 (1.52)	5.08 (1.45)	0.07	3.90***
If I had the resources, I would be an entrepreneur	5.38 (1.42)	5.25 (1.37)	0.13	6.88***
I have a passion for business	5.28 (1.43)	5.12 (1.40)	0.14	7.03***
I am determined to open his own business in the future	5.32 (1.44)	5.20 (1.39)	0.12	5.68***
I have been employed but interested to venture into business	5.12 (1.56)	5.03 (1.50)	0.09	4.53***
I expect business will increase my income	5.47 (1.37)	5.31 (1.36)	0.16	8.28***
Business areas provide many other jobs	5.57 (1.32)	5.39 (1.35)	0.18	9.62***

Table 4.8 (continued)
Paired Sample T- Tests on the Respondents' Intention to be an Entrepreneur

	Generic skills			
	Mean/ SD		Differences (A-B)	p value
	After	Before		
Innovator:				
Overall	5.23	5.15	0.08	-
	5.63	5.50		
I see business as a good opportunity	(1.31)	(1.29)	0.13	6.00***
I am very interested in working as an employer rather than an employee	5.38	5.25		
	(1.42)	(1.41)	0.07	6.21***
I do a part time business in addition to working with employers	4.71	4.71		
	(1.82)	(1.75)	0.00	0.04
Jobs (entrepreneur) now give me satisfaction	5.06	4.99		
	(1.59)	(1.53)	0.07	3.30**
My family drives my passion towards entrepreneurship	5.24	5.17		
	(1.51)	(1.45)	0.07	3.60***
The success of others in the business, encourage me to join a trade	5.39	5.30		
	(1.43)	(1.45)	0.09	4.98***

Note:

1. After: refers to the after entering the labour market which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. Measured with 7-point rating scale (1 being strongly disagree and 7 being strongly agree).
4. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
5. SD refers to: Standard Deviation.
6. Overall is the average of the values items.

From Table 4.8, after entering employment market, the mean scores of intention to be an entrepreneur are significantly increased except the item of "I do a part time business in addition to working with employers". For example, the highest occur agreement is "business areas provide many other jobs" (mean= 5.57, SD= 1.32) as compare to before respondents enter the employment market (mean= 5.39, SD= 1.35), with p-value of almost zero (p-value = 0.000). These findings show that respondents are more intend to be an entrepreneur after entering into the employment market (i.e., after participating in labor market to search for jobs) and at the same time, this results reveal that the job search experience in employment market enhanced the respondents' intention to be an entrepreneur. As referred to the U.S. Department of States (2006), people are drawn toward entrepreneurship, influenced by the benefits of setting up an owned business. There are five vital

aspects which prompt individuals to take up entrepreneurship: (i) Being your own boss – Freedom of decision making regarding choice of business, business alliances, and payments; (ii) Higher prospect of attaining substantial monetary rewards in compared to working for some other employer; (iii) Aptitude to get totally engaged in the functioning of the business; (iv) Opportunity to contribute towards the society; and (v) Esteem of being in charge of affairs – Chance to build goodwill and value.

4.6.3 Statistical Test of Means Difference between Respondents' Communication Apprehension, Before and After Respondents Enter into the Employment Market

Table 4.9 shows mean comparison between respondents' agreement level (7-point rating scale) towards their communication apprehension before and after entering the employment market.

Table 4.9
Paired Sample T- Tests on the Respondents' Communication Apprehension

	Generic skills			
	Mean/ SD		Differences (A-B)	p value
	After	Before		
Group Discussion:				
Overall	4.64	4.59	0.05	-
I dislike participating in group discussions.	5.13 (1.79)	4.93 (1.81)	0.20	8.63***
Generally, I am comfortable while participating in group discussions.	2.93 (1.80)	3.17 (1.79)	-0.24	10.38***
I am tense and nervous while participating in group discussions.	5.03 (1.74)	4.83 (1.75)	0.20	-0.16***
I like to get involved in group discussions	5.20 (1.43)	5.14 (1.40)	0.06	0.10**
Engaging in a group discussion with new people makes me tense and nervous.	4.60 (1.77)	4.49 (1.78)	0.11	0.15***
I am calm and relaxed while participating in group discussions.	4.95 (1.37)	4.95 (1.41)	0.00	0.25
Meeting:				
Overall	4.51	4.42	0.09	-
Generally, I am nervous when I have to participate in a meeting.	4.24 (1.65)	4.13 (1.64)	0.11	5.47***

Table 4.9 (continued)

Paired Sample T- Tests on the Respondents' Communication Apprehension

	Generic skills			
	Mean/ SD		Differences (A-B)	p value
	After	Before		
Usually, I am comfortable when I have to participate in a meeting.	4.73 (1.46)	4.64 (1.47)	0.09	4.11***
I am very calm and relaxed when I am called upon to express an opinion at a meeting	4.68 (1.44)	4.55 (1.47)	0.13	6.53**
I am afraid to express myself at meetings.	4.29 (1.60)	4.23 (1.62)	0.06	3.17***
Communicating at meetings usually makes me uncomfortable.	4.30 (1.65)	4.25 (1.65)	0.05	2.66***
I am very relaxed when answering questions at a meeting.	4.80 (1.34)	4.70 (1.36)	0.10	5.03***
<u>Interpersonal:</u>				
Overall	4.78	4.67	0.11	-
While participating in a conversation with a new acquaintance, I feel very nervous	4.33 (1.68)	4.27 (1.68)	0.10	3.04***
I have no fear of speaking up in conversations	5.15 (1.40)	5.03 (1.41)	0.06	5.74***
Ordinarily I am very tense and nervous in conversations.	4.59 (1.76)	4.48 (1.77)	0.12	5.38***
Ordinarily I am very calm and relaxed in conversations.	5.04 (1.45)	4.97 (1.41)	0.11	3.60***
Ordinarily I am very tense and nervous in conversations.	4.59 (1.76)	4.48 (1.77)	0.12	5.38***
Ordinarily I am very calm and relaxed in conversations.	5.04 (1.45)	4.97 (1.41)	0.11	3.60***
<u>Public Speaking:</u>				
Overall	4.52	4.44	0.08	-
I have no fear of giving a speech.	4.74 (1.51)	4.66 (1.46)	0.08	3.83***
Certain parts of my body feel very tense and rigid while giving a speech.	4.27 (1.66)	4.19 (1.62)	0.08	4.06***
I feel relaxed while giving a speech.	4.83 (1.32)	4.78 (1.32)	0.05	2.37**
My thoughts become confused and jumbled when I am giving a speech.	4.11 (1.60)	4.06 (1.59)	0.05	2.45**
I face the prospect of giving a speech with confidence.	4.99 (1.38)	4.83 (1.43)	0.16	8.23***
While giving a speech, I get so nervous I forget facts I really know.	4.19 (1.64)	4.14 (1.66)	0.05	2.20**

Note:

1. After: refers to the after entering the labour market which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. Measured with 7-point rating scale (1 being strongly disagree and 7 being strongly agree).
4. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
5. SD refers to: Standard Deviation.
6. Overall is the average of the values items.

There is significant increase for all items in Table 4.9 except the item of “I am calm and relaxed while participating in group discussion”. For instance, there was a significant increase in the scores for “I dislike participating in group discussions” (mean= 5.13, SD= 1.79) as compare to before respondents‘ enter into the employment market (mean= 4.93, SD= 1.81), with p-value of almost zero (p-value = 0.000). This result indicates that respondents are facing the communication apprehension issue after entering the employment market. Lower communication skills may affect respondents‘ opportunity to obtain job placement in employment market (Clement & Murugavel, 2015).

4.7 Further Profiling of Graduate Entrepreneurs

Table 4.10 and Table 4.11 present the mean value of further profiling of socio-demographic characteristics of respondents towards their mean differences of intention to be an entrepreneur among the unemployed, salaried employed and self-employed respondents.

Due to intention are separated into two domains which is talent domain and innovator domain, the findings are presented into two sets of further profiling of graduates. These results present the comparison of intention to be an entrepreneur among the respondents between self-employed and employed.

4.7.1 Further Profiling of Graduate Entrepreneurs in Talent Domain

The result in Table 4.10 clearly shows respondents who are self-employed inherently have high intention towards entrepreneurship activities compared with respondents who are unemployed and salaried employed.

Table 4.10
Further Profiling of Respondents towards Intention to be an entrepreneur in Talent Domain

	Category	Employment status			F value
		Unemployed	Salaried employed	Self-employed	
<u>Formal education</u>					
Degree of Entrepreneurship	Yes	5.29 (1.08) N= 44	5.91 (0.97) N= 46	6.35 (0.57) N= 16	8.47***
	No	5.21 (1.23) N=1014	5.26 (1.27) N= 1040	5.81 (1.12) N= 140	14.42***
Entrepreneurship Training	Involve	5.38 (1.24) N= 438	5.42 (1.16) N= 411	5.94 (1.07) N= 87	8.10***
	Not Involve	5.11 (1.20) N= 597	5.21 (1.32) N= 672	5.79 (1.11) N= 69	8.98***
<u>Informal education</u>					
Run business during study	Yes	5.55 (1.14) N= 408	5.63 (1.13) N= 302	6.04 (1.08) N= 94	7.18**
	No	5.01 (1.22) N= 650	5.16 (1.29) N= 784	5.61 (1.06) N= 62	7.63***
Run business before study	Yes	5.52 (1.18) N= 320	5.75 (1.06) N= 227	6.02 (1.13) N= 72	6.77***
	No	5.09 (1.22) N= 738	5.17 (1.28) N= 859	5.74 (1.04) N= 84	10.38***
Family run business	Yes	5.37 (1.17) N= 450	5.44 (1.20) N= 368	6.03 (1.01) N= 93	12.38***
	No	5.10 (1.24) N= 608	5.21 (1.29) N= 718	5.63 (1.16) N=63	5.37***
Friend run business	Yes	5.31 (1.18) N= 566	5.35 (1.17) N= 504	5.89 (1.12) N= 91	9.63***
	No	5.11 (1.25) N= 492	5.24 (1.33) N= 582	5.84 (1.05) N= 65	9.44***
<u>Respondents' demography</u>					
Gender	Male	5.32 (1.29) N= 265	5.60 (1.18) N= 344	5.74 (1.25) N= 61	5.28***
	Female	5.18 (1.20) N= 793	5.15 (1.27) N= 742	5.95 (0.97) N=95	18.59***

Table 4.10 (continued)

Further Profiling of Respondents towards Intention to be an Entrepreneur in Talent Domain

	Category	Employment status			F value
		Unemployed	Salaried employed	Self-employed	
Age	20-25	5.16 (1.21) N= 919	5.23 (1.25) N= 887	5.78 (1.15) N= 125	14.05***
	26-30	5.62 (1.18) N= 139	5.54 (1.28) N= 199	6.23 (0.70) N= 31	4.37**
Race	Malay	5.07 (1.26) N= 786	5.05 (1.20) N= 639	5.51 (1.13) N= 122	2.22
	Others	5.27 (1.20) N= 272	5.46 (1.28) N= 447	5.97 (1.06) N= 34	18.54***
Marital status	Single	5.21 (1.23) N= 1000	5.30 (1.23) N= 983	5.83 (1.11) N= 143	16.13***
	Others	5.39 (1.06) N= 58	5.21 (1.54) N= 103	6.31 (0.70) N= 13	3.87**
Cumulative Grade Point Average (CGPA)	2.00- 2.99	5.52 (1.16) N= 267	5.60 (1.19) N= 330	5.95 (1.06) N= 58	3.22**
	3.00- 3.66	5.12 (1.23) N= 705	5.18 (1.26) N= 689	5.83 (1.11) N= 92	13.34***
	3.67- 4.00	5.08 (1.15) N= 86	4.90 (1.30) N= 67	5.65 (1.17) N= 6	1.21

In term of entrepreneurship degree holders in Table 4.10, the intention to be an entrepreneur is significantly higher for those who are self- employed (mean= 6.35, SD= 0.57, n= 16) than salaried employee (mean= 5.91, SD= 0.97, n= 46) and unemployed (mean= 5.29, SD= 1.08, n= 44), with p-value of almost zero (p-value = 0.000). Moreover, among the non-entrepreneurship degree holders (Table 4.10), the intention to be an entrepreneur for those who are self-employed (mean= 5.81, SD= 1.12, n= 140) is also significantly higher than those who are salaried employee (mean= 5.26, SD= 1.27, n= 1040) and unemployed (mean= 5.21, SD= 1.23, n= 1014) with p-value of almost zero (p-value = 0.000). Relatively,

entrepreneurship degree holders have higher intention to be an entrepreneur than non-entrepreneurship degree holders across the three employment status. These findings indicate that respondents who are self-employed, either entrepreneurship degree holder or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed. Thus, these results reveal that intention to be an entrepreneur has already exists within respondents.

In term of entrepreneurship training (see Table 4.10), the intention to be an entrepreneur also significantly higher among respondents who are self- employed (mean= 5.94, SD= 1.07, n= 87) than salaried employee (mean= 5.42, SD= 1.16, n= 411) and unemployed (mean= 5.38, SD= 1.24, n= 438), with p-value of almost zero (p-value= 0.000). Additionally, among the respondents who are not involving in entrepreneurship training during their studies, the intention to be an entrepreneur for those who are self- employed (mean= 5.79, SD= 1.11, n= 69) is also significantly higher than those who are salaried employee (mean= 5.21, SD= 1.32, n= 672) and unemployed (mean= 5.11, SD= 1.20, n= 597), with p-value of almost zero (p-value= 0.000). Relatively, respondents who are involving in entrepreneurship training during their studies have higher intention to be an entrepreneur than those who are not involving in entrepreneurship training during their studies across the three employment statuses. These findings indicate that respondents, who are self-employed, either involved in entrepreneurship training or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed. This means that respondents intend to be an entrepreneur compared to becoming an employee or

unemployed whether he or she has experienced or none in entrepreneurship training during their study.

In aspect of running business activities during study (Table 4.10), the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 6.04, SD= 1.08, n= 94) than salaried employee (mean= 5.63, SD= 1.13, n= 302) and unemployed (mean= 5.55, SD= 1.14, n= 408), with p- value of five percent. However, among the respondents' who are not running any business activities during study, the intention to be an entrepreneur for those who are self-employed (mean= 5.61, SD= 1.06, n= 62) is also significantly higher as compared to salaried employee (mean= 5.16, SD= 1.29, n= 784) and unemployed (mean= 5.01, SD= 1.22, n= 650), with p-value of almost zero (p-value = 0.000). Relatively, respondents who are running business activities during study have higher intention to be an entrepreneur than those who are not running business activities during study across the three employment statuses. These findings indicate that respondents who are self-employed, either running business activities during study or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed. These results indicate that whether the respondents have set up any business during their study or not, the tendency to become an entrepreneur is higher compared with other employment after completing their study.

The consequence of running business activities before further study in higher education institutions (Table 4.10) shows that the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 6.02, SD= 1.13,

n= 72) than salaried employee (mean= 5.75, SD= 1.06, n= 227) and unemployed (mean= 5.52, SD= 1.18, n= 320), with p-value of almost zero (p-value = 0.000). Likewise, among the respondents who are not running business activities before further study, the intention to be an entrepreneur for those who are self-employed (mean= 5.74, SD= 1.04, n= 84) is also significantly higher than those who are salaried employed (mean=5.17, SD= 1.28, n= 859) and unemployed (mean= 5.09, SD= 1.22, n= 738), with p-value of almost zero (p-value= 0.000). Relatively, respondents who are running business activities before further study in higher education institutions have higher intention to be an entrepreneur than those who are not running business activities before further study in higher education institutions across the three employment statuses. These findings indicate that respondents, who are self-employed, either running business activities before further study in higher education institutions or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried-employed or unemployed. These findings indicate that whether the respondents have set up any business before their further study in higher education institutions or not, the tendency to become an entrepreneur is higher compared with other employment after completing their study.

In term of family business in Table 4.10, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 6.03, SD= 1.01, n= 93) as compared to salaried employee (mean= 5.44, SD= 1.20, n= 368) and unemployed (mean= 5.37, SD= 1.17, n= 450), with p-value of almost zero (p-value= 0.000). Besides, among the respondents who have no family business, the intention to be an entrepreneur for those who are self-employed (mean= 5.63, SD=

1.16, $n= 63$) is also significantly higher than those who are salaried employee (mean= 5.21, SD= 1.29, $n= 718$) and unemployed (mean= 5.10, SD= 1.24, $n= 608$), with p-value of almost zero (p-value= 0.000). Relatively, respondents who have family business have higher intention to be an entrepreneur than those who have no family business across the three employment statuses. These findings indicate that respondents who are self-employed, either they have family business or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employee or unemployed. These findings indicate that whether the respondents have family business or not, the tendency to become an entrepreneur is higher compared with other employment after completing their study.

The effects of friends business in Table 4.10 shows that intention to be an entrepreneur among respondents are significantly higher for those who are self-employed (mean= 5.89, SD= 1.12, $n= 91$) as compared to salaried employee (mean= 5.35, SD= 1.17, $n= 504$) and unemployed (mean= 5.31, SD= 1.18, $n= 566$), with p-value of almost zero (p-value= 0.000). Besides, among the respondents who have no friends business, the intention to be an entrepreneur for those who are self-employed (mean= 5.84, SD= 1.05, $n= 65$) is also significantly higher than those who are salaried employee (mean= 5.24, SD= 1.33, $n= 582$) and unemployed (mean= 5.11, SD= 1.25, $n= 492$), with p-value of almost zero (p-value= 0.000). Relatively, respondents who have friends business have higher intention to be an entrepreneur than those who have no friends business across the three employment status. These findings indicate that respondents, who are self-employed, either have friends business or not, have a higher tendency to

participate in entrepreneurship career as compared to those who are salaried employee or unemployed. These findings indicate that whether the respondents have friends business or not, the tendency to become an entrepreneur is higher compared with other employment after completing their study.

In term of male in Table 4.10, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 5.74, SD= 1.25, n= 61) than salaried employee (mean= 5.60, SD= 1.18, n= 344) and unemployed (mean= 5.32, SD= 1.29, n= 265), with p-value of almost zero (p-value = 0.000). Moreover, among the female (Table 4.10), the intention to be an entrepreneur for those who are self-employed (mean= 5.95, SD= 0.97, n= 95) is also significantly higher than those who are salaried employee (mean= 5.15, SD= 1.27, n= 742) and unemployed (mean= 5.18, SD= 1.20, n= 793), with p-value of almost zero (p-value= 0.000). Relatively, male respondents have higher intention to be an entrepreneur than female across the three employment statuses. These findings indicate that respondents who are self-employed, either male or female, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed. Thus, these results imply that male and female respondents tend to have higher tendency to be compared to other employments that excluded entrepreneurship.

Intention to be an entrepreneur among respondents who are in range age between 20 to 25 years old in Table 4.10 is significantly higher for those who are self-employed (mean= 5.78, SD= 1.15, n=125) than salaried employee (mean= 5.23, SD= 1.25, n= 887) and unemployed (mean= 5.16, SD= 1.21, n= 919), with p-

value of almost zero (p -value= 0.000). Moreover, among the respondents who are in range age between 26 to 30 years old, the intention to be an entrepreneur for those who are self- employed (mean= 6.23, SD= 0.70, n = 31) is also significantly higher than those who are salaried employee (mean=5.54, SD= 1.28, n = 199) and unemployed (mean= 5.62, SD= 1.18, n = 139), with p -value of almost zero (p -value= 0.000). Relatively, respondents who are in range age between 26 old to 30 years old have higher intention to be an entrepreneur than respondents who are in range age between 20 years to 25 years old across the three employment statuses. These findings indicate that respondents who are self-employed, either their range age between 26 to 30 or 20 to 25 years old, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employee or unemployed. Thus, these results imply that age (20 years to 30 years old) is not the obstacles for respondents to choose to be self- employed as compared with other types of employment.

In term of races (*Malay* respondents) in Table 4.10, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 5.51, SD= 1.13, n = 122) than salaried employee (mean= 5.05, SD= 1.20, n = 639) and unemployed (mean= 5.07, SD= 1.26, n = 786), with p -value of almost zero (p -value= 0.000). Moreover, among the non-Malay respondents, the intention to be an entrepreneur for those who are self-employed (mean= 5.97, SD= 1.06, n = 34) is also significantly higher than those who are salaried employee (mean=5.46, SD= 1.28, n = 447) and unemployed (mean= 5.27, SD= 1.20, n = 272), with p -value of almost zero (p -value= 0.000). Relatively, non-Malay respondents have higher intention to be entrepreneur than Malay respondents across the three

employment statuses. These findings indicate that respondents who are self-employed, either they are Malay or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employee or unemployed.

Intention to be an entrepreneur among the single respondents in Table 4.10 is significantly higher for those who are self-employed (mean= 5.83, SD= 1.11, n= 143) as compared to salaried employee (mean= 5.30, SD= 1.23, n= 983) and unemployed (mean= 5.21, SD= 1.23, n= 1000), with p-value of almost zero (p-value= 0.000). However, among the married respondents, the intention to be an entrepreneur for those who are self-employed (mean= 6.31, SD= 0.70, n= 13) is also significantly higher than those who are salaried employee (mean= 5.21, SD= 1.54, n= 103) and unemployed (mean= 5.39, SD= 1.06, n= 58), with p-value of almost zero (p-value= 0.000). Relatively, married respondents have higher intention to be entrepreneur than single respondents across the three employment status. These findings indicate that respondents, who are self-employed, either single or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed.

In term of CGPA range between 2.00- 2.99 points in Table 4.10, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean = 5.95, SD= 1.06, n= 58) as compared to salaried employee (mean= 5.60, SD= 1.19, n= 330) and unemployed (m= 5.52, SD= 1.16, n= 267), with p-value of almost zero (p-value= 0.000). Moreover, among the respondents those who have CGPA range between 3.00 to 3.66, the intention to be an entrepreneur is also

significantly higher for those who are self-employed ($m= 5.83$, $SD= 1.11$, $n= 92$) than salaried employee (mean= 5.18, $SD= 1.26$, $n= 689$) and unemployed (mean= 5.12, $SD= 1.23$, $n= 705$), with p-value of almost zero (p-value = 0.000). Relatively, respondents CGPA range from 2.00 to 2.99 have higher intention to be entrepreneur than respondents who have CGPA range from 3.00 to 3.66 across the three employment statuses. These findings indicate that respondents who are self-employed, either their CGPA range from 2.00 to 2.99 or range from 3.00 to 3.66, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed.

4.7.2 Further Profiling of Graduate Entrepreneurs in Innovator Domain

Table 4.11 present the further profiling of graduates entrepreneur in innovator domain. In general, the results in innovator domain have a similar findings with the results in talent domain (Table 4.10) which respondents who are self-employed tend to become an entrepreneur compared being an employee. The significant items as shown in Table 4.11 are formal entrepreneurship education (Degree of Entrepreneurship; and entrepreneurship training), informal entrepreneurship education (running business during study; running business before study in university; family are running business; and friend are running business) and respondents' demography (gender; age; races; marital status; and CGPA).

Table 4.11

Further Profiling of Respondents towards Intention to be an entrepreneur in Innovator Domain

	Category	Employment status			F value
		Unemployed	Salaried employed	Self-employed	
<u>Formal education</u>					
Degree of Entrepreneurship	Yes	5.31 (0.99) N= 44	5.94 (0.94) N= 46	6.37 (0.71) N= 16	9.26***
	No	5.18 (1.17) N= 1014	5.23 (1.22) N= 1040	5.88 (0.97) N= 140	21.37***
Entrepreneurship Training	Involve	5.39 (1.21) N= 438	5.42 (1.11) N= 411	5.94 (0.97) N= 87	11.30***
	Not involve	5.05 (1.11) N= 587	5.16 (1.27) N= 672	5.82 (1.02) N= 69	12.86***
<u>Informal education</u>					
Run business during study	Yes	5.55 (1.13) N= 408	5.52 (1.12) N= 302	6.05 (0.95) N= 94	8.98***
	No	4.96 (1.13) N= 650	5.15 (1.24) N= 784	5.74 (0.94) N= 62	14.39***
Run business before study	Yes	5.53 (1.14) N= 320	5.60 (1.14) N= 227	6.00 (0.97) N= 72	5.24***
	No	5.03 (1.14) N= 738	5.16 (1.22) N= 859	5.86 (0.95) N= 84	18.65***
Family run business	Yes	5.36 (1.11) N= 450	5.39 (1.15) N= 368	6.13 (0.86) N= 93	19.48***
	No	5.05 (1.19) N= 608	5.19 (1.25) N= 718	5.62 (1.02) N= 63	7.06***
Friend run business	Yes	5.32 (1.12) N= 566	5.26 (1.16) N= 504	5.98 (0.93) N= 91	16.14***
	No	5.02 (1.20) N= 492	5.25 (1.27) N= 582	5.85 (1.00) N= 65	14.46***
<u>Respondents' Demography</u>					
Gender	Male	5.25 (1.22) N= 265	5.55 (1.22) N= 344	5.83 (1.09) N= 61	7.75***
	Female	5.16 (1.15) N= 793	5.12 (1.20) N= 742	5.99 (0.87) N= 95	23.92***

Table 4.11
Further Profiling of Respondents towards Intention to be an Entrepreneur in Innovator Domain

	Category	Employment status			F value
		Unemployed	Salaried employed	Self-employed	
Age	20-25	5.13 (1.16) N= 919	5.16 (1.22) N= 887	5.85 (1.00) N= 125	20.99***
	26-30	5.57 (1.15) N= 139	5.68 (1.12) N= 199	6.24 (0.72) N= 31	4.62**
Race	Malay	5.02 (1.25) N= 786	5.02 (1.18) N= 639	5.48 (1.08) N= 122	2.32*
	Others	5.24 (1.13) N= 272	5.42 (1.22) N= 447	6.05 (0.89) N= 34	26.66***
Marital status	Single	5.18 (1.17) N= 1000	5.24 (1.21) N= 983	5.90 (0.97) N= 143	23.64***
	Others	5.34 (1.11) N= 58	5.38 (1.28) N= 103	6.21 (0.84) N= 13	2.99**
CGPA	2.00- 2.99	5.40 (1.13) N= 267	5.55 (1.19) N= 330	6.13 (0.82) N= 58	9.75***
	3.00- 3.66	5.10 (1.17) N= 705	5.15 (1.20) N= 689	5.82 (1.01) N= 92	15.25***
	3.67- 4.00	5.19 (1.14) N= 86	4.94 (1.32) N= 67	5.59 (1.24) N= 6	1.31

Note:

1. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
2. SD refers to: Standard Deviation.

The results in Table 4.11 (innovator domain) are also obviously shows that intention to be an entrepreneur among self-employed respondents higher than those who are salaried employee and unemployed. For example, in term of Degree of entrepreneurship, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 6.37, SD= 0.71, n= 16) as compared to salaried employee (mean= 5.94, SD= 0.94, n= 46) and unemployed (mean= 5.31, SD= 0.99, n= 44), with p-value of almost zero (p-value = 0.000). Yet, respondents who are not an entrepreneurship degree holder (Table 4.11) also have a significant

increase in self-employed (mean= 5.88, SD= 0.97, n= 140) as compared to salaried employee (mean= 5.23, SD= 1.22, n= 1040) and unemployed (mean= 5.18, SD= 1.17, n= 1014) with p-value of almost zero (p-value =0.000). Relatively, respondents who are degree entrepreneurship holders have higher intention to be an entrepreneur as compared to those who are not entrepreneurship degree holder across the three employment statuses. These results show that respondents who are self-employed, either he or she is an entrepreneurship degree or not, the tendency to become entrepreneur is higher than those who are salaried employee or unemployed.

The results for entrepreneurship training in Table 4.11 also found that the intention to be an entrepreneur are significantly higher among respondents who are self-employed (mean= 5.94, SD= 0.97, n= 87) than salaried employee (mean= 5.42, SD= 1.11, n= 411) and unemployed (mean= 5.39, SD= 1.21, n= 438), with p-value of almost zero (p-value= 0.000). Moreover, among the respondents who are not involve in entrepreneurship training during their study in Table 4.11, the intention to be an entrepreneur for those who are self-employed (mean= 5.82, SD= 1.02, n= 69) is significantly higher than those who are salaried employee (mean= 5.16, SD= 1.27, n= 672) and unemployed (mean= 5.05, SD= 1.11, n= 587), with p-value of almost zero (p-value= 0.000). Relatively, respondents who are involved in entrepreneurship training show a higher tendency to be an entrepreneur as compared to respondents who are not involved in any entrepreneurship training across the three employment statuses. This results presents that respondents who are self-employed, either he or she involve or not in

entrepreneurship training have higher tendency to be an entrepreneur as compared to those who are salaried employee and unemployed.

In term of running business activities during study in Table 4.11, the intention to be an entrepreneur is also significantly higher for respondents who are self-employed (mean= 6.05, SD= 0.95, n= 94) than salaried employee (mean= 5.52, SD= 1.12, n= 302) and unemployed (mean= 5.55, SD= 1.13, n= 408). In addition, the results of those who are not running business activities during study among self- employed (mean= 5.74, SD= 0.94, n= 62) is also significantly higher as compared to those who are salaried employee (mean= 5.15, SD= 1.24, n= 784) and unemployed (mean= 4.96, SD= 1.13, n= 650), with p-value of almost zero (p-value= 0.000). Relatively, respondents who are running business activities during study have higher intention to be an entrepreneur compared with those who are not running any business activities during their study across the three employment statuses. These results also indicate that respondents who are self-employed, either with experiences or not in entrepreneurship during their study has higher tendency to become an entrepreneur compared with other employments after finishing their study.

However, in term of running business activities before further study (Table 4.11), the intention to be an entrepreneur is also significantly higher for respondents who are self-employed (mean= 6.00, SD= 0.97, n= 72) as compared to salaried employee (mean= 5.60, SD= 1.14, n= 227) and unemployed (mean= 5.53, SD= 1.14, n= 320), with p-value of almost zero (p-value= 0.000). Moreover, among the respondents who are not running business activities before further study, the

intention to be an entrepreneur for those who are self-employed (mean= 5.86, SD= 0.95, n= 84) is also significantly higher as compared to those who are salaried employee (mean= 5.16, SD= 1.22, n= 859) and unemployed (mean= 5.03, SD= 1.14, n= 738), with p-value of almost zero (p-value= 0.000). Relatively, respondents who are running business activities before further study have higher intention to be an entrepreneur compared with who are not running any business activities during their study across the three employment status. These results also indicate that respondents, who are self-employed, either have running own business before entering the university or not, the intention to become an entrepreneur is higher compared with other employment after finishing their study.

In term of family business in Table 4.11, the intention to be an entrepreneur is also significantly higher for those who are self-employed employed (mean= 6.13, SD= 0.86, n= 93) as compared to salaried employee (mean= 5.39, SD= 1.15, n= 368) and unemployed (mean= 5.36, SD= 1.11, n= 450), with p-value of almost zero (p-value= 0.000). Moreover, among the respondents who have no family business, the intention to be an entrepreneur for those who are self-employed (mean= 5.62, SD= 1.02, n= 63) is significantly higher as compared to those who are salaried employee (mean= 5.19, SD= 1.25, n= 718) and unemployed (mean= 5.05, SD= 1.19, n= 608), with p-value of almost zero (p-value= 0.000). Relatively, those who have family business have higher intention to be an entrepreneur than those who have no family business across the three employment status. These findings imply that respondents who are self-employed, either family are involved in entrepreneurship activities or not, have a higher tendency to participate in

entrepreneurship career as compared to those who are salaried employed or unemployed.

In term of respondents who have friend involved in entrepreneurship activities in Table 4.11, the intention to be an entrepreneur is also significantly higher for those who are self-employed (mean= 5.98, SD= 0.93, n= 91) as compared to salaried employee (mean= 5.26, SD= 1.16, n= 504) and unemployed (mean= 5.32, SD= 1.12, n= 566), with p-value of almost zero (p-value= 0.000). Moreover, among those who have no friends involved in any business activities, the intention to be an entrepreneur for those who are self-employed (mean= 5.85, SD= 1.00, n= 65) is also significantly higher as compared to those who are salaried employee (mean= 5.25, SD= 1.27, n= 582) and unemployed (mean= 5.02, SD= 1.20, n= 492), with p-value of almost zero (p-value= 0.000). Relatively, respondents who have friends involved in business activities have higher intention to be an entrepreneur than respondents who has no friends business across the three employment status. These findings imply that respondents who are self-employed, either having friend involving in entrepreneurship activities or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employee or unemployed.

In term of male in innovator domain (Table 4.11), the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 5.83, SD= 1.09, n= 61), salaried employee (mean= 5.55, SD= 1.22, n= 344) and unemployed (mean= 5.25, SD= 1.22, n= 265), with p-value of almost zero (p-value = 0.000). Furthermore, among the female, the intention to be an

entrepreneur for those who are self-employed (mean= 5.99, SD= 0.87, n= 95) as compared to those who are salaried employee (mean= 5.12, SD= 1.20, n= 742) and unemployed (mean= 5.16, SD= 1.15, n= 793), with p-value of almost zero (p-value= 0.000). Relatively, male respondents possess a higher intention to be an entrepreneur than female across the three employment statuses. However, these findings also indicate that respondents who are self-employed, either male or female, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed. Therefore, these results imply that male and female respondents tend to have higher tendency compared to other employments that excluded entrepreneurship.

In term of respondents who are in range age between 20 to 25 years old in Table 4.11, the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 5.85, SD= 1.00, n=125) as compared to salaried employee (mean= 5.16, SD= 1.22, n= 887) and unemployed (mean= 5.13, SD= 1.16, n= 919), with p-value of almost zero (p-value= 0.000). Likewise, among the respondents who are in range age between 26 to 30 years old, the intention to be an entrepreneur for those who are self-employed (mean= 6.24, SD= 0.72, n= 31) is also significantly higher than those are salaried employed (mean=5.68, SD= 1.12, n= 199) and unemployed (mean= 5.57, SD= 1.15, n= 139), with p-value of almost zero (p-value= 0.000). Relatively, those who are in range age between 26 old to 30 years old have higher intention to be an entrepreneur than those who are in range age between 20 to 25 old across the three employment status. These findings indicate that respondent who are self-employed, either range age between 26 to 30 or 20 to 25 years old; have a higher tendency to participate in

entrepreneurship career as compared to those who are salaried employee or unemployed.

In term of races (*Malay* respondents) in innovator domain (Table 4.11), the intention to be an entrepreneur is significantly higher for those who are self-employed (mean= 5.48, SD= 1.08, n= 122) as compared to salaried employee (mean= 5.02, SD= 1.18, n= 639) and unemployed (mean= 5.02, SD= 1.25, n= 786), with p-value of almost zero (p-value= 0.000). Moreover, among the non-Malay respondents, the intention to be an entrepreneur for those who are self-employed (mean= 6.05, SD= 0.89, n= 34) as compared to those who are salaried employee (mean=5.42, SD= 1.22, n= 447) and unemployed (mean= 5.24, SD= 1.13, n= 272), with p-value of almost zero (p-value= 0.000). Relatively, those who are non-Malay respondents have higher intention to be entrepreneur than Malay respondents across the three employment statuses. These results indicate that respondents who are self-employed, either they are Malay or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employee or unemployed.

Intention to be an entrepreneur among the single respondents (Table 4.11) is significantly higher for those who are self-employed mean= 5.90, SD= 0.97, n= 143) as compared to salaried employee (mean= 5.24, SD= 1.21, n= 983) and unemployed (mean= 5.18, SD= 1.17, n= 1000), with p-value of almost zero (p-value= 0.000). Nevertheless, among the married respondents in Table 4.11, the intention to be an entrepreneur for those who are self-employed (mean= 6.21, SD= 0.84, n= 13) as compared to those who are salaried employed (mean= 5.38, SD=

1.28, $n= 103$) and unemployed (mean= 5.34, SD= 1.11, $n= 58$), with p-value of almost zero (p-value= 0.000). Relatively, married respondents have higher intention to be entrepreneur than single respondents across the three employment statuses. These results show that respondents, who are self-employed, either single or not, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed.

In terms of CGPA range between 2.00- 2.99 points (Table 4.11), the intention to be an entrepreneur is significantly higher for those who are self-employed (mean = 6.13, SD= 0.82, $n= 58$) as compared to salaried employee (mean= 5.55, SD= 1.19, $n= 330$) and unemployed (mean= 5.40, SD= 1.13, $n= 267$), with p-value of almost zero (p-value= 0.000). Moreover, among the respondents those who have CGPA range between 3.00 to 3.66, the intention to be an entrepreneur is also significantly higher for those who are self- employed (mean= 5.82, SD= 1.01, $n= 92$) than salaried employee (mean= 5.15, SD= 1.20, $n= 689$) and unemployed (mean= 5.10, SD= 1.17, $n= 705$), with p-value of almost zero (p-value = 0.000). Relatively, respondents' CGPA range from 2.00 to 2.99 in Table 4.11 has higher intention to be entrepreneur than respondents' CGPA range from 3.00 to 3.66 across the three employment statuses. These findings show that respondents, who are self-employed, either their CGPA range from 2.00 to 2.99 or range from 3.00 to 3.66, have a higher tendency to participate in entrepreneurship career as compared to those who are salaried employed or unemployed.

4.8 Summary

Basically, this chapter used the descriptive statistics to report the results of data analysis which was conducted to give a general overview of the profile of the respondents. Firstly, this chapter gave a detailed report of the respondents' characteristics, education background, employment status with monthly income and fields of degree and entrepreneurship education in terms of formal and informal background. Then, there were findings on the respondents' perceptions towards their generic skills and communication apprehension level towards intention to be an entrepreneur before and after entering into the employment market. The results presented that after entering employment market, their generic skills, communication apprehension and intention towards entrepreneurship were higher compared with before completing their study. This finding also provided an initial overview of the respondents' intention and actual choice in choosing entrepreneurship as their career. For example, mean differences towards intention to be an entrepreneur after graduates enter into the employment market was increased positively. This result indicated that among the graduates, the intention to be an entrepreneur already existed in themselves. Lastly, this chapter performed the further profiling among the respondents' toward entrepreneurship intentions. Overall, the results revealed that entrepreneurship intentions among the respondents who are self-employment were significantly increased compared to respondents who are employed. These results also indicated that respondents who are choosing entrepreneurship as their actual career has a high tendency on entrepreneurship. In the next chapter, the findings with the further regression analyses of this study were reported. The sequence of the report on findings followed that of the research objectives.

CHAPTER FIVE

INTENTION AND CHOICE TO BE AN ENTREPRENEUR

5.1 Introduction

This chapter outlines the results of the data analyses and the findings of this study. The chapter begins with the presentation of the multiple regressions, covering the goodness of fits. The bulk of the chapter focuses on answering the research questions and achieving the objectives in this study. This involves the presentation of the correlation between all the variables of interest and results on testing of the measurement models. This chapter is divided into two main sections, namely intention to be an entrepreneur and choice to be an entrepreneur.

5.2 Intention to be Entrepreneur

Briefly, as discussed in Chapter 1, (Section 1.6.2), intention is divided into two⁷ domains (talent and innovator). Thus, the discussion that follows will be performed separately in terms of these two domains. However, the results of the estimated multiple regression models between the talent and innovator domains show a high similarity. This indicates that the talent and innovator domains give

⁷ Talent: Entrepreneurship talent is primarily a natural gift. However, to become a good entrepreneur, talent must still be paired with other factors such as knowledge, vision, and interpersonal skills. Innovator: An innovator can be considered as an opportunist who turns an opportunity into a workable idea in order to gain something positive from it. In this study, talent and innovator were regarded as the dependent variables and other attributes were independent variables. Regression was performed to see to which extent talent and innovator influenced the respondents in becoming entrepreneurs

almost similar effects in terms of their influence on the respondents' intention to be an entrepreneur.

5.2.1 Intention to be an Entrepreneur in the Talent Domain

Table 5.1 presents the estimated multiple regression model for the intention to be an entrepreneur (talent) before and after entering the employment market. The explanatory variables of the multiple regressions in Table 5.1 were divided into five categories, namely formal entrepreneurship education, informal entrepreneurship education, communication apprehension, generic skills, and respondents' background with their sub items.

In terms of the goodness of fits, the R^2 was found to be 0.330 (before) and 0.296 (after) and the overall fit tests were significant with a p-value of almost zero. The value of R^8 square (R^2) of 0.296 and 0.330 may seem low but it is acceptable for a cross-sectional study with a high value of F-test statistics, 44.109 (before) and 37.661 (after). The Variance Inflation Factor (VIF) ranged from 1.03 to 8.19, which is less than 10, implying that the effect of multicollinearity should be at its minimum. A further discussion on Table 5.1 is presented in subsections 5.2.1.1 to 5.2.1.5.

⁸ According to Gujarati (2004, p. 544): –The R^2 value of about 0.2826 might seem low, but such low R^2 values are typically observed in cross-sectional data with a large number of observations. But this R^2 value is statistically significant, since the computed F value of about 25.56 is highly significant, as its p value is almost zero”.

Table 5.1
The Estimated Ordinary Least Squares (OLS) Model on Intention to be an Entrepreneur in Talent Domain

Explanatory variables	Intention: After		Intention: Before	
	Coeff	Robust Std Error	Coeff	Robust Std Error
<u>Formal entrepreneur education:</u>				
Degree entrepreneurship	1.176	1.293	-0.132	1.237
Entrepreneurship training	0.720	0.579	1.551***	0.555
<u>Informal entrepreneur education:</u>				
Ran business during study (RBDS)	3.036***	0.732	3.518***	0.700
Ran business before study (RBBS)	1.681**	0.786	1.085	0.752
Family involve in entrepreneurship (FMIE)	1.953***	0.627	2.006***	0.602
Friend involve in entrepreneurship (FRIE)	-0.470	0.623	-0.324	0.597
<u>Communication apprehension:</u>				
PRCA: Group discussion	0.176***	0.065	0.111*	0.062
PRCA: Meeting	0.170**	0.077	0.14**	0.074
PRCA: Interpersonal	0.138	0.089	0.183**	0.086
PRCA: Public speaking	-0.065	0.079	-0.008	0.073
<u>Generic skills:</u>				
Skills: Creative and analytical	0.516***	0.111	0.452***	0.102
Skills: Time and group management	0.136	0.171	0.123	0.162
Skills: ICT	0.812***	0.163	0.776***	0.147
<u>Respondents' background:</u>				
Male	2.101***	0.612	2.168***	0.585
26 years old to 30 years old	2.183***	0.805	2.378***	0.772
<i>Malayu</i>	1.414	1.022	0.996	0.976
Married	-2.174**	1.068	-1.375	-0.025
CGPA	-2.816***	0.539	-2.298***	0.515
MUET	-0.577*	0.338	-0.194	0.324
<i>Malay</i> language proficiency	-0.203	0.250	-0.252	0.240
English language proficiency	-0.273	-0.028	-0.181	0.211
<i>Chinese</i> language proficiency	-0.020	0.135	0.017	0.129
Others language proficiency	-0.198	0.127	-0.148	0.122
Father economically active	0.725	0.854	1.027	0.818
Mother economically active	0.502	0.572	0.526	0.548
Constant	***10.576	3.513	***10.437	3.224
VIF	1.03 to 7.49		1.03 to 8.19	
Pseudo R ²	0.296		0.330	
p. value	0.000		0.000	

Note:

1. After: refers to the after entering the labour market which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
4. Skills refer to self-perceived; PRCA refers to Personal Report Communication Apprehension.

5.2.1.1 Formal Entrepreneurship Education

From Table 5.1, in terms of formal entrepreneurship education, it can be seen that degree⁹ of entrepreneurship has an insignificant effect on respondents' intention to be an entrepreneur, either before or after they enter the employment market. The estimated coefficient, which represents the impact of entrepreneurship degree on intention to be an entrepreneur, was found to be insignificant, as can be seen in Table 5.1. This insignificance of entrepreneurship degree in increasing the intention to be an entrepreneur might be due to the following reasons.

Cheng et al. (2009) believe that the entrepreneurship tutelage in the higher educational institutes of Malaysia have not been successful in drawing graduates towards taking up entrepreneurship following their graduation. There is a need to render more competences to the graduates through an educational programme so as to match the industry's expectations and enable them to emerge as successful businesspeople. According to Matlay (2006b), in the United Kingdom, even though the number of courses offering entrepreneurship education at higher education institutes has increased substantially over the last couple of decades, the exact contribution these courses make towards entrepreneurial activity is not clear.

Moreover, it seems educators who teaching entrepreneurship are still unclear regarding the effect and efficacy of entrepreneurship education in general (Matlay, 2006b). Studies by Tanveer et al. (2013) found that students who received formal entrepreneurship education were not interested in becoming entrepreneurs as

⁹ Degree of entrepreneurship is defined as a process of instilling and studying which is formally implemented based on the system set by the government whereby a degree from Malaysia's high education institutions will be awarded, while students have to at least fulfill the minimum requirements to accomplish 120 credit hours as specified by the Malaysia Qualification Framework (Malaysian Qualification Register, 2009).

opposed to non-entrepreneurship students because they already faced more difficult challenges when setting up their own businesses as a requirement of the courses during their study. According to Cox et al. (2002), so far most of the research on entrepreneurship has not offered any empirical evidence for the argument that completing formal programmes in small-scale business management and entrepreneurship raises the possibility of a person becoming an entrepreneur. Thus, if the entrepreneurship education is not appropriately designed, it is very likely not to provide any impact on the intention to be an entrepreneur.

However, compared to respondents who were not involved in any entrepreneurship training¹⁰ during their study, the respondents who were involved in entrepreneurship training during their study had a significantly higher intention to be an entrepreneur before entering the employment market at 1 percent significance (Table 5.1). This finding suggests that entrepreneurship training has a positive and significant effect on graduates' intention to be an entrepreneur. A study by Wong et al. (2014) also indicates that entrepreneurship training, such as entrepreneurship workshops, coaching and mentoring, in a higher education institution significantly increases a graduate's intention to undertake entrepreneurship activities. Specifically, entrepreneurship training in university increases the graduates' intention towards entrepreneurship activities.

¹⁰ There are training sessions, seminars, short courses, conferences and events about entrepreneurship, also known as entrepreneurship training, provided by each university to motivate the students in order to take part in entrepreneurship activities (Bechard & Toulouse, 1998; Hardy et al., 2015).

5.2.1.2 Informal Entrepreneurship Education

In terms of informal entrepreneurship education, Table 5.1 shows that respondents who ran a business during their study (RBDS) at university were found to have significantly higher intention to be an entrepreneur at 1 percent level of significance than the respondents who did not run business activities during their study, both before and after entering the employment market. This result indicates that those respondents who run entrepreneurship activities during their study have greater intention to be an entrepreneur. In their findings, Cooper et al. (2004) found that entrepreneurship experience has a positive and significant effect on graduate intention to be an entrepreneur. They agree that early exposure to or experience of entrepreneurship activities boosts the tendency of graduates to become actual entrepreneurs. In particular, entrepreneurship experience is a great stimulus to cultivate intention to become an entrepreneur among graduates. While earning their degrees, many graduates begin turning their passions into businesses on the university campus (Rao, 2014). As Campus Entrepreneurship (2014) suggests the entrepreneurship environment in and around the universities enables the students to explore entrepreneurial opportunities.

On the other hand, the results in Table 5.1 indicate that respondents who ran businesses before their study (RBBS) at university were found to have significantly higher intention to be an entrepreneur at the 5 percent level of significance, compared to respondents who did not run business activities before their studies and before entering the employment market. This result indicates that entrepreneurship experience is an important factor in influencing graduate tendency to become an entrepreneur.

Respondents from families involved in entrepreneurship (FMIE) activities had a higher intention to be an entrepreneur compared to graduates from a family without involvement in entrepreneurship activities, both before and after entering the employment market (Table 5.1). Statistically, this difference is significant at the 1 percent level of significance (before and after entering the employment market). This finding is in line with the findings by Carr and Sequeira (2007) and Dunn and Holtz- Eakin (2000), who revealed that family business and graduate intention to be an entrepreneur are positively and significantly related. Family business represents an important influence in individuals. On the other hand, a family background with an involvement in entrepreneurship can effectively and efficiently breed a passion in a child (Pruett et al., 2009). Thus, it can be said that these children may have a higher intention to be entrepreneurs in the future (Sorensen, 2007). Therefore, as shown in Table 5.1, family background is a significant influence in fostering the intention of being an entrepreneur in a graduate. Thus, the result in Table 5.1 reveals that family background has a favourable influence in cultivating graduate intention to be an entrepreneur.

5.2.1.3 Communication Apprehension

The results from Table 5.1 show that respondents who had higher levels of communication apprehension in terms of group discussion were found to have positive and significant effects towards intention to be an entrepreneur at the 1 percent level of significance (after entering the employment market) and at the 10 percent level of significance (before entering the employment market), compared to respondents who had a low level of communication apprehension. This result indicates that respondents who are poor in communication have a higher tendency

to become an entrepreneur, both before and after completing their studies. Communication apprehension refers to the degree of fear or tension felt by a person who is related to either real or expected communication with another person or group (McCroskey, 1970). An individual who has a high degree of communication comprehension is considered in a negative manner (Griffith et al., 2009). For instance, those with a high level of communication apprehension may find it difficult to become acquainted with others and may thus be considered introverted, less interested and anti-social (McCroskey & Wheelless, 1976). Hence, an individual who experiences high communication apprehension is not suitable as a leader as their communication skills are less relevant compared to those who do not have communication apprehension (Wells & Lashbrook, 1970). Therefore, communication apprehension is one of the factors when graduates fail to obtain any position in salaried employment since they do not have good communication skills and this affects their employability (Byron, 2005). Thus, as an alternative, graduates tend to set up small business activities (Zarina et al., 2011) as their second choice career option. These results indicate that due to communication apprehension, respondents tend to set up entrepreneurship activities as their alternative career.

In terms of meeting skills in communication apprehension, Table 5.1 reveals that meeting skills had a positive and significant effect on respondent intention to be an entrepreneur before and after entering the employment market at the 5 percent level of significance. Based on the outcome, respondents with high levels of apprehension towards meeting skills have higher entrepreneurship intention compared to respondents with low apprehension regarding interaction skills in

meeting certain skills. Charlesworth and Morris (2006) mentioned that in students who have communication apprehension, this may negatively affect their performance in the classroom and may eventually affect the way they manage themselves during the interviews as well as their eventual job performance. Regarding meeting skills, Charlesworth and Morris (2006) stated that a person with communication apprehension is reluctant to communicate by speaking, especially with strangers. This presents the graduates with difficulties in passing an interview session in order to obtain salaried employment. Since graduates with low quality skills have difficulties in reaching industry requirements, this can cause a higher unemployment rate (Rahmanh et al., 2011). Hence, it can be stated that entrepreneurship activities may lower the unemployment rate among graduates (Lebusa, 2011).

Communication apprehension regarding interpersonal skills also had a significant and positive effect on respondent intention to be an entrepreneur at the 5 percent level of significance compared with respondents who had good interpersonal skills before entering the employment market (Table 5.1). According to Wrench et al. (2008), interpersonal communication apprehension is the level of fear and tension which is related to either real or expected interaction with another person in one-to-one communication. In addition, they emphasize that a person who feels anxiety when thinking about having communication with other people or during a real interaction with someone else is considered to have interpersonal skills communication apprehension. Without good interpersonal skills, graduates may never get an opportunity to have a second job interview (Byron, 2005). Therefore, graduates who fail to become employed may have the ability to start small

entrepreneurship activities. Furthermore, the outcomes in Table 5.1 also show that respondents with poor interpersonal communication apprehension had greater entrepreneurship intention.

5.2.1.4 Generic Skills

It was found that the levels of creativity and good analytical skills in respondents had a significant effect on intention to be an entrepreneur at the 1 percent level of significance compared to those who were not creative and had low levels of analytical skills, both before and after entering the employment market (Table 5.1). This result implies that intention to be an entrepreneur is high among respondents who are creative and have good analytical skills. As stated by Amabile et al. (1996), the source of creative entrepreneurial firms can always be followed by innovative ideas. On the other hand, Stevens and Burley (1997) mentioned that even though creative ideas seem ordinal, successful entrepreneurial concepts are scant and valuable products. Innovative new commodities designed with creativity are given an added value by an entrepreneur (Pinard & Allio, 2005). Besides, Sternberg (1995) stated that analytical skills are needed in creativity in order to know whether a concept is worth following. Therefore, a person who intends to become an entrepreneur is required to have this standard (Judith, 2007).

Similarly, ICT skills were found to have a significant and positive effect on respondent intention to be an entrepreneur, as shown in Table 5.1. Statistically, ICT skills were significant at the 1 percent level of significance before and after entering the employment market. This finding indicates that respondents who had

good ICT skills had greater intentions to be an entrepreneur. Specifically, ICT skills helped to increase respondents' intentions to be an entrepreneur. The enhancement in globalization and technology has led to higher business opportunities but the marketplace is more occupied and competition is higher (MacMullan & Shepherd, 2006). There are many chances which can lead to a competitive advantage for the organization once the entrepreneur has creative skills in the field of information and communication technology (ICT) (Fillis, 2010). Kola-Ogunlade (2014) mentioned that traditional entrepreneurs are mostly being replaced by ICT entrepreneurs and that these have proven to be successful entrepreneurs in Western countries, such as the United States, in terms of ICT entrepreneurship development. For example, successful ICT entrepreneurs in the United States include Google, Yahoo, Amazon and eBay. As shown in Table 5.1, respondents with better ICT skills were more likely to become involved in entrepreneurship.

5.2.1.5 Respondents' Backgrounds

Table 5.1 presents the results of the effects of gender on the intention to be an entrepreneur. Compared to female respondents, intention to be an entrepreneur among males was significantly higher, either before or after entering the employment market. This result is consistent with Grilo and Irigoyen (2006), Wilson et al. (2009) and Verheul et al. (2012), who found that there were significant differences between males and females in terms of intention to be an entrepreneur. This result indicates that more males prefer to be entrepreneurs than females. Intuitively, this is sensible as males are associated with risk-seeking intention according to their DNA while they also have greater advantages such as

lower expected family commitments compared to females (Eddleston & Powell, 2008). This finding is in line with the Theory of Social Role, which suggests that males and females act based on the stereotyped social role and that such a role has found its way into the perception of entrepreneurs, which traditionally portrays entrepreneurship as a male occupation and, therefore, may impact on the entrepreneurial intentions of both genders (Bruni et al., 2004; Gupta et al., 2009).

Regarding the age of respondents, those who were older (in the age group 26 to 30 years) had a higher intention to be an entrepreneur compared to those who were 20 to 25 years old, at the 1 percent level of significance (Table 5.1). Table 5.1 also shows that the older respondents were more likely to be involved in entrepreneurship. The findings of Shane (1996) and Arenius and Minniti (2005) showed that there is a significant correlation between the population groups and total entrepreneurship with the mean range of 25 to 35 years old. Martin (2001) indicates that older people experience lower life pressure than the younger generation. Besides, Cressy (1996) proved that older entrepreneurs have a higher chance of being successful in the business and survive longer compared to younger entrepreneurs.

In terms of marital status (Table 5.1), there was a significant effect on respondent intention to be an entrepreneur after entering the employment market at the 5 percent level of significance. In addition, it was shown that respondents with a single marital status had greater entrepreneurship intention compared to married respondents (see Table 5.1). These results are similar with those by Peter and Munyitha (2015), which showed that respondents with a single marital status were

higher achievers in entrepreneurship compared to married respondents. As mentioned by Clifford (2016), single individuals are more likely to have more faith to get involved in entrepreneurship activities compared to married individuals. Intuitively, those who are married, and who thus have family commitments, tend to be more risk-averse. Thus, they prefer a more stable income from paid employment. Table 5.1 indicates the effect of respondents' academic achievement. There was a negative and significant effect of respondents' academic achievement towards intention to be an entrepreneur before and after entering the employment market at the 1 percent level of significance. This implies that respondents with a lower CGPA have a higher tendency to become an entrepreneur than respondents with higher academic achievement.

As referred to by the Global Entrepreneurship Monitor (2003), the tendency for entrepreneurship in the United States is affected by the level of education, and this has been shown by Wang and Wong (2004) from Singapore, whereby graduates with higher academic achievement have a greater tendency to become employees rather than entrepreneurs. Moreover, as stated in the studies of Noorah and Zakiah (2015), most unemployed graduates are those who received poor academic results, which reduced their competitiveness in the labour market. In a nutshell, those graduating with poor academic results may consider entrepreneurship an opportunity or an alternative (Willie et al., 2009). The Malaysian University English Test (MUET) was also shown to have a negative and significant effect towards intention to be an entrepreneur at the 10 percent level of significance after entering the employment market (Table 5.1). Respondents with a higher level of achievement in the MUET were less likely to

become an entrepreneur compared to respondents with a lower level of achievement in the MUET. This result implies that intention to be an entrepreneur was high among those with poor results in the MUET as compared to those who scored well in the MUET. According Mohd Nor Azam and Ishak (2011), the MUET is a gauge of the English language proficiency of graduate students and a key aspect that is assessed by the employer. The test evaluates the aptitude of candidates in four language-related competences: speaking, listening, writing and reading. According to Latisha and Surina (2010), a criterion often laid out by organisations for their prospective personnel is the aptitude to communicate, specifically in English. Wan Irham et al. (2006) noted that employers hunt for applicants who are able to produce and articulate ideas orally in English, make presentations and write reports in English and speak English confidently – in other words, they need to have a sound command of the language and its grammar as well as possess persuasive skills. According to an academic program covering 3,300 senior HR staff, the key reason behind the extreme rate of unemployable graduates venturing out of higher education institutions was their poor English expertise (Isarji et al., 2013). Graduates need to score high in the MUET to secure a salaried job (Latisha & Surina, 2010). Lim (2008) noted that of the four main languages (Melayu, Tamil, Chinese, and English) in the country, English language expertise is the primary reason for joblessness among graduates. As an alternative choice, graduates are likely to establish small business activities (Zarina et al., 2011). This shows that respondents already set themselves up for entrepreneurship as an alternative career choice due to their higher communication apprehension. Thus, those who score high in the MUET tend to secure a job, while those who achieve a low score in the MUET are left with no job offer and most probably

enter entrepreneurship to ensure their survival (Latisha & Surina, 2010; Zarina et al., 2011).

5.2.2 Intention to be Entrepreneur in the Innovator Domain

Table 5.2 presents the estimated multiple regression model for intention to be an entrepreneur in the innovator¹¹ domain, both before and after entering the employment market. The table is also separated into five categories, namely formal entrepreneurship education, informal entrepreneurship education, communication apprehension, generic skills and respondent background. The goodness of fits, R^2 , was found to be 0.330 (before) and 0.296 (after) and the overall fit tests were significant with a p-value of almost zero. The Variance Inflation Factor (VIF) ranged from 1.03 to 8.19, which is less than 10, implying that the effect of multicollinearity should be at its minimum. In general, the results in Table 5.2 (intention to be an entrepreneur in the innovator domain) have a high similarity with the results of Table 5.1 (intention to be an entrepreneur in the talent domain). Thus, in order to minimize repetition, the discussions of the results, especially the justifications, are briefly presented here and footnotes are included to direct to the discussions of Table 5.1 (for detailed discussions and justifications). It is implied that respondents who were innovative also had a higher tendency to become an entrepreneur. However, relatively, as seen in Table 5.2, the independent variables were more significant in their effects on intention to be entrepreneurs and the explanation is as follows (see subsections 5.2.2.1 to 5.2.2.5).

¹¹ The talent and innovator domains were empirically differentiated by factor analysis. Please refer to Chapter 3, page 90, for details

Table 5.2

The Estimated Ordinary Least Squares (OLS) Model on Intention to be an Entrepreneur in the Innovator Domain

Explanatory variables	Intention: After		Intention: Before	
	Coeff	Robust Std Error	Coeff	Robust Std Error
Formal entrepreneurship education:			-	-
Degree entrepreneurship	1.119	0.725	0.322	0.702
Entrepreneurship training	0.976***	0.325	1.260***	0.315
Informal entrepreneurship education:				
Ran business during study (RBDS)	1.701***	0.411	1.629***	0.398
Ran business before study (RBBS)	0.700	0.441	0.530	0.427
Family involve in entrepreneurship (FMIE)	1.261***	0.352	1.206***	0.342
Friend involve in entrepreneurship (FMIE)	-0.317	0.350	-0.131	0.339
Communication Apprehension:				
PRCA: Group discussion	0.085**	0.036	0.075**	0.035
PRCA: Meeting	0.138***	0.043	0.101**	0.042
PRCA: Interpersonal	0.099**	0.050	0.109**	0.049
PRCA: Public speaking	-0.038	0.044	0.012	0.041
Generic Skills:				
Skills: Creative and analytical	0.258***	0.062	0.249***	0.058
Skills: Time and group management	0.203**	0.096	0.097	0.092
Skills: ICT	0.281***	0.091	0.368***	0.083
Respondents' background:				
Male	1.118***	0.343	0.904***	0.332
26 years old to 30 years old	2.235***	0.452	2.236***	0.438
<i>Malayu</i>	0.532	0.573	0.734	0.556
Married	-0.780	0.599	-0.592	0.581
CGPA	-1.221***	0.302	-1.374***	0.293
MUET	-0.034	0.190	0.149	0.184
<i>Malay</i> language proficiency	-0.226	0.140	-0.154	0.136
English language proficiency	-0.215*	0.124	-0.129	0.120
<i>Chinese</i> language proficiency	-0.060	0.076	-0.034	0.073
Others language proficiency	-0.125*	0.071	-0.107	0.069
Father economically active	0.671	0.479	0.334	0.465
Mother economically active	0.307	0.321	0.314	0.311
Constant	5.939***	1.970	5.503***	1.830
VIF	1.03 to 7.49		1.03 to 8.19	
Pseudo R ²	0.295		0.330	
p. value	0.000		0.000	

Note:

1. After: refers to the after entering the labour market which is the date of the respondent's convocation ceremony (6th October 2012- 10th October 2012).
2. Before: refers to respondent's final semester (7th September 2011- 19 January 2012).
3. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
4. Skills refer to self-perceived; PRCA refers to Personal Report Communication Apprehension.

5.2.2.1 Formal Entrepreneurship Education

Table 5.2 shows that in terms of formal entrepreneurship education degree of entrepreneurship was found to have insignificant effects on respondent intention to be an entrepreneur, both before and after entering the employment market. Nevertheless, compared to respondents who were not involved in any entrepreneurship training during their study, the respondents who were involved in entrepreneurship training during their study had a significantly higher intention to be an entrepreneur before they entered the employment market at the 1 percent level of significance. This finding suggests that entrepreneurship training has a positive and significant effect on graduate intention to be an entrepreneur¹².

5.2.2.2 Informal Entrepreneurship Education

The results on informal entrepreneurship education shown in Table 5.2 indicate that respondents who ran businesses during their study (RBDS) at university were found to have significantly higher intention to be an entrepreneur at the 1 percent level of significance than the respondents who did not run business activities during their study, both before and after entering employment market. This result indicates that those respondents who run entrepreneurship activities during their studies have greater intention to becoming entrepreneurs¹³.

¹² As indicated by Wong et al. (2014), the entrepreneurship intention of a graduate can be increased significantly through involvement in training on entrepreneurship, for example workshops in entrepreneurship, tutoring and mentoring at universities. In short, the propensity of graduates toward entrepreneurship activities can be increased by the training of entrepreneurship provided in higher education institutions. Please refer to page 146 for details of the discussions.

¹³ As stated by Rao (2014), most entrepreneurs bring up the effect of doing business in their university during their degrees. In addition, the environment regarding entrepreneurship activities in and around the campus may lead the students to take part in entrepreneurial opportunities (Campus Entrepreneurship, 2014). Please refer to page 147 for details of the discussions.

Respondents from families involved in entrepreneurship (FMIE) activities had a higher intention of becoming entrepreneurs compared to graduates from families without involvement in entrepreneurship activities, both before and after entering the employment market (Table 5.2). Statistically, this difference is significant at the 1 percent level of significance (before and after entering the employment market)¹⁴.

5.2.2.3 Communication Apprehension

The results from Table 5.2 show that a higher level of communication apprehension in terms of group discussion was found to have a positive and significant effect towards intention to be an entrepreneur at the 5 percent level of significance (after entering the employment market) and the 5 percent level of significance (before entering the employment market), compared to those respondents who had a low level of communication apprehension. This result indicates that respondents who have poor communication levels have a higher tendency to become entrepreneurs before and after completing their study¹⁵.

In terms of meeting skills in communication apprehension, Table 5.2 reveals that meeting skills anxiety had a positive and significant effect on respondent intention to be an entrepreneur, both before and after entering the employment market, at the 5 percent level and the 1 percent level of significance, respectively. This result indicates that intention to be an entrepreneur among respondents with higher

¹⁴ Having a family with a business has an important impact on an individual's tendency to be an entrepreneur (Pruett et al., 2009). Please refer to page 148 for details of the discussions.

¹⁵ An individual who has a high level of communication apprehension has difficulties becoming involved in social situations (McCroskey & Wheelless, 1976). Therefore, such people do not have good leadership skills as they have weak communication skills compared to people who do not experience communication apprehension (Wells & Lashbrook, 1970). Please refer to page 149 for details of the discussions.

levels of apprehension towards meeting skills is higher compared to respondents who have a low level of apprehension towards communication, in particular meeting skills¹⁶.

Communication apprehension regarding interpersonal skills also had a significant and positive effect on respondent intention to be an entrepreneur at the 5 percent level of significance compared to respondents who had good interpersonal skills, both before and after their entering the employment market (Table 5.2). This finding suggests that intention to be an entrepreneur among respondents with a high level of apprehension towards interpersonal skills is higher compared to respondents with a low level of apprehension towards communication, in particular interpersonal skills¹⁷.

5.2.2.4 Generic Skills

Creativity and good analytical skills were found to have a significant effect on intention to be an entrepreneur at the 1 percent level of significance compared to respondents who were not creative and had low levels of analytical skills, both before and after entering the employment market (Table 5.2). This result indicates that creative and analytical skills have a positive effect on graduate intention towards becoming an entrepreneur. Intention to be an entrepreneur was high among those respondents who were creative and had good analytical skills¹⁸.

¹⁶ According to Charlesworth and Morris (2006), communication apprehension has a negative effect on the performance of students during class and this can affect their performance in an interview session as well as their working performance. Please refer to page 150 for details of the discussions.

¹⁷ Wrench et al. (2008) defined interpersonal communication apprehensions as referring to the fear and tension level of an individual regarding either the exact or anticipated communication with another individual personally. Please refer to page 150 for details of the discussions.

¹⁸ According to Stevens and Burley (1997), creative ideas may seem normal, but such creative entrepreneurial ideas are actually rare and high value products. As an entrepreneur, the innovative

Similarly, time and group management skills were found to have a significant and positive effect on respondent intention to be an entrepreneur, as shown in Table 5.2. Statistically, time and group management skills were significant at the 5 percent level of significance after respondents entered the employment market. This finding indicates that respondents who have good time and group management skills have greater intentions to be entrepreneurs. Specifically, time and group management skills helped to increase respondent intention to be an entrepreneur.

ICT skills were found to have a significant and positive effect on respondent intention to be an entrepreneur, as shown in Table 5.2. Statistically, ICT skills were significant at the 1 percent level of significance, both before and after entering the employment market. This finding indicates that respondents who are good in ICT skills have greater intentions to be entrepreneurs¹⁹. Specifically, ICT skills helped to increase respondent intention to be an entrepreneur.

5.2.2.5 Respondents' Background

Table 5.2 presents the results between gender and intention to be an entrepreneur. Compared to female respondents, intention to be an entrepreneur among male respondents was significantly higher, both before and after entering the employment market. This result indicates that males prefer to be entrepreneurs²⁰.

new idea contributes added value to the commodities (Pinard & Allio, 2005). Please refer to page 151 for details of the discussions.

¹⁹ Most traditional entrepreneurs are slowly being replaced by ICT entrepreneurs, as is occurring in Western countries, such as the United States, as the development of ICT entrepreneurship leads to success (Kola-Ogunlade, 2014). Please refer to page 152 for details of the discussions.

²⁰ These findings are in agreement with the Theory of Social Role, which states that the fixed concepts of the roles of males and females in society may affect the perceptions of entrepreneurs as entrepreneurship is traditionally seen as a male occupation and therefore may influence the

Regarding the age of respondents, respondents who were the oldest (in the age group of 25 to 30 years) had a higher intention to be an entrepreneur, compared to those who were 22 to 24 years old at the 1 percent level of significance (Table 5.2). This implies that the oldest respondents have greater intention to become an entrepreneur²¹.

Table 5.2 indicates the effect of respondent academic achievement. There is a negative and significant effect of respondent academic achievement on intention to be an entrepreneur, both before and after entering the employment market at the 1 percent level of significance. This implies that respondents with a lower CGPA have a higher tendency to be an entrepreneur than respondents with higher academic achievements²².

English language proficiency was also shown to have a negative and significant effect towards intention to be an entrepreneur at the 10 percent level of significance after entering the employment market (Table 5.2). Respondents who were fluent in the English language were less likely to become an entrepreneur compared to respondents who were not fluent in the English language. This implies that intention to be an entrepreneur is low among those who are fluent in

entrepreneurship intentions of both males and females (Bruni et al., 2004; Gupta et al., 2009). Please refer to page 153 for details of the discussions.

²¹ Martin (2001) indicates that older people experience lower levels of life pressure than the younger generations. Moreover, Cressy (1996) mentions that older entrepreneurs are more likely to survive in the business compared to younger entrepreneurs. Please refer to page 153 for details of the discussions.

²² Noorah and Zakiah (2015) found that graduates who have poor academic achievement are less competitive in entering the labour force and become unemployed graduates. Therefore, those graduates who have lower academic grades tend to be entrepreneurs as this represents a second option or an alternative (Willie et al., 2009). Please refer to page 154 for details of the discussions.

the English language²³. Other language proficiency was also shown to have a negative and significant effect on intention to be an entrepreneur at the 10 percent level of significance after entering the employment market (Table 5.2). Respondents who were fluent in other languages were less likely to become entrepreneurs compared to respondents who were not fluent in other languages. This implies that intention to be an entrepreneur is low among those who are fluent in other languages.

5.3 Choice to be an Entrepreneur

The results of the model estimation of the respondents' actual choice to become an entrepreneur are summarized in Table 5.3 and Table 5.4. Table 5.3 presents the findings of the binary logistics regression model (0= not an entrepreneur, 1= an entrepreneur) regarding the respondents' actual careers. Meanwhile, Table 5.4 presents the multinomial logistics regression model (MNL), which is the extension of the binary logistics regression, to analyse the effects of the independent variables towards respondents' choice to be an actual entrepreneur compared to other career options (more than 2). The marginal effect²⁴, which represents the changes in the probability of (preference for) self-employment due to a one-unit change in that independent variable, is estimated for the regression models.

²³ Latisha and Surina (2010) mentioned that the standard for companies selecting prospective employees is the qualification to communicate, especially in English. Please refer to page 155 for details of the discussions.

²⁴ According to Williams (2013, p. 22), –Marginal effects are popular in some disciplines (e.g. economics) because they often provide a good approximation to the amount of change in Y that will be produced by a 1- unit change in X_k with binary dependent variables, it offers some of the advantages that the Linear Probability Model (LPM) does not. They give us a single number that expresses the effect a variable on the probability to choose to be an entrepreneur, $\Pr(Y=1)$.

5.3.1 Choice to be an Entrepreneur (Logistics Regression)

A logistic regression was estimated (Table 5.3) to ascertain the effects of independent variables on the likelihood of the respondents' actual choice to be an entrepreneur. In terms of the goodness of fit, the estimated model was found to be able to correctly predict 93.24 percent (hit-miss evaluation) of the sample respondents. This result presents a higher percentage of correct classification. The pseudo R^2 was found to be 0.12 and the overall fit test was significant with a p-value of almost zero. The VIF ranged between 1.07 and 7.58, which is less than 10. Thus, the effect of multicollinearity should be at its minimum.

Regarding the result of marginal effects, Table 5.3 and Table 5.3 (continued) and the next paragraph (subsections 5.3.1.1 to 5.3.1.5) discuss the effects of the independent variables (which are divided into six sub-categories: formal entrepreneurship education, informal entrepreneurship education, intention to be an entrepreneur, communication apprehension, generic skills and respondents' background) towards respondents' actual choice to be an entrepreneur.

Table 5.3

The Estimated Logistics Model of Respondents' Actual Choice to be an entrepreneur

Explanatory variables	Entrepreneur	
	Coeff	Marginal Effects²⁵
<u>Formal entrepreneurship education:</u>		
Degree entrepreneurship	0.626**	0.034
Entrepreneurship training	0.239	0.010
<u>Informal entrepreneurship education:</u>		
Ran business during study (RBDS)	0.732***	0.034
Ran business before study (RBBS)	0.051	0.002
Family involve in entrepreneurship (FMIE)	0.693***	0.031
Friend involve in entrepreneurship (FRIE)	-0.334	-0.014
<u>Intention to be an entrepreneur:</u>		
Talent	-0.007	0.0003
Innovator	0.073***	0.003
<u>Communication Apprehension:</u>		
PRCA: Group discussion	0.0324*	0.001
PRCA: Meeting	-0.056**	-0.002
PRCA: Interpersonal	-0.009	-0.0003
PRCA: Public speaking	0.036	0.001
<u>Generic Skills:</u>		
Skills: Creative and analytical	-0.041	-0.001
Skills: Time and group management	0.066	0.002
Skills: ICT	-0.061	-0.002
<u>Respondents' background:</u>		
Male	0.416**	0.018
26 years old to 30 years old	-0.081	-0.003
<i>Melayu</i>	-1.053***	-0.043
Married	0.031	0.001
CGPA	-0.271	-0.011
MUET	0.100	0.004
<i>Malay</i> language proficiency	-0.215***	-0.008
English language proficiency	0.062	0.002
<i>Chinese</i> language proficiency	0.054	0.002
Others language proficiency	0.047	0.001
Father economically active	-0.270	-0.012
Mother economically active	0.470**	0.020
Constant	-2.685**	-
Percentage Correctly Classified		93.24
VIF		1.07 to 7.58
Observations		2264
LR chi ² (27)		149.62
Prob> chi ²		0.000
Pseudo R ²		0.1282

Note:

1. After refers to the after entering the labour market which is the date of the respondents' convocation ceremony (6th October 2012- 10th October 2012).
2. Before refers to the before entering the labour market which is the date of last semester of respondents (18th February- 21st June 2012).
3. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
4. Skills refer to self-perceived; PRCA refers to Personal Report Communication Apprehension.

²⁵ Probability of choosing entrepreneurship as a career is measured in percent (divided by 100) and its units are percentage points.

5.3.1.1 Formal Entrepreneurship Education

The results in Table 5.3 show that a degree in entrepreneurship had a positive and significant effect on the respondents' actual choice to be an entrepreneur at the 5 percent level of significance. These results imply that respondents who are entrepreneurship degree holders are more likely to become entrepreneurs compared to respondents with other degrees. The marginal effects in Table 5.3 show that respondents who were entrepreneurship degree holders were 3.4 percentage points more likely to be entrepreneurs compared to respondents who were non-entrepreneurship degree holders.

In other words, as suggested by utility maximization theory, the choice of being an entrepreneur provides a higher utility compared to other forms of employment status. This finding is consistent with those by Syahrina et al. (2012) and Yeng Kiat et al. (2011). Thus, this result indicates that most respondents who have a degree in entrepreneurship choose entrepreneur activities as their priority career.

5.3.1.2 Informal Entrepreneurship Education

Table 5.3 shows that running a business during study (RBDS) had a positive and significant effect on the respondents' actual choice to be an entrepreneur at the 1 percent level of significance (Table 5.3). This result implies that respondents who run businesses during their study (RBDS) are more likely to become an entrepreneur compared to respondents' who did not run a business during their study (RBDS). The marginal effects in Table 5.3 show that respondents who ran businesses during their study (RBDS) were 3.4 percentage points more likely to be an entrepreneur compared to respondents who did not run businesses during

their study (RBDS). This implies that respondents with entrepreneurship experience (who run business activities during study) prefer to become entrepreneurs. However, there were insignificant effects between respondents who run businesses before entering university towards choosing entrepreneurship activities as their career (Table 5.3).

There was a positive and significant effect of family business on respondents' actual choice to be an entrepreneur at the 1 percent level of significance (Table 5.3). This result implies that respondents who have had involvement in family businesses are more likely to become entrepreneurs compared with respondents who have had no involvement in family businesses. The marginal effects show that respondents who had a family business were 3.1 percentage points more likely to be an entrepreneur compared to respondents who had no family business. This result is consistent with those by Satwinder et al. (2011) and Ertuna and Gurel (2011), who found that graduates who have a family business, are more likely to choose to be an entrepreneur.

5.3.1.3 Intention to be an Entrepreneur

There was a positive and significant effect of respondents having an innovation criterion on actual choice to be an entrepreneur at the 1 percent level of significance (Table 5.3). This result implies that respondents who have innovation criteria are more likely to become an entrepreneur (by 1 unit of measurement). The marginal effects show that innovative respondents were 3 percentage points more likely to be an entrepreneur.

5.3.1.4 Communication Apprehension

There was a positive and significant effect of communication apprehension in terms of group discussion on respondents' actual choice to be an entrepreneur at the 10 percent level of significance (Table 5.3). This result implies that respondents who have poor levels of communication level are 0.1 percentage points more likely to become an entrepreneur compared to respondents who have lower communication apprehension. However, Table 5.3 shows that there was a negative and significant effect of communication apprehension in terms of meeting skills on respondents' actual choice to be an entrepreneur at the 5 percent level. This result implies that respondents who have lower communication apprehension are 0.2 percentage points less likely to be an entrepreneur compared to respondents who have higher communication apprehension.

5.3.1.5 Respondents' Background

There was a positive and significant effect of gender on respondents' actual choice to be an entrepreneur at the 5 percent level of significance (Table 5.3). Compared to female respondents, males were 1.8 percentage points more likely to be an entrepreneur. In parallel, Verheul et al. (2012) also found that males were more likely to be an entrepreneur compared to females. Thus, this finding indicates that males prefer to be entrepreneurs.

Table 5.3 shows that there was a negative and significant effect of race on respondents' actual choice to be an entrepreneur at the 1 percent level of significance. This result implies that *Malay* respondents are less likely to become an entrepreneur compared to other races. The marginal effects in Table 5.3 show

that *Malay* respondents were 4.3 percentage points less likely to become an entrepreneur compared to other races. Malay language proficiency, shown in Table 5.3, had a negative and significant effect on respondents' actual choice to be an entrepreneur at the 1 percent level. This result implies that respondents who are not fluent in the Malay language are less likely to become an entrepreneur compared to respondents who are fluent in the Malay language. The marginal effects in Table 5.3 show that respondents who were not fluent in the Malay language were 0.8 percentage points less likely to become an entrepreneur compared to respondents who were fluent in the Malay language.

Table 5.3 shows that there was a positive and significant effect of the mother being economically active on respondents' actual choice to be an entrepreneur at the 5 percent level of significance. This result implies that respondents who have an economically active mother are more likely to become an entrepreneur compared to those who do not have an economically active mother. The marginal effects in Table 5.3 shows that respondents who had an economically active mother were 2 percentage points more likely to become an entrepreneur compared to those who did not have an economically active mother.

5.3.2 Choice to be an Entrepreneur (Multinomial Logistics Regression)

Extended from the logistics regression, this study performed a multinomial logistics regression to ascertain the effects of independent variables on the probability of respondents choosing entrepreneurship activities as their actual career or other employment such as employed with full-time (EFT), not full-time employed (NFT) and probably unemployed.

The goodness of fit presented in Table 5.4 shows that the estimated model was able to correctly predict 53 percent (hit-miss evaluates) of the sample of respondents. This result shows a higher percentage of correct classification. Pseudo R^2 was found to be 0.10. The overall fit test was significant with a p-value of almost zero. The ranges of Variation Inflation Factor were between 1.03 and 7.58, which is lower than 10. This implies that the effect of multicollinearity is at its minimum. This model also applies the marginal effect and the results are shown in Table 5.4 (see section 5.3.2.1 to 5.3.2.5).

Table 5.4
Estimated Multinomial Logistics Regression Model on Respondents' Choice to be an Entrepreneur

Explanatory variables	Employment Status			Marginal Effect: Entrepreneur
	Entrepreneur: Unemployment Coeff	Entrepreneur: EFT Coeff	Entrepreneur: ENFT Coeff	
<u>Formal entrepreneurship education:</u>				
Degree entrepreneurship	0.790**	0.861**	0.256	0.041
Entrepreneurship training	0.258	0.332*	0.065	0.011
<u>Informal entrepreneurship education:</u>				
RBDS	0.600**	0.970***	0.738***	0.037
RBBS	-0.035	0.175	0.109	0.002
FMIE	0.572**	0.731***	0.883***	0.033
FRIE	-0.357	-0.402*	-0.248	-0.015
<u>Intention to be an entrepreneur:</u>				
Talent	0.009	0.004	-0.007	0.0003
Innovator	0.077***	0.087***	0.047**	0.003
<u>Communication apprehension:</u>				
Group discussion	0.044**	0.006	0.029	0.001
Meeting	-0.058**	-0.026	-0.083***	-0.002
Interpersonal	-0.022	-0.022	0.027	-0.0005
Public speaking	0.034	0.032	0.051**	0.001

Table 5.4 (continued)

Estimated Multinomial Logistics Regression Model on Respondents' Choice to be an Entrepreneur

Explanatory variables	Employment Status			Marginal Effect: Entrepreneur
	Entrepreneur: Unemployment Coeff	Entrepreneur: EFT Coeff	Entrepreneur: ENFT Coeff	
Generic skills:				
Creative and analytical	-0.043	-0.038	-0.043	-0.001
Time and group management	0.094	0.046	0.030	0.003
ICT	-0.090	-0.016	-0.063	-0.002
Respondents' background:				
Male	0.576***	0.264	0.300	0.021
26 years old to 30 years old	0.077	-0.158	-0.271	-0.002
Malay	-0.715	-1.579***	-0.972***	-0.046
Married	0.310	-0.799**	0.678*	0.003
CGPA	-0.431**	-0.215	-0.008	-0.013
MUET	0.056	0.088	0.211*	0.004
Malay language proficiency	-0.224***	-0.202**	-0.197**	-0.009
English language proficiency	0.083	0.043	0.022	0.002
Chinese language proficiency	0.077*	0.00001	0.090*	0.002
Others language proficiency	0.046	0.046	0.046	0.002
Father economically active	-0.328	-0.213	-0.222	-0.013
Mother economically active	0.511***	0.489**	0.375*	0.023
Constant	-2.673	-0.332	-0.769	-
Percentage Correctly Classified		0.53		
VIF		1.03 to 7.58		
Observations		2264		
LR chi ² (81)		505.31		
Prob> chi ²		0.000		
Pseudo R ²		0.101		

Note:

1. After refers to the after entering the labour market which is the date of the respondents' convocation ceremony (6th October 2012- 10th October 2012).
2. Before refers to the before entering the labour market which is the date of last semester of respondents (18th February- 21st June 2012).
3. ***, ** and *, significant at 0.01, 0.05 and 0.10 levels, respectively.
4. Skills refer to self-perceived; PRCA refers to Personal Report Communication Apprehension.

5.3.2.1 The Effects of Formal Entrepreneurship Education

Table 5.4 shows that a degree in entrepreneurship had a positive effect on the respondents' probability to be an entrepreneur (as compared to being in full-time employment or unemployed) and this is significant at the 5 percent level of significance. This result implies that respondents who are entrepreneurship degree holders are more likely to be an entrepreneur compared with those who have other degrees. Quantitatively, the marginal effects in Table 5.4 show that respondents who have entrepreneurship degrees are 4.1 percentage points more likely to be an entrepreneur than non-entrepreneurship degree holders. Relatively, the effect of an entrepreneurship degree is highest when the probability of becoming an entrepreneur is comparable with the probability of being in full-time employment (estimated coefficient, 0.861).

Entrepreneurship training had a positive effect on the respondents' probability to be an entrepreneur (as compared to being in full-time employment) and it is significant at the 10 percent level of significance. This result implies that respondents who are involved in entrepreneurship training are more likely to be an entrepreneur compared to those who are not involved in entrepreneurship training. Quantitatively, the marginal effects in Table 5.4 show that respondents who were involved in entrepreneurship training were 1.1 percentage points more likely to be an entrepreneur compared to those who were not involved in entrepreneurship training. Relatively, the effect of entrepreneurship training is highest when the probability of becoming an entrepreneur is comparable with the probability of being full-time employed (estimated coefficient, 0.332).

5.3.2.2 The Effects of Informal Entrepreneurship Education

Running a business during study (RBDS) had a positive effect on the probability of being an entrepreneur (as compared to being unemployed, full-time employed and not full-time employed) and this is significant at the 5 percent level and the 1 percent level of significance. This indicates that respondents who run a business during their study are more likely to be an entrepreneur compared with respondents who do not run a business during their study. Quantitatively, the marginal effects in Table 5.4 show that respondents who ran a business during their study were 3.7 percentage points more likely to be an entrepreneur compared to respondents who did not run a business during their study. Relatively, the effect of running a business during study is highest when the probability of becoming an entrepreneur is comparable with the probability of being in full-time employment (estimated coefficient, 0.970).

Family business (FMIE) had a positive effect on the probability of being an entrepreneur (as compared to being unemployed, employed with full-time and not full-time employed) and this is significant at the 5 percent level and the 1 percent level of significance. This indicates that respondents who have family businesses are more likely to be an entrepreneur compared to respondents who do not have a family business. Quantitatively, the marginal effects in Table 5.4 show that respondents who had a family business were 3.3 percentage points more likely to be an entrepreneur compared to respondents who did not have a family business. Relatively, the effect of a family business is highest when the probability of becoming an entrepreneur is comparable with the probability of not being full-time employed (estimated coefficient, 0.883).

Having a friend involved in a business activity (FRIE) had a negative effect on the probability to be an entrepreneur (as compared to being in full-time employment) and this is significant at the 10 percent level of significance. This indicates that respondents who have a friend involved in a business activity are less likely to be an entrepreneur compared to respondents who did not have a friend involved in a business activity. Quantitatively, the marginal effects in Table 5.4 show that respondents who had a friend involved in a business activity were 1.5 percentage points less likely to be an entrepreneur compared to respondents who did not have a friend involved in a business activity. Relatively, the effect of having a friend involved in a business activity is lowest when the probability of becoming an entrepreneur is comparable with the probability of being in full-time employment (estimated coefficient, -0.402).

5.3.2.3 The Effects of Intention to be an Entrepreneur

There were positive significant effects between respondents having an innovation criterion and the probability of becoming an entrepreneur (as compared to being unemployed, full-time employed and not full-time employed) and this is significant at the 1 percent level of significance and the 5 percent level of significance. This result implies that respondents who have innovation criteria are more likely to become an entrepreneur (by 1 unit of measurement). The marginal effects show that innovative respondents are 3 percentage points more likely to be an entrepreneur. Relatively, the effect of innovative respondents is highest when the probability of becoming an entrepreneur is comparable with the probability of being in full-time employment (estimated coefficient, 0.087).

5.3.2.4 The Effects of Communication Apprehension

There were positive significant effects between communication apprehension in terms of group discussion and probability of being an entrepreneur (as compared to being unemployed) and this is significant at the 5 percent level of significance. This result implies that respondents who have high communication apprehension are more likely to be an entrepreneur compared to those who have lower communication apprehension. Quantitatively, the marginal effects in Table 5.4 show that respondents who had poor communication were 0.1 percentage points more likely to be an entrepreneur compared to respondents who had higher communication apprehension. Relatively, the effect of communication apprehension is highest when the probability of becoming an entrepreneur is comparable with the probability of being unemployed (estimated coefficient, 0.044).

However, there were negative significant effects between communication apprehension in terms of meeting skills and respondents' actual choice to be an entrepreneur at the 5 percent level of significance (Table 5.4). This result implies that respondents who have lower communication apprehension are less likely to be an entrepreneur compared to those who have higher communication apprehension. Quantitatively, the marginal effects in Table 5.4 show that respondents who had lower communication apprehension were 0.2 percentage points less likely to be an entrepreneur compared to respondents who had higher communication apprehension. Relatively, the effect of communication apprehension is lowest when the probability of becoming an entrepreneur is

comparable with the probability of being not full-time employed (estimated coefficient, -0.083).

Communication apprehension in terms of public speaking had a positive significant effect on the probability of being an entrepreneur (as compared to being not full-time employed) and this is significant at the 5 percent level of significance. This result implies that respondents who have higher communication apprehension are more likely to be an entrepreneur compared to those who have lower communication apprehension. Quantitatively, the marginal effects in Table 5.4 show that respondents who had higher communication apprehension were 0.1 percentage points more likely to be an entrepreneur compared to respondents who had lower communication apprehension. Relatively, the effect of communication apprehension is highest when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, 0.051).

5.3.2.5 The Effects of Respondents' Background

Table 5.4 shows that gender had a positive effect on the respondents' probability of being an entrepreneur (as compared to being unemployed) and this is significant at the 1 percent level of significance. This result implies that males are more likely to be an entrepreneur compared to females. Quantitatively, the marginal effects in Table 5.4 show that males were 2.1 percentage points more likely to be an entrepreneur compared to females. Relatively, the effect of gender is highest when the probability of becoming an entrepreneur is comparable with the probability of being unemployed (estimated coefficient, 0.576).

Table 5.4 shows that race had a negative significant effect on the respondents' probability to be an entrepreneur (as compared to being full-time employed and not full-time employed) and this is significant at the 1 percent level of significance. This result implies that Malay respondents are less likely to become entrepreneurs compared to other races. The marginal effects in Table 5.3 show that Malay respondents were 4.6 percentage points less likely to become an entrepreneur compared to other races. Relatively, the effect of race is highest when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, -0.972).

Marital status, as shown in Table 5.4, had a negative significant effect on the respondents' probability of being an entrepreneur (as compared to being full-time employed) and this is significant at the 5 percent level of significance. This result implies that married respondents are less likely to become an entrepreneur compared to single respondents. The marginal effects show that married respondents were 0.03 percentage points less likely to become an entrepreneur compared to single respondents. Relatively, the effect of marital status is lowest when the probability of becoming an entrepreneur is comparable with the probability of being full-time employed (estimated coefficient, -0.799). However, marital status had a positive significant effect on respondent probability of being an entrepreneur as compared to being not full-time employed and this is significant at the 10 percent level of significance. These results imply that married respondents are more likely to become an entrepreneur compared to single respondents. The marginal effects show that married respondents were 0.03 percentage points more likely to become an entrepreneur compared to single

respondents. Relatively, the effect of marital status is lowest when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, 0.678).

Academic achievement had a negative significant effect on respondents' probability of being an entrepreneur (as compared to being unemployed) and this is significant at the 5 percent level of significance. This implies that respondents with a lower CGPA have a low tendency to be an entrepreneur compared to respondents with a high level of academic achievement. The marginal effects in Table 5.3 show that respondents who had lower academic achievement were 1.3 percentage points less likely to become an entrepreneur compared to those with higher academic achievement. Relatively, the effect of academic achievement is lowest when the probability of becoming an entrepreneur is comparable with the probability of being unemployed (estimated coefficient, -0.431).

The Malaysian University English Test (MUET) had a positive significant effect on the respondents' probability of being an entrepreneur (as compared to being not full-time employed) and this is significant at the 10 percent level of significance. This implies that respondents with a lower achievement in the MUET have a high tendency to be an entrepreneur compared to respondents with a higher achievement in the MUET. The marginal effects in Table 5.3 show that respondents who had a lower achievement in the MUET were 0.04 percentage points more likely to become an entrepreneur compared to those with a higher achievement in the MUET. Relatively, the effect of achievement in the MUET is

higher when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, 0.211).

Malay language proficiency had a negative significant effect on the respondents' probability of becoming an entrepreneur (as compared to being unemployed, full-time employed and not full-time employed) and this is significant at the 1 percent level and the 5 percent level of significance. This result implies that respondents who are not fluent in the Malay language are less likely to become an entrepreneur compared to respondents who are fluent in the Malay language. The marginal effects in Table 5.4 show that respondents who were not fluent in the Malay language were 0.9 percentage points less likely to become an entrepreneur compared to respondents who were fluent in the Malay language. Relatively, the effect of Malay language proficiency is lowest when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, -0.197).

Chinese language proficiency had a positive significant effect on the respondents' probability of becoming an entrepreneur (as compared to being unemployed and not full-time employed) and this is significant at the 10 percent level of significance. This result implies that respondents who are fluent in the Chinese language are more likely to become an entrepreneur compared to respondents who are not fluent in the Chinese language. The marginal effects in Table 5.4 show that respondents who were fluent in the Chinese language were 0.2 percentage points more likely to become an entrepreneur compared to respondents who were not fluent in the Chinese language. Relatively, the effect of Chinese language

proficiency is higher when the probability of becoming an entrepreneur is comparable with the probability of being not full-time employed (estimated coefficient, 0.090).

Table 5.4 shows that there was a positive significant effect of the mother being economically active on the respondents' probability of becoming an entrepreneur (as compared to being unemployed, full-time employed and not full-time employed) and this is significant at the 1 percent level, the 5 percent level and the 10 percent level of significance. This result implies that respondents who have an economically active mother are more likely to become an entrepreneur compared to those who do not have an economically active mother. The marginal effects in Table 5.4 show that respondents who had an economically active mother were 2.3 percentage points more likely to become an entrepreneur compared to those who did not have an economically active mother. Relatively, the effect of an economically active mother is higher when the probability of becoming an entrepreneur is comparable with the probability of being employed or unemployed (estimated coefficient, 0.511).

5.4 Correlation Analysis: Intention and Choice to be an Entrepreneur

Table 5.5 presents the estimated correlation between respondent intention and choice to be an entrepreneur in the talent and innovation domains. The level of intention is generated from the cluster analysis. There are three levels of respondent intention to be an entrepreneur: high, moderate and low intention (see Appendix 3 for the cluster analysis).

Table 5.5

Sample Correlation between Respondents' Intention and Choice to be an Entrepreneur in Talent and Innovator Domain

Level of intention	Choice to be an entrepreneur			
	Talent		Innovator	
	Self-employed (%)/ N	Not self-employed (%)/ N	Self-employed (%)/ N	Not self-employed (%)/ N
High intention	92.9 (N= 145)	79.0 (N= 1694)	83.3 (N= 130)	70.8 (N= 1519)
Moderate	2.6 (N= 4)	12.3 (N= 264)	13.5 (N= 21)	22.5 (N= 482)
Low	4.5 (N= 7)	8.7 (N= 186)	3.2 (N= 5)	6.7 (N= 143)
Total (%)	100 (N= 156)	100 (N=2144)	100 (N=156)	100 (N= 2144)

Note:

1. N is referring to the numbers of graduates.

The results of the talent domain in Table 5.5 indicate that 92.9 percent (n= 145) of respondents who had a high intention towards entrepreneurship activities became entrepreneurs. Meanwhile, only 2.6 percent (n= 4) of those with moderate intention levels became entrepreneurs. Surprisingly, 4.5 (n= 7) percent of those with lower intention levels became entrepreneurs and this percentage was higher than those who had a moderate level of intention to become an entrepreneur. It is important to note that the intention level among respondents who did not choose entrepreneurship activities as a career (not self-employed) was also higher (79 percent, with a sample size (n) of 1694).

The results in Table 5.5 show a similar trend in the innovator domain, namely that respondents who did not choose to become actual entrepreneurs had a higher level of intention towards entrepreneurship activities (83.3 percent, n= 130), followed by the moderate intention level (13.5 percent, n= 21) and the low intention level (3.2 percent, n= 5). Respondents who were not self-employed also had a higher tendency to become an entrepreneur (high intention= 70.8 percent, n= 1519,

moderate intention= 22.5 percent, n= 482, and low intention= 6.7 percent, n= 143).

As a summary for Table 5.5, the level of tendency for entrepreneurship (low, moderate and high) in graduates could not be underrated. As indicated by Ajzen (1991), a greater intention is a main factor influencing the behaviour of an individual. He added that the greater the faith in a person, which reflects the characteristics and the quality of being desirable in doing something, and their belief in themselves that they possess the basic skills and abilities to work as needed, the higher the possibility that they will act in a distinctive way.

In terms of entrepreneurial activities, greater tendencies have been seen to have a higher possibility of materialising in a real start-up (Krueger & Carsrud, 1993). Besides, Zarina et al. (2015) also found that primarily students at university have a moderate tendency towards entrepreneurship. Hence, the university could take action to provide more value for their students by providing academic materials that improve the development of entrepreneurial behaviour and self-efficacy, as these may lead to students becoming entrepreneurs (Zarina et al., 2015).

Meanwhile, Ozaralli and Riyenburgh (2016) stated that although students present low levels of tendency towards entrepreneurship, they demonstrate behaviours favourable for becoming an entrepreneur. Nevertheless, the overall results in Table 5.5 indicate that although intention does not necessarily translate into actual choice, it is needed to ensure the realization of a graduate's actual choice to be an

entrepreneur. In short, intention is a necessary condition; however it is not solely sufficient for a graduate to be an entrepreneur.

5.5 Summary

This chapter presents the results of the data analysis used for the purposes of this study. The result from the Ordinary Least Squares were meant to identify the effects of the independent variables towards graduate intention to be an entrepreneur, both before and after entering the employment market (Table 5.1 and Table 5.2). Thus, it fulfils objective number one in the present study. It was shown that there are 14 significant variables that influence graduate intention to be an entrepreneur.

Then, the analysis was further conducted with a logistics regression and extended by a multinomial logistics regression to ascertain graduates' actual choice of becoming an entrepreneur. These analyses (Table 5.3 and Table 5.4) present the effects of the independent variables towards respondents' choice to become an actual entrepreneur.

The results from the regression (logistics and multinomial logistics) indicate that respondents' choice to be an entrepreneur can be influenced by the independent variables. This fulfils objective number two and, partially, objective number three of the present study. The third objective in this study (to evaluate to what extent the intention to be an entrepreneur can be translated into an actual choice among the respondents) is also fulfilled by the sample correlation between intention and choice to be an entrepreneur.

The result in Table 5.5 reveals that intention is an important factor influencing graduate choice to become an entrepreneur. However, intention by itself is insufficient to a push graduates to get involve in entrepreneurship activities as their real career. The chapter that follows will discuss the findings presented in this chapter by elaborating on the explications for such results with reference to the previous literature and theoretical justifications of the matter. The chapter also includes discussions on the theoretical and practical implications of the findings in this study.



CHAPTER SIX

DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

As the last part of this study, this chapter is going to close with the summarization of the main findings about the issues of the intention and actual choice among the graduates to involve in entrepreneurship as their career. This chapter also discusses the results obtained and it is arranged according to the flow of the results. It provides a review of the findings that related to the research questions. The discussions and implications of the study are also included at the end of the chapter, together with the limitation of the study and some suggestions for future studies.

6.2 Summary of Findings Related to Research Questions

The objective of this study is to determine the impacts of entrepreneurship education (either formal or informal), communication apprehension, as well as demographic backgrounds on the intention of graduates to be an entrepreneur and perform into a real action. The questionnaire is used as a method in collecting data from a number of 2,300 respondents who are participated in this study as a sample. The relationships between the parameters stated above are all examined and analyzed. The following discussion will briefly review and recap the main findings by using the research questions that stated previously as guidance.

Referring to Table 5.1 and Table 5.2, the impacts of entrepreneur education and communication apprehension are significantly influencing the intention of graduates to get involved in entrepreneurship. These results show that the impacts of formal entrepreneurship education, communication apprehension and the demography of respondents are positively influencing the tendency of graduates to get involved in entrepreneurship after finishing their studies. Hence, once again, the results have provided a full answer for the first research question of this study.

Additionally, according to Table 5.3 and Table 5.4, the logistics model and multinomial logistics model matched with the collected data which anticipate the possible preference of respondents to become an entrepreneur. As referred to the results, the parameters indicated that there is a significant influence on the preference of graduates to involve in entrepreneurial activities and the graduates are preferred in becoming entrepreneurs compared to other types of employments. Therefore, the results presented (Table 5.3 and Table 5.4) agree with the Theory of Utility Maximization as there is higher utility in entrepreneurship compared to other employment options. At last, these findings have answered the second research question of this study.

As shown from Table 5.5, the findings show that the intention of being an entrepreneur can be transformed into a real choice of being one. The level of intention is divided into high, moderate and low which presented in Table 5.5. From the results, the respondents with higher intention to be an entrepreneur are more likely to transform their intention to real action. According to Ajzen (1991),

high intention is the main reason for an individual to transform in action. Therefore, the results have provided the answers for the third research question of this study.

6.3 Discussions

The discussions of the findings start from here onwards. The subtopics are arranged according to the independent variables involved in this study. It starts with formal entrepreneurship education, followed by informal entrepreneurship education, communication apprehension, generic skills, and demographic background of the respondents. The discussion is directed towards answering the research questions and achieving the objectives of the study.

6.3.1 Formal Entrepreneurship Education

Based on the descriptive study conducted, the level of entrepreneurship education among graduates varies. As depicted in Table 4.6, a large fraction of the respondents have undergone some formal entrepreneurship education such as in higher education institutes or other sorts of entrepreneurship programmes.

The intention of becoming entrepreneurs is evaluated based on the OLS regression. It shows that there is no significant correlation between intention and Degree of entrepreneurship. Similarly, Cheng *et al.* (2009) found that there is no significant relationship between intention and degree related to entrepreneurship. According to them, albeit the various entrepreneurship programmes offered in Malaysia, these programs still fail to strongly influence graduates to actually pursue entrepreneurship as a career. However, Ooi *et al.* (2011) and Syahrina *et*

al. (2013) reported differently. They claimed that the effect of entrepreneurship education on the graduates' intention to become entrepreneurs is significant. The data on respondents profiling that presented in Table 4.10 and Table 4.11 shows higher mean degree of entrepreneurship among self-employed respondents compared with not self-employed respondents. Further analysis model (refer Table 5.3 and 5.4) shows different result compared with OLS regression earlier. It shows positive significant effects of entrepreneurship degree programmes towards graduates' actual choice in taking up entrepreneurship as career. Entrepreneurship degree program was regarded as an important factor for graduates in choosing this career path. However, based on the results, the program only influences graduates to engage in actual entrepreneurship activities and does not cultivate their intention to become entrepreneurs. In other words, it influences the actual choice but not the intention. Therefore, the test of sufficiency for TPB is considered successful. The model is able to take into account factors that have no impact on entrepreneurial intention and factors that directly affect the actual choice influenced by independent variables, i.e. attitude, subjective norm, and perceived behavior. Syahrina *et al.* (2013) reiterated that entrepreneurship degree programmes are structured to provide exposure and experience to students in term of entrepreneurship so that they are able to develop entrepreneurial personality and competitiveness.

Based on the results in Table 5.1, 5.2, and 5.4, formal entrepreneurship training has a significant impact on intention and actual choice of becoming entrepreneurs. Other researchers in the past also obtained similar findings which associate

entrepreneurship training with entrepreneurial intention of graduates (Wong *et al.*, 2014; Vanevenhoven (2013); and Souitaris *et al.*, 2007).

6.3.2 Informal Entrepreneurship Education

Informal entrepreneurship activities include entrepreneurship activities such as running a business during their time at the university. Such experience tends to have positive significant effect on entrepreneurial intention and actual career choice (refer Table 5.1, Table 5.2, Table 5.3 and Table 5.4). The findings indicate that entrepreneurship experience inculcates entrepreneurial behavior among graduates. Past literature suggests that individuals with entrepreneurship experience have higher intention to choose and pursue entrepreneurship as career (Ooi & Shuhymee, 2012; Alsos, 2006; Ndigangu & Bosire, 2004; Lena & Wong, 2003; and Mukhtar *et al.*, 1991). The experience they gain in entrepreneurship activities gives them advantages such as better knowledge to create business and better networking to acquire resources or launch a venture. Ooi and Shuhymee (2012) added that entrepreneurs who have succeeded in their ventures and obtained the required skills as well as the knowledge in the ventures will be able to take advantage of the experience and embark in new ventures.

A significant relationship is also found between the involvements of family members in entrepreneurship activities and the intention as well as actual choice of becoming entrepreneurs among graduates (refer Table 5.1, 5.2, 5.3 and 5.4). Similarly, Ertuna and Gurel (2011) used logistic regression analysis and proved entrepreneurial family as one of the important predictors to the intention of starting a business. In a study of Davidson and Honig (2003) involving Swedish

people, those with entrepreneurial family have a higher tendency to become promising entrepreneurs. Many other studies also stated about how family business posing a positive and significant impact on the intention and choice of graduates to engage in entrepreneurship activities (Zuhairah Arif *et al.*, 2013; Zainalabidin *et al.*, 2012; Heur & Kolvereid, 2014; Hindle *et al.*, 2009; Wong Poh Kam *et al.*, 2014; Basu & Virick, 2008; and Carr *et al.*, 2007).

6.3.3 Intention to be an Entrepreneur

Referring to Table 5.3 and 5.4, the results indicate a significant positive relationship between the graduates' intention to become entrepreneurs and their actual choice of being entrepreneurs. Further analysis showed that graduates' intention will most likely be translated into actual choice (Table 5.5). Although there is a probability for intention to not being translated into actual choice, entrepreneurial intention is required to ensure the actual choice of becoming an entrepreneur. In other words, in choosing to become an entrepreneur, having the intention alone may not be enough but it is definitely an important prerequisite.

6.3.4 Communication Apprehension

Communication apprehension, such as in having a group discussion (Table 5.1, 5.2, 5.3 and 5.4), has a significant influence on the graduates' intention and choice to become entrepreneurs. Higher communication apprehension among graduates tends to make them choose entrepreneurship as career. Zarina *et al.* (2011) found that graduates who failed to get a job often find themselves starting up a small business. According to Azleen (2005), the failures to get a job among graduates are due to their inability to perform well during interviews. Byron (2005) also

agreed with this, saying that these graduates are unable to proficiently communicate in the interviews. The worst part is, people with high communication apprehension normally receive negative view or comment (Griffith *et al.*, 2009). This is also supported by the Theory of Discourage Worker Effect (McConnell *et al.*, 2010). According to the Discourage Worker Effect Theory, the unemployed workers who have been searching job for a long period may face discouragement. Thus, they may not be motivated in searching their ideal jobs and they might choose a second batch job such as being self-employed (McConnell *et al.*, 2010).

6.3.5 Generic Skills

The findings presented in Table 5.1 and 5.2 also show that generic skills, such as creative and analytical skills, ICT skills, as well as time and group management skills, have positive significant effects on the intention to become entrepreneurs. High generic skills among graduates encourage them to have the intention to become entrepreneurs. However, with regard to actual choice to become entrepreneurs, the effects of generic skills are not significant.

6.3.6 Respondents' Background

Results in Table 4.10, 4.11, 5.1, 5.2, 5.3, and 5.4 indicate that the male graduates have higher tend to score higher in term of the intention and actual involvement in entrepreneurship activities compared with the female counterparts. Previous studies such as by Verheul *et al.* (2012); Ooi and Shuhymee (2012); and Ertuna and Gurel (2011) reported similar finding.

In term of age, older graduates aged 25–30 years old are found to have higher intention to become entrepreneurs (refer Table 5.1 and Table 5.2). With regard to race, other races seemed to score higher in term of actual choice to become entrepreneurs compared with the Malay graduates (Table 5.3 and Table 5.4). Their marital status also influenced their entrepreneurial intention. Higher intention to become entrepreneurs was seen in respondents who are yet married.

The impact of CGPA is presented in Table 5.1, Table 5.2, and Table 5.4. Graduates with lower CGPA have negative significant effects towards intention and actual involvement in entrepreneurship. In other words, people with lower academic achievement have higher tendency to become entrepreneurs. Similar finding can be found in the study of Zaidatol *et al.* (2001). According to them, students with higher academic achievement have lower entrepreneurial potential and attitude compared with students with lower academic achievement.

Same as CGPA, MUET results also have negative significant effects towards intention to become entrepreneurs (refer Table 5.1). In addition, lower English proficiency too has negative significant effects towards intention to become entrepreneurs (refer Table 5.2). These findings indicate that graduates who have low English proficiency will be more likely to choose entrepreneurship as career. This is in line with the findings of Zarina *et al.* (2011) which stated that lower English proficiency is one of the attributes to low employability chances and those who are less proficient in English have higher tendency to choose entrepreneurship as their second career option. Apart from that, lower proficiency

in *Bahasa Malaysia* also showed negative significant effects towards actual involvement in entrepreneurship activities (Table 5.3 and Table 5.4).

Based on Table 5.3 and Table 5.4, economically active father have insignificant effects on the intention and actual involvement in entrepreneurship activities. However, having economically active mother gave positive significant effects towards the actual involvement of graduates in entrepreneurship activities.

6.4 Theoretical Implications

This study provides theoretical contributions in the studies of entrepreneurial intention and actual choice of becoming entrepreneurs among graduates. It provides empirical support for TPB which suggests that direct relationship between intention and independent variables (i.e. subjective norms, attitude, and perceived behavioral control) leads to actual behavior (refer Table 5.1, 5.2, 5.3, 5.4, and 5.5). TPB can be used to predict the students' entrepreneurial intention before and after they graduate. It is important for graduates to know that their actual behavior is triggered earlier by intention. Although intention may not necessarily be translated into an actual choice, for a person to actually choose to become an entrepreneur requires him/her to have the entrepreneurial intention. Having this prerequisite in graduates would make it easier for them to be encouraged to engage in actual entrepreneurship activities and start a business because they already have high intention in entrepreneurship. These findings provide support for the government in designing better programmes for the purpose of increasing the number of entrepreneurs among graduates.

The Theory of Utility Maximization is supported in this study. Douglas and Shepherd (2002) claimed that utility maximization is involved in an individual's choice to pursue entrepreneurship as career. In this study, graduates are found to have higher tendency to choose entrepreneurship compared with other types of employment. The Theory of Maximum Utilization suggests that people make decisions based on the utility maximization that they can get out of the decision. When a graduate chooses entrepreneurship as his/her career, it means that he/she considers the utility in this area (i.e. entrepreneurship) to be higher than other employment. The results in this study are in line with Douglas and Sherperd (2002) claim.

6.5 Practical Implications

Entrepreneurship activities play important roles in stimulating the development in the country, creating wealth, and providing job opportunities not only in this country, but also in other developing countries (Ahmad & Xavier, 2012; Muhammad Mu'az *et al.*, 2011; and Sandhu *et al.*, 2010). Carland and Carland (2004) stated that the awareness on the importance of entrepreneurship education is rising due to its contribution towards the economic growth.

The Malaysian government has taken significant actions in order to build up entrepreneurship activities. The following measures are the major aspects that have been emphasized by the government: enhancing the present policy on entrepreneurship education, holding different entrepreneurship programs in order to increase the number of entrepreneurship graduates, and focusing the need in empowering the education of entrepreneurship among the students in Higher

Educational Institutions. Besides, the need in enhancing entrepreneurship in term of education has been emphasized by the Ministry of Education by the implementation of educational policies such as Higher Education Entrepreneurship Development Policy (2010) and Strategic Plan on Entrepreneurship Development in Higher Learning Institutions (2013-2015).

Nevertheless, the current findings suggest that there is no alignment between the policies and the implementation of the policies. Therefore, measures should be taken by the universities in Malaysia to facilitate the government in promoting education of entrepreneurship so that the level of entrepreneurship education among Malaysian could produce future entrepreneurs who are successfully educated.

Apart from that, the Ministry of Education and Higher Education Institutions is playing an important role to make sure that the current policies, programs and also the curriculum and content on entrepreneurship are enhanced in building comprehensive graduates with both entrepreneurial and balanced skills as indicated in the recent Malaysian Education Blueprint (Higher Education) (2015-2025) and in developing the human capital of the country by providing better education as visualized in Vision 2020.

In this study, it will highlight some recommendations that need to be reinforced in term of education in order to cultivate entrepreneurial behaviors and spirit to undertake entrepreneurship after graduating. Higher Education Institutions need to be serious in providing entrepreneurship as one of the core programs. Once it is

accomplished, there will be plenty of job-creators and lesser job-seekers in the market.

Since it is more difficult to anticipate the employability rate, the graduates have to ready themselves in order to take risks and overcome challenges by being more independent such as starting their own business by involving in entrepreneurship. On the other hand, HEIs need to have great changes in the policy which including faculty or school entire legislation and provide specialized programs to attract the students who are interested on entrepreneurship and also to build up entrepreneurship enhancement. Besides, the government and private sectors should also participate by giving support on the authored academy and promote these entrepreneurship programs aggressively.

According to Ooi et al (2011), to some extent, the introduction to entrepreneurial courses will bring certain effects on the students' inclination towards entrepreneurship. However, in order to develop a curriculum entrepreneurial paradigm, it is needed for the universities to call for a transformation in the organization system. Apart from that, it is needed to have a relationship between experienced lecturers and industry or guest lecturers on the application of various pedagogical approaches in entrepreneurial educational studies in learning in the universities. Simulation and experimentation approaches could be introduced in teaching entrepreneurial programmes. This action will not only benefits the students but also encourages the students and lecturers to engage with industrial players as they would share their own experiences and also build the sense of involving entrepreneurship among the students. This practical action is based on

the outcomes of both formal and informal education of entrepreneurship which stated that the relationship between intention of students and their preferences of involving entrepreneurship is significant. University management should also be committed to the initiatives to develop entrepreneurship potential among students. In addition, universities should take the initiative to offer a special short course related to entrepreneurship to students, especially to final year students. Such approach would broaden the students' engagement in extracurricular activities.

Apart from that, this study would like to give suggestions to the universities to support the available entrepreneurship entities in order to allow them in coordinating all the entrepreneurship activities extensively. Besides, the support of university management on the entrepreneurship activities that proposed and organized by the students is important. Therefore, it is equally important for the universities to provide an entrepreneurially-friendly environment as a resource to facilitate the entrepreneurship activities. For example, universities should abolish the excessive restrictions in holding entrepreneurship activities so that the students could run the activities easily and freely. Apart from that, the entrepreneurship area should be extended as well. Azzyati (2008) has emphasized that the reasons that cause the failures in students' entrepreneurship activities mostly because of the various obstacles and regulations that has been posed by the HEIs which discourage the students to involve in entrepreneurship activities.

Based on the findings, this study also recommends HEIs to revise and strengthen the policy intakes for students of entrepreneurship courses. Perhaps students who enroll in entrepreneurship courses should first be screened by means of

completing a personality test or interviews. The results of this screening will help to provide useful information in identifying potential students who are able to commit in entrepreneurship activities. It is important to know the background of the students. Students with entrepreneurship experiences or with family members who are engaged in entrepreneurship activities are more familiar with the actual environment of entrepreneurship. Timmons and Stevesons (1985) highlighted the importance of combining the formal entrepreneurship education with the informal entrepreneurship education because such approach is more effective and practical in producing actual entrepreneurs. This suggestion, if implemented properly, would nurture a strong entrepreneurial intention among the students. The findings in this study found that communication apprehension is a great obstacle in getting a job. Graduates who failed to get a job tend to consider entrepreneurship as their second career choice. In order to improve the communication skills among graduates and influence their inclination towards entrepreneurship, this study proposes an implementation of theoretical and practical entrepreneurship education methods.

Through this approach, students have to overcome the communication barrier by practically learning how to communicate well in business activities. Actual business activities are able to improve the graduates' communication skills and encourage them to venture into entrepreneurship. With the current scarcity of salaried jobs, such effort would allow graduates to be brave enough to create their own jobs through entrepreneurship rather than searching for one.

Female graduates are found to have a lower intention and tendency to get involved in entrepreneurship activities compared to male graduates. It indicates a large untapped female entrepreneurial potential. Therefore, the policy makers should understand and identify the source of such perception from the gender point of view and realign these false perceptions to encourage more female participation in entrepreneurship activities. Career counseling could be provided to explore the entrepreneurial potential of female students and strengthen their entrepreneurial skills. Women entrepreneurship development organizations and associations can play a role by providing additional entrepreneurial skills development training or programs to the female students and graduates. The viable indication is based on the findings that the social demographic (in term of gender) of the respondents is significant in influencing the intention and choice of the graduates to get involved in entrepreneurship.

Graduates with lower academic achievement have higher tendency to become entrepreneurs because they have less opportunity to be accepted in the labour market. These students can be identified earlier and given the encouragement to become entrepreneurs. They should be given the motivation and guidance on business fundamentals as early as possible to venture into an actual business. Counseling service or special programs such as Entrepreneurial Apprentice Program can stimulate and guide students in setting up a small business even before they graduate.

6.6 Research Limitations and Directions for Future Research

This study comes with some limitations. The study was conducted within a narrow scope, and thus it is restricted by some basic limitations, particularly with the regard to the collection and compilation of data. The constraints in resources and time limited the data collection to only one university in Malaysia. Future studies are suggested to involve more HEIs, especially entrepreneurial-based universities.

Although the students in public universities are more or less homogenous, it would be more reliable if these findings could be validated using larger samples involving various public universities. Some degree of imperfection with regard to the data in this study is undeniable. However, to a certain extent, this study has attempted and succeeds in making a pioneering and solid contribution in the analysis of a small sample of graduate entrepreneurs in Malaysia.

It is therefore unnecessary to undermine the contribution of this study in presenting a thought-provoking exercise and attempting to provide a thorough understanding on the issues related to Malaysian graduate entrepreneurs, which is so far untouched. Nevertheless, there is a vast opportunity for future research to complement and improve this study in many scopes.

Regardless of the limitations present in this study, all the three research questions have been successfully answered and the three objectives have been fulfilled. This study is able to validate the significance of intention as a factor for graduates to engage in entrepreneurship.

Students' entrepreneurial intention before and after graduation can be predicted using TPB. It was proven to be a valid and reliable model in explaining the relationships between the variables involved in this study (Table 5.1, 5.2, 5.3, 5.4, and 5.5). However, this study does not claim that it is the best or the only model to serve the purpose. Overall, within the context of graduates' entrepreneurship in Malaysia, the findings in this study can be said to have contribution to the literature and future research in multiple ways.



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APPENDIX I

Table 1(a)
Definition and measurement of variables

Variables	Measurement
Formal Entrepreneurship	
Education:	
Bachelor of Entrepreneur	Dummy variable for Bachelor of Entrepreneur (comparison group: other degrees)
Entrepreneurship training	Dummy variable for attending programme/ training/ course/ seminar on entrepreneurial activities during their study
Informal Entrepreneurship	
Education:	
Ran business during study (RBDS)	Dummy variable for businesses experience in entrepreneurial activities during study in Universiti Utara Malaysia (UUM)
Ran business before study (RBBS)	Dummy variable for businesses experience in entrepreneurial activities before enter UUM
Family involve in entrepreneurship (FMIE)	Dummy variable for family's involvement in entrepreneurship activities
Friend involve in entrepreneurship (FRIE)	Dummy variable for friend's involvement in entrepreneurship activities
Intention to be entrepreneur:	
Talent	Before: Self- reported the talent (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Innovator	Self- reported the innovator skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Communication skills:	
Group discussion	Self- reported the group discussion skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Meeting	Self- reported the meeting skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Interpersonal	Self- reported the interpersonal skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Public speaking	Self- reported the public speaking skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Generic skills:	
Creative and analytical skills	Self- reported the creative and analytical skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Time and group management skills	Self- reported the time and group management skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
ICT skills	Self- reported the ICT skills (Likert scale: 1 –strongly disagree” to 7 –strongly agree”)
Respondent's Demographic	
Male	Dummy variable for being male
Age	Age in years (0= 26- 30 years old; 1= 20- 25 years old)
Malay	Dummy variable for being Malay (comparison others races)
Marital Status	Dummy variable for marital status (0= Married 1= Single)

Table 1(b)
Definition and measurement of variables

Variables	Measurement
Cumulative Grade Point Average (CGPA)	Academic attainment (1= 2.00- 2.99; 2= 3.00- 3.66; 3= 3.67- 4.00)
Malaysian University English Test (MUET)	Malaysian University English Test (1= Band 1 (extremely limited user); 2= Band 2 (limited user); 3= Band 3 (modest); 4= Band 4 (competent user); 5= Band 5 (good user); 6= Band 6 (very good user))
Malay language proficiency	Self- perceived (Likert scale: 1= Non-user to 9= expert- user)
English language proficiency	Self- perceived (Likert scale: 1= Non-user to 9= expert- user)
Chinese language proficiency	Self- perceived (Likert scale: 1= Non-user to 9= expert- user)
Others language proficiency	Self- perceived (Likert scale: 1= Non-user to 9= expert- user)
Father economically active	Dummy variable father's employment status economically active (0= No; 1= Yes)
Mother economically active	Dummy variable mother's employment status economically active (0= No; 1= Yes)



UUM
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APPENDIX II

Table 2
International English Language Testing System (IELTS) scoring

Band score	Skill Level	Description
Band 9	Expert user	You have a full operational command of the language. Your use of English is appropriate, accurate and fluent, and you show complete understanding.
Band 8	Very good user	You have a fully operational command of the language with only occasional unsystematic inaccuracies and inappropriate usage. You may misunderstand some things in unfamiliar situations. You handle complex detailed argumentation well.
Band 7	Good user	You have an operational command of the language, though with occasional inaccuracies, inappropriate usage and misunderstandings in some situations. Generally you handle complex language well and understand detailed reasoning.
Band 6	Competent user	Generally you have an effective command of the language despite some inaccuracies, inappropriate usage and misunderstandings. You can use and understand fairly complex language, particularly in familiar situations
Band 5	Modest user	You have a partial command of the language, and cope with overall meaning in most situations, although you are likely to make many mistakes. You should be able to handle basic communication in your own field.
Band 4	Limited user	Your basic competence is limited to familiar situations. You frequently show problems in understanding and expression. You are not able to use complex language.
Band 3	Extremely limited user	You convey and understand only general meaning in very familiar situations. There are frequent breakdowns in communication.
Band 2	Intermittent user	You have great difficulty understanding spoken and written English.
Band 1	Non-user	You have no ability to use the language except a few isolated words.
Band 0	Did not attempt the test	You did not answer the questions.

Adopted from: British Council (2016)

APPENDIX III

Introduction of Universiti Utara Malaysia (UUM) and Bachelor of Entrepreneurship

Universiti Utara Malaysia (UUM) was established on February 16, 1984 and is the sixth public university in Malaysia. UUM is the only university mandated to focus on management courses. Since its establishment, UUM has undergone several restructuring exercises and currently, thirteen faculties have been merged into three Academic Colleges, namely UUM College of Business (UUM COB), UUM College of Arts and Sciences (UUM CAS) and UUM College of Law, Government and International Studies (UUM COLGIS). The academic programmes are all management-based courses, and currently UUM offers programmes in accounting, economics, information technology, public administration, human resource management, entrepreneurship, finance and banking, law, marketing, technology management, applied linguistics, communication, social work, multimedia, education, decision science, international affairs, business management, tourism, muamalat administration, development management, logistics and transportation, hospitality, risk and insurance management, media technology, creative industry, agribusiness management science, business mathematics, industrial statistics and counseling. UUM is a catalyst for socio-economic development in the northern region of Peninsular Malaysia, through its infrastructure, facilities and human resources.

UUM involves the community in programmes offered (community-university collaboration and other government agencies and the private sector). UUM's vision is to be an eminent management university, with the mission to be an excellent centre for teaching and learning, research, publication and consultation in the management field as well as consultancy services to produce excellent human capital for the nation. UUM is the first university to introduce a bachelor's degree programme in entrepreneurship, i.e., the Bachelor of Entrepreneurship, since 2004. This programme aims to produce graduates who possess entrepreneurial characteristics, such as creativity, ability, knowledge, skills, initiatives and personal attributes to acquire opportunities in the employment market, improve their chances of career mobility and initiate new business ventures as a viable career choice. This programme is designed to produce graduates who are able to start their own business and equips them for an entrepreneurial career. Besides that, this programme aims to produce graduates with skills in consulting, guiding and advising prospective entrepreneurs. The Bachelor of Entrepreneurship programme aims to produce graduates who may wish to acquire knowledge that will be helpful in their careers in financial institutions, government departments, non-governmental organisations (NGOs), small and medium enterprises (SMEs) and multi-national corporations (MNCs). This programme consists of core courses that emphasise various disciplines, such as accounting, economics, management, behavioural science, information technology, quantitative skills and techniques, law and ethics, interpersonal and communication skills, thinking skills, languages and specific courses in entrepreneurship. To be conferred the Bachelor of Entrepreneurship with Honours; a student must complete at least 129 credit hours.

APPENDIX IV

Questionnaire



Soal selidik ini mengandungi 12 halaman bercetak termasuk muka depan

Sekolah Ekonomi, Kewangan dan Perbankan, Kolej Perniagaan,
Universiti Utara Malaysia,
06010 Sintok, Kedah Darulaman

Kepada saudara/i yang dihormati,

Saya sedang menjalankan kajian "*Estimating the effect of entrepreneurship education, intention and the communication apprehension on the career choice of graduates as entrepreneur*". Oleh itu, saya amat berharap saudara/i dapat membantu secara sukarela untuk memastikan kejayaan pengumpulan data bagi kajian ini.

Untuk makluman saudara/i, tidak ada mana-mana satu jawapan yang salah atau betul. Saudara/i hanya diminta agar dapat memberikan jawapan dengan jujur. Borang soal selidik ini mengandungi **Empat (4)** Bahagian. Sila baca arahan bagi setiap bahagian dan sila jawab kesemua item soal selidik yang disediakan.

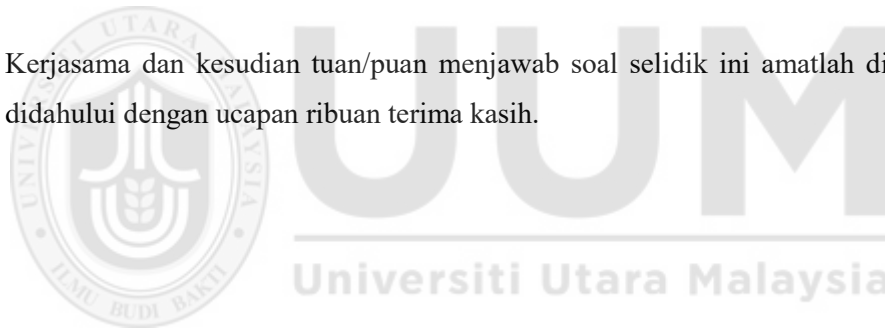
Jawapan saudara/i adalah dianggap sulit dan saudara/i tidak perlu menyatakan nama saudara/i di mana-mana bahagian dalam soal selidik ini. Semua maklumat yang diberikan adalah semata-mata untuk kajian akademik.

Kerjasama dan kesudian tuan/puan menjawab soal selidik ini amatlah dihargai dan didahului dengan ucapan ribuan terima kasih.

Yang benar,

NOORKARTINA MOHAMAD

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Bahagian A : Sosio demografi dan maklumat pekerjaan

Arahan : Sila tanda (/) pada ruangan yang berkenaan

- 1 Jantina Lelaki Perempuan
- 2 Umur
- 3 Agama Islam Budhha Kristian Hindu Lain-lain
.....
- 4 Bangsa Melayu Cina India Lain-lain
.....
- 5 Status Bujang Berkahwin Lain-lain
.....
- 6 Program
- 7 CGPA 2.00-2.99 3.00- 3.66 3.67- 4.00
- 8 MUET 1 2 3 4 5 6
- Malaysian University English Test
- 9 Kemahiran Berbahasa: (*Arahan: sila bulatkan pada nombor yang berkenaan berdasarkan skala berikut*)

Bukan Pengguna 1 2 3 4 5 6 7 8 9 Pengguna Mahir

Bahasa Melayu

Bahasa Inggeris

Bahasa Mandarin

Lain-lain Bahasa: (nyatakan)

1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9

- 10 Tempoh mencari pekerjaan:
- 11 Pendapatan bulanan (Ringgit Malaysia):
- 12 Tarikh Tamat pengajian anda di UUM (dd/mm/yy):
- 13 Tarikh mula mencari pekerjaan (dd/mm/yy):.....
- 14 Tarikh mula mendapat kerja selepas tamat pengajian di uum:.....
- 15 Saya pernah menyertai kursus/
seminar/ bengkel keusahawanan Pernah
 Tidak pernah (sila terus ke soalan 17)
- 16 *Jika pernah, sila nyatakan maklumat di bawah:

16a. SEMASA pengajian di UUm

16b. SEBELUM pengajian di UUM

Nama kursus/ bengkel/seminar	Tempoh/hari	Nama kursus/ bengkel/seminar	Tempoh/hari

17 Pengalaman Perniagaan (*arahan: sila tanda —y’ atau —tidak’ pada soalan-soalan berikut)

Pengalaman perniagaan		Ya	Tidak
17a. Semasa pengajian di universiti, pernahkah anda terlibat dalam mana-mana perniagaan? Contoh: _top-up’, _printing’ dll			
17b. Semasa sebelum pengajian di universiti, pernahkah anda terlibat dalam mana-mana perniagaan? Contoh: _top-up’, printing’ dll			
17c. Adakah keluarga anda terlibat dalam bidang perniagaan?			
17d. Adakah kawan baik anda terlibat dalam bidang perniagaan?			

18 Status Pekerjaan **IBU** dan **BAPA**(*Arahan: Sila tandakan pernyataan di bawah)

Status Pekerjaan	(a) Bapa	(b) Ibu
Tidak Bekerja dan tidak aktif mencari pekerjaan		
Tidak Bekerja dan aktif mencari pekerjaan		
Bekerja Sepenuh Masa Tetap		
Bekerja Sepenuh Masa Kontrak		
Bekerja Sepenuh Masa Sambilan		
Bekerja Sepenuh Masa Sementara		
Bekerja Sendiri(Berniaga Sendiri)		
Lain-lain: _____ (sila nyatakan cth: meninggal dunia/sakit)		

19. Status pekerjaan anda (*Arahan: Sila tandakan pernyataan di bawah)

- (19a) TIDAK BEKERJA: Melanjutkan Pelajaran/ Sedang mengikuti kursus/lain-lain (Sila terus ke Bahagian B)
 Tidak Bekerja dan tidak aktif mencari pekerjaan (Sila terus ke Bahagian B)
 Tidak Bekerja dan aktif mencari pekerjaan (Sila terus ke Bahagian B)

(19b) BEKERJA

- Bekerja Sepenuh Masa Tetap Sila jawab: Nama jawatan: _____ Tarikh mula kerja (dd/mm/yy): _____ (Sila terus ke Bahagian B)
 Bekerja Sepenuh Masa Kontrak Sila jawab: Nama jawatan: _____ Tarikh mula kerja: (dd/mm/yy): _____ (Sila terus ke Bahagian B)
 Bekerja Sepenuh Masa Sambilan Sila jawab: Nama jawatan: _____ Tarikh mula kerja: (dd/mm/yy): _____ (Sila terus ke Bahagian B)
 Bekerja Sepenuh Masa Sementara Sila jawab: Nama jawatan: _____ Tarikh mula kerja: (dd/mm/yy): _____ (Sila terus ke Bahagian B)

(19c) BEKERJA SENDIRI : Bekerja Sendiri

*Arahan: Sila tandakan aktiviti sektor perniagaan sendiri anda

- | | | | |
|--------------------------|-------------------------------------|--------------------------|---|
| <input type="checkbox"/> | Peruncitan/Pasaraya | <input type="checkbox"/> | Salun Kecantikan |
| <input type="checkbox"/> | Borong/ Pembekal | <input type="checkbox"/> | Pembekal/Pemprosesan Makanan |
| <input type="checkbox"/> | Perkhidmatan Perisian/Software | <input type="checkbox"/> | Kedai Makan/Restoran |
| <input type="checkbox"/> | Perkhidmatan/ Penyenggaraan/ Broker | <input type="checkbox"/> | Sektor Pertanian dan Ternakan Ladang |
| <input type="checkbox"/> | Sektor Perlancongan | <input type="checkbox"/> | Sektor Tekstil (Pemborong/Tukang Jahit) |
| <input type="checkbox"/> | Konsultant | <input type="checkbox"/> | Bengkel Kereta/Motorsikal/Basikal |
| <input type="checkbox"/> | Kontraktor | <input type="checkbox"/> | Perabot/Kayu Kayan |
| <input type="checkbox"/> | Francais | <input type="checkbox"/> | Lain-lain (sila nyatakan)..... |

(19d) MODAL PERNIAGAAN (*Arahan : Sila nyatakan satu atau lebih daripada satu modal pembiayaan perniagaan anda):

<input type="checkbox"/>	Institusi Perbankan	<input type="checkbox"/>	Kementerian Pembangunan Usahawan & Koperasi
<input type="checkbox"/>	Ahli Keluarga	<input type="checkbox"/>	Majlis Amanah Rakyat (MARA)
<input type="checkbox"/>	Rakan Perkongsian	<input type="checkbox"/>	Perbadanan Usahawan Nasional Berhad (PUNB)
		<input type="checkbox"/>	Lain- lain (sila nyatakan):.....

(19e) Saya masih aktif mencari pekerjaan yang Ya Tidak (Sila terus ke bahagian B) lain:

BAHAGIAN B:

ARAHAN: Setiap pernyataan berikut menerangkan **KEMAHIRAN (softskills)** anda pada **MASA SEKARANG** dan pada **SEMASA SEMESTER AKHIR PENGAJIAN** anda di Universiti. Sila bulatkan pada pernyataan yang paling **TEPAT** bagi menerangkan sejauh mana anda bersetuju atau tidak bersetuju dengan pernyataan berikut.

Sangat Tidak Setuju

1 2 3 4 5 6 7

Sangat Setuju

**Sila jawab semua soalan*

		MASA SEKARANG							SEMASA SEMESTER AKHIR PENGAJIAN						
1.		1	2	3	4	5	6	7	1	2	3	4	5	6	7
1.	Saya boleh berfikir secara kritis.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2.	Saya boleh berfikir secara kreatif.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3.	Saya boleh menyelesaikan masalah saya sendiri	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.	Saya suka menambah ilmu	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5.	Saya boleh menganalisa sesuatu dengan baik	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6.	Saya boleh memberikan keputusan yang baik	1	2	3	4	5	6	7	1	2	3	4	5	6	7
7.	Saya berkebolehan dalam menilai sesuatu	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8.	Saya berkebolehan meneliti sesuatu dengan menyeluruh	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9.	Saya boleh berkerjasama dalam kumpulan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
10.	Saya menggunakan masa dengan sebaiknya	1	2	3	4	5	6	7	1	2	3	4	5	6	7
11.	Saya seorang yang berdisiplin dalam pengurusan masa	1	2	3	4	5	6	7	1	2	3	4	5	6	7
12.	Saya berkeupayaan merancang pelan tindakan yang baik	1	2	3	4	5	6	7	1	2	3	4	5	6	7
13.	Saya seorang yang bertanggungjawab	1	2	3	4	5	6	7	1	2	3	4	5	6	7
14.	Saya mempunyai kemahiran teknologi dalam :	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	i. mencari maklumat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	ii. pemprosesan maklumat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	iii. memberikan maklumat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
15.	Saya boleh berkomunikasi dengan baik	1	2	3	4	5	6	7	1	2	3	4	5	6	7

BAHAGIAN C:

ARAHAN: Setiap pernyataan berikut menerangkan **BIDANG KEUSAHAWANAN** anda pada **MASA SEKARANG** dan pada **SEMASA SEMESTER AKHIR PENGAJIAN** anda di Universiti. Sila bulatkan pada pernyataan yang paling **TEPAT** bagi menerangkan sejauh mana anda bersetuju atau tidak bersetuju dengan pernyataan berikut.

Sangat Tidak Setuju

1 2 3 4 5 6 7

Sangat Setuju

**Sila jawab semua soalan*

		MASA SEKARANG							SEMASA SEMESTER AKHIR PENGAJIAN						
1.	Kerjaya dalam bidang keusahawanan benar-benar menarik minat saya menceburinya	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2.	Bidang keusahawanan amat bersesuaian dengan diri saya	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3.	Saya mula mencari peluang untuk berniaga sendiri selepas tamat pengajian	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.	Saya meminati bidang perniagaan kerana bebas bekerja sendiri	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5.	Saya sedang merancang untuk membuka perniagaan sendiri	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6.	Matlamat utama saya adalah menjadi seorang usahawan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
7.	Sekiranya saya mempunyai sumber, saya akan menjadi seorang usahawan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8.	Saya mempunyai minat yang mendalam terhadap bidang perniagaan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9.	Saya berazam untuk membuka perniagaan sendiri pada masa hadapan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
10.	Saya telahpun bekerja tetapi minat untuk menceburi perniagaan	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Bahagian C (Sambungan)

11.	Saya mengharapkan bidang perniagaan akan meningkatkan pendapatan saya	1	2	3	4	5	6	7		1	2	3	4	5	6	7
12.	Bidang perniagaan menyediakan banyak peluang pekerjaan lain	1	2	3	4	5	6	7		1	2	3	4	5	6	7
13.	Saya melihat bidang perniagaan sebagai satu peluang baik	1	2	3	4	5	6	7		1	2	3	4	5	6	7
14.	Saya amat berminat bekerja sebagai majikan dan bukannya pekerja	1	2	3	4	5	6	7		1	2	3	4	5	6	7
15.	Saya membuat perniagaan sambil selain bekerja dengan majikan	1	2	3	4	5	6	7		1	2	3	4	5	6	7
16.	Pekerjaan (usahawan) sekarang memberi kepuasan kepada saya	1	2	3	4	5	6	7		1	2	3	4	5	6	7
17.	Bidang perniagaan membantu meningkatkan pendapatan saya	1	2	3	4	5	6	7		1	2	3	4	5	6	7
18.	Keluarga saya mendorong minat saya kearah bidang keusahawanan	1	2	3	4	5	6	7		1	2	3	4	5	6	7
19.	Kejayaan orang lain dalam bidang perniagaan, mendorong minat saya untuk turut berniaga	1	2	3	4	5	6	7		1	2	3	4	5	6	7

BAHAGIAN D:

ARAHAN: Setiap pernyataan berikut menerangkan **TAHAP KOMUNIKASI** anda pada **MASA SEKARANG** dan pada **SEMASA SEMESTER AKHIR PENGAJIAN** anda di Universiti. Sila bulatkan pada pernyataan yang paling **TEPAT** bagi menerangkan sejauh mana anda bersetuju atau tidak bersetuju dengan pernyataan berikut.

Sangat Tidak Setuju

1 2 3 4 5 6 7

Sangat Setuju

*Sila jawab semua soalan

		MASA SEKARANG							SEMASA SEMESTER AKHIR PENGAJIAN						
1.	Saya tidak suka menyertai perbincangan berkumpulan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
2.	Selalunya, saya berasa tidak selesa apabila menyertai perbincangan berkumpulan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
3.	Saya berasa tertekan dan gementar semasa terlibat dalam perbincangan berkumpulan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
4.	Saya suka melibatkan diri dalam perbincangan berkumpulan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
5.	Perbincangan melibatkan ahli-ahli kumpulan yang baru membuatkan saya tertekan dan gementar	1	2	3	4	5	6	7	1	2	3	4	5	6	7
6.	Saya berasa tenang dan selesa semasa terlibat dalam sesebuah mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
7.	Selalunya, saya berasa gementar apabila terlibat dalam sesebuah mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8.	Kebiasaannya, saya berasa tenang dan tidak gementar semasa dalam mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9.	Saya berasa tenang dan tidak gementar apabila dipanggil untuk memberi pendapat dalam sesebuah mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
10.	Saya tidak takut untuk bersuara dalam kuliah	1	2	3	4	5	6	7	1	2	3	4	5	6	7
11.	Saya selalu berasa tidak selesa untuk berkomunikasi dalam mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Bahagian D (Sambungan)

12.	Saya sangat tenang apabila menjawab soalan dalam sesebuah mesyuarat	1	2	3	4	5	6	7	1	2	3	4	5	6	7
13.	Saya berasa sangat gementar semasa berbual dengan individu yang baru saya kenali	1	2	3	4	5	6	7	1	2	3	4	5	6	7
14.	Saya tidak takut untuk mengemukakan pendapat saya dalam perbualan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
15.	Kebiasaannya, saya berasa tertekan dan gementar dalam perbualan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
16.	Kebiasaannya, saya berasa tenang dan tidak gementar dalam perbualan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
17.	Saya berasa tenang berbual dengan individu yang baru saya kenal	1	2	3	4	5	6	7	1	2	3	4	5	6	7
18.	Saya takut untuk menyuarakan pendapat dalam perbualan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
19.	Saya tidak takut untuk menyampaikan ucapan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
20.	Sebahagian badan saya berasa tegang dan kaku semasa menyampaikan ucapan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
21.	Saya berasa tenang semasa menyampaikan ucapan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
22.	Fikiran saya menjadi keliru dan bercelaru apabila menyampaikan ucapan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
23.	Apabila saya diberi peluang untuk menyampaikan ucapan, saya hadapinya dengan penuh keyakinan	1	2	3	4	5	6	7	1	2	3	4	5	6	7
24.	Semasa menyampaikan ucapan, saya menjadi sangat gementar sehingga terlupa fakta-fakta yang saya tahu	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Tamat

>>> Terima kasih di atas kerjasama anda <<<

APPENDIX V

The estimated logistics model of respondents' actual choice to be an entrepreneur

```

Iteration 0: log pseudolikelihood = -567.80262
Iteration 1: log pseudolikelihood = -509.69753
Iteration 2: log pseudolikelihood = -495.2277
Iteration 3: log pseudolikelihood = -495.02898
Iteration 4: log pseudolikelihood = -495.0285
Iteration 5: log pseudolikelihood = -495.0285
    
```

Entreprene~_	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
DegreeEntr~p	.6265753	.3216365	1.95	0.051	-.0038206	1.256971
Entreprene~g	.2396519	.1803868	1.33	0.184	-.1138998	.5932036
RBDS	.7325337	.2419534	3.03	0.002	.2583137	1.206754
RBBS	.0510787	.2541243	0.20	0.841	-.4469958	.5491532
FMIE	.69386	.2207916	3.14	0.002	.2611164	1.126604
FRIE	-.3346991	.2170571	-1.54	0.123	-.7601231	.0907249
TCreativeA	-.041814	.0382186	-1.09	0.274	-.116721	.033093
TTimeA	.0664237	.0641837	1.03	0.301	-.0593742	.1922215
T_ICT_A	-.0619176	.0534911	-1.16	0.247	-.1667582	.0429231
TTalentA	.0079515	.0122314	0.65	0.516	-.0160216	.0319247
TInnovatorA	.0733496	.0218319	3.36	0.001	.0305599	.1161394
GroupA	.0324022	.0196465	1.65	0.099	-.0061043	.0709087
MeetingA	-.0560911	.0247069	-2.27	0.023	-.1045156	-.0076665
Interperso~A	-.0095096	.0277224	-0.34	0.732	-.0638446	.0448254
PublicA	.0366921	.023093	1.59	0.112	-.0085693	.0819535
Gender	.4168519	.2001618	2.08	0.037	.024542	.8091618
Age	-.0818187	.2340299	-0.35	0.727	-.5405089	.3768716
MelayuDummy	-1.053014	.3147393	-3.35	0.001	-1.669892	-.4361362
MaritalSta~s	.0310845	.329363	0.09	0.925	-.614455	.6766241
CGPA	-.2717322	.1738283	-1.56	0.118	-.6124294	.0689649
MUET	.1005995	.1161573	0.87	0.386	-.1270646	.3282637
PBahasa	-.2150164	.0740655	-2.90	0.004	-.3601821	-.0698508
PEnglish	.0623397	.0714406	0.87	0.383	-.0776814	.2023607
PMandarin	.0541052	.045303	1.19	0.232	-.0346871	.1428976
POthers	.0472795	.0432977	1.09	0.275	-.0375825	.1321415
Father_Emp~y	-.2707833	.2770587	-0.98	0.328	-.8138083	.2722417
Mother_Emp~y	.4709788	.1842473	2.56	0.011	.1098608	.8320969
_cons	-2.685534	1.160987	-2.31	0.021	-4.961026	-.4100418

Classified	True		Total
	D	~D	
+	3	0	3
-	153	2108	2261
Total	156	2108	2264

Sensitivity	Pr(+ D)	1.92%
Specificity	Pr(- ~D)	100.00%
Positive predictive value	Pr(D +)	100.00%
Negative predictive value	Pr(~D -)	93.23%
False + rate for true ~D	Pr(+ ~D)	0.00%
False - rate for true D	Pr(- D)	98.08%
False + rate for classified +	Pr(~D +)	0.00%
False - rate for classified -	Pr(D -)	6.77%
Correctly classified		93.24%

mfx
Marginal effects

y = Pr(Entrepreneur_vs_NonEntrepreneur_) (predict) =
.04355177

variable	dy/dx	Std. Err.	z	P> z	95% C.I.		x
Degree~p*	.0340723	.02248	1.52	0.130	-.009985	.078129	.04682
Entrep~g*	.0101915	.00784	1.30	0.193	-.005169	.025552	.413428
RBDS*	.0343743	.01283	2.68	0.007	.009225	.059523	.344965
RBBS*	.0021514	.01084	0.20	0.843	-.019104	.023407	.264134
FMIE*	.0314002	.01048	3.00	0.003	.010861	.051939	.391784
FRIE*	-.0140115	.0092	-1.52	0.128	-.032044	.004021	.504859
TCreat~A	-.0017418	.00157	-1.11	0.267	-.004814	.001331	47.1948
TTimeA	.0027669	.00263	1.05	0.293	-.002393	.007926	29.8207
T_ICT_A	-.0025792	.00223	-1.16	0.247	-.006946	.001788	23.5468
TTalenta	.0003312	.00051	0.65	0.515	-.000666	.001328	63.6568
TInnov~A	.0030554	.00088	3.47	0.001	.001328	.004783	36.9448
GroupA	.0013497	.00081	1.67	0.095	-.000235	.002935	22.3034
MeetingA	-.0023365	.00102	-2.28	0.022	-.004341	-.000332	25.3458
Interp~A	-.0003961	.00115	-0.34	0.731	-.002654	.001861	26.0919
PublicA	.0015284	.00096	1.59	0.113	-.00036	.003417	25.9722
Gender*	.0189128	.01005	1.88	0.060	-.000782	.038607	.288428
Age	-.0034082	.00977	-0.35	0.727	-.022564	.015748	1.15857
Melayu~y	-.0438633	.0129	-3.40	0.001	-.069153	-.018573	1.32465
Marita~s	.0012948	.01372	0.09	0.925	-.025589	.028178	1.07597
CGPA	-.011319	.00711	-1.59	0.111	-.025245	.002607	1.77959
MUET	.0041905	.00483	0.87	0.385	-.00527	.013651	2.72482
PBahasa	-.0089565	.00324	-2.76	0.006	-.015312	-.002601	7.9788
PEnglish	.0025968	.003	0.86	0.387	-.00329	.008483	6.375
PManda~n	.0022538	.00186	1.21	0.224	-.001383	.00589	2.91652
POthers	.0019694	.00181	1.09	0.277	-.001581	.00552	2.19744
Father~y*	-.0124359	.01395	-0.89	0.373	-.039776	.014905	.887809
Mother~y*	.0209696	.00882	2.38	0.017	.003677	.038262	.360424

(*) dy/dx is for discrete change of dummy variable from 0 to 1

vif

Variable	VIF	1/VIF
TCreativeA	7.58	0.131994
TTimeA	7.18	0.139282
T_ICT_A	4.72	0.211868
Interperso~A	3.63	0.275458
MelayuDumy	3.26	0.307069
PublicA	3.11	0.321267
TTalenta	3.07	0.325785
TInnovatorA	3.06	0.326327
MeetingA	2.95	0.339548
GroupA	2.81	0.355349
PMandarin	2.45	0.407353
PBahasa	1.81	0.553694
RBDS	1.74	0.575951
RBBS	1.71	0.584661
PEnglish	1.67	0.598454
MUET	1.41	0.709954
POthers	1.40	0.716782
FRIE	1.38	0.724495
FMIE	1.34	0.746912
CGPA	1.28	0.783403
Age	1.24	0.804124
Entreprene~g	1.16	0.860316
MaritalSta~s	1.14	0.877816
Gender	1.10	0.910319
Mother_Emp~y	1.07	0.934370
DegreeEntr~p	1.06	0.942705
Father_Emp~y	1.03	0.968476
Mean VIF	2.42	

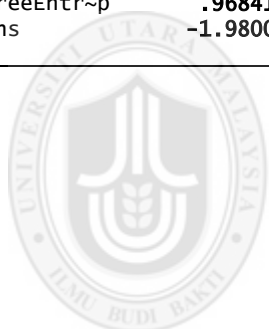
APPENDIX VI

Estimated Multinomial Logisticals regression model on respondents' choice to be an entrepreneur

```

Iteration 0:   log likelihood = -2789.7599
Iteration 1:   log likelihood = -2782.2398
Iteration 2:   log likelihood = -2781.0831
Iteration 3:   log likelihood   = -2781.0804
Iteration 4:   log likelihood   = -2781.0804
    
```

Employment~L	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
Unemployed (base outcome)						
Full_Time						
DegreeEntr~p	-.4131062	.2843658	-1.45	0.146	-.970453	.1442405
_cons	-.4807116	.0508044	-9.46	0.000	-.5802865	-.3811368
Not_Full_T~e						
DegreeEntr~p	.4462255	.2486947	1.79	0.073	-.0412072	.9336581
_cons	-.8982106	.0583738	-15.39	0.000	-1.012621	-.7838
Entrepreneur						
DegreeEntr~p	.9684149	.3055427	3.17	0.002	.3695622	1.567267
_cons	-1.980016	.0901612	-21.96	0.000	-2.156729	-1.803303



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Iteration 0: log pseudolikelihood = -2760.0763
 Iteration 1: log pseudolikelihood = -2494.3826
 Iteration 2: log pseudolikelihood = -2480.8485
 Iteration 3: log pseudolikelihood = -2480.6709
 Iteration 4: log pseudolikelihood = -2480.6708

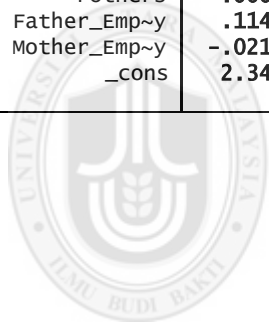
Employment~L	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Unemployed	(base outcome)					
Full_Time						
DegreeEntr~p	-.0710906	.3237849	-0.22	0.826	-.7056973	.5635161
Entreprene~g	-.0737136	.1193072	-0.62	0.537	-.3075515	.1601242
RBDS	-.3696248	.1515939	-2.44	0.015	-.6667435	-.0725061
RBBS	-.2105054	.1681788	-1.25	0.211	-.5401298	.119119
FMIE	-.1597929	.1270186	-1.26	0.208	-.4087448	.089159
FRIE	.044799	.125091	0.36	0.720	-.2003748	.2899728
TCreativeA	-.0051556	.021871	-0.24	0.814	-.0480221	.0377109
TTimeA	.0483369	.0338983	1.43	0.154	-.0181025	.1147763
T_ICT_A	-.0739928	.0324552	-2.28	0.023	-.1376038	-.0103817
TTalentA	.0052826	.0060178	0.88	0.380	-.0065119	.0170772
TInnovatorA	-.0091219	.0109369	-0.83	0.404	-.0305578	.012314
GroupA	.0385771	.014098	2.74	0.006	.0109455	.0662087
MeetingA	-.0314604	.0164434	-1.91	0.056	-.063689	.0007682
Interperso~A	.0001083	.0192081	0.01	0.996	-.0375389	.0377555
PublicA	.0014217	.0170014	0.08	0.933	-.0319003	.0347438
Gender	.3120133	.1235798	2.52	0.012	.0698014	.5542253
Age	.2359105	.1649606	1.43	0.153	-.0874063	.5592273
MelayuDummy	.8637182	.1963228	4.40	0.000	.4789326	1.248504
MaritalSta~s	1.109968	.2061749	5.38	0.000	.7058727	1.514063
CGPA	-.2159996	.1107981	-1.95	0.051	-.4331599	.0011608
MUET	-.0315638	.0676746	-0.47	0.641	-.1642035	.101076
PBahasa	-.0215443	.0490917	-0.44	0.661	-.1177622	.0746736
PEnglish	.0401311	.0439157	0.91	0.361	-.0459421	.1262043
PMandarin	.0770569	.0256654	3.00	0.003	.0267536	.1273602
POthers	-.0005701	.023957	-0.02	0.981	-.047525	.0463849
Father_Emp~y	-.1148321	.1726337	-0.67	0.506	-.4531879	.2235237
Mother_Emp~y	.0219661	.1167141	0.19	0.851	-.2067894	.2507216
_cons	-2.340924	.6688865	-3.50	0.000	-3.651917	-1.02993
Not_Full_T~e						
DegreeEntr~p	.534264	.2585255	2.07	0.039	.0275634	1.040965
Entreprene~g	.1926975	.1282371	1.50	0.133	-.0586426	.4440376
RBDS	-.1373804	.1630452	-0.84	0.399	-.456943	.1821823
RBBS	-.1452249	.171157	-0.85	0.396	-.4806864	.1902366
FMIE	-.3117507	.1411523	-2.21	0.027	-.5884042	-.0350972
FRIE	-.1083237	.1382114	-0.78	0.433	-.3792131	.1625657
TCreativeA	.0001307	.0257786	0.01	0.996	-.0503945	.0506558
TTimeA	.0641245	.0382855	1.67	0.094	-.0109137	.1391628
T_ICT_A	-.027491	.0391658	-0.70	0.483	-.1042545	.0492725
TTalentA	.0024858	.0073004	0.34	0.733	-.0118226	.0167943
TInnovatorA	.0299381	.0132373	2.26	0.024	.0039935	.0558827
GroupA	.0158029	.0141309	1.12	0.263	-.0118932	.0434989
MeetingA	.0251388	.0170572	1.47	0.141	-.0082927	.0585704
Interperso~A	-.0492751	.0190563	-2.59	0.010	-.0866247	-.0119254
PublicA	-.0176006	.0171819	-1.02	0.306	-.0512764	.0160753
Gender	.2756827	.1327527	2.08	0.038	.0154921	.5358733
Age	.3490172	.1717415	2.03	0.042	.01241	.6856244
MelayuDummy	.2570701	.2456445	1.05	0.295	-.2243843	.7385244
MaritalSta~s	-.3685263	.2871466	-1.28	0.199	-.9313234	.1942707
CGPA	-.4229874	.1153003	-3.67	0.000	-.6489718	-.1970029
MUET	-.1559662	.0750749	-2.08	0.038	-.3031104	-.008822
PBahasa	-.0265799	.0582938	-0.46	0.648	-.1408337	.0876739
PEnglish	.0612878	.0495077	1.24	0.216	-.0357456	.1583212
PMandarin	-.0136811	.0324599	-0.42	0.673	-.0773014	.0499391
POthers	-.0001779	.0304651	-0.01	0.995	-.0598883	.0595326
Father_Emp~y	-.1054973	.1963597	-0.54	0.591	-.4903553	.2793608

Mother_Emp~y _cons	.1359336 .1264549 -1.9034 .8246207	1.07 0.282 -2.31 0.021	-.1119134 .3837806 -3.519627 -.2871727
Entrepreneur			
DegreeEntr~p	.7905102 .3327717	2.38 0.018	.1382896 1.442731
Entreprene~g	.2583593 .1874851	1.38 0.168	-.1091047 .6258234
RBDS	.6009458 .2510241	2.39 0.017	.1089477 1.092944
RBBS	-.0353645 .2626321	-0.13 0.893	-.5501139 .479385
FMIE	.5721634 .2258801	2.53 0.011	.1294466 1.01488

FRIE	-.3572862 .2224225	-1.61 0.108	-.7932263 .0786539
TCreativeA	-.0432892 .0393789	-1.10 0.272	-.1204705 .033892
TTimeA	.094868 .0660603	1.44 0.151	-.0346079 .2243439
T ICT_A	-.0907408 .0557498	-1.63 0.104	-.2000084 .0185268
TTalentA	.0096289 .0124511	0.77 0.439	-.0147749 .0340327
TInnovatorA	.0778802 .022323	3.49 0.000	.0341281 .1216324
GroupA	.0448213 .0205413	2.18 0.029	.0045611 .0850815
MeetingA	-.0582557 .0256141	-2.27 0.023	-.1084585 .0080529
Interperso~A	-.0220619 .028971	-0.76 0.446	-.0788439 .0347202
PublicA	.0341693 .0243672	1.40 0.161	-.0135896 .0819283
Gender	.5762865 .2076034	2.78 0.006	.1693914 .9831816
Age	.0778583 .2485775	0.31 0.754	-.4093447 .5650613
MelayuDummy	-.7158865 .3300962	-2.17 0.030	-1.362863 .0689098
MaritalSta~s	.3104383 .3540828	0.88 0.381	-.3835513 1.004428
CGPA	-.4319095 .1797766	-2.40 0.016	-.7842651 .0795539
MUET	.0565886 .1199142	0.47 0.637	-.1784388 .2916161
PBahasa	-.2245107 .0778777	-2.88 0.004	-.3771482 .0718731
PEnglish	.0836694 .0734109	1.14 0.254	-.0602133 .2275522
PMandarin	.0770712 .0467401	1.65 0.099	-.0145376 .1686801
POthers	.046208 .0450887	1.02 0.305	-.0421642 .1345802
Father_Emp~y	-.3281598 .2881312	-1.14 0.255	-.8928866 .2365671
Mother_Emp~y	.5110526 .1903042	2.69 0.007	.1380633 .8840419
_cons	-2.673059 1.198555	-2.23 0.026	-5.022184 -.323934

Iteration 0: log pseudolikelihood = -2760.0763
Iteration 1: log pseudolikelihood = -2494.3826
Iteration 2: log pseudolikelihood = -2480.8485
Iteration 3: log pseudolikelihood = -2480.6709
Iteration 4: log pseudolikelihood = -2480.6708

Employment~L	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Unemployed						
DegreeEntr~p	.0710906	.3237849	0.22	0.826	-.5635161	.7056973
Entreprene~g	.0737136	.1193072	0.62	0.537	-.1601242	.3075515
RBDS	.3696248	.1515939	2.44	0.015	.0725061	.6667435
RBBS	.2105054	.1681788	1.25	0.211	-.119119	.5401298
FMIE	.1597929	.1270186	1.26	0.208	-.089159	.4087448
FRIE	-.044799	.125091	-0.36	0.720	-.2899728	.2003748
TCreativeA	.0051556	.021871	0.24	0.814	-.0377109	.0480221
TTimeA	-.0483369	.0338983	-1.43	0.154	-.1147763	.0181025
T ICT_A	.0739928	.0324552	2.28	0.023	.0103817	.1376038
TTalentA	-.0052826	.0060178	-0.88	0.380	-.0170772	.0065119
TInnovatorA	.0091219	.0109369	0.83	0.404	-.012314	.0305578
GroupA	-.0385771	.014098	-2.74	0.006	-.0662087	-.0109455
MeetingA	.0314604	.0164434	1.91	0.056	-.0007682	.063689
Interperso~A	-.0001083	.0192081	-0.01	0.996	-.0377555	.0375389
PublicA	-.0014217	.0170014	-0.08	0.933	-.0347438	.0319003
Gender	-.3120133	.1235798	-2.52	0.012	-.5542253	-.0698014
Age	-.2359105	.1649606	-1.43	0.153	-.5592273	.0874063
MelayuDummy	-.8637182	.1963228	-4.40	0.000	-1.248504	-.4789326
MaritalSta~s	-1.109968	.2061749	-5.38	0.000	-1.514063	-.7058727
CGPA	.2159996	.1107981	1.95	0.051	-.0011608	.4331599
MUET	.0315638	.0676746	0.47	0.641	-.101076	.1642035
PBahasa	.0215443	.0490917	0.44	0.661	-.0746736	.1177622
PEnglish	-.0401311	.0439157	-0.91	0.361	-.1262043	.0459421
PMandarin	-.0770569	.0256654	-3.00	0.003	-.1273602	-.0267536
POthers	.0005701	.023957	0.02	0.981	-.0463849	.047525
Father_Emp~y	.1148321	.1726337	0.67	0.506	-.2235237	.4531879
Mother_Emp~y	-.0219661	.1167141	-0.19	0.851	-.2507216	.2067894
_cons	2.340924	.6688865	3.50	0.000	1.02993	3.651917



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Full_Time	(base outcome)					
Not_Full_T~e						
DegreeEntr~p	.6053546	.3338075	1.81	0.070	-.048896	1.259605
Entreprene~g	.2664111	.1427938	1.87	0.062	-.0134595	.5462818
RBDS	.2322444	.1824765	1.27	0.203	-.125403	.5898918
RBBS	.0652805	.1987172	0.33	0.743	-.324198	.4547589
FMIE	-.1519579	.1587651	-0.96	0.339	-.4631317	.159216
FRIE	-.1531227	.1533516	-1.00	0.318	-.4536864	.147441
TCreativeA	.0052862	.0277262	0.19	0.849	-.0490561	.0596286
TTimeA	.0157876	.041994	0.38	0.707	-.0665191	.0980943
T ICT_A	.0465018	.0421127	1.10	0.269	-.0360377	.1290412
TTalentA	-.0027968	.0080682	-0.35	0.729	-.0186103	.0130166
TInnovatorA	.03906	.0144501	2.70	0.007	.0107384	.0673816
GroupA	-.0227742	.0163982	-1.39	0.165	-.0549142	.0093657
MeetingA	.0565992	.0201594	2.81	0.005	.0170875	.096111
Interperso~A	-.0493833	.0223286	-2.21	0.027	-.0931466	-.00562
PublicA	-.0190223	.020352	-0.93	0.350	-.0589115	.0208669
Gender	-.0363306	.1448956	-0.25	0.802	-.3203208	.2476595
Age	.1131067	.1870269	0.60	0.545	-.2534593	.4796727
MelayuDummy	-.6066481	.2451414	-2.47	0.013	-1.087116	-.1261797
MaritalSta~s	-1.478494	.2855076	-5.18	0.000	-2.038079	-.9189097
CGPA	-.2069878	.1314781	-1.57	0.115	-.4646802	.0507046
MUET	-.1244024	.081455	-1.53	0.127	-.2840513	.0352465
PBahasa	-.0050356	.0631239	-0.08	0.936	-.1287562	.118685
PEnglish	.0211567	.0554083	0.38	0.703	-.0874416	.129755
PMandarin	-.090738	.0324117	-2.80	0.005	-.1542638	-.0272122
POthers	.0003922	.0308184	0.01	0.990	-.0600108	.0607952
Father_Emp~y	.0093349	.2161643	0.04	0.966	-.4143394	.4330091
Mother_Emp~y	.1139675	.1418412	0.80	0.422	-.1640361	.3919711
_cons	.4375241	.8732811	0.50	0.616	-1.274075	2.149124
Entrepreneur						
DegreeEntr~p	.8616008	.4134774	2.08	0.037	.0512	1.672002
Entreprene~g	.332073	.1984397	1.67	0.094	-.0568617	.7210076
RBDS	.9705706	.2614332	3.71	0.000	.458171	1.48297
RBBS	.1751409	.2811931	0.62	0.533	-.3759875	.7262694
FMIE	.7319563	.2375501	3.08	0.002	.2663666	1.197546
FRIE	-.4020852	.2335772	-1.72	0.085	-.8598881	.0557177
TCreativeA	-.0381336	.0412247	-0.93	0.355	-.1189326	.0426654
TTimeA	.0465311	.0683241	0.68	0.496	-.0873817	.1804438
T ICT_A	-.016748	.058676	-0.29	0.775	-.1317509	.0982548
TTalentA	.0043463	.0127996	0.34	0.734	-.0207405	.029433
TInnovatorA	.0870021	.0230984	3.77	0.000	.0417301	.1322741
GroupA	.0062442	.02233	0.28	0.780	-.0375219	.0500103
MeetingA	-.0267953	.0278196	-0.96	0.335	-.0813208	.0277302
Interperso~A	-.0221701	.031426	-0.71	0.481	-.083764	.0394237
PublicA	.0327476	.0265774	1.23	0.218	-.0193432	.0848384
Gender	.2642731	.2186416	1.21	0.227	-.1642565	.6928027
Age	-.1580522	.2568458	-0.62	0.538	-.6614608	.3453564
MelayuDummy	-1.579605	.3358488	-4.70	0.000	-2.237856	-.9213531
MaritalSta~s	-.7995297	.3479617	-2.30	0.022	-1.481522	-.1175374
CGPA	-.2159099	.1908696	-1.13	0.258	-.5900074	.1581876
MUET	.0881524	.1256416	0.70	0.483	-.1581007	.3344055
PBahasa	-.2029664	.0821978	-2.47	0.014	-.3640712	-.0418616
PEnglish	.0435383	.0780884	0.56	0.577	-.1095121	.1965888
PMandarin	.0000143	.0479212	0.00	1.000	-.0939094	.0939381
POthers	.046778	.0463326	1.01	0.313	-.0440322	.1375883
Father_Emp~y	-.2133277	.3096521	-0.69	0.491	-.8202346	.3935793
Mother_Emp~y	.4890865	.2029021	2.41	0.016	.0914056	.8867674
_cons	-.3321354	1.245883	-0.27	0.790	-2.774022	2.109751

Employment~L	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Unemployed						
DegreeEntr~p	-.534264	.2585255	-2.07	0.039	-1.040965	-.0275634
Entreprene~g	-.1926975	.1282371	-1.50	0.133	-.4440376	.0586426
RBDS	.1373804	.1630452	0.84	0.399	-.1821823	.456943
RBBS	.1452249	.171157	0.85	0.396	-.1902366	.4806864
FMIE	.3117507	.1411523	2.21	0.027	.0350972	.5884042
FRIE	.1083237	.1382114	0.78	0.433	-.1625657	.3792131
TCreativeA	-.0001307	.0257786	-0.01	0.996	-.0506558	.0503945
TTimeA	-.0641245	.0382855	-1.67	0.094	-.1391628	.0109137
T ICT_A	.027491	.0391658	0.70	0.483	-.0492725	.1042545
TTalentA	-.0024858	.0073004	-0.34	0.733	-.0167943	.0118226
TInnovatorA	-.0299381	.0132373	-2.26	0.024	-.0558827	-.0039935
GroupA	-.0158029	.0141309	-1.12	0.263	-.0434989	.0118932
MeetingA	-.0251388	.0170572	-1.47	0.141	-.0585704	.0082927
Interperso~A	.0492751	.0190563	2.59	0.010	.0119254	.0866247
PublicA	.0176006	.0171819	1.02	0.306	-.0160753	.0512764
Gender	-.2756827	.1327527	-2.08	0.038	-.5358733	-.0154921
Age	-.3490172	.1717415	-2.03	0.042	-.6856244	-.01241
MelayuDummy	-.2570701	.2456445	-1.05	0.295	-.7385244	.2243843
MaritalSta~s	.3685263	.2871466	1.28	0.199	-.1942707	.9313234
CGPA	.4229874	.1153003	3.67	0.000	.1970029	.6489718
MUET	.1559662	.0750749	2.08	0.038	.008822	.3031104
PBahasa	.0265799	.0582938	0.46	0.648	-.0876739	.1408337
PEnglish	-.0612878	.0495077	-1.24	0.216	-.1583212	.0357456
PMandarin	.0136811	.0324599	0.42	0.673	-.0499391	.0773014
POthers	.0001779	.0304651	0.01	0.995	-.0595326	.0598883
Father_Emp~y	.1054973	.1963597	0.54	0.591	-.2793608	.4903553
Mother_Emp~y	-.1359336	.1264549	-1.07	0.282	-.3837806	.1119134
_cons	1.9034	.8246207	2.31	0.021	.2871727	3.519627
Full_Time						
DegreeEntr~p	-.6053546	.3338075	-1.81	0.070	-1.259605	.048896
Entreprene~g	-.2664111	.1427938	-1.87	0.062	-.5462818	.0134595
RBDS	-.2322444	.1824765	-1.27	0.203	-.5898918	.125403
RBBS	-.0652805	.1987172	-0.33	0.743	-.4547589	.324198
FMIE	.1519579	.1587651	0.96	0.339	-.159216	.4631317
FRIE	.1531227	.1533516	1.00	0.318	-.147441	.4536864
TCreativeA	-.0052862	.0277262	-0.19	0.849	-.0596286	.0490561
TTimeA	-.0157876	.041994	-0.38	0.707	-.0980943	.0665191
T ICT_A	-.0465018	.0421127	-1.10	0.269	-.1290412	.0360377
TTalentA	.0027968	.0080682	0.35	0.729	-.0130166	.0186103
TInnovatorA	-.03906	.0144501	-2.70	0.007	-.0673816	-.0107384
GroupA	.0227742	.0163982	1.39	0.165	-.0093657	.0549142
MeetingA	-.0565992	.0201594	-2.81	0.005	-.096111	-.0170875
Interperso~A	.0493833	.0223286	2.21	0.027	.00562	.0931466
PublicA	.0190223	.020352	0.93	0.350	-.0208669	.0589115
Gender	.0363306	.1448956	0.25	0.802	-.2476595	.3203208
Age	-.1131067	.1870269	-0.60	0.545	-.4796727	.2534593
MelayuDummy	.6066481	.2451414	2.47	0.013	.1261797	1.087116
MaritalSta~s	1.478494	.2855076	5.18	0.000	.9189097	2.038079
CGPA	.2069878	.1314781	1.57	0.115	-.0507046	.4646802
MUET	.1244024	.081455	1.53	0.127	-.0352465	.2840513
PBahasa	.0050356	.0631239	0.08	0.936	-.118685	.1287562
PEnglish	-.0211567	.0554083	-0.38	0.703	-.129755	.0874416
PMandarin	.090738	.0324117	2.80	0.005	.0272122	.1542638
POthers	-.0003922	.0308184	-0.01	0.990	-.0607952	.0600108
Father_Emp~y	-.0093349	.2161643	-0.04	0.966	-.4330091	.4143394
Mother_Emp~y	-.1139675	.1418412	-0.80	0.422	-.3919711	.1640361
_cons	-.4375241	.8732811	-0.50	0.616	-2.149124	1.274075
Not_Full_T~e	(base outcome)					

Entrepreneur						
DegreeEntr~p	.2562462	.3660335	0.70	0.484	-.4611662	.9736587
Entreprene~g	.0656618	.2004731	0.33	0.743	-.3272581	.4585818
RBDS	.7383261	.2679592	2.76	0.006	.2131358	1.263516
RBBS	.1098604	.2805015	0.39	0.695	-.4399123	.6596332
FMIE	.8839141	.2424732	3.65	0.000	.4086755	1.359153
FRIE	-.2489625	.2373406	-1.05	0.294	-.7141414	.2162164
TCreativeA	-.0434199	.0423223	-1.03	0.305	-.1263701	.0395303
TTimeA	.0307435	.0692782	0.44	0.657	-.1050392	.1665262
T ICT_A	-.0632498	.0598299	-1.06	0.290	-.1805143	.0540147
TTalentA	.0071431	.0133191	0.54	0.592	-.0189619	.0332481
TInnovatorA	.0479422	.0238669	2.01	0.045	.0011639	.0947204
GroupA	.0290184	.0218776	1.33	0.185	-.0138608	.0718976
MeetingA	-.0833945	.027635	-3.02	0.003	-.1375581	-.0292309
Interperso~A	.0272132	.0307781	0.88	0.377	-.0331107	.0875371
PublicA	.0517699	.0258569	2.00	0.045	.0010913	.1024485
Gender	.3006038	.2186423	1.37	0.169	-.1279274	.7291349
Age	-.2711589	.2580245	-1.05	0.293	-.7768776	.2345598
MelayuDummy	-.9729566	.3586611	-2.71	0.007	-1.675919	-.2699938
MaritalSta~s	.6789646	.3982982	1.70	0.088	-.1016854	1.459615
CGPA	-.0089221	.1920508	-0.05	0.963	-.3853348	.3674905
MUET	.2125548	.1277056	1.66	0.096	-.0377436	.4628532
PBahasa	-.1979308	.0840627	-2.35	0.019	-.3626906	-.033171
PEnglish	.0223816	.0795832	0.28	0.779	-.1335985	.1783618
PMandarin	.0907524	.0501156	1.81	0.070	-.0074725	.1889772
POthers	.0463859	.0488598	0.95	0.342	-.0493776	.1421493
Father_Emp~y	-.2226625	.303999	-0.73	0.464	-.8184895	.3731645
Mother_Emp~y	.375119	.206322	1.82	0.069	-.0292647	.7795027
_cons	-.7696595	1.294755	-0.59	0.552	-3.307332	1.768013

Iteration 0: log pseudolikelihood = -2760.0763
Iteration 1: log pseudolikelihood = -2494.3826
Iteration 2: log pseudolikelihood = -2480.8485
Iteration 3: log pseudolikelihood = -2480.6709
Iteration 4: log pseudolikelihood = -2480.6708

Multinomial logistic regression Number of obs
wald chi2(81)
Prob > chi2
Pseudo R2

Log pseudolikelihood = -2480.6708

Employment~L	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Unemployed						
DegreeEntr~p	-.7905102	.3327717	-2.38	0.018	-1.442731	-.1382896
Entreprene~g	-.2583593	.1874851	-1.38	0.168	-.6258234	.1091047
RBDS	-.6009458	.2510241	-2.39	0.017	-1.092944	-.1089477
RBBS	.0353645	.2626321	0.13	0.893	-.479385	.5501139
FMIE	-.5721634	.2258801	-2.53	0.011	-1.01488	-.1294466
FRIE	.3572862	.2224225	1.61	0.108	-.0786539	.7932263
TCreativeA	.0432892	.0393789	1.10	0.272	-.033892	.1204705
TTimeA	-.094868	.0660603	-1.44	0.151	-.2243439	.0346079
T ICT_A	.0907408	.0557498	1.63	0.104	-.0185268	.2000084
TTalentA	-.0096289	.0124511	-0.77	0.439	-.0340327	.0147749
TInnovatorA	-.0778802	.022323	-3.49	0.000	-.1216324	-.0341281
GroupA	-.0448213	.0205413	-2.18	0.029	-.0850815	-.0045611

MeetingA	.0582557	.0256141	2.27	0.023	.0080529	.1084585
Interperso~A	.0220619	.028971	0.76	0.446	-.0347202	.0788439
PublicA	-.0341693	.0243672	-1.40	0.161	-.0819283	.0135896
Gender	-.5762865	.2076034	-2.78	0.006	-.9831816	-.1693914
Age	-.0778583	.2485775	-0.31	0.754	-.5650613	.4093447
MelayuDummy	.7158865	.3300962	2.17	0.030	.0689098	1.362863
MaritalSta~s	-.3104383	.3540828	-0.88	0.381	-1.004428	.3835513
CGPA	.4319095	.1797766	2.40	0.016	.0795539	.7842651
MUET	-.0565886	.1199142	-0.47	0.637	-.2916161	.1784388
PBahasa	.2245107	.0778777	2.88	0.004	.0718731	.3771482
PEnglish	-.0836694	.0734109	-1.14	0.254	-.2275522	.0602133
PMandarin	-.0770712	.0467401	-1.65	0.099	-.1686801	.0145376
POthers	-.046208	.0450887	-1.02	0.305	-.1345802	.0421642
Father_Emp~y	.3281598	.2881312	1.14	0.255	-.2365671	.8928866
Mother_Emp~y	-.5110526	.1903042	-2.69	0.007	-.8840419	-.1380633
_cons	2.673059	1.198555	2.23	0.026	.323934	5.022184
Full_Time						
DegreeEntr~p	-.8616008	.4134774	-2.08	0.037	-1.672002	-.0512
Entreprene~g	-.332073	.1984397	-1.67	0.094	-.7210076	.0568617
RBDS	-.9705706	.2614332	-3.71	0.000	-1.48297	-.458171
RBBS	-.1751409	.2811931	-0.62	0.533	-.7262694	.3759875
FMIE	-.7319563	.2375501	-3.08	0.002	-1.197546	-.2663666
FRIE	.4020852	.2335772	1.72	0.085	-.0557177	.8598881
TCreativeA	.0381336	.0412247	0.93	0.355	-.0426654	.1189326
TTimeA	-.0465311	.0683241	-0.68	0.496	-.1804438	.0873817
T_ICT_A	.016748	.058676	0.29	0.775	-.0982548	.1317509
TTalentA	-.0043463	.0127996	-0.34	0.734	-.029433	.0207405
TInnovatorA	-.0870021	.0230984	-3.77	0.000	-.1322741	-.0417301
GroupA	-.0062442	.02233	-0.28	0.780	-.0500103	.0375219
MeetingA	.0267953	.0278196	0.96	0.335	-.0277302	.0813208
Interperso~A	.0221701	.031426	0.71	0.481	-.0394237	.083764
PublicA	-.0327476	.0265774	-1.23	0.218	-.0848384	.0193432
Gender	-.2642731	.2186416	-1.21	0.227	-.6928027	.1642565
Age	.1580522	.2568458	0.62	0.538	-.3453564	.6614608
MelayuDummy	1.579605	.3358488	4.70	0.000	.9213531	2.237856
MaritalSta~s	.7995297	.3479617	2.30	0.022	.1175374	1.481522
CGPA	.2159099	.1908696	1.13	0.258	-.1581876	.5900074
MUET	-.0881524	.1256416	-0.70	0.483	-.3344055	.1581007
PBahasa	.2029664	.0821978	2.47	0.014	.0418616	.3640712
PEnglish	-.0435383	.0780884	-0.56	0.577	-.1965888	.1095121
PMandarin	-.0000143	.0479212	-0.00	1.000	-.0939381	.0939094
POthers	-.046778	.0463326	-1.01	0.313	-.1375883	.0440322
Father_Emp~y	.2133277	.3096521	0.69	0.491	-.3935793	.8202346
Mother_Emp~y	-.4890865	.2029021	-2.41	0.016	-.8867674	-.0914056
_cons	.3321354	1.245883	0.27	0.790	-2.109751	2.774022
Not_Full_T~e						
DegreeEntr~p	-.2562462	.3660335	-0.70	0.484	-.9736587	.4611662
Entreprene~g	-.0656618	.2004731	-0.33	0.743	-.4585818	.3272581
RBDS	-.7383261	.2679592	-2.76	0.006	-1.263516	-.2131358
RBBS	-.1098604	.2805015	-0.39	0.695	-.6596332	.4399123
FMIE	-.8839141	.2424732	-3.65	0.000	-1.359153	-.4086755
FRIE	.2489625	.2373406	1.05	0.294	-.2162164	.7141414
TCreativeA	.0434199	.0423223	1.03	0.305	-.0395303	.1263701
TTimeA	-.0307435	.0692782	-0.44	0.657	-.1665262	.1050392
T_ICT_A	.0632498	.0598299	1.06	0.290	-.0540147	.1805143
TTalentA	-.0071431	.0133191	-0.54	0.592	-.0332481	.0189619
TInnovatorA	-.0479422	.0238669	-2.01	0.045	-.0947204	-.0011639
GroupA	-.0290184	.0218776	-1.33	0.185	-.0718976	.0138608
MeetingA	.0833945	.027635	3.02	0.003	.0292309	.1375581
Interperso~A	-.0272132	.0307781	-0.88	0.377	-.0875371	.0331107
PublicA	-.0517699	.0258569	-2.00	0.045	-.1024485	-.0010913
Gender	-.3006038	.2186423	-1.37	0.169	-.7291349	.1279274
Age	.2711589	.2580245	1.05	0.293	-.2345598	.7768776
MelayuDummy	.9729566	.3586611	2.71	0.007	.2699938	1.675919
MaritalSta~s	-.6789646	.3982982	-1.70	0.088	-1.459615	.1016854
CGPA	.0089221	.1920508	0.05	0.963	-.3674905	.3853348
MUET	-.2125548	.1277056	-1.66	0.096	-.4628532	.0377436

PBahasa	.1979308	.0840627	2.35	0.019	.033171	.3626906
PEnglish	-.0223816	.0795832	-0.28	0.779	-.1783618	.1335985
PMandarin	-.0907524	.0501156	-1.81	0.070	-.1889772	.0074725

Pothers	-.0463859	.0488598	-0.95	0.342	-.1421493	.0493776
Father_Emp~y	.2226625	.303999	0.73	0.464	-.3731645	.8184895
Mother_Emp~y	-.375119	.206322	-1.82	0.069	-.7795027	.0292647
_cons	.7696595	1.294755	0.59	0.552	-1.768013	3.307332
Entrepreneur	(base outcome)					



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Marginal effects

y = Pr(EmploymentStatus_MNL==Entrepreneur) (predict, p outcome (3)) = .04793795

variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	x
Degree~p*	.041047	.02539	1.62	0.106	-.008724 .090818	.04682
Entrep~g*	.0111492	.00855	1.30	0.192	-.005616 .027915	.413428
RBDS*	.0373501	.01394	2.68	0.007	.010034 .064667	.344965
RBBS*	.0023787	.01185	0.20	0.841	-.020853 .025611	.264134
FMIE*	.0334973	.01133	2.96	0.003	.01128 2	.391784
FRIE*	-.0159649	.01004	-1.59	0.112	-.035644 .003714	.504859
TCreat~A	-.0019102	.00172	-1.11	0.266	-.005275 .001455	47.1948
TTimeA	.0031131	.00288	1.08	0.280	-.002538 .008764	29.8207
T ICT_A	-.0029301	.00245	-1.19	0.232	-.007739 .001879	23.5468
TTalentA	.0003482	.00055	0.63	0.529	-.000736 .001433	63.6568
TIInnov~A	.0033967	.00096	3.53	0.000	.00150 9	36.9448
GroupA	.0014006	.00089	1.57	0.116	-.000347 .003149	22.3034
MeetingA	-.0024831	.00113	-2.20	0.028	-.004698 -.000268	25.3458
Interp~A	-.0005542	.00127	-0.44	0.663	-.003049 .001941	26.0919
PublicA	.0017033	.00107	1.60	0.110	-.000387 .003793	25.9722
Gender*	.0212311	.01105	1.92	0.055	-.000426 .042888	.288428
Age	-.0027169	.01071	-0.25	0.800	-.023707 .018273	1.15857
Melayu~y	-.0462241	.01407	-3.29	0.001	-.073794 -.018654	1.32465
Marita~s	.0031938	.01523	0.21	0.834	-.026662 .033049	1.07597
CGPA	-.0130181	.00778	-1.67	0.094	-.028272 .002235	1.77959
MUET	.0044285	.0053	0.84	0.403	-.005954 .014812	2.72482
PBahasa	-.0097228	.00356	-2.73	0.006	-.016696 -.002749	7.9788
PEnglish	.0027343	.00328	0.83	0.404	-.003689 .009158	6.375
PManda~n	.002646	.00202	1.31	0.190	-.001309 .006601	2.91652
POthers	.0021179	.002	1.06	0.289	-.0018 .006036	2.19744
Father~y*	-.0137368	.01536	-0.89	0.371	-.043834 .01636	.887809
Mother~y*	.0232641	.00968	2.40	0.016	.00428 8	.360424

(*) dy/dx is for discrete change of dummy variable from 0 to 1

```
. predict prob*
(option pr assumed; predicted
probabilities)
(36 missing values generated)
. egen pred_max = rowmax
(prob*)
(36 missing values generated)
. gen
pred_choice = .
(2300 missing values
generated)
```

```
11 . forv i=1/4 {
2. replace pred_choice = `i' if (pred_max == prob`i')
3. }
(1522 real changes made)
(632 real changes made)
(200 real changes made)
(54 real changes made)
```

12 . tab pred_choice EmploymentStatus_MNL

pred_choic e	29. Respondent's employment status (Multinomial Logisticals Regression)				Total
	Unemploye	Full Time	Not Full	Entrepren	
1	808	273	297	108	1,486
2	171	332	67	26	596
3	43	34	74	13	164
4	36	6	3	9	54
Total	1,058	645	441	156	2,300

14 . vif

variable	VIF	1/VIF
TCreativeA	7.58	0.131994
TTimeA	7.18	0.139282
T ICT_A	4.72	0.211868
Interperso~A	3.63	0.275458
MelayuDummy	3.26	0.307069
PublicA	3.11	0.321267
TTalenta	3.07	0.325785
TInnovatorA	3.06	0.326327
MeetingA	2.95	0.339548
GroupA	2.81	0.355349
PMandarin	2.45	0.407353
PBahasa	1.81	0.553694
RBDS	1.74	0.575951
RBBS	1.71	0.584661
PEnglish	1.67	0.598454
MUET	1.41	0.709954
POthers	1.40	0.716782
FRIE	1.38	0.724495
FMIE	1.34	0.746912
CGPA	1.28	0.783403
Age	1.24	0.804124
Entreprene~g	1.16	0.860316
MaritalSta~s	1.14	0.877816
Gender	1.10	0.910319
Mother_Emp~y	1.07	0.934370
DegreeEntr~p	1.06	0.942705
Father_Emp~y	1.03	0.968476
Mean VIF	2.42	