

**ENTREPRENEURSHIP EDUCATION AND GRADUATE SELF EMPLOYMENT:
THE MEDIATING ROLE OF SELF-EFFICACY AND MODERATING ROLES
OF UNIVERSITY SUPPORT AND FAMILY BACKGROUND**

ASMAUL HUSNA BIN HARIS FADZILAH

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ASMAUL HUSNA BIN HARIS FADZILAH

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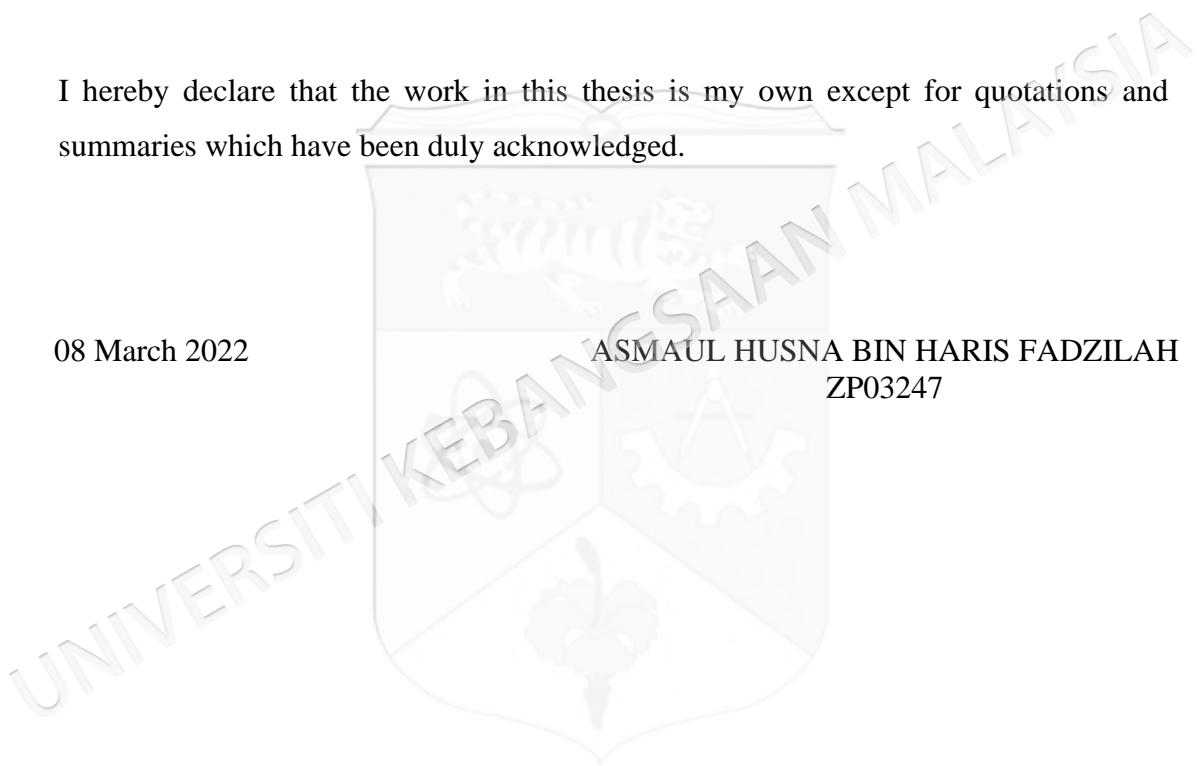
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ASMAUL HUSNA BIN HARIS FADZILAH
ZP03247



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Nama Penuh Pengarang
(Author's Full Name) : ASMAUL HUSNA BIN HARIS FADZILAH

No. Pendaftaran Pelajar
(Student's Registration No.) : ZP03247 Sesi Akademik : 2016/2017
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Tajuk Tesis
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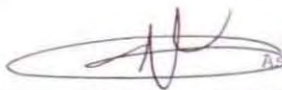

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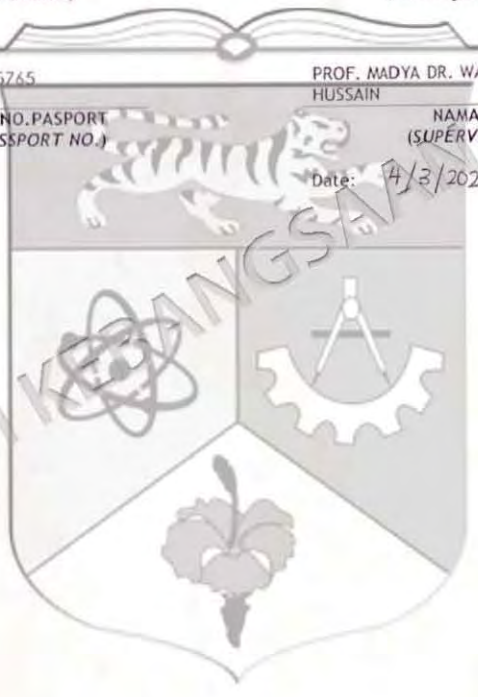
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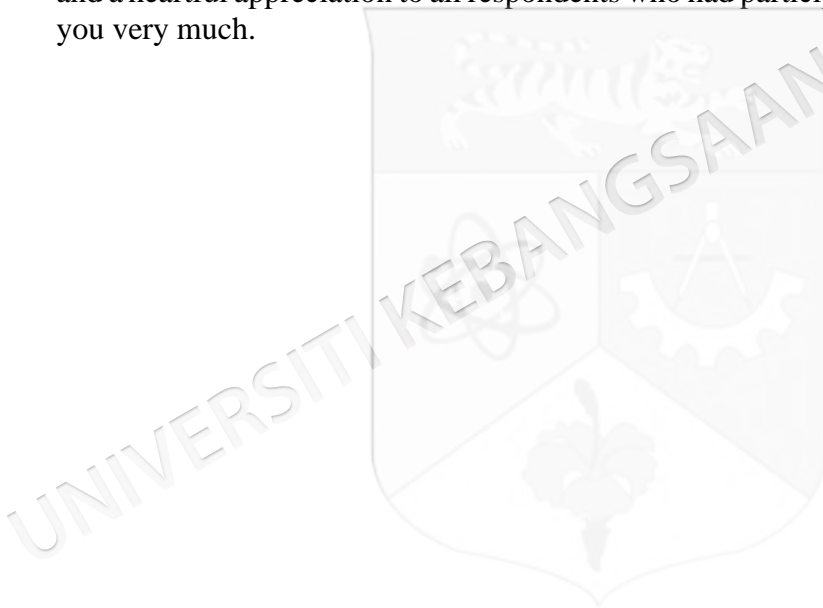


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ABSTRAK

Dalam situasi ekonomi semasa, peningkatan jumlah pengangguran di kalangan siswazah telah menjadi isu utama di Malaysia. Oleh itu, kerajaan telah mempromosikan pendidikan keusahawanan, terutamanya di kalangan pelajar di institut pengajian tinggi, untuk menangani masalah ini. Walaupun diketahui bahawa pendidikan keusahawanan mempunyai keupayaan untuk menyelesaikan masalah pengangguran di kalangan siswazah di Malaysia, namun keberkesanan pendidikan keusahawanan ini masih kurang diketengahkan. Oleh itu, objektif utama kajian ini adalah untuk menyelidik : (a) kesan pendidikan keusahawanan terhadap keinginan bekerja sendiri pelajar; (b) peranan sebagai pemudahcara dalam membina keberkesanan sifat keusahawanan diri pelajar terhadap hubungan antara pendidikan keusahawanan dan keinginan bekerja sendiri; (c) peranan sebagai penyederhanaan terhadap tanggapan sokongan universiti dan latar belakang keluarga mengenai hubungan antara pendidikan keusahawanan dan keinginan bekerja sendiri pelajar. Kajian ini menggunakan pendekatan kuantitatif yang terdiri daripada kaji selidik, yang telah dijalankan menggunakan talian dan mel, kerana ia mempunyai kelebihan untuk mencapai kadar tindak balas lebih tinggi pada kos yang lebih rendah. Teori Tingkah Laku Terancang (*Theory of Planned Behaviour*) dan Teori Kognitif Sosial (*Social Cognitive Theory*) dipilih sebagai rangka kerja untuk memahami fenomena ini. Data dikumpul melalui soal selidik yang melibatkan 388 pelajar dari lima universiti awam berbeza di Malaysia. Statistik deskriptif digunakan untuk menganalisis ciri-ciri responden dan *Partial Least Square Structural Equation Modelling* (PLS-SEM) digunakan dalam penentuan hubungkait antara pembolehubah kajian. Hasil kajian menunjukkan bahawa pendidikan keusahawanan mempunyai nilai signifikan positif terhadap niat pelajar untuk bekerja sendiri dengan 62.7 peratus ($R^2=0.627$). Ini adalah selaras dengan usaha Kementerian Pengajian Tinggi untuk menggalakkan keusahawanan dalam kalangan pelajar IPT. Di samping itu, kesemua hipotesis kajian diterima. Peranan pengantaraan efikasi sendiri keusahawanan disokong dan statistik menunjukkan ia mempunyai pengaruh positif yang signifikan dalam menjalankan peranan sebagai pengantara hubungan bagi pendidikan keusahawanan dan niat bekerja sendiri dalam kalangan pelajar untuk meneruskan kerjaya keusahawanan mereka. Kajian ini turut mengesahkan bahawa sokongan pihak universiti dan latar belakang keluarga menyederhanakan hubungan antara pendidikan keusahawanan dan niat bekerja sendiri dalam kalangan pelajar. Hasil kajian ini memberikan implikasi yang bernilai kepada penggubal dasar di Kementerian Pengajian Tinggi, universiti dan pendidik keusahawanan. Dapatan kajian ini juga menyumbang kepada pengetahuan terkumpul dengan menghasilkan hala tuju dasar yang bermaklumat kepada penggubal dasar dan menyokong peranan penting pendidikan keusahawanan terhadap niat bekerja sendiri di kalangan pelajar. Penemuan kajian ini menyumbang kepada teras pengetahuan dengan menghasilkan maklumat yang berasas dan penting bagi tujuan penggubalan dasar dengan halatuju yang jelas, berkaitan peranan pendidikan keusahawanan terhadap keinginan bekerja sendiri pelajar.

ABSTRACT

In the current economic situation, the increasing amount of unemployment among graduates has been a major issue in Malaysia. Thus, the government has been promoting entrepreneurship education, particularly among the students in institutes of higher learning, to cater for this issue. Although it is believed that entrepreneurship education has the capacity to solve unemployment problem among graduates in Malaysia, the impact of entrepreneurship education is still undervalued. Therefore, the main objectives of this study were to investigate: (a) the impact of entrepreneurship education on student's self-employment intention; (b) the mediating role of entrepreneurial self-efficacy on the relationship between entrepreneurship education and self-employment intention; and (c) the moderating role of perceived university support and family background on the relationship between entrepreneurship education and self-employment intention. The study employed the quantitative approach comprising of surveys, which were conducted using online and mail methods, as it has the advantage of achieving higher response rates at lower costs. The Theory of Planned Behaviour (TPB) and Social Cognitive Career Theory (SCCT) were selected as the frameworks for understanding this phenomenon. Data were collected via questionnaire involving 388 students from five different public universities in Malaysia. Descriptive statistics were used to analyse respondents' characteristics and Partial Least Square Structural Equation Modelling (PLS-SEM) was employed in determining the relationship among the variables of the study. The results of the study indicated that the entrepreneurship education was positively significant to the self-employment intention with 62.7 percent ($R^2=0.627$). This could be attributed to the effort taken by the Ministry of Higher Education in promoting entrepreneurship among students. All hypothesis were accepted. The mediating role of entrepreneurial self-efficacy was supported and showed a statistically significant positive influence and mediated the relationship between entrepreneurship education and self-employment intention among students to pursue an entrepreneurial career. The study also confirmed that the perceived university support and family background moderated the relationship between entrepreneurship education and self-employment intention among students. The result of the study has valuable implications for policy makers in Ministry of Higher Education, universities and entrepreneurship educators. In addition, the findings of the study contribute to the body of knowledge by producing an informed policy direction to the policy makers and providing support to the important role of entrepreneurship education towards student's self-employment intention.

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
BDS	Business Development Support
CDS	Concept Development Support
CMV	Common Method Variance
CR	Composite Reliability
EE	Entrepreneurship Education
EI	Entrepreneurial Intention
EM	Expectation-Maximization
ES	Educational Support
ESE	Entrepreneurial Self-Efficacy
FB	Family Background
HEIs	Higher Education Institutions
HLIs	Higher Learning Institutions
IHL	Institutions of Higher Learning
ILO	International Labour Organization
MECD	Ministry of Entrepreneurship and Corporation Development
MED	Ministry of Entrepreneur Development
MEDAC	Ministry of Entrepreneur Development and Cooperatives
MOHE	Ministry of Higher Education
MPs	Malaysian Plans
NEF	National Entrepreneurship Framework
NEP 2030	National Entrepreneurship Policy 2030
NEP	New Economic Policy
NGO	Non-Government Organization
NHEEC	National Higher Education Entrepreneurship Council
PBC	Perceived Behavioral Control
PLS	Partial Least Square

PLS-SEM	Partial Least Square-Structural Equation Modelling
PUS	Perceived University Support
SCCT	Social Cognitive Career Theory
SDG	Sustainable Development Goals
SEI	Self-Employment Intention
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TAU	Tolerance
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	University Support
UUM	Universiti Utara Malaysia
VIF	Variance Inflation Factor



CHAPTER I

INTRODUCTION

1.1 CHAPTER OVERVIEW

The ever-increasing demands of a knowledge-based economy, while facing unemployment problems, have expanded the traditional mission of higher educational institutions to that of evolutionary mission; putting more emphasis on the university's entrepreneurial role (Sam & van der Sijde 2014). Apart from being the centre for teaching and research, universities now have an economic mission to fulfil. Malaysia is also wedged in this new trend where the country has seen entrepreneurship education flourishing in a newly emerging knowledge-based economy. As a mark of recognition of the importance of entrepreneurship in the growing Malaysian economy, and as a way to simultaneously manage unemployment rate, several efforts are implemented to practically stimulate entrepreneurship (Amiruddin, Jafaar & Abd. Samad 2017). This includes incorporating entrepreneurship education into the mainstream education.

Currently, Malaysia is faced with a high rate of unemployment among graduates, particularly from the higher educational institutions, which has become one of the main social developmental problems in Malaysia. Salleh, Mapjabil and Legino (2019) attributed this to graduates' preference for paid work over self-employment, among various other causes. Local graduates are not interested in employment that comes with difficult working conditions and limited prospects for advancement, apart from the meagre salary scale. Studies have been done on factors that influence job preferences and the attitude towards said particular career. It has been established that the traditional paid employment is the preferred choice. However, with the rising unemployment rate, self-employment needs to be considered as an option by graduating students. Hence, universities need to intensify promotional efforts toward self-

employment and entrepreneurship education which could prepare students with entrepreneurial abilities to become self-employed.

It is fortunate that higher educational institutions in Malaysia have begun delivering formal entrepreneurship education. This was done by organising seminars, conferences, short courses, and training for students and incorporate entrepreneurship education as one of the themes in the curriculum of business and other courses (Cheng, Chan & Mahmood 2009). This effort has established entrepreneurship an alternative solution to the unemployment problem among graduates (Kamariah, Yaacob & Wan Jamaliah 2004; Salmah 2006). The Malaysian Ministry of Higher Education has introduced entrepreneurship courses in Malaysian higher institution of learning to equip students with business job prospects (Othman & Othman 2017) resulting in a positive incline towards self-employment among the graduates. To further authenticate this claim, this present study was conducted with the purpose of assessing the self-employment intentions of Malaysian students in public universities towards entrepreneurship education.

1.2 BACKGROUND OF STUDY

1.2.1 Entrepreneurship Education

Entrepreneurship education was pioneered by Shigeru Fijii of Kobe University, Japan, in 1938. It is defined as the study of the development of enterprising talents in order to improve employability with the aim of launching a new venture creation dimension (Henry & Lewis 2018). The study encompasses all actions aimed at cultivating entrepreneurial mindsets, attitudes and skills, encompassing a wide range of topics including idea generation, start-up, growth, and innovation (Basso, Fayolle & Bouchard 2009). Interestingly, the pedagogy of entrepreneurship education is based on a four-level structure:

- Level one - a student is said to be engaged in information (supply);
- Level two - engagement and questioning are involved (demand);
- Level three - both supply and demand are present (competence); and

- Level four - the teaching pedagogy is set up to be a hybrid model in which all levels of entrepreneurship teaching pedagogy are combined

(Ismail, Sawang & Zolin 2018).

This form of education is not only to shape the mindsets of the youth but also to provide the skills and knowledge that are central to the development of an entrepreneurial culture, especially among educated youths.

In scholarly literature, it has been recognised that universities have played an essential role in developing entrepreneurship (Viviers, Solomon & Venter 2013). The methods of instruction range from work-based learning to theoretical models and covers a wide range of subjects including psychology, economics, finance, and social studies (Faller & Feldmüller 2015; Schuh, Gartzzen, Rodenhauser & Marks 2015) reflecting a multidisciplinary learning method (Mkwanazi & Mbohwa 2018).

The history of entrepreneurship education can be traced back to 1945 where it was first presented by Myles Mace at the Harvard Business School. The aim was to instill among the students the intention to start a new business or provide solutions and pioneer programmes on entrepreneurship. This has led to the teaching and learning of this course to drive the entrepreneurial actions (Kuratko 2005; Mwasalwiba 2010). After years of running, entrepreneurship education and training are seen as critical for evaluating economic opportunities and determining the best strategies to pursue them (Jensen 2014).

In Malaysia, universities are identified as a secure and viable platform to launch graduates' entrepreneurial careers by enrolling in entrepreneurship programmes (Fatoki & Oni 2014). Moreover, university programmes are the effective tools for introducing entrepreneurship skills to students because not only do they act as solutions to the Malaysian and unemployment problem, it also serves as a quest for sustaining the Malaysian economy (Othman & Othman 2017). The programmes have been able to shift students' negative perceptions about careers in entrepreneurship (Burton, Sørensen & Dobrev 2016; Othman & Othman 2017). In addition, the potential for entrepreneurship education to have an impact on an individual's decision to become an

entrepreneur is huge (Volery & Mueller 2006). A significant relationship between entrepreneurial education and the propensity of engaging as an entrepreneur has been detected among the graduates, which is required in order to increase the number of future entrepreneurs. This has further strengthened the need to encourage more participation in entrepreneurship education.

To understand what constitutes entrepreneurship education, Gautam, Singh and Kumar (2015) recommended that a complete understanding of its concept serves as a crucial starting point albeit the presence of a conflicting school of thoughts in the current literature. They have defined entrepreneurship education as "...the process of professional application of knowledge, attitude, skills and competencies." (p. 24). Walter and Block (2016), in studying the outcomes of entrepreneurship education, have itemised the outcomes that encompasses the following - entrepreneurial intention, eagerness to start a new business, actual start of a business, start-up action, and growing a business. For this study, it could be claimed that entrepreneurship education is a vital tool for motivating students to become more self-sufficient and create jobs apart from prompting the government to prioritise small and medium-sized entrepreneurial industries as significant job creators (Lope Pirie, Bakar & Konting 2002).

Furthermore, Kirkwood, Dwyer and Gray (2014) asserted that entrepreneurship education offers long-term benefits for its recipients, the society, and industry, as it fosters innovative thinking and provides information on market access for inventors. Othman and Othman (2017) concurred this where they claimed university students do benefit greatly from entrepreneurship education because it allows for the expansion of their understanding of the concept while also providing learning opportunities, which could result in the formation of entrepreneurial attitudes and the confidence to pursue entrepreneurship as a vocation. To move forward, it is necessary to, first, understand entrepreneurship education in Malaysia.

1.2.2 Entrepreneurship Education in Malaysia

Malaysia's entrepreneurship development is anchored around Malaysian Independence in 1957. It was shaped by the basic trading activities of the pre-independence era that

merged with the increased number of business activities in the post-independence era (Abdullah & Muhammad 2008). As suggested via a government policy, the four developmental phases of entrepreneurship in Malaysia are: the first phase, which lasted for 13 years, had a significant economic impact in poverty eradication and societal transformation. This phase coincided with the introduction of the 1957-1970 National Economic Policy (NEP). This is followed by the implementation era which was represented as the second and third developmental phases, while the post-NEP era was represented as the fourth phase.

In Malaysia, entrepreneurship is frequently viewed as a catalyst for the country's economic development. The Malaysian government has had mixed successes in encouraging Malaysian entrepreneurship during the New Economy Policy (NEP) period (1957-1990), and this venture continued to trail behind that of the Chinese enterprises (Hamidon 2009). Despite this, it has produced a large number of Malay entrepreneurs and businesses, and the number is growing as a result of government's participation (Abdullah & Muhammad 2008). Through different government measures, such as the New Economic Policy (NEP) and the Malaysian Plans, the government has been supportive in the growth of entrepreneurship (Malaysian Plans). As the country draws closer to industrialisation, the push to foster entrepreneurship is seen as confidently being stepped up even further.

Malaysian National Policies also promote entrepreneurial developments, which is demonstrated in the incorporation of entrepreneurship into the academic curricula. The inclusion of entrepreneurship education in the curricula is considered as a response to the demands of working-life expansion (Flouris & Pasiadis 2003). The Malaysian government has made entrepreneurship classes mandatory for all public university students to generate a minimum of 5 percent of graduates to become entrepreneurs (Norasmah & Faridah 2010). The public universities and the Ministry of Entrepreneur and Corporate Development came up with this concept in the hopes of encouraging graduates to start their own businesses and have so far been successful.

Entrepreneurship education is one of the ways that the government can enhance entrepreneurial abilities and create more entrepreneurs in the future. As a result, the

Ministry of Higher Education (MOHE) has in place a new strategy to improve the existing entrepreneurship education in institutions of higher learning. This is reflected in the Higher Education Entrepreneurship Development Policy, that was introduced in February 2010 with the primary goal of producing high-quality human capital equipped with entrepreneurial thinking, attributes, and values. It is also having a secondary purpose of creating more graduate entrepreneurs who will function as economic catalysts (Institutes of Higher Learning Entrepreneurship for Higher Education 2010; Malaysia 2010).

Human capital development has become crucial in the process of building competent, dynamic, and resilient graduate entrepreneurs. It is also in line with the Malaysian government's goal of joining the community of developed nations by 2020 (Economic Planning Unit 2010). Therefore, the Malaysian government is giving entrepreneurship development a high priority. As a result, higher educational institutions (HEIs) in Malaysia have implemented a comprehensive programme and entrepreneurial education to boost the development programme and the current entrepreneurship sector, in order to produce more graduates who are ready to start their own businesses (Ministry of Higher Education [MOHE] 2010).

Another milestone achieved was a National Higher Education Entrepreneurship Council (NHEEC) was established on March 15, 2011 to boost efforts to teach the entrepreneurial aspect to tertiary students. The establishment of the NHEEC has been critical in the development of high-quality human assets who are intelligent, skilled, and entrepreneurial, all of which are regarded as boosters to the country's expanding economy. The nation's transition to a high-income economy will be supported by the growth of entrepreneurial ideals, qualities, and spirit.

In addition, for the years 2013-2015, the Ministry of Education (MOHE) has created a comprehensive and practical Higher Education Entrepreneurship Strategic Planning with the aim of improving entrepreneurship education at colleges and universities. MOHE statistics have recorded that several graduates were found to directly venture into entrepreneurship, in which there were 1,114 students in 2011; 1,273 in 2012; 2,387 in 2013; and 4,060 in 2014, respectively. Additionally, tertiary

students have been exposed to the knowledge on the relevance and value of entrepreneurship through a variety of programmes and activities held at their schools. Evidence of this is seen in the rise in the number of students participating in these activities: 45,646 in 2011, 149,890 in 2012, and a further 30 percent increase in 2014 (Nasrudin & Othman 2014).

With the launch of the Malaysian Education Blueprint (Higher Education) 2015-2025 by MOHE, the initial shift is to focus on graduates who are holistic, enterprising, and balanced. This is also meant as way to overcome the mismatch between graduate supply and demand, with businesses citing lack of required knowledge, skills, and attitudes among graduates as the reason for unemployment (MOHE 2015). However, due to technological disruptions that transformed businesses and changed the types of jobs accessible, resolving this mismatch has become more arduous. Preparing Malaysian youths to navigate this uncertain future requires instilling in them the resilience and innovative spirit to create new opportunities for themselves, and others too, apart from equipping them with transferable skills and good ethical underpinnings. This allows for job creations and reducing the number of job seekers.

Amidst all this, universities have been identified as a key factor in the encouragement of self-employment via entrepreneurship education. This could be achieved via a method of cultivating an entrepreneurial attitude in brilliant young people through the use of entrepreneurial learning processes (Secundo, Mele, Sansone & Paolucci 2020). As a result, university-level entrepreneurial education programmes and courses have continued to expand academically and extracurricularly. The growing number of core academic courses, electives, entrepreneurial programmes, entrepreneurship degrees, and postgraduate courses reflects this trend with some universities have set up centres of excellence in entrepreneurship and business operated primarily by students.

To spearhead an integrated national entrepreneurship development in Malaysia, the government has established the Ministry of Entrepreneur Development (MED) and later renamed it as the Ministry of Entrepreneur Development and Cooperatives (MEDAC) in March 2020. This has manifestly placed entrepreneurship education in

higher educational institutions over par, given its importance in the national economic development over the years. Prior to this, the National Entrepreneurship Framework (NEF) was unveiled on November 22, 2018, which was designed by MEDAC to identify and create initiatives for the development of Malaysian entrepreneurship. Following the release of NEF, the National Entrepreneurship Policy 2030 (NEP) was passed to define a comprehensive strategic direction for the development of Malaysia's entrepreneurship ecosystem by 2030.

The National Entrepreneurship Policy 2030 (NEP) constitutes five aims: first, to build a holistic and conducive entrepreneurship ecosystem; second, to develop a nation that possesses and enculturates entrepreneurship thinking; third, to increase the number of Malaysian entrepreneurs equipped with high quality, viability, resiliency, and competitiveness, with a global mindset. Fourth, to strengthen the micro, small, and medium businesses, as well as cooperatives, in terms of their capabilities; and fifth, to promote entrepreneurship as a viable career option. This policy is confidently seen as helping Malaysia to become a more cohesive, prosperous, and dignified nation, as well as an economic axis in Asia (Ministry of Entrepreneurship Development and Cooperatives 2020).

Meanwhile, on the international front, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has actively participated in the development of the 2030 Agenda for Sustainable Development and has issued *The United Nations Sustainable Development Goals (SDG)*, which consisted of 17 goals and 169 targets, that all UN Member States have agreed to work towards achieving by the year 2030 (Figure 1.1). In the framework, out of the 17 SDGs adopted in 2015, SDG4 is dedicated to education and aims to achieve inclusive and equitable quality education while promoting lifelong learning opportunities for all by 2030. While the governments are primarily responsible for providing rights to a high-quality education, the 2030 Agenda is a worldwide and collaborative commitment that would realise the global entrepreneurial goals.

However, the many new policies and programmes outlined by the Malaysian government and MOHE has not been able to impede the rising number of unemployed

graduates which continues to rise by 5.5 percent from 161,300 in 2018 to 170,300 in 2019 (Department of Statistics Malaysia 2020). While Malaysia's unemployment rate rose to 4.8 percent in November 2020 which was directly caused by the COVID-19 pandemic, the number of unemployed individuals has jumped by 2.2 percent, or 16.2 thousand persons to a record high of 764.4 thousand. With all these perturbing statistics, it is inevitable that entrepreneurship education is to be considered as the key determinant of students' career choices (Guerrero, Urbano & Gajón 2020).

Empirical claims that the number of unemployed graduates can be lowered by becoming self-employed and this aligns well with the anticipated business opportunities that a booming economy will bring. However, it is critical to first analyse the target population's willingness to pursue the self-employment goal that the government is promoting. Therefore, a study on graduates' intention is deemed necessary.

Figure 1.1 below displays The United Nations Sustainable Development Goals (SDG).

UNESCO and Sustainable Development Goals



Figure 1.1 The United Nations Sustainable Development Goals (SDG)

Source: UNESCO 2020

1.2.3 Self-Employment Intention

Scholarly literature generally differentiates between entrepreneurship and self-employment intentions. Entrepreneurship is a mindset and skills-building process that

leads to economic development via the creation jobs opportunities (Diandra & Azmy 2020) while self-employment intentions are more commonly referred to jobs where the remuneration is directly derived from profits resulting from the goods and services produced.

Entrepreneurship and self-employment intention are generally two distinctive elements in the literature. Hessels and Naudé (2019) pointed out that entrepreneurship is inextricably linked to recognition of opportunities and emphasises the necessity of knowledge and skills as the foundational entrepreneurial abilities. In contrast, self-employment intention is more usually described as professions where the pay is directly proportional to the profits generated by the items and services offered.

As a matter of fact, self-employment intention is considered synonymous with entrepreneurial intention in this respect. Many studies have utilised self-employment intention as a proxy for entrepreneurial intention (Rietveld & Van Burgh 2014). In particular, self-employment intention has been defined as a mental state in which people concentrate their attention on future behaviours connected to business creation (Hernández-Sánchez, Cardella & Sánchez-García 2020). It is an individual's inclination to pursue a profession as a self-employed person. These definitions indicate that self-employment is a deliberate and planned activity (Otache, Oluwade & Idoko 2020).

Several personal and environmental factors have given rise to self-employment intention, including factors related to entrepreneurship education and training, as well as those related to the student's prior entrepreneurial experience and demographic parameters (Lee, Wong, Der Foo & Leung 2011). In addition, many studies have highlighted the important role played by these factors in motivating and steering students to become self-employed. A case in point is when an opportunity for profit-making arises, it is hoped that young people will be attracted to seize it. According to Majogoro and Magbo (2012), an individual's intention to seize the opportunity, or not, determines their self-employment intention. Plausibly, if a student perceives self-employment to be more appealing, his or her intention to self-employment will be higher. In a similar vein, the more supportive the social norms or the more the perceived feasibility, the higher would be the intention; and vice versa, *ceteris paribus*.

Students have become increasingly interested in self-employment intention as a vocation, as noted by many experts (Badariah et al. 2016a; Dendup & Acharja 2017; Nurfadhilah & Norlaile 2017; Ooi et al. 2011; Szaban & Skrzek-Lubasińska 2018). Thus, policymakers will benefit from understanding the elements that influence students' decision to become self-employed as well as reasons for those choosing paid employment over starting their own business.

1.2.4 Entrepreneurial Self-Efficacy

Self-efficacy or in this case referred to entrepreneurial self-efficacy is a construct conceived by Bandura (1986) as one's judgement of ability to execute an action, and is therefore a largely perceived construct. This construct is established as a reliable predictor of a wide variety of goal directed behaviours. Chen, Greene and Crick (1998, after: Lee, 2005) defined self-efficacy in the context of entrepreneurship as the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship. The authors reported that self-efficacy is positively related to one's intention in setting up a business.

Self-efficacy develops from mastery of experience (enactive mastery) or task accomplishment, vicarious experience (from observing others), verbal persuasion (or encouragement) as well as management of emotional states (Boyd and Vozikis, 1994). In the same way Bandura (1997) asserts that peoples conceptions about themselves and the nature of things are developed and verified through four different processes; direct experience, vicarious experience, judgement voiced by others, and derivation of further knowledge by using rules of inference.

The foregoing literature explains the relationship between self-efficacy, beliefs and intentions. The explanation is generally on entrepreneurial behaviour regardless of educational status. Bandura (1997) on the other hand, enumerates sources of self-efficacy and on close examination it does not say much on entrepreneurship education as an academic discipline which could be considered a source of self-efficacy. They do not state how entrepreneurship education could be linked to self-efficacy and

entrepreneurial intentions of university students. Their explanation therefore leaves a gap that this study was set to fill.

1.2.5 Perceived University Support

Perceived university support refers to the students' assessments of how their university has aided them in their entrepreneurial activities (Kraaijenbrink et al. 2010). It is widely suggested that this type of institutional assistance is crucial in promoting entrepreneurship (Lithje & Franke 2003). University provides market research and commercialisation assistance, as well as an enabling atmosphere and, most notably, initial financing to student-teams or groups. Additionally, university assistance promotes entrepreneurship by providing free entrepreneurial education and support, both of which are required to boost entrepreneurship potential and subsequent development; as a result, they are important players in the training process (Romero et al. 2011).

Earlier studies have also demonstrated that university support does, in certain situations, promote entrepreneurship, for example, support in the form of university incubators (Mas-Verdú et al. 2015), technology transformation and financial funds (Lerner 2004; Munari et al. 2015). Students could benefit from a helpful university atmosphere in terms of education, concept creation, and company development (Saeed et al. 2015). Such assistance would provide students with the knowledge, skills, internships, and other parts of entrepreneurship that they require, as well as increase their entrepreneurial awareness and enthusiasm, and assist them in continuing to develop their businesses after graduation.

According to literature, university assistance may act as a moderator in the relationship between EE and entrepreneurial intent. Rigg et al. (2015) discovered that students who lived in a supportive environment both inside and outside of school were less weary, more self-assured, and more engaged. These elements can assist students in overcoming obstacles and balancing multiple roles in life. As a result, a student with an EE will have a strong desire and great self-confidence to establish a business with the presence of a support system when doing so in the future. This implies that educational

infrastructure and university assistance can help to foster entrepreneurial self-efficacy and intention (Segal et al. 2005; Vázquez et al. 2011).

Therefore, integrating perceived university support as a moderator of the link between EE and SEI can provide essential and practical insights for theory and practise in the entrepreneurship area. Hence, perceived university support can be speculated to moderate the relationship between EE and SEI.

1.2.6 Family Background

The degree of involvement of parents or family members in self-employment or other entrepreneurial activities is referred to as family entrepreneurial background. Children's professional choices may be influenced by the family's business activities (Aldrich et al. 1998; Hout & Rosen 1999). It allows them to gain information and expertise that will help them improve their abilities and ability to develop ideas and establish a business (Altinay & Altinay 2006). As such, the family provides a framework for future entrepreneurs to immerse themselves in social networks, as well as human and financial resources (Steier & Greenwood 2000). In terms of project management and development, persons with past family experience may benefit from this experience. As a result, the family business has a significant impact on the career paths of individual family members.

According to Nguyen (2018), parents can also influence their children's desire to work for themselves by granting them access to the business through the transfer of social and financial capital. He found that these two processes are more likely to interact. Parents have a lot of power over their children's enthusiasm in pursuing a career as a self-employed person. Current explanations of the family's role are also based on the learning process that occurs between parents and their children; for example, children of self-employed parents learned about entrepreneurship during their childhood and may receive useful resources in order to engage in entrepreneurship as an adult.

Several researchers have discussed the role of family in entrepreneurship and self-employment intention. Self-employment aspiration becomes a natural choice as a

result of socialisation processes, and parents encourage their children to pursue self-employment aspirations. Entrepreneurial ambitions can be influenced indirectly by family business backgrounds, according to empirical study, which has consequences for EI antecedents (perceptions of venture feasibility and desirability, attitude, and subjective norms).

Due to family background has been determined as significantly inspiring individuals' self-employment intention, researchers in the field have further explored this relationship and discovered that living in an entrepreneurial household did generate stronger entrepreneurial intention among the children as compared to those coming from non-entrepreneurial families (Georgescu & Herman 2020). Students' entrepreneurial goals were positively influenced by the entrepreneurial family history, effectiveness of entrepreneurship education, and entrepreneurial personality attributes.

1.3 STATEMENT OF PROBLEM

The problem of graduate unemployment in Malaysia has been a well-documented occurrence (Hossain, Yagamaran, Afrin, Limon, Nasiruzzaman & Karim 2018). In 2019, there were 170,300 graduates who were unable to find suitable employment, which is an increase by 5.5 percent as compared to 2018, where unemployed graduates were recorded as 161,300 (Department of Statistics Malaysia 2020). Unfortunately, it is an utmost pressing issue troubling Malaysian graduates currently and together with a continually expanding queue of those still waiting to be employed contributes further to the problem as there is scarcity of jobs, resulting in limited public employment opportunities for these graduates (Aladejebi 2018).

Entrepreneurship education is thought to have the capacity to alleviate the unemployment problem among Malaysian graduates by promoting self-employment and entrepreneurial ventures (Othman & Othman 2017; Burton et al. 2016; Hardy et al. 2015;). Furthermore, the Malaysian Development Plan's projected enrollment rate for higher education is expected to rise to 70 percent by 2025 (Othman & Othman 2017). Changes in Malaysian higher education has been observed where there is an increase in the number of graduates as well as quality graduates were produced, predicated on the

increasing access to higher education (Yusoff, Zainol & Ibrahim 2015). This has created a new competition altogether where employers have to meticulously filter for the most skilled and capable ones from the talent pool since their own criteria have been raised as well. Many graduates lack the attributes defined by potential employers; apart from lacking the motivation and skills such as critical thinking, problem-solving, communication, and also have yet to prove to be a good team player and able to work independently (Othman et al. 2012; Othman & Othman 2017). In line with that, the broad objective of this study is to assess the effect of entrepreneurship education and intentions of public university students towards self-employment intention in Malaysia.

Self-employment intention potentials have been lost under the radar for some time. Emmanuel et al. (2012) argued that, for a long time, higher institutions have been focused on creating graduates rather than building their self-employment intention potentials. With regard to entrepreneurship education, Mkwanazi and Mbohwa (2018) stated that despite this genre of education is focusing on generic principles of identifying opportunities and taking actions, the 4th Industrial Revolution (4IR) now challenges it to view opportunities and increased reliance on technological, economic, and social systems from a different angle, which was not sufficiently addressed in entrepreneurship education programmes.

A majority of Malaysia's Higher Learning Institutions (HLIs) have been offering entrepreneurship education subjects in an effort to improve job opportunities following graduation. Regardless of whether the Malaysian universities are research-based, comprehensive, or focus-based, the integration and execution of the required entrepreneurship subject as a course has impacted every field of study in the country (Yusoff et al. 2015). Malaysia is still faced with the challenge of fulfilling the ambitions of unemployed graduates seeking paid employment instead of considering self-employment intentions as an alternative despite the many government's efforts to divert their intentions. Unemployment among the youths is requiring the utmost attention in Malaysia where approximately six out of ten of unemployed youths are undergraduates. Seng (2018) even pointed out that more than 250,000 students have graduated but 1 in 5 fresh graduates remain unemployed 6 months after graduation. To enhance Malaysia's

labour market position, the need for the development of entrepreneurial and cultural awareness competences has now become inevitable.

In Malaysia, it was also noted that entrepreneurial empowerment development programmes and the creation of a conducive atmosphere for entrepreneurship development have failed (Shamsudin, Al-Mamun, Nawawi, Nasir & Zakaria 2015). Despite the fact that entrepreneurship education has the potential to tackle the graduate unemployment problem of this country, and that Malaysia is heading in the right direction, the concerns and obstacles surrounding entrepreneurship education continue to exist (Hardy 2015). Among the university students, the programme is not valued as much as the other programmes (Othman & Othman 2017). This has further reinforced a pressing need for an investigation on how effective the entrepreneurship education is in instilling self-employment intentions.

The main goal of entrepreneurship education is to equip students with entrepreneurial attitudes, skills and knowledge for them to start and manage their own business apart from considering self-employment as a career option after graduation. Jain Wilson et al. (2011), Poon et al. (2012) and Ali (2013) have all concurred that Malaysian students in higher institutions of learning are still lacking in the ability to connect academic teaching with practical applications after graduation. This is also supported by the finding of Fayolle et al. (2014) that it is critical to evaluate the effects of any entrepreneurship education programme in Malaysia on the intended graduating students in order to determine its effectiveness.

Graduates, particularly Bumiputera graduates, are less willing to become entrepreneurs and careers as entrepreneurs are still not the first choice among them because it is perceived as a substandard choice in comparison to being wage earners (Economic Planning Unit 2015). This is apparently due to only 20 percent of existing entrepreneurs has survived the feat and becomes successful yearly, which is a fearsome fact indeed (Ab Rahman et al. 2017). It can be said that despite the government's valiant attempts to create more entrepreneurs among graduates, it appears to have failed (Abd Majid et al. 2019).

Similarly, it has been noted that literature on the effect of entrepreneurship education on graduating students' intentions to start their own business is still a trending topic in Malaysia (Cheng et al. 2009; Ismail et al. 2018); as well as still in its infancy, as compared to in the Western countries (Ismail et al. 2009; Ismail & Ahmad 2013; Suhaila & Rooshihan Merican 2017). Studies on the effectiveness of entrepreneurship education on self-employment intentions are still limited in quantity as compared to studies on personality traits (Bazkiaei et al. 2020; Karabulut 2016; Koe et al. 2012; Mumtaz Begam et al. 2012), subjective norms (Chuah et al. 2016; Joseph 2017; Umami Naiemah et al. 2018), and the need for achievement (Joseph 2017; Nasip et al. 2017; Suhaila & Rooshihan Merican 2017), all as antecedents of self-employment intentions. In sum, there are still areas to be explored in the topic of effects of entrepreneurship education as antecedents for self-employment intentions.

Due to inconsistency of the findings in the literature, more research into the relationship between entrepreneurship education and self-employment intentions is required (Norasmah et al. 2012; Creswell 2015 and Badariah et al. 2016b). Some researches have discovered a significant relationship between entrepreneurial education and self-employment intention (Ng et al. 2018; Nurfadhilah & Norlaile 2017;) while some found insignificant relationships (Oosterbeek et al. 2009; Rahimah et al. 2019). Therefore, aspects of the SCCT model's entrepreneurial self-efficacy, which triggers the effects of entrepreneurship education on self-employment intention, are also tested.

To this extent, only a few researchers have looked at entrepreneurship education and other characteristics as antecedents of self-employment intentions in Malaysia. This present study proposed a comprehensive model that integrates the Theory of Planned Behavior and the Social Cognitive Career Theory that encompasses entrepreneurial self-efficacy as suggested by Li and Wu (2019), Newman et al. (2014), Shi et al. (2018), and Nowiński et al. (2019) perceived university support, as suggested by Lingappa et al. (2020), Muhammed et al. (2020), and Anjum et al. (2020); and family background, as suggested by Bouhaleb (2020), Georgescu and Herman (2020) and Marques et al. (2018), as moderating roles in elucidating the effect of entrepreneurial education on self-employment intentions.

Nevertheless, it is worthy to mention that a few studies have found that entrepreneurship education possibly have detrimental consequences. According to Cheng et al. (2009), there is no significant relationship between entrepreneurial expertise and the intent to start a business among Malaysian university students. Their research also found that present entrepreneurship education does not increase students' desire to pursue entrepreneurship as a career option. A study by Oosterbeek, van Praag, & Ijsselstein (2010) also reported that entrepreneurial abilities development is minor, and undesirable consequences are more likely the result of entrepreneurial intentions. This present study should be conducted to determine whether the findings would be consistent among the Malaysian public university undergraduates. Therefore, it is worthwhile to conduct this present study for the results of which will be able to address any gaps that may exist in the effect of entrepreneurship education on self-employment intentions among Malaysian public university undergraduates.

1.4 POINT OF INTEREST

Self-employment intention is the point of interest in this study. Figure 1 below shows the prevalence rate of self-employment in ASEAN Countries by International Labour Organization (ILO), World Bank 2020.

Self-employed, total (% of total employment) (modeled ILO estimate) - Malaysia, Myanmar, Indonesia, Thailand, Philippines, Vietnam

International Labour Organization, ILOSTAT database. Data retrieved in September 20, 2020.

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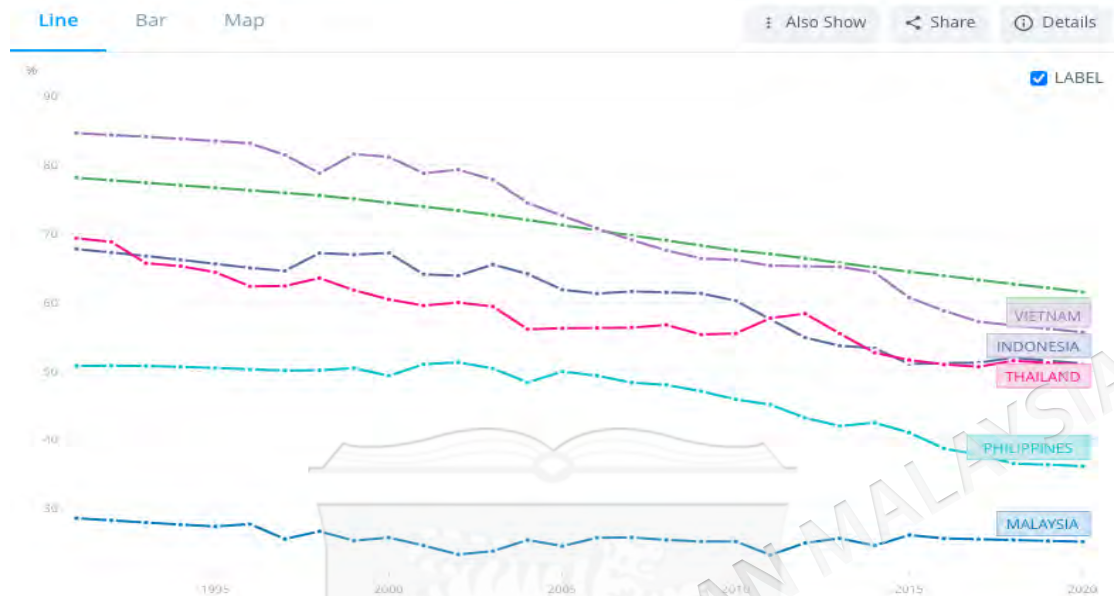


Figure 1.2 The prevalence rate of self-employment in ASEAN countries

Source: ILO 2020

To date, self-employment level in Malaysia is the lowest among the 11 Asian Pacific & South East Asian countries (ILO 2020; GEM 2017). The Malaysian government has allocated a colossal spending plan annually to develop local public universities with regard to entrepreneurship education. However, graduate unemployment is still on the rise and reflects a negative impression to the country's HEI policies. The number of unemployed graduates has seen an increase of 5.5% from 2018 to 2019 (DOSM, 2020). Among the youths in the workforce, unemployed graduates have recorded the highest percentage (Chong Seng, Law 2019).

On the other hand, Entrepreneurship Education is said to have the capacity to solve the country's unemployment problems by promoting self-employment and entrepreneurial careers (Othman et al. 2017; Burton et al. 2016; Hardy et al. 2015). Nevertheless, after 10 years of implementation of this programme in all Malaysian public universities, self-employment level among graduates still remains low and entrepreneurship education in Malaysia seems to have failed in promoting and

encouraging self-employment among students in Malaysia (Mohd Fauzi et al. 2007; Shamsudin et al. 2015). Therefore, the point of interest of this study is to investigate what factors influence self-employment intentions among graduates in Malaysian public universities in pursuing a career in entrepreneurship and to become self-employed.

1.5 RESEARCH QUESTIONS

This study examines the following research questions:

1. What is the relationship between entrepreneurship education and self-employment intention?
2. How does entrepreneurial self-efficacy mediate the relationship between entrepreneurship education and self-employment intention?
3. How is entrepreneurial self-efficacy related to self-employment intention?
4. What is the relationship between entrepreneurial education and entrepreneurial self-efficacy?
5. How does perceived university support moderate the relationship between entrepreneurship education and self-employment intention?
6. How does family background moderate the relationship between entrepreneurship education and self-employment intention?

1.6 RESEARCH OBJECTIVES

The broad objective of this study is to assess the effect of entrepreneurship education and intentions of public university students towards self-employment intention in Malaysia. The specific objectives include:

1. To examine the relationship between entrepreneurship education and self-employment intention among public university students in Malaysia.

2. To analyse the mediating role of entrepreneurial self-efficacy on the relationship between entrepreneurship education and self-employment intention.
3. To identify the relationship between entrepreneurial self-efficacy and self-employment intention.
4. To investigate the relationship between entrepreneurship education and entrepreneurial self-efficacy.
5. To analyse the moderating role of perceived university support on the relationship between entrepreneurship education and self-employment intention.
6. To analyse the moderating role of family background on the relationship between entrepreneurship education and self-employment intention.

1.7 SIGNIFICANCE OF THE STUDY

The study has theoretically and practically contributed to the field by integrating various perspectives of the student's intentions towards self-employment. Considering the above discussion, the significance of this study can be briefly explained as these two perspectives:

1.7.1 Theoretical Significance

In contrast to most previous studies which have focused on the practices and effectiveness of entrepreneurship education, this present study aims to provide a more robust theoretical knowledge on the effect of entrepreneurship education towards self-employment intention. Numerous past studies have shown that even after various plans and policies have been implemented by the government, the number of graduates who intend to become self-employed has remained low. Most graduates tend to become job seekers rather than job creators. This phenomenon is possibly happening due to the lack of self-confidence of them in terms of entrepreneurial activities, particularly in the early stage of business. Believing that they lack competency and the necessary skills, these students may have limited their career goals (Wilson et al. 2007). This is in line with earlier studies that showed students are more likely to limit their ultimate career choices

owing to a lack of confidence in their talents (Bandura 1992) when they also believe that they lack the necessary skills (Chen et al. 1998). Nevertheless, this study will be among the first to address the unemployment issues faced by the government, which was in terms of inculcating students to take up entrepreneurship as their preferred career choice post-graduation, particularly in the Malaysian context.

This study poses several implications. First is in the theoretical contribution where this present study has incorporated the literature on entrepreneurship education, self-employment intention, entrepreneurial self-efficacy, perceived university support and family background. In retrospect, most of the past empirical research has investigated direct relationships between entrepreneurship education and self-employment intentions (Badariah et al. 2016a; Khadeeja et al. 2017; Nurfadhilah & Norlaile 2017; Rahimah et al. 2019). However, this present study has proceeded to examining the role of entrepreneurial self-efficacy as mediator and moderator of perceived university support and family background as a mechanism linking entrepreneurship education and self-employment intention in a single model. That is the main contribution of this present study in terms of the theoretical aspect.

Second, it aimed to provide empirical evidence on the determinants of self-employment intentions and fill the gap in literature in the area of effects of entrepreneurship education on student's intentions to become self-employed. The key antecedents and consequences of TPB and SCCT that affected student's intention towards self-employment intentions are examined. Although the effects of TPB and SCCT factors on intents are undeniable, academics have advocated for more research into the role of entrepreneurship education in connection to self-employment intention in order to address the unemployment crisis (Sam & Van Der Sijde 2014). In previous research, entrepreneurial education itself has the capacity to influence students to pursue a career in the field of entrepreneurship and become self-employed. However, among today's research, entrepreneurial attitudes and emotions is a new form of study, evolving in entrepreneurship education (Nor Hafiza et al. 2020). Therefore, this study integrated relevant theories such as Theory of Planned Behaviour (TPB) (Ajzen 1991) and Social Career Cognitive Theory or SCCT (Lent et al. 1994) to give students' intentions more explanatory power apart from examining key factors influencing their

intentions towards self-employment all for the purpose of accommodating current needs and demands of all parties involved.

Third, this study also contributes to the growing body of knowledge in TPB theory by extending the element of intention through an educational variable (entrepreneurship education) towards self-employment intentions. In particular, using the TPB, new findings for the intention literature are added by proposing entrepreneurial education as a critical antecedent of student's self-employment intention. This is due to one of the most crucial factors for new enterprises has been recognised as entrepreneurship education (Hartshorn & Hannon 2005; Zhao et al. 2005).

Still, there are contradictory findings in the literature between entrepreneurship education and self-employment intentions. Some scholars have found a significant relationship between entrepreneurship education and self-employment intentions (Ekpe et al. 2012; Ng et al. 2018; Nurfadhilah & Norlaile 2017) while some have not (Ariff & Abu Bakar 2003; Oosterbeek et al. 2009; Rahimah et al. 2019). Therefore, the personal attitude element of the SCCT model, which is entrepreneurial self-efficacy that triggers effects of entrepreneurship education towards self-employment intentions, is also tested. Entrepreneurial self-efficacy, or the self-confidence that one has as a necessary skill to succeed in creating a business, has been demonstrated to play a key role in determining the level of interest in pursuing an entrepreneurial career. Self-efficacy is a key factor of the necessary entrepreneurial behaviours (Hasni et al. 2015). Numerous studies such as Kurczweska and Bialek (2014), Lüthje and Franke (2003) as well as Krueger et al. (2000) have also found that entrepreneurial self-efficacy is an important predictor to intentions. In addition, aspects such as family background and perceived university support are also important antecedents in driving the student's intention towards self-employment intentions (Anjum et al. 2020; Georgescu & Herman 2020; Lingappa et al. 2020; Marques et al. 2018; Muhammed et al. 2020; Saeed et al. 2015) which was also examined. Therefore, findings of this study can offer valuable implications and guidelines for entrepreneurship education and self-employment intentions.

On the whole, to the best of researcher's knowledge, this study is among the first to explore the effects of entrepreneurship education towards self-employment intentions among public university students, particularly in the Malaysian context. This is done by merging the Theory of Planned Behaviour and the Social Cognitive Theory. Consequently, the results of this study may contribute to the knowledge pertaining student's self-employment intention.

1.7.2 Practical Significance

This study has practical significance for the government, ministries, universities, and policy makers. To date, there are 170,300 unemployed graduates in 2019 (DOSM 2020), an increase of 5.5 percent, as compared to 2018 with 161,300. Entrepreneurship education is gaining popularity due to the belief in its ability to promote the formation of new businesses and jobs (Fayolle et al. 2006; Lanero et al. 2011) thus, the findings will guide policy makers to understand the importance of entrepreneurship education and how to enhance student's self-employment intentions in developing a new future policy by taking into consideration the influence of entrepreneurial self-efficacy. In the meantime, this study also offers a practical significance to the policy makers with regard to the influence of entrepreneurial self-efficacy, perceived university support, and family background on the relationship between entrepreneurship education and self-employment intentions. Moreover, the knowledge obtained from this study will also give insights to the government in order to achieve the recent National Entrepreneurship Policy 2030, especially the fifth (5th) objective, which is to make entrepreneurship as a preferred career choice.

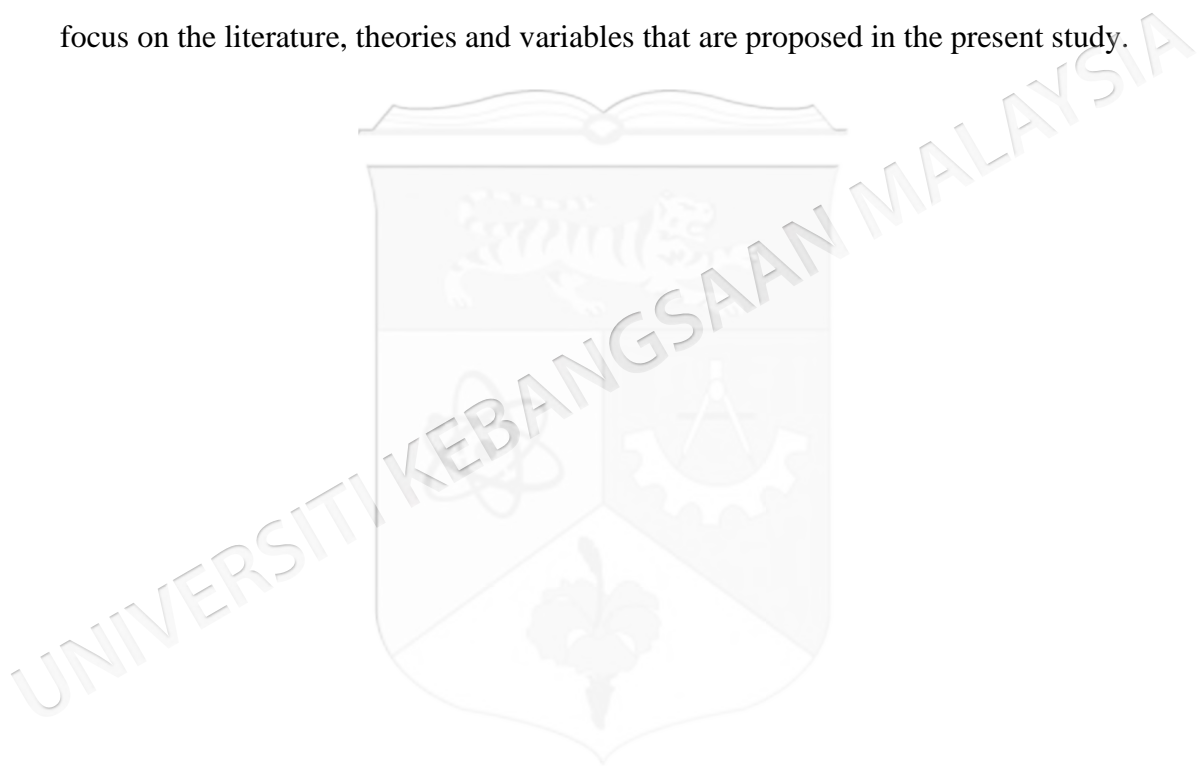
1.8 STRUCTURE OF THESIS

This dissertation is organized into five main sections, including this introductory section. The first section introduces entrepreneurship education, self-employment intention, research issues, and the importance of the study. Chapter 2 reviews the underpinning theories in the context of this study and previous relevant works on the issue being studied. This chapter will also describe all variables included in the conceptual framework and presents the formulated hypotheses. Chapter 3 deals with the research methodology, research design, and sampling methods. Results and findings

will be discussed in Chapter 4. The last chapter, Chapter 5, will summarise the findings and suggest future directions for research in related areas.

1.9 CHAPTER SUMMARY

This chapter has provided an overview of the present study. It discusses the importance and the need to study self-employment intentions among university students. Next, it highlighted that entrepreneurship education and its dimensions have been examined as antecedents of self-employment intention, although empirical research on the processes underlying the relationship between these variables are limited. The next chapter will focus on the literature, theories and variables that are proposed in the present study.



CHAPTER II

LITERATURE REVIEW

2.1 INTRODUCTION

2.1.1 Entrepreneur and Entrepreneurship

Experts or specialists have debated the definition of “entrepreneur” for some time. Richard Cantillon was the first person to use the term ‘entrepreneur’ and defined it as “...individuals who bear the risk of buying at certain prices and selling at uncertain prices (cited in Mazzarol et al. 2020). Earlier, Levine and Rubinstein (2017) termed ‘entrepreneur’ as “...one who displays a higher achievement motivation and stronger preference for innovation being high ability individuals that they are, with greater self-esteem and a high internal locus of control.” As an innovator or developer, an entrepreneur recognises and seizes opportunities, then translates those opportunities into practical and marketable ideas, adds value through time, effort, money or skills, and reaps rewards from these efforts. Entrepreneurs have a proclivity for taking risks. (Faley et al. 2020). To sum it all up, organising, managing, and assuming the risks of a business are what designate an “entrepreneur” (Kuratko & Hodgetts 2004).

Simultaneously, economists have struggled with the task of capturing the essence of and defining the role of entrepreneurship for the economic system, even though literature has proven otherwise (Badulescu & Badulescu 2014). Deep in history, Jean Baptiste Say, the French economist who invented the term “entrepreneur” around the year 1800, considered an entrepreneur as the person who is able to transfer resources from a person with lower productivity to one with higher productivity while increasing profits in the process, thus, generating value (Vlăsceanu 2010). In specialised literature, Nagy et al. (2010) have discovered that the field of entrepreneurship has drawn a lot of

attention over the years. Their findings also specified that there is no one universally acknowledged definition of an entrepreneur or the entrepreneurship process, however, experts have come to an agreement on the value of these individuals in economic progress.

With a definition in place, the debate moved on to what constitutes “entrepreneurship”. According to Baron and Henry (2010), the onset of entrepreneurship is a process which is launched by the identification and evaluation of business opportunities. This is nevertheless challenged by Cuervo et al. (2007), who argued that the process not only stops at identifying and evaluating business opportunities but proceeds with exploiting them by setting up small- and medium-sized enterprises which they either finance that endeavour or benefit from selling the idea of the business project.

Entrepreneurship encompasses not only the development of a company concept, but also the projection and maintenance of the organisation in order for the activity to continue (Panda 2011). It is, in the present time, a buzz word that has made its way in political debates and argumentation, as well as in official debates and economic writings. Nevertheless, for two centuries, several authors have disclosed entrepreneurship and the recognition of the entrepreneur’s position in the economic system. Despite this, the definition and significance of the terms “entrepreneur” and “entrepreneurship” are still being debated (Otilia & Daniel 2015).

Discussions of what entails entrepreneurship are also on-going. Several studies have described it as the result of creating new business opportunities which is the embodiment of entrepreneurship itself (Levie 1999; Morris et al. 2004) later converted into marketable products and services (Schaper & Volery 2004). The term was also made distinct by Reynolds et al. (1999) as “...an attempt to start a new business or enterprise, such as self-employment plans, a new business organisation, or the development of an existing firm by an individual, a group of individuals, or a well-established company”. In empirical research, entrepreneurship has been described in two key ways, in due course, highlighting a contradiction. First, it was explained as a firm’s property or quality. Entrepreneurial firms were considered as small (Aldrich &

Austen 1986), a fast-growing (Drucker 1985), organic, and network-based, rather than mechanistic or bureaucratic (Birley 1987). The distinctions in the definitions clearly stated that entrepreneurial firms were advantageous compared to other forms of organisations. Second, they would possess qualities such as innovative (Backman 1983), flexibility and adaptability (Birch 1987). Hisrich et al. (2007) improved the earlier definition by stating that entrepreneurship is the process of creating something new with the assumption of risk and rewards.

Stuart and Sorenson (2007), however, looked at a more innovative angle and posited that entrepreneurship is associated with innovation and management dynamics of the people and the firm. The term entrepreneurship is not the firm's characteristics itself, but it is the employers' and managers' behavioural characteristics all encompassing. Entrepreneurial individuals, while taking advantage of the opportunity to acquire added values for themselves or for the firm, champion the idea of corporate entrepreneurship (Burgelman 1983). Firms can maintain their entrepreneurial advantages by building a culture that forces entrepreneurial behaviour among managers and employees, as well as cultivating an entrepreneurial spirit among personnel (Kanter 1983). Entrepreneurs identify and exploit opportunities as innovators and developers (Peterson 1995), and this was further supported by Thompson (1999) that realising new opportunities and the willingness to act on them constitute an entrepreneur.

Several other definitions of entrepreneurship were produced in the following decade which have provided researchers with a plethora of theoretical perspectives to further study this topic. Emmanuel (2010) defined entrepreneurship as the ability and readiness of a person to create a new investment prospect, develop a venture based on it, while managing the prospect effectively for social benefits or making profits. The European Commission (2011) viewed entrepreneurship as both a life-long and life-wide experience, therefore, making it the finest way to learn and combine experiences with formal educational pursuits. However, Timmons et al. (2011) saw it as a complicated process that necessitates decision-making in all aspects of starting a new line of business in an uncertain and global socio-technical context. Kuratko and Audretsch (2013), nevertheless, viewed it as the skills involved with entrepreneurial activities that are classified as business management, personal, and technical entrepreneurial skills while

Sánchez (2011), in his literature review, claimed that studies offering these definitions were conducted mainly in entrepreneurship and from an economic, managerial, or sociological perspective, with less consideration from a psychological perspective.

With reference to the number of definitions available, it is evident that entrepreneurship has been a topic of serious debate among academics for many years (Aldrich & Austen 1986; Birch 1987; Birley 1987; Drucker 1985; Hisrich et al. 2007). With the advent of the technological age, the importance of industries founded by entrepreneurs has grown to become one of the most important drivers of the economic progress. This portrays a very vital point in the role played by entrepreneurship. Given the importance of this field to students in Malaysia, hence, it is the precise time for this study to be implemented for the purpose of identifying the effect of entrepreneurship education in public universities in Malaysia.

The matrix Table 2.1 below summarises the findings on entrepreneur and entrepreneurship that have been discussed in this section.

Table 2.1 A summary of findings by previous studies on entrepreneurship

No.	Authors	Year	Methodology	Findings
1	Mazzarol et al.	2020	Review Study	Entrepreneurs are people who take on the risk of buying at a fixed price and selling at a variable price.
2	Faleye et al.	2020	Secondary Data	Entrepreneurs have a proclivity for taking risks
3	Levine and Rubinstein	2017	Secondary Data	Entrepreneur is a person with a strong desire to succeed and a strong affinity for innovation.
4	Otilia and Daniel	2015	Secondary Data	Entrepreneurship and the recognition of the entrepreneur's role for the economic system have been revealed by different authors for two centuries. Despite of this fact, there are still controversies regarding the meaning and significance of the entrepreneur and entrepreneurship
5	Badulescu and Badulescu	2014	Survey	Economist found it hard to understand the role of entrepreneurship in economic system
6	Kuratko and Audretsch	2013	Survey	Skills involved with entrepreneurial activities – business management, personal and technical entrepreneurial skills.

to be continued...

...continuation

7	Panda	2011	Survey	Not only the design of a business idea, but also to the projection and maintenance of the organization so that the activity may continue to take place.
8	Timmons et al.	2011	Secondary Data	Complex process that demands decision making across all the facets of embarking on a new line of business under uncertainty in a dynamic and world-wide socio-technical environment.
9	Sánchez	2011	Survey	Entrepreneurship from an economic, managerial or sociological perspective, with less consideration from a psychological perspective.
10	Vlăsceanu	2010	Secondary Data	The term entrepreneur was invented around 1800, by French economist, Jean Baptiste Say; - the one who transfers resources from one person with a lower productivity to another with higher productivity and increased profit, thus creating value.
11	Nagy et al.	2010	Telephone Survey Face to Face Interview	Previous literature did not come with similar definition of entrepreneurship, but specialists agree over their importance in the economic development.
12	Baron and Henry	2010	Focus Group Experiment	Recognition and evaluation of business opportunities represents the beginning of the entrepreneurial process
13	Cuervo et al.	2007	Secondary Data	Individual entrepreneur detects or creates business opportunities that he then exploits by small and medium size enterprises, usually taking part in the financing of capital for that company, or merely, "he sells" the idea of the business project.
14	Emmanuel	2010	Survey complementary by interview	The ability and readiness of a person to create a new investment prospect, develop a venture based on this and manages it effectively for social benefit or making of profit.

2.2 UNDERPINNING THEORIES

According to Haase and Lautenschläger (2011), because of a growing consensus that entrepreneurship education is a key component for economic growth, academics and scholars are increasingly calling for more rigorous research to be conducted to support the creation of a theory of entrepreneurship education. The basic foundation for a theory of entrepreneurship education has already existed despite the limited number of a well-articulated theory abound. The literature has identified two theoretical perspectives that argued entrepreneurship education is positively related to self-employment intentions, as below:

1. Theory of Planned Behaviour (TPB) by Ajzen (1991)
2. Social Cognitive Career Theory (SCCT) by Lent et al. (1994).

2.2.1 Theory of Planned Behaviour

As one of the most widely used models of intention (Figure 2.1) to date, the theory of planned behaviour (Ajzen 1991) has launched numerous research works seeking to clarify and improve the understanding of entrepreneurial intentions of students (Ambad & Damit 2016; Badariah et al. 2016c; Israr & Saleem 2018) and other categories of individuals. In order to assess the effect of entrepreneurship education and, in particular, to define and measure relevant criteria, this study applied the theory of planned behaviour originally presented by Ajzen (1991), which is an extension of the theory of reasoned action (Ajzen & Fishbein 1980), as the main theory of this research.

The Theory of Planned Behaviour (Ajzen 1991) proposed that due to human social behaviour is reasoned, controlled or planned, the theory takes into account the likely consequences of the well thought out behaviour (Ajzen & Fishbein 2000). The underlying model has been applied for the prediction of many types of human behaviours (electoral choices, intention to stop smoking, and others) providing a useful framework for analysing the manner in which participants' entrepreneurial behaviour would be influenced by their entrepreneurship education. From this standpoint, individual's attitudes and intentions related to self-employment intentions are influenced by entrepreneurship education.

Indeed, the Theory of Planned Behaviour is part of the larger family of intentional models that have been used to try and explain the emergence of entrepreneurial behaviour. According to Ajzen (1991), career aspirations are influenced by attitudes toward the behaviour under consideration, social standards, and the extent of perceived control in those approaches. Many authors believe that creating a business is a deliberate and planned action (de Jong & Marsili 2015; Hayton & Cholakova 2012; Oliveira & Rua 2018).

Additionally, as primarily explained by one earlier research of Krueger and Carsrud's (1993), intention seems to be a better direct forecaster of behaviour than attitudes, beliefs or other personal or sociological variables. They suggest that attitudes and ideas influence intentions, which influence behaviour which is similar to the original concept introduced by Ajzen and Fishbein in 1980.

This research investigates the relationship between entrepreneurship education and self-employment intention with influence of entrepreneurial self-efficacy, perceived university support, and family background. First, this study intends to develop arguments for choosing the Theory of Planned Behaviour (TPB) among other intention models, and second, give a more complete presentation of the theory underlining some of its application to the field of entrepreneurship.

a. Rationale of using TPB to assess the impact of entrepreneurship education

Theory of Planned Behaviour (TPB) has widely been recognised in the broad approaches to education and training effectiveness. The emphasis in these techniques was on educational and training outcomes such as knowledge, skills, and capacities (Fayolle et al. 2006). TPB has been widely regarded as a tool to evaluate the effect of entrepreneurial education (EE) on entrepreneurial intention (EI) for more than two decades, according to researchers and experts in the field of entrepreneurship but an in-depth analysis of the literature revealed that there is a larger gap between conceptual models and research methods (Sun et al. 2017).

TPB is also referred to as a psychological model that has solidly established itself and become highly influential on entrepreneurship research during the past decades. According to the TPB (Ajzen 2005), entrepreneurial behaviour is influenced by entrepreneurial intentions, which are influenced by three factors:

1. attitude towards starting up
2. subjective norm; and
3. perceived behavioural control

TPB has been proven to be a valid paradigm for analysing the relationship between entrepreneurship education and entrepreneurial behaviour in studies conducted by a variety of academics. Among them were Krueger and Carsrud (1993), who first applied the Theory of Planned Behaviour to the field of entrepreneurship by adapting Ajzen's TPB (1991) model to be compatible with other theoretical frameworks, especially that of Shapero and Sokol (1982). This was done to explain the shift from intention to behaviour. Also, Schlaegel and Koenig (2014) demonstrated that a meta-analysis evaluating the TPB in the context of entrepreneurship was reported to display that attitudes, subjective norms, and perceived behavioural control, were accounted for at 39 percent of the variance in entrepreneurial intentions.

Rauch and Hulsink (2015), in testing the TPB, has found that entrepreneurship education was effective in their study which tested the effectiveness of entrepreneurship education by comparing a MSc. Entrepreneurship programme with a comparison group from a MSc. Supply-chain management programme. Unambiguously, students who took part in entrepreneurship education had more positive attitudes and perceived behavioural control at the end of the programme, as well as stronger entrepreneurial inclinations suggesting that entrepreneurship education does emphasise the increase in antecedents of intentions and behaviour.

There is not doubt that the TPB is a useful predictor of intentions of professions of choice as found in previous studies by scholars (Kolvereid 1996). Katz (1992) has defined these intentions as "the vocational decision process in terms of the individual's decision to enter an occupation as a salaried individual or as self-employed". In this sense, intention is "a conscious state of mind that directs attention (and therefore experience and action) toward a specific object (goal) or pathway to achieve it" (Bird 1989). Therefore, one of the benefits of entrepreneurship education is improving or increasing students' intentions to become self-employed. Various contributions and research studies have demonstrated how beneficial it is to apply the Theory of Planned Behaviour (TPB) to examine the formation of self-employment intention and how entrepreneurship education may possibly and fittingly alter that process (Krueger & Carsrud 1993).

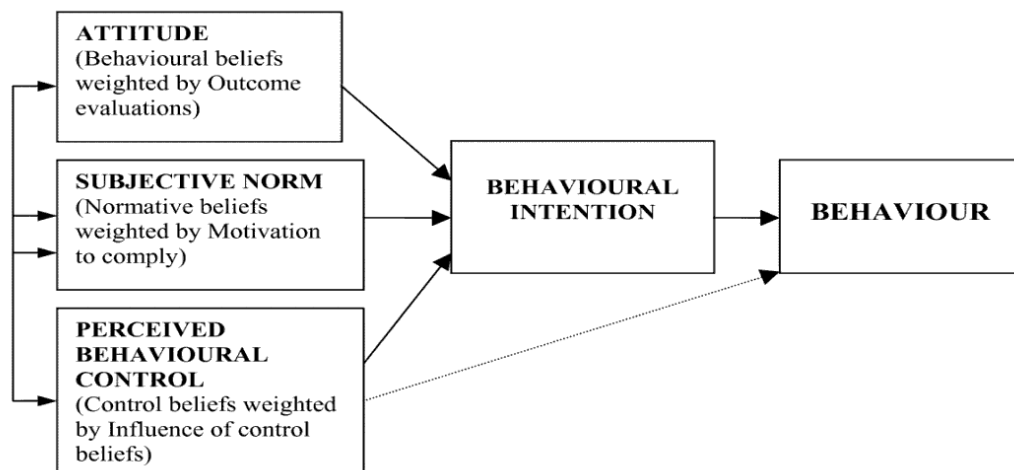


Figure 2.1 Theory of planned behaviour model

Source: Ajzen 1991

2.2.2 Social Cognitive Career Theory

The Social Cognitive Career Theory (SCCT) is the process of individuals exercising control and agency in career selection as well as the role of educational factors in enhancing or limiting that agency (Lent et al. 1994). It was derived from Bandura's (1986) general social cognitive theory which proposed that agency operates within a broad context of organisational influences. The Social Cognitive Career Theory (Lent et al. 1994) proposes that self-efficacy beliefs and outcome expectancies are linked to career objectives and choices. Bandura's agentic theory of human development posits that, people are motivated by their self-beliefs in their talents and abilities, as well as their subsequent confidence in successful outcomes which supports the human capacity to rise above the dictates of one's own surroundings and steer one's own life.

The decision to pursue an entrepreneurial career and the educational preparation for such a job have been investigated predominantly from the psychological career theory tradition at an individual level of analysis. Entrepreneurial self-efficacy, one of the elements of personal attitudes from the SCCT model, that trigger effects of entrepreneurship education towards self-employment intention, is tested. Entrepreneurial self-efficacy or the self-confidence that a person possesses as a necessary skill to succeed in creating a business, has been demonstrated to playing a key role in determining the level of interest in pursuing an entrepreneurial career. As

claimed by Hasni et al. (2015), self-efficacy is a key factor of the required entrepreneurial behaviours. Numerous studies also instituted that entrepreneurial self-efficacy is an important predictor to intention (Krueger et al. 2000; Kurczweska & Bialek 2014; Lüthje & Franke 2003).

This is in agreement with Edelman and Yli-Renko's (2010) view of entrepreneurship as an interaction between a deliberate entrepreneur and a hidden opportunity in the environment. SCCT offers unique contributions to understanding entrepreneurial intention formation, development, and change as an emergent agent interacting with educational elements. The theory focuses on the constructs of self-efficacy and outcome expectations and their relationship with educational influences and contextual affordances. Agentic perspective is another contribution of the current study. This perspective can assist us in a better understanding of the perceptions of educational factors at the individual level and the mechanisms at play through which these elements can create intention.

On the other hand, psychologists have performed a variety of studies to see if education can "socialise" people into adopting entrepreneurship as a career option through knowledge, skills, role-playing, role models, and other means (Dyer & Handler 1994). A socio-cognitive approach is a fitting approach to investigate the impact of organisational and cognitive processes on intention (Vaillant & Lafuente 2007).

Applying the Social Cognitive Career Theory (Figure 2.2), Vanevenhoven and Liguori (2013) investigated the motivational processes that led pupils to choose a career as an entrepreneur. They discovered that a number of entrepreneurship courses were significantly and positively connected with the key SCCT components after conducting preliminary analysis of a culturally and geographically varied data set. Vanevenhoven and Liguori (2013) focused on entrepreneurship education but left the topic of the effects of other forms of environmental influences and incentives open for discussion. SCCT's cross-cultural generalizability can be empirically tested by collecting data from people from various cultural and economic backgrounds (Bandura 2002).

Therefore, by utilising the Social Cognitive Theory of Career (Lent et al. 1994), the current study aims at incorporating the role of individual level cognitive processes and educational level factors in forming the entrepreneurial intention. Considering both the cognitive processes and educational factors in a single study, the current study reflects a progress in extending the multi-disciplinary study of entrepreneurship.

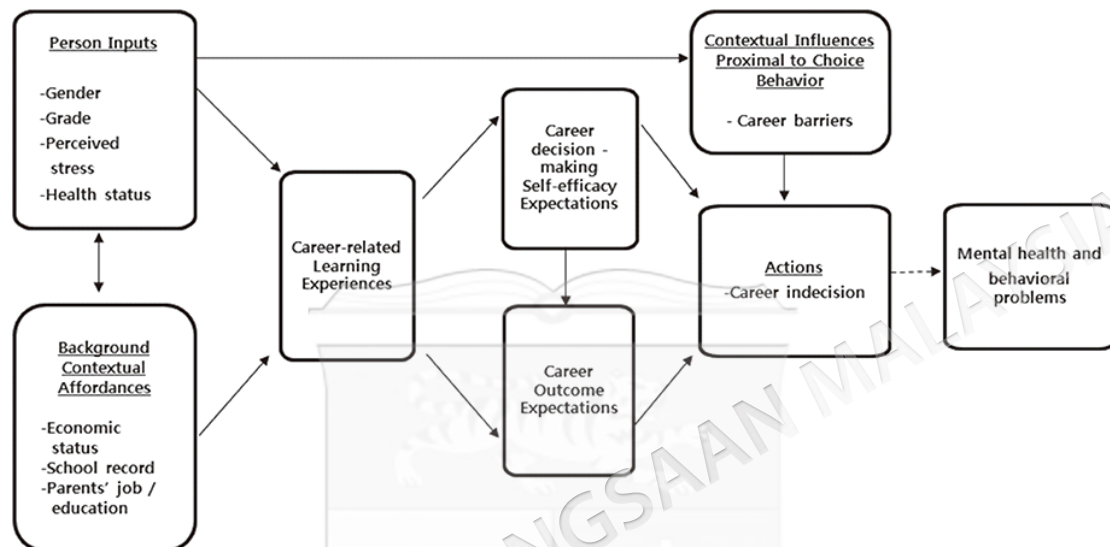


Figure 2.2 Social cognitive career theory model

Source: Lent et al. 1994

Research on entrepreneurship education have been influenced by the above-mentioned theories. In the limited number of evaluations that are available, psychosocial measures of entrepreneurial self-efficacy and the intention which predict behaviour are the most common outcome variables from entrepreneurship education, which is referred to as self-employment intention in this present study. In short, there is enough evidence to support the idea that educational interventions can boost self-employment intentions and behaviour.

2.2.3 Theory Integration

The Social Cognitive Career Theory (SCCT) (Lent et al. 1994) and the Social Cognitive Career Theory (TPB) (Ajzen 1991) are two of the most extensively used theories for addressing behavioural and career decisions. The impetus for using SCCT and the TPB lies in their utility in predicting and explaining behavior in a wide range of settings. Lent et al. (1994) used SCCT as the basis that especially tackles career choice concerns.

Furthermore, SCCT has been validated in a wide range of career-related topics, such as teaching, math and science (Fouad et al. 2002), engineering (Lent et al. 2003), academic research (Bieschke 2006) and art, social science and English (Fouad et al. 2002).

Meanwhile, TPB has been used to predict career intentions as well (Arnold et al. 2006) in addition to many other behaviors (Armitage & Conner 2001). Also, the TRA, which is the precursor to TPB, has been used to predict student intentions (Zhang & Aikman 2007) with promising findings seen in using TRA/TPB to explain students' choice of majors. The current study expands upon this initial work by using both TPB and SCCT with the belief that when combined, the two may have additional explanatory power in predicting career intentions, thus offering more relevant insights into this complex socio-behavioral phenomenon. In the following sections, a brief review of the two theories and a model developed in the present study are presented.

2.2.4 Combining TPB and SCCT

Interactions revealed in the current literature between main TPB and SCCT components provided the impetus for this study's integration. For example, perceived behavioral control (PBC) appears to be linked to entrepreneurial attitudes such as self-efficacy (Pavlou & Fygenson 2006; Taylor & Todd 1995), strengthening the research that have found strong support for the addition of self-efficacy to TPB's framework towards student's intention to pursue into self-employment (Giles & Larmour 2000). The role of outcome expectations in predicting professional behaviour is another reason for merging the theories (Hackett & Byars 1996), vocational interests (Fouad & Smith 1996), and academic achievement (Hackett et al. 1992).

Therefore, to create a more comprehensive model that predicts whether or not undergraduate students will follow an entrepreneurial career or self-employment, the following have been selected: (1) fundamental ideas of intention in TPB model; and (2) the SCCT constructs of self-efficacy as antecedents to the intention in TPB model. Finally, entrepreneurship education is included as a direct predictor of intention, as research indicates that it is one of the most consistent predictors of student's intention is education. The research model is shown in the next section.

The above-mentioned theories have had an effect on entrepreneurship education research. The psychological measures of entrepreneurial self-efficacy and intention that predict behaviour, notably in this research, are two of the most common outcome variables from entrepreneurship education in the limited number of evaluations that do exist. In other words, there is enough theoretical support to believe that educational interventions can promote self-employment intention and behaviour.

2.3 OVERVIEW OF STUDY VARIABLES

2.3.1 Dependent Variable

a. Self-employment intentions through entrepreneurship education

One question that has posed challenges among researchers in the field of entrepreneurship over the years is, ‘what determines the self-employment intentions among university students which then predicts entrepreneurial behaviour?’ Although there have not been as many studies in Malaysia as in the Western countries in determining self-employment intentions, looking at the available empirical studies would yield some data (Ismail & Ahmad 2013; Ismail et al. 2009; Suhaila & Rooshihan Merican 2017). However, in various parts of the world, there has been empirical research in the subject of entrepreneurship education related to self-employment intention and where university students were involved in company following their studies (Dendup & Acharja 2017; Szaban & Skrzek-Lubasińska 2018).

More recent studies have found that entrepreneurship intention has increased over recent years among university students in Malaysia. Rahimah et al. (2019) investigated the effect of entrepreneurship education on students' entrepreneurial interest, intentions, and competencies by adopting a fashion entrepreneurship programme. The samples were selected among First Semester 2016/2017 undergraduate students enrolled in entrepreneurship courses at the Universiti Putra Malaysia for a period of five months. The screening process consists of an interview method and a basic sewing test, which were conducted to select 40 students as the respondents. Their programme emphasized a mentor-mentee system which involved 10 fashion entrepreneurs from the community. Respondents were exposed to

entrepreneurship seminars, business and skills trainings, e-marketing workshops, sewing classes, as well as evaluation sessions. There was a substantial positive link between entrepreneurial interests and entrepreneurship intentions, according to the findings. However, their findings showed no significant relationship between fashion entrepreneurship programme with entrepreneurship intentions and competencies. More research on the factors of student entrepreneurship intentions is needed, according to literature studies.

Ng et al. (2018) studied the relationship between student's entrepreneurial motivation and entrepreneurship intention. A total of 450 self-administered questionnaires were distributed to students from various faculties, races, and seniority at a Malaysian public university using the convenient and structured sampling method. After distribution of the questionnaires, 413 duly completed questionnaires were returned and used during data analyses. Their findings were analysed using correlation and regression analyses which disclosed the strength of motivation in choosing entrepreneurship as a career option among students in relation with entrepreneurship intentions.

In promoting entrepreneurship worldwide, Nurfadhilah and Norlaile (2017) conducted a research on Malaysian university graduates' realisation of the importance of entrepreneurship education by examining the effects of entrepreneurship education on employment creation among undergraduate students in Kelantan. By studying variables such as career intention and skill acquisition and the impact of these on undergraduate students' employment in the future, they found that career intentions and skill acquisition has affected the students' employment. Consequently, the growth of entrepreneurship education and encouragement of making it a reality among students can help boost the entrepreneurship environment.

Another study by Zarina (2017), aimed at determining the motivations and barriers to become entrepreneurs, was carried out using a survey method to investigate the relationship between family business backgrounds, own business experience, and entrepreneurship programmes, towards the employment aspiration among engineering students of one Malaysian polytechnic. Results of the case study indicated a significant

correlation between family business background and own business experience towards job aspiration but showed an insignificant correlation between entrepreneurship programme and job aspiration. The study also revealed that there were perceived benefits in self-realisation as the main motivators to be entrepreneurs and perceived difficulties in financial issues as the main barriers that impeded students' intention to be entrepreneurs.

Badariah et al. (2016a) conducted two studies on the effectiveness of entrepreneurship education in Malaysian public universities. In their 2016 study, using 320 final year students from the Bachelor of Entrepreneurship programme from six Malaysian public universities as the sample, they found that there was an increase in business plan, risk thinking, locus of control, and self-achievement which has led to improved level of effectiveness of the entrepreneurship programme. Meanwhile, Badariah et al. (2016b) have evaluated the effectiveness of entrepreneurship education programmes among Malaysian university students specifically at one local university - Universiti Utara Malaysia. The results of this study showed that the entrepreneurship programme offered by Universiti Utara Malaysia (UUM) was very effective in enhancing the entrepreneurial skills of the students. The findings have suggested that there was a strong relationship among the business plan, risk thinking, and also self-efficacy toward the effectiveness of the programme, while a moderate relationship was observed in the need for achievement and locus control.

Hamidon (2015) claimed that the entrepreneurship education ecosystem in Malaysia can be divided into two main elements, the external and internal, as summarised in Figure 2.3. The external factors consisted of the business environment, support from government (agencies and Ministry of Higher Education), corporate sector, NGOs, society and funding institutions. While the internal factor comprised of support from the HLIs' top management, academic and non-academic staff, effectiveness of education programmes, development of student entrepreneurs, competency of educators, and readiness of students. Davey et al. (2015) mentioned that small, medium, and multinational enterprises cannot miraculously emerge, as they must be created by human beings who develop such intentions. Thus, people with

entrepreneurial capabilities and skills are believed to have created benefits at various levels of the society.

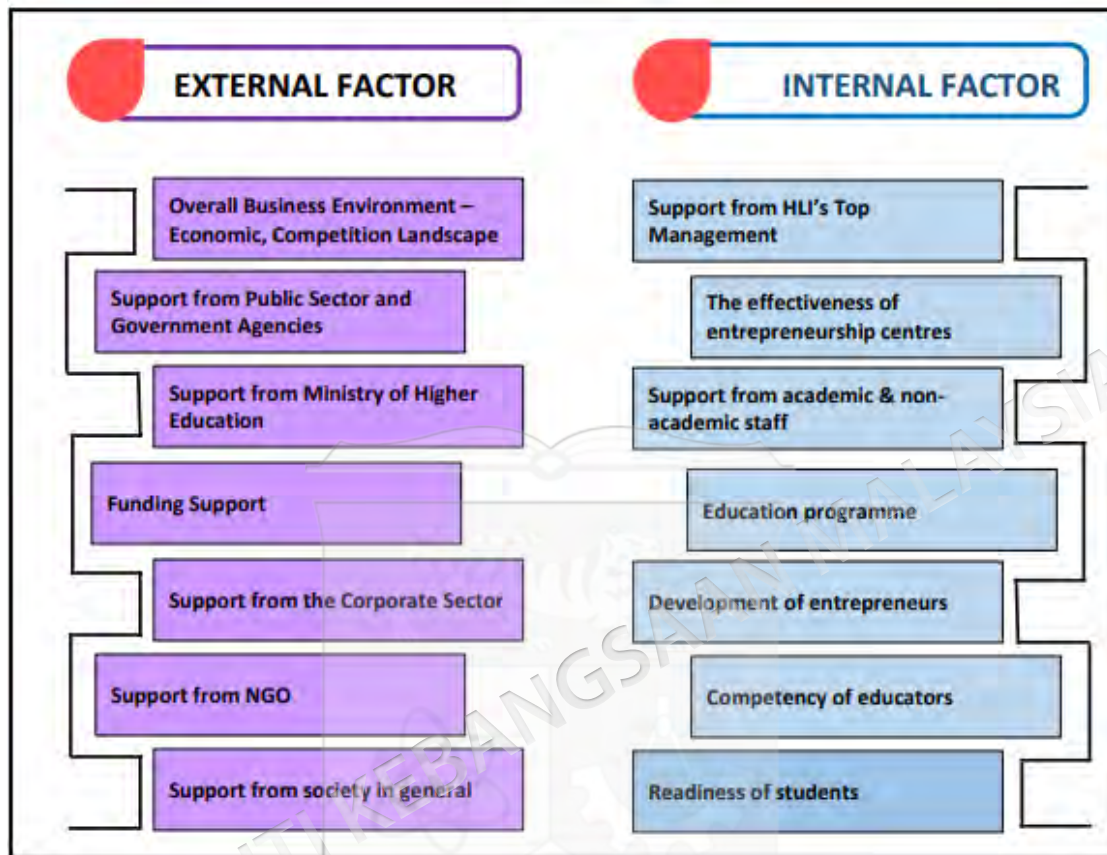


Figure 2.3 Entrepreneurship education ecosystem in Malaysia

Source: Hamidon 2015

According to Yusoff et al. (2015), the primary goal of entrepreneurship education in public higher educational institutions is to produce entrepreneurial graduates and graduate entrepreneurs. Entrepreneurship education has been supported on the premise that entrepreneurship can be taught and developed. Furthermore, constant exposure to entrepreneurship activities can increase students' desire to participate in these activities. Students' familial backgrounds, personal experiences, and external environment, in addition to gaining entrepreneurship knowledge and experience, were found to influence their intentions to participate in entrepreneurship activities (Yusoff et al. 2015).

An alarming discovery was made by Yusoff et al. (2015) that the majority of educators did not have sufficient entrepreneurship training before being assigned to teach entrepreneurship subjects. To make matters worse, it was also discovered that some of the educators lack the necessary qualifications to lead entrepreneurship programmes due to coming from different majors and experience in education. This is regarded as unacceptable because education should influence entrepreneurial inclinations since it prepares students and provides them with the much-needed confidence to venture into business.

Ooi et al. (2011) investigated the inclination towards entrepreneurship among university students in the northern region of peninsular Malaysia to examine the relationship between entrepreneurship education and inclination towards entrepreneurship. They found that demographic characteristics and family business background influenced the university students' inclination towards entrepreneurship. Their findings showed that entrepreneurship education variables were found to have statistically significant relationships with the inclination towards entrepreneurship. Simultaneously, demographic variables and a family business background variable were also found to have an effect on the participants' inclination towards entrepreneurship in this study by Ooi et al. (2011).

The state of mind that guides and directs a person's actions toward the development and execution of behaviour is known as entrepreneurial intentions (Owoseni & Akambi 2010). However, due to entrepreneurial intentions have no standard construct for determining them, it poses a challenge to determine consistent results in studies that employ different variables (Thompson 2009). Previous studies have found the relationships to be strong between attitude, subjective norm, perceived behavioural control, and entrepreneurship teaching methodology with entrepreneurial intentions while few studies focusing on the effects of these variables on entrepreneurial intentions, especially among students in Malaysian universities have found otherwise (Khadeeja et al. 2017).

A research conducted by Kamariah et al. (2004) on students at a private university owned by a government-linked company, found that there was a high degree

of entrepreneurial intention among its students. Among students across programmes, 240 out of 279 respondents had a high degree of entrepreneurial intentions and this was not confined to business students only, which also proved that students' exposure to entrepreneurial courses has no significant relationship with self-employment intentions.

Conversely, there have been studies which revealed that, with regard to choices, students preferred to be employed elsewhere rather than becoming entrepreneurs or self-employed. Among such studies included a study conducted by MECD in 2004, that showed only 30 out of 2,275 graduate respondents chose to get involved in entrepreneurship (Ministry of Entrepreneurship and Co-operative Development 2007). In a study conducted by Ariff and Abu Bakar (2003) among ex-participants of a basic course in entrepreneurship for graduates between 2002 and 2005 conducted at the University Utara Malaysia, they found that only 32.8 percent of the participants turned out to be entrepreneurs after their graduation. Both studies indicated a low involvement in entrepreneurial activities among students even with formal education and training in entrepreneurship. The findings reflected that the government's expectation of high involvement in entrepreneurship is not realised yet, revealing the existing gap of what was expected of the students by the government and the actual level of students' involvement in entrepreneurship, especially among Bumiputra students. And this among many others, revealed that most of the students preferred to be hired rather than be self-employed.

Oosterbeek et al. (2009) investigated the impact of a leading entrepreneurship education programme on college students' entrepreneurship skills and motivation. Using a sample consisted of 562 students in four study programmes located in Brada and Den Bosch, and a regression analysis was considered in the analysis and findings pointed towards an insignificant entrepreneurial skill and negative effects of intentions to become entrepreneurs. However, Kickul et al. (2018) claimed that these goals are changing as entrepreneurship education is focusing more on attitude, design thinking and creativity skills due to the emphasis on self-efficacy, which involves the ability of an individual to follow a course of action based on their goals.

Nabi et al. (2017) also suggested that changes in attitude, knowledge and skill, feasibility, entrepreneurial intention, socio-economic effects, business start-up rates and performance are the key outcomes of an entrepreneurship education. Behavioral control, subjective norm, and attitude toward entrepreneurship, on the other hand, are entrepreneurial motivation elements that influence career intention to be an entrepreneur. Subjective norm (tolerance for risk) and attitude (desirability) of self-employment intention are strongly linked to students' current and future goals to become entrepreneurs, however, behavioral control or self-efficacy is found to be substantially correlated with students' immediate career intentions.

Student's perceptions about innovative and risk-taking entrepreneurial activities are the main objective of any entrepreneurship education (Jones et al. 2014). Focusing on entrepreneurial learning in terms of affective, cognitive, and skill-based outcomes is a suitable method of determining whether student's behaviour has changed as a result of doing entrepreneurship education (Fisher et al. 2008). Affective outcomes refer to shifts in attitudes for starting a new firm or participating in innovation within an existing company (Kyro 2008). Cognitive outcomes entail critical thinking based on new information, which is vital in today's dynamic corporate context, that includes comprehension and information obtained about the reasons for starting a business (Jones & Colwill 2013). Conation includes people's feelings regarding the entrepreneurship process, such as whether they believe it is a good component of business activity (Fisher et al. 2008) while skills-based outcomes involve the ability to use the tools required, such as increasingly important digital-based tools, in order to become entrepreneurs. In today's culture, varied methods to impart entrepreneurship education are vital to be employed for the success of the programme.

In line with this, Khadeeja et al. (2017) corroborated the factors affecting entrepreneurial intentions of Malaysian university students in constructing empirical reviews. The findings showed that innovation, entrepreneurship training and education, family background, entrepreneurial characteristics, participation of micro, small and medium enterprises, government support program, social entrepreneurship, women participation, individual youth empowerment, collaboration of government university-industry are the key tools for entrepreneurship development. They also found a strong

relationship among variables such as students' entrepreneurial attitude, subjective norms, and perceived behavioral control. Therefore, despite focusing on entrepreneurship education only, this study also investigated entrepreneurial attitude such as entrepreneurial self-efficacy as the predictor towards self-employment intentions.

Table 2.2 below summarises previous studies for both the Malaysian context and the global perspective on self-employment intentions through entrepreneurship education that were discussed in this section.

Table 2.2 Author's compilation of previous studies on self-employment intention in regard to entrepreneurship education

No	Author(s)	Year	Methodology	Findings
1	Rahimah et al.	2019	Survey	Impact of entrepreneurship education in entrepreneurship interest, intention and competencies among UPM students.
2	Szaban and Skrzek-Lubasińska	2018	Critical Review	Relationship between entrepreneurship education and entrepreneurship intention among students in Europe.
3	Ng et al.	2018	Survey	Entrepreneurial motivation and entrepreneurship intention in Malaysian public universities.
4	Zarina	2017	Survey	Malaysian polytechnic students demonstrated significance between family business background and own business experience and jobs aspiration but not significant relationship between entrepreneurship programme and jobs aspiration.
5	Suhaila and Rooshihan Merican	2017	Critical Review	Entrepreneurship education in Malaysia.
6	Dendup and Acharja	2017	Survey	Relationship between entrepreneurship education and entrepreneurship intentions among students in Europe
7	Badariah et al.	2016a, 2016b	Survey	Respondents among UUM students were found to demonstrate strong relationship between business plan, risk thinking, self-efficacy in entrepreneurial intentions.
8	Ekpe et al.	2012	Online Survey	Effect of skills acquisition on enterprise creation in 240 youths in Malaysia.
9	Mohd Nor Hakim et al.	2015	Review Study	Entrepreneurship education based on entrepreneurship can be nurtured and learned.
10	Syahira	2015	Interview	<ul style="list-style-type: none"> ▪ Entrepreneurship education in Malaysia has internal and external elements.

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				<ul style="list-style-type: none"> ▪ Internal- HLI top management, effectiveness of education, development of student's entrepreneurship, educators' competency and student's readiness. ▪ External – business environment.
11	Altaf and Norashidah	2015	Survey	Impact of entrepreneurial education on skills and motivation.
12	Nooriah et al.	2013	Survey	Educators do not have entrepreneurial education background or experience.
13	Nurfadhilah and Norlaile	2017	Survey	Career intention and skill acquisition mainly affected employment of undergraduates in Kelantan.
14	Khadeeja et al.	2017	Review Study	Factors effecting entrepreneurship interest: innovation, entrepreneurship education, family background, government support, social entrepreneurship, women participation, individual youth empowerment, collaboration of government university –industry.
15	Davey et al.	2011	Survey	SMEs and multinational companies are created by entrepreneurial intentions.
16	Ooi et al.	2011	Survey	Entrepreneurial intention is influenced by demographic characteristics and family business background.
17	Ariff and Abu Bakar	2003	Survey	Only 32.8% students' involvement in business activities after graduation. Study conducted between 2002 to 2005.
18	Kamariah et al.	2004	Survey	Students in government-link private university in Malaysia showed high interest in entrepreneurial intention. 240/279 respondents showed positive attitude towards the intention.
19	Ismail et al.	2009	Survey	Entrepreneurship education in Malaysia.
20	Ismail and Ahmad	2013	Survey	Entrepreneurship education in Malaysia.

2.3.2 Independent Variable

a. Entrepreneurship Education

Cumming and Zhan (2018) defined any educational programme or activity aimed at developing entrepreneurial attitudes and abilities as entrepreneurship education. There are various types of entrepreneurship education available and each is geared toward a specific stage of development (Cumming & Zhan 2018; Fiore et al. 2019; Zaring et al. 2021). The expanding discourse that compliments the huge development in

entrepreneurial education offerings across primary, secondary, and university levels matches the sector's diversity and heterogeneity (Hassi 2016). Numerous studies have been conducted around the world to help strengthen national policies and educational programmes in order to produce younger generations who can generate their own income through entrepreneurial activities rather than relying on the job market, which is scarce in some parts of the world (Welsh et al. 2016).

Various types of entrepreneurship education have been identified by academics, each of which is tailored to a unique audience. For example, students who have no prior experience launching a business will benefit from awareness education because the purpose of entrepreneurial awareness education is to allow for the development of entrepreneurial skills, apart from helping them with choosing a career (Hadi et al. 2015). Most university-level programmes aim to raise entrepreneurial awareness and equip aspiring entrepreneurs (Weber 2011). Functionally, entrepreneurship education has been praised for its ability to raise awareness and encourage young people to choose self-employment as a career option. Therefore, the goal of entrepreneurship education is to instil an entrepreneurial mindset in young people, which will help them make better professional decisions (Duval-Couetil & Long 2014).

Entrepreneurship education programmes are based on the notion that entrepreneurial abilities can be taught and are not a result of innate personality traits. It has been established that even general education has a positive impact on entrepreneurial skills (Yusoff et al. 2015). The subject of entrepreneurship continues to pique the interest of academics and policymakers alike, to the point where many university business schools now offer entrepreneurship courses as part of their graduate and undergraduate programmes. Similarly, empirical research studies examining the impact of entrepreneurship education on the decision to start a business are progressively rising (Akpochafo & Alika 2018; Duval-Couetil & Long 2014; Mohamad et al. 2014).

Azizi (2009), however, highlighted that entrepreneurial education produces long-term results as well which included changes in mindset, culture, support system, and youth influence on company. Individuals' horizons are broadened by the

educational system, which provides them with cognitive skills and enables them to detect and explore entrepreneurial prospects, as well as help them develop attributes that are regarded crucial for entrepreneurship. Furthermore, entrepreneurship education assists students in recognising new venture creation as a viable career alternative, developing positive and favourable attitudes toward entrepreneurial settings, and presenting new career views for part or all of one's professional life. It can become an essential tool in developing the entrepreneurial culture of a region. Finally, entrepreneurship education can help improve the image and highlight the role of entrepreneurs in society, in addition to developing an entrepreneurial spirit and a passion for entrepreneurship (Li & Wu 2019).

In Poland and other Central and Eastern European nations, the importance of school education in moulding entrepreneurial attitudes of a person ready to take on all types of difficulties in the market economy is even more significant (Rachwal et al. 2016). This is a result of the fact that, in many cases, the education and professional experience of youth's parents is insufficient, given the many conditions of the centrally planned economy, in which a large number of parents has lived for a long time. Young individuals can benefit greatly from entrepreneurial knowledge and abilities in order to achieve a prosperous professional future. In this context, entrepreneurship education can make a significant contribution to the development of their entrepreneurial attitudes and skills. It has the potential to motivate future graduates to acquire and internalise entrepreneurial mindsets, preparing them for future difficulties (Lepuschitz et al. 2018).

The goal of every educational programme is to ensure that the system's graduates have the necessary knowledge, skills, and attitudes to contribute meaningfully to the nation's economic progress (Ediagbonya 2013). No doubt, the everyday increase in the number of Malaysian graduates and the incapability of the government to meet with the necessity such as providing opportunities in creating meaningful jobs to the aspirations of unemployed and employable Malaysia graduates, has led to the consideration of the alternative or self-employment intentions called entrepreneurship.

According to Idada et al. (2014), entrepreneurship education is a type of education that is delivered to people with the goal of developing entrepreneurial traits

and then following up with support services to ensure a smooth start and successful business operation. In a related way, Ekankumo and Kemebaradikumo (2011) confirmed that the goal of entrepreneurship education is to equip students, particularly those in higher education, with the information, skills, and drive to pursue entrepreneurial endeavours in a variety of settings. Oluchi and Ezenwafor (2018) defined entrepreneur as the founder or creator of a profit-seeking organisation of society or economic organisation, founded for the purpose of supplying commodities and services for consumption by the society in which it is located.

Education training and development play very crucial roles in entrepreneurial development and skills acquisition. At the primary school level, the “catch them young concept” should be the central objective, while at the secondary and tertiary levels, students are to be provided with some form of background knowledge on entrepreneurship and based on this, the training and development should be complemented with an industrial experience by the learners. For example, secondary, polytechnic, undergraduate, and graduate students are now being taught the conceptual and practical abilities that entrepreneurs need to succeed in specialised functional areas like accounting, marketing, production, and personnel, as suggested by Oluchi and Ezenwafor (2018). Chigbuson (2011) referred to the goals of entrepreneurship education, presented by Garavan and O’Cinneide (1994) as:

1. To foster entrepreneurial mindsets, skills and behaviours among the recipients
2. To empower students with the competencies and skills necessary to prepare them to respond to their life needs, including running their own business, so that they become productive citizens
3. To develop innovation in youths and develop their skills to identify, create, initiate and successfully manage personal, community, business and work opportunities
4. To increase the awareness and understanding of the process involved in initiating and managing a new venture, as well as to enhance the public’s

perception of learners of small business ownership as a serious career option; and

5. To identify and stimulate entrepreneurial drive, talent and skills to undo the risk-averse bias of several analytical techniques and to devise attitudes towards change.

According to Amiri and Marimaei (2012), entrepreneurship is a means of gaining a competitive edge. They view entrepreneurship as a key competency in creativity and innovation. Entrepreneurship has long been recognised as the fundamental importance for the economy of every country. The entrepreneurial process has generated considerable academic interest for it involves all the functions, activities, and actions associated with the perception of opportunities and establishments of groups to seek such opportunities. Entrepreneurship education is important not only for the development of entrepreneurial culture in society, but also for the creation of the necessary knowledge for business start-up, survival, and growth.

Teaching methods, like other types of education, play an essential part in entrepreneurial education (Arasti et al. 2012). The scope of entrepreneurship education (EE), as well as the venues through which it pervades and is pervaded, is broad and includes all relevant inputs, processes, and implementation practises in education, including, to varying degrees and approaches, all educational disciplines and cycles in formal and non-formal systems. Governance, law, financing, curricula, teacher education, and the responsibilities of many players in the public and private sectors are among the contributions at system level. At school level, on the other hand, teaching/learning approaches, testing and certification, out-of-class and out-of-school activities, school administration, and staff development are all examples of inputs (Masri et al. 2010).

Table 2.3 below summarises previous studies on entrepreneurship education as discussed in this section.

Table 2.3 Author's compilation of previous studies on entrepreneurship education

No	Author(s)	Year	Methodology	Findings
1	Zaring et al.	2021	Survey	Entrepreneurship education differs at various stages, according to countries and national policy. Study conducted at Swedish higher education institution.
2	Fiore et al.	2019	Survey	Different steps of entrepreneurial education based on levels.
3	Li and Wu	2019	Survey	Entrepreneurship education can also contribute to improve the image and highlight the role of entrepreneurs in society.
4	Cumming and Zhan	2018	Review Study	Entrepreneurship education consists of any education program or process of education for entrepreneurial attitudes and skills.
5	Akpochofo and Alika	2018	Survey	Entrepreneurship education that influences the decision to become an entrepreneur is steadily increasing.
6	Lepuschitz et al.	2018	Survey	Entrepreneurship education can make a significant contribution to the development of their entrepreneurial attitudes and skills.
7	Oluchi and Ezenwafor	2018	Survey	Entrepreneur as the originator or creator of a profit seeking organisation of the society or economic organisation established for the purpose of providing goods and services for the consumption of the society.
8	Hassi	2016	Survey	Heterogeneity of the sector is matched by the growing rhetoric that complements the tremendous growth in entrepreneurship education offerings across primary, secondary and university levels.
9	Welsh et al.	2016	Survey	Entrepreneurship education helps students to gain own income through entrepreneurial activities instead of depending on the job market.
10	Rachwal et al.	2016	Survey	Role of school education in shaping entrepreneurial attitudes of a person ready to undertake different kinds of challenges in the market economy.
11	Hadi et al.	2015	Interview Observation	Entrepreneurial awareness education is to allow students to develop entrepreneurial skills, and to assist them in choosing a career.
12	Duval-Couetil and Long	2014	Survey Interview	Role of entrepreneurship education is mainly to build an entrepreneurial culture among young people that, in turn, would improve their career choices towards entrepreneurship.
13	Mohamad et al.	2014	Survey	Entrepreneurship education that influences the decision to become an entrepreneur is steadily increasing.

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14	Ediagbonya	2013	Review Study	To ensure that the products of the system are equipped with the relevant knowledge, skills and attitude needed to contribute meaningfully to the economic development.
15	Amiri and Marimaei	2012	Review Study	Entrepreneurship as a driver of competitive advantage.
16	Arasti et al.	2012	Semi-structured Interview	Teaching methods have an important role in entrepreneurship education.
17	Masri et al.	2012	Survey	At school level, it inputs such as teaching/learning methodologies, testing and certification, out-of-class and out-of-school activities, school administration and staff development.
18	Weber	2011	Interview	Most EE syllabus increase entrepreneurial awareness and to prepare aspiring entrepreneurs.
19	Idada et al.	2014	Survey	Entrepreneurship education is the kind of education given to people with a view to developing entrepreneurship qualities properly.
20	Ekankumo and Kemebaradikumo	2011	Survey	The reason behind entrepreneurship education is to provide students, specifically those in tertiary schools with the knowledge, skills and motivation to encourage entrepreneurial studies.
21	Chigbuson	2011	Survey	Identified four goals in entrepreneurship education as outlined by Garavan and O'Conneide (1994)
22	Azizi	2009	Review Study	Entrepreneurship education long term results include change in attitude, culture, support system and influence on business created by youth

b. Entrepreneurial education at secondary school level

Part of the objective is to introduce a more systematic entrepreneurial education initiated by the Malaysian government to change the mindset of Malaysians from being salaried workers to becoming self-employed. Several research findings have suggested that most experts agree that entrepreneurs are not born but they learn to become entrepreneurs. When actions are taken to promote entrepreneurship culture, interest, and mentality while children are still in elementary school, a more beneficial and compelling effect can be expected (Tih et al. 2009).

Entrepreneurship education seeks to provide students with all the necessary skills, knowledge, and motivation that can enable them to successfully carry out entrepreneurial activities. In other parts of the world, various aspects of entrepreneurship education are offered at various levels of education, ranging from primary through secondary schools to higher education (Ajagbe 2016). There has been a growing awareness of the significant role that acquisition of vocational skills can play in both personal and national development. This is in response to the rising rate of chronic youth unemployment in many nations throughout the world, as well as the high level of social instability that has resulted, as suggested by Okoye and Udouo (2015). Thus, the importance of introducing entrepreneurship education into all stages of development of a young person from the early school stage to higher education institutions can never be overlooked.

According to Rachwal et al. (2016), the process of national economic transformation in Poland and other Central and Eastern European countries was linked to the transition from a socialist, centrally planned economy to a market economy, which took place in the context of globalisation and European integration. This has impacted the need for society to be properly prepared to perform in an increasingly complicated socioeconomic environment. They further added that this preparation takes occur primarily inside the educational system, where entrepreneurial mindsets are developed at all phases of a young person's growth, from elementary school through higher education institutions.

Zaidatol Akmaliah and Afsaneh (2011), conducted a study to determine entrepreneurial attitude and entrepreneurial self-efficacy among Malaysian secondary school students in order to evaluate the entrepreneurship inclination and potential. A sample of 2,574 students were randomly selected as the participants of this study from three states around Malaysia with encouraging results pertaining to Malay students where they had a moderately high attitude towards entrepreneurship. More specifically, the students scored high in self-esteem cognition and achievement cognition but low in self-esteem behaviour and self-esteem affect. Moreover, the students perceived themselves as moderately capable of establishing new ventures. Parallel to the entrepreneurship domain's progress in the western countries in the 1990s, various

entrepreneurship training programmes and initiatives have been developed in Malaysia to assist the country's transformation towards a self-sufficient nation (Sabarudin et al. 2011).

According to Tih et al. (2009), entrepreneurship education at secondary school level is crucial for cultivating entrepreneurial spirit among students and providing early exposure to entrepreneurship concepts and activities. In their research to identify students' characteristics and entrepreneurial intention, a survey to examine three elements of students' characteristics, namely, innovation and creativity, social skills and behaviour, as well as self-management and entrepreneurial intentions among these students was conducted at secondary schools in Malaysia. The findings revealed and reinforced several important discoveries. Most importantly, they indicated that characteristics such as innovation and creativity, social skills, self-management, and entrepreneurial intentions are obvious, and students' motivation towards entrepreneurship were found to be at moderate to high. Thus, if this hidden talent was not appropriately developed, it would disappear or diminish in the later stages of education.

The Figure 2.4 below depicts the findings of their study.

	Mean	Std. Deviation	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
1. I like to try new things	3.89	0.88	10 (1.7)	31 (5.2)	109 (18.3)	300 (50.4)	136 (22.9)
2. I like games that require skills	3.83	0.95	10 (1.7)	40 (6.7)	145 (24.4)	242 (40.7)	153 (25.7)
3. I like to think	3.75	0.92	12 (2.0)	35 (5.9)	165 (27.7)	258 (43.4)	123 (20.7)
4. I always find new information	3.60	0.89	7 (1.2)	51 (8.6)	207 (34.8)	235 (39.5)	93 (15.6)
5. I have my own ideas	3.58	0.86	9 (1.5)	37 (6.2)	229 (38.5)	232 (39.0)	83 (13.9)
6. I like to do things different from others	3.56	0.95	21 (3.5)	47 (7.9)	185 (31.1)	256 (43.0)	81 (13.6)
7. I use computer for useful work	3.54	0.98	15 (2.5)	58 (9.7)	220 (37.0)	195 (32.8)	107 (18.0)
8. I like to modify exiting things	3.39	1.00	23 (3.9)	78 (13.1)	212 (35.6)	194 (32.6)	79 (13.3)
9. I like to use Internet in communication	3.35	1.21	44 (7.4)	108 (18.2)	157 (26.4)	157 (26.4)	121 (20.3)
10. I like to reuse abandon items	2.96	1.13	72 (12.1)	121 (20.3)	213 (35.8)	133 (22.4)	53 (8.9)
11. I like to do things not within instructions	2.87	1.08	69 (11.6)	139 (23.4)	225 (37.8)	116 (19.5)	41 (6.9)

Note: n = 595, mean score = 3.45

Figure 2.4 Innovation and creativity among secondary school students in Malaysia

Source: Tih et al. 2009

Table 2.4 below summarises previous studies on entrepreneurship education at the secondary school level as discussed in this section.

Table 2.4 Author's compilation of previous studies on entrepreneurship education at the secondary school level

No.	Author(s)	Year	Methodology	Findings
1	Ajagbe	2016	Survey Documentary Analysis Semi-structured Interview	Different aspects of entrepreneurship education are offered at different levels of schooling ranging from primary through secondary schools to tertiary education in other parts of the world
2	Rachwal et al.	2016	Secondary Data	Transformation of national economy depends on development of entrepreneurial attitudes at all stages of development of a young person from the early school stage to higher education institutions.
3	Okoye and Udouo	2015	Secondary Data	Growing awareness of the significant role that acquisition of vocational skills can play in both personal and national development

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4	Zaidatol Akmaliah and Afsaneh	2011	Face to Face and Semi-structured Interview	Entrepreneurial attitude and entrepreneurial self-efficacy in evaluating the entrepreneurship inclination and potential among Malaysian secondary school students
5	Sabarudin et al.	2011	Survey	Development of various entrepreneurship training programmes and initiatives to facilitate the country's transformation towards a self-reliance nation.
6	Tih et al.	2009	Secondary Data	The need to develop the entrepreneurship culture, interest and mind are geared up when students are still at their fundamental education level.

c. Teaching methodologies

Entrepreneurship education caters to a wide range of audiences, goals, topics, and instructional approaches (Fayolle & Gailly 2008). In previous studies, the most commonly cited objectives of entrepreneurship education are: to acquire entrepreneurship-related information; to acquire skills in the use of techniques; to reconsider attitude toward change in analysing business situations and synthesising action plans; to identify and inspire entrepreneurial drive, talent and skills; to reverse the risk-adverse bias of many analytical techniques; to develop empathy and support for entrepreneurship's unique aspects; to inspire new start-ups plus other entrepreneurial ventures; and to stimulate the 'affective socialisation element' (Alberti et al. 2004).

The important primary objectives of teaching entrepreneurship education are to raise awareness; knowledge and understanding about enterprises/entrepreneurship concepts and practices; to develop individual enterprising/entrepreneurial skills, behaviours and attitudes; to develop personal self-confidence and capability; to cultivate empathy for a businessperson's way of life; to embed entrepreneurial values and beliefs; to motivate and inspire students toward an enterprising or entrepreneurial career or life; to understand the venture creation process; to develop general entrepreneurial capabilities; to develop significant business 'how-to's'; to develop personal relationship and networking techniques; to prepare for becoming a freelancer or be self-employed; to start a new business; and to exploit institutionally-owned IP (Hannon et al. 2006). On the other hand, long-term outcomes of entrepreneurship

education include changes in mindset, culture, support system, and business influence made by youngsters (Azizi 2009).

Individuals' horizons are broadened as a result of the educational system, which provides them with cognitive tools and enables them to perceive and explore entrepreneurial prospects. Moreover, the educational system can provide the persons with support in developing qualities that are essential for entrepreneurship. Entrepreneurship education also assists students in recognising new venture creations as a potential career alternative, develops positive and constructive attitudes toward entrepreneurial settings, and presents them with new career views for part or all of their professional life. Besides, it is an essential tool in developing the entrepreneurial culture of a region. Finally, entrepreneurship education can help improve the image and highlight the role of entrepreneurs in society, as well as develop an entrepreneurial spirit and a passion for entrepreneurship (Fayolle & Gailly 2008).

Opinions abound on whether entrepreneurship can be taught, and anecdotes regarding whether entrepreneurs are born or bred dominate conversations in international publications and conferences as the number of colleges providing entrepreneurship courses continues to expand. One of the ideas put out is that talent and temperament are inextricably linked (Fayolle & Gailly 2008). It is becoming evident that entrepreneurship, or at least some aspects of it, can be learned (Kuratko 2003). However, one could argue that this is true for a wide range of occupations and situations for nobody can deny that medical, law, or engineering can be taught. However, some physicians, attorneys, and engineers are talented while others are not, thus, a similar argument can be made for entrepreneurship and entrepreneurs (Fayolle & Gailly 2008).

According to Arasti et al. (2012), finding the most effective strategy to manage teachable skills and identifying the best fit between students' demands and teaching techniques is the key to a successful entrepreneurship education. In a study conducted by Esmi et al. (2015), the methodical, organised teaching methods and logical ways of delivering courses should be aligned with entrepreneurship goals and materials, as well as tailored to the needs of the students. In fact, studies have shown that the teaching-learning approach is without a doubt one of the most important aspects of

entrepreneurship curriculum design, as it is crucial to the studies and research associated with such a programme. Consequently, researchers in the field of entrepreneurship have offered various methods for teaching entrepreneurship.

As put forward by Jack and Anderson (1999), entrepreneurship education is both a science and an art, with the former referring to the practical abilities needed to start a business (an area which appears to be teachable) while the latter refers to the aspects of entrepreneurship that are not clearly teachable, such as creativity. Entrepreneurship educators are unified in their belief that there has to be a shift in emphasis from scientific to artistic and creative education of entrepreneurship. Despite the fact that most entrepreneurship courses and training are focused on the scientific component of entrepreneurship, it has been recognised that entrepreneurship education can assist ignite the artistic, creative, and perceptual parts of business (Lee et al. 2011).

In a study by Oyelola (2013), teaching entrepreneurship education has been revealed to be difficult and problematic since it necessitates fresh and active teaching approaches, as entrepreneurship education is to be considered a creative rather than a mechanical process. According to Mwasalwiba (2010), most authors divide teaching methods into two categories: "traditional methods" (which include typical lectures) and "innovation methods" (which are more action-oriented), also known as "passive methods" and "active methods," respectively. Group projects, business strategies, practical experience in creating and selling products and services, and learning from mistakes should all be replaced with problem-based teaching, and content-oriented curriculum should be replaced with process-oriented curricula. Hence, as entrepreneurship teaching methods, problem-solving, active training methods, and practical learning activities, as well as giving creativity chances, developing new ideas, and hosting classes and specialised workshops, can be used (Mojalal et al. 2011).

Lonappan and Devaraj (2011) successfully listed the teaching methods of entrepreneurship education as group discussions, case studies, individual written reports, group projects, individual presentations, becoming guest speakers, giving formal lectures, conducting action learning, seminars, web-based learning, and video recording were successfully classified as entrepreneurship education teaching methods.

Arasti et al. (2012) examined a study of teaching methods in entrepreneurship education for graduate students and confirmed that all experts have concurred that useful teaching methods include "group discussion", "formal lectures", "group project" and "simulation" whereas "interview with entrepreneurs", is confirmed by only one of experts to be beneficial. However, there are experts in the field who have agreed with "interview with entrepreneurs" provided it is conducted together with debates and feedbacks from the teachers, and not just done by the students. Experts did not concur on "seminars" and "videos" because they are considered as tools; not as teaching methods. They have also added problem-solving, enterprise training, and scientific visits to the list of other instructional approaches.

Effective learning approaches in entrepreneurial education should include students practising hands-on learning (Hernández-Sánchez et al. 2019). In order to develop successful teaching methods, it is important to gain a fundamental grasp of how individuals and groups of pupils learn (Blass 2018). Students can engage in creating their own learning goals and tasks when they take ownership of their learning, and it is only then that generic entrepreneurial abilities can be exercised and developed (Zaidatol Akmaliah 2009).

Solomon et al. (2002) highlighted that creation of business plans, case studies, and lectures are among the popular teaching methods in entrepreneurship education. However, Hytti and O’Gorman (2004) presented a different view, as depending on the goals of entrepreneurship education, there are a variety of approaches. They stated that if the goal of education is to improve people's awareness of what entrepreneurship is all about, the most effective approach to achieve that goal is to disseminate information through public channels like the media, seminars, or lectures and that these methods are effective in terms of disseminating useful information to a large number of people in a short amount of time. However, if the goal is to offer individuals with entrepreneurial skills that can be applied immediately to the workplace, the best option is to provide education and training that allows people to participate directly in the entrepreneurial process, such as industrial training. Lastly, the most successful method is to promote experimentation by allowing people to try out entrepreneurship in a controlled

environment, such as through business simulation or role acting, if the goal is to train people to be entrepreneurs (Ahmad et al. 2004).

Building on the issues stated in this section, it is strongly suggested that this study on the effect of entrepreneurship education towards self-employment intentions among Malaysian public university students should be conducted.

Table 2.5 below summarises previous studies on teaching methodologies as discussed in this section.

Table 2.5 Author's compilation of previous studies on teaching methodologies

No.	Author(s)	Year	Methodology	Findings
1	Hernández-Sánchez et al.	2019	Literature Review	Effective learning methods should involve students practicing hands-on learning.
2	Blass	2018	Semi-structured Interview	Develop a basic understanding of how individuals and groups of students actually learn to obtain a good entrepreneurship education.
3	Esmi et al.	2015	<ul style="list-style-type: none"> ▪ Secondary Data ▪ Semi-structured Interview ▪ Survey Questionnaire 	Systematic, organized and logical ways of providing lessons that should be consistent with entrepreneurship goals and contents and should also be developed according to the learners' needs
4	Oyelola	2013	Narrative Textual Case Study (NTCS)	Entrepreneurship education is to be considered as a creative process rather than a mechanical one.
5	Arasti et al.	2012	Semi-structured Interview	Entrepreneurship education is to find the most effective way to manage the teachable skills and identify the best match between student needs and teaching techniques.
6	Mwasalwiba	2010	Semi-structured Literature Review	Teaching methods have two major categories; "traditional methods" (comprising normal lectures) and "innovative methods" (which are more action-based).
7	Zaidatol Akmaliah	2009	Survey Questionnaire	Students can participate in setting their learning goals and tasks to achieve generic entrepreneurial competencies are practiced and developed.

d. Teaching methodologies for entrepreneurship education in Malaysia

In Malaysia, the entrepreneurial academic processes and activities of the university are ingrained in the university system, cultivated in its academic faculties, incorporated in its community of practise, and imbued in everyone. The entrepreneurial activities in academic entrepreneurship are focused towards exploiting perceived opportunities in the knowledge-based economy. Previously, knowledge transfer, the formation and development of new organisations, and technology-based spin-offs were all associated with academic entrepreneurship research. It is not only interpreted as an organisational creation, but also strategic renewal, transformation and innovation within the university system itself.

In view of this, entrepreneurial activities include the process of transferring technology to industry or the commercialization of technologies or inventions through licencing agreements and university-based start-ups. Universities need to go further to train skilled undergraduates to contribute towards a knowledge-based innovation system and economies despite already achieving success in teaching and researching in academic entrepreneurship. Through contract research, cooperative research with industry, technology licencing, and faculty consulting, students must participate in problem-solving activities in the business and community, as well as have access to specialised instruments, equipment, and incubation services.

Yusoff et al. (2015) collected data on entrepreneurship teaching practises at all Malaysian institutes of higher learning (IHL), as well as problems, facilities, and support provided by the universities. The respondents were personally responsible in the administration, supervision, and coordination of entrepreneurship programmes at their respective universities. Using structured, personal interviews and open-ended questions, the data gathered were analysed using a qualitative approach, in particular the descriptive comparison technique. Their analysis has identified three subsections: (1) findings about the support according to each university's authority and type of support, (2) related activities, and (3) the respondents' challenges and suggestions to resolve such problems. The study found that only 1 out of the 20 universities in Malaysia have not introduced any entrepreneurship programmes which was the

Universiti Pertahanan Malaysia (Defence University of Malaysia). The reason for this was regarding the university's main educational objective that is to produce high ranking army personnel, hence, the students would not be involved in entrepreneurship. The survey result was, nevertheless, encouraging in that 19 public universities out of 20 indicated that they carried out entrepreneurship programmes as a core subject.

Cheng et al. (2009) stated that in Malaysia, researchers have looked at the effectiveness of entrepreneurship education and discovered that there was no link between entrepreneurship knowledge and the desire to venture into business. Their study revealed that the existing entrepreneurship education is a failure with regard to increasing students' desire to pursue entrepreneurship as a career. Unfortunately, most of the entrepreneurship learning process in Malaysia was theoretical as it was carried out within lecture halls. Cheng et al. (2009) summarised the respondents' feedback into the following categories: inexperienced lecturers, ineffective methodologies that are examination oriented and too theoretical, and insufficient practical exposure. Their findings revealed that the entrepreneurship programme in Malaysia was conducted via lectures (84%), case study (11.5%), and lectures by guest speakers (6.3%). This has led them to suggest that most respondents believed that entrepreneurs were inborn and that an average person could not be trained to be an entrepreneur, hence the entrepreneurship ideology was poorly presented.

Some Malaysian universities are still using the traditional methods of teaching which included lectures, handouts, materials, and video presentations. A variety business programmes have attempted to improve students' performance as entrepreneurs by providing them with relevant information through learning and practise. However, typical instructor-centered techniques to programme facilitation were used in several of the university-based programmes. There is still room for improvement and the entrepreneurship education in Malaysia is currently moving in the right direction (Hardy et al. 2015).

e. Curricula content

Lackéus and Middleton (2015) claimed that previous studies have proven that the key factor to develop and foster entrepreneurialism is to have some exposure to entrepreneurship education. However, since it is multidisciplinary in nature, entrepreneurship as a pedagogical topic will always be a work in progress and an unfinished debate due to the lack of uniformity pertaining to the “how”, “who”, and “what” to teach in entrepreneurship, what to include in its contextual and conceptual understandings, despite entrepreneurship education is increasingly gaining attention from the academia (Baggen et al. 2017; Vanevenhoven 2013).

Entrepreneurship education has influenced graduates who have taken entrepreneurship courses to start a new firm in a good way (Ahmed et al. 2017; Jones & English 2004; Kuckertz et al. 2017). Developing an entrepreneurship education curriculum or syllabus is critical since it covers not only cognitive but also emotive demands. In Malaysia, this view is aligned with the National Economic Policy (NEP) to create individuals who are intellectually, spiritually, emotionally, and physically balanced and harmonious. Potential entrepreneurs need to learn to utilise their emotions because their perception can have an impact on their capacity to recognise and respond to business opportunities. (Foo 2011; Karimi et al. 2016; Welppe et al. 2012). This is concurred by Kuckertz et al. (2017) that an entrepreneur usually takes advantage of opportunities and exploit them. Students or aspiring entrepreneurs are more involved in the planning process, including evaluating and analysing using different approaches to the business models they adopt as well as evaluating the resources to invest (Ferreira et al. 2017). Therefore, it is critical to provide students with entrepreneurship education in order to improve the overall quality of entrepreneurs, who will be better equipped for any eventuality.

The development of curriculum and entrepreneurial learning activities, whether official or informal, are used to execute EE. This suggests that HLIs are critical in guaranteeing that EE can develop students' potentials and enhance their knowledge and thinking so that they can become entrepreneurs. Experiential learning is an effective way for educational institutions to influence student entrepreneurial behavior and

conduct business activities on campus. This is parallel to Fayolle and Gailly (2008) stated that students should be exposed to entrepreneurial activities in order to inspire and instil entrepreneurship in them. This was acknowledged by Hamzah et al. (2016) who claimed that a compulsory entrepreneurship course in a public university in Malaysia can influence entrepreneurial inclinations among real estate graduates.

Meyers and Pruthi (2011) commented that the entrepreneurial curriculum was developed differently across universities, and it was offered either as an optional module within business courses or a specific course on entrepreneurship. Lay and Khoo (2012), have suggested to develop the entrepreneurship curriculum content from four perspectives: the educator (expertise), students (need of education), curriculum developer (education and educator objectives), and evaluation (changing the content of the curriculum according to the standards provided).

To produce students capable of dealing with real entrepreneurial activities or transform their entrepreneurial competencies into practical ways is the central focus of the courses designed for entrepreneurship. Meanwhile, the courses *about* entrepreneurship are concerned with teaching entrepreneurship as a required subject in the syllabus via traditional methods. This has highlighted the major challenge of entrepreneurship education which is the appropriateness of the curriculum and the teaching methods used in developing students' entrepreneurial competencies and skills (Linton & Klinton 2019). It is apparent that more suitable contents are required to meet the needs of students from several fields.

McLarty et al. (2010) suggested the following important aspects to have in a good entrepreneurship programme: (a) promotion of awareness of entrepreneurial skills; (b) development of entrepreneurship skills; (c) promotion of entrepreneurial knowledge, understanding, and attitudes; and (d) opportunities for students to open small businesses.

Besides, students with a non-business background could be offered specific courses aimed at certain knowledge and abilities (Othman et al. 2012). Such content could alter their view and enhance their interest in a subject. Moreover, programmes

focusing on small companies and skills education would provide students with ongoing insights into the procedures involved in establishing a business, as well as develop awareness, supply information, and enhance entrepreneurship knowledge. Students would receive hands-on training in technical skills by enhancing entrepreneurial knowledge through formal or informal education, whether through curricular activities or co-curriculum, expose them to practical experience, increase their positive experiences, and their social networking in identical and diverse academic fields. These might be accomplished through group projects, and instructional methods and formal or informal learning could be used to strengthen their personalities (McLarty et al. 2010). These researchers also argued that formal and informal exposure and educational background in entrepreneurship were essential.

Table 2.6 below summarises previous studies on curricula content as discussed in this section.

Table 2.6 Author's compilation of previous studies on curricula content

No	Author(s)	Year	Methodology	Findings
1	Linton & Klinton	2019	Experiment	Major challenge of entrepreneurship in relation to education is the appropriateness of curriculum and teaching methods in developing students' entrepreneurial competencies and skills
2	Baggen et al.	2017	Semi-structured Interview	Pedagogical issue of entrepreneurship always has conceptual and contextual understanding.
3	Lackéus and Middleton	2015	Literature Review	Entrepreneurship education seems to be a key factor to develop and foster entrepreneurialism
4	Vanevenhoven	2013	Online Survey	Pedagogical issue of entrepreneurship always has conceptual and contextual understanding.
5	Othman et al.	2012	Survey	Specific courses geared towards certain knowledge and skills can be offered to students with a non-business background
6	Meyers and Pruthi	2011	Review Study	Entrepreneurial curriculum develops differently across universities
7	McLarty et al.	2010	Survey	Formal and informal exposure and educational background in entrepreneurship are essential.

f. Curricula content of entrepreneurship education in Malaysia

In Malaysia, universities and other institutions of higher learning are increasingly offering entrepreneurship courses as core or elective disciplines (Badariah 2016; Hardy et al. 2015; Yusoff et al. 2015). Lay and Khoo (2012), have suggested to develop the entrepreneurship curriculum content from four perspectives: the educator (expertise), students (need of education), curriculum developer (education and educator objectives), and evaluation (changing the content of the curriculum according to the standards provided).

According to the MOHE (2010), all students, regardless of their degrees or faculties, should have access to entrepreneurial education. Students from many backgrounds could learn entrepreneurship by integrating components of entrepreneurship with their field of competence, such as science or technical topics. The content of entrepreneurship activities not only aimed to cultivate a desire to pursue entrepreneurship, but also to provide added value to students in the form of personality traits, attitudes, and entrepreneurial traits, such as being innovative, forward-thinking, competitive, and possessing mental and physical strength.

Malaysian universities were offering entrepreneurship as a core subject at the undergraduate level for business courses. Graduate entrepreneurship trainings, graduate basic entrepreneurship courses, and graduate entrepreneur development programmes were all available to students at universities and higher education institutions. Additionally, students can enrol for credits in an entrepreneurial co-curriculum and entrepreneurship club (Yusoff et al. 2015). The programmes offered by the Malaysian universities and colleges do expose students to the concept and theories of business and management, which included the following functions.

First, analysing business strategies by gaining concrete knowledge of concepts as tools of analysis for business situations. Second, acquiring and understanding the diverse business settings' processes. Third, obtaining skills and information by learning and modifying the analytical, planning, and communication parts to conduct operations. Fourth, operate the skills that can be applied to a variety of complicated business

scenarios. The government in Malaysia has been continuously promoting the entrepreneurial culture in the schools, colleges and universities toward the formation of a society that is entrepreneurial and innovative. Many entrepreneurial programmes have been introduced in schools, colleges, and universities. Individuals with an interest and ambition to create enterprises while studying are supported in schools, even at a young age (Siti Farhah Fazira et al. 2015). Apart from being taught as an academic subject in the curriculum or as a compulsory or elective subject for business and other related courses, the entrepreneurship development centres exposed students to a variety of entrepreneurial activity.

Table 2.7 below summarizes previous studies on curricula content in Malaysia as discussed in this section.

Table 2.7 Author's compilation of previous studies on curricula content in Malaysia

No	Author(s)	Year	Methodology	Findings
1	Badariah et al.	2016	Survey	Entrepreneurial skills and activities can be spurred through entrepreneurship education and training in a public university.
2	Hardy et al.	2015	Review Study	Current situation of entrepreneurship education, the issues and challenges and recommending ways to improve the situation.
3	Mohd Nor Hakimin et al.	2015	Review Study	Practical issues and challenges faced by the universities in conducting entrepreneurship education programs.
4	Siti Farhah Fazira et al.	2015	Survey	Students are exposed to many entrepreneurial activities organised by the entrepreneurship development centres.
5	Lay and Khoo	2012	Secondary Data	Content of the entrepreneurship curriculum should be developed from four perspectives: that of the educator (expertise), student (need of education), curriculum developer (education and educator objectives), and evaluation (changing the content of the curriculum according to the standards provided).
6	Norasrah et al.	2010	Survey	Entrepreneurship education studies are also offered to students in the universities and higher education institutes in the forms of co-curricular activities and programmes financed by the MECD.

g. Internship programme

Internships refer to on-the-job training programmes that equip students with the practical experience in a supervised learning environment connected to their studies (Chou et al. 2017). The primary goal of an internship programme is to reinforce classroom information by allowing students to apply what they've learned in the real world (Fitzgerald et al. 2014). It also provides an opportunity for students to apply countless classroom knowledge to solve real industrial problems (Anjum, 2020). Thus, the internship program's major goal is to instil a sense of modernity in the students that participate in it, allowing them to take risks and learn to be creative, original, and dynamic (Ranabahu et al. 2020).

In line with that, internships have become an important aspect of entrepreneurial training and education, as well as a primary driver in the process of creating entrepreneurship, with a significant impact on students EIs, attitudes, and skills. Consequently, the internship presents undergraduates with a unique opportunity to gain practical experience and expertise by participating in supervised and scheduled work in a real-world professional setting before graduation (Yi, 2018). Internships are also a significant part of undergraduate entrepreneurship training since they contribute to practical application and skill development through training in a professional environment. The entrepreneurship learning process should not be limited to classroom talks, but should also include engagement with today's dynamic business environment, because only through practise can a student develop experience undertaking entrepreneurial operations. This was to enable students to gain hands-on experience by seeing, touching and feeling about the business. For this reason, entrepreneurial internships were seen to be a good way to give students such hands-on exposure in a real business (Ruch 2014; Sumual & Soputan 2018).

Entrepreneurship education including opportunities to participate in entrepreneurial internship programmes, focuses on the development of an entrepreneurial attitude, according to recent literature and developing enterprising abilities in university graduates improves their employability and raises their chances of becoming future entrepreneurs (Castro et al. 2019). Botha and Bignotti (2016) also

found that interns who participated in the internship programmes tend to have a better understanding of their professions and a higher degree of satisfaction with intrinsic and extrinsic rewards. Due to their early exposure to business environments, individuals with applicable entrepreneurial experience are found to have a favourable relationship with their desire and preparedness to pursue business chances.

Studies have shown that having internship experience resulted in more job offers, fewer time spent hunting for the proper position after graduation and increased monetary compensation for students (Gault et al. 2010). Internship provides students with a valuable experience of learning by doing in a real business situation, that comes with guidance and support. In addition, internship is included by universities and colleges in the overall study plan to provide business students with the experience and to prepare them for their future employment (Moghaddam 2011; Viviers et al. 2013).

Many scholars believe that entrepreneurial internship programmes should be required as part of a student's educational experience by looking at the benefits of internship programmes to students. This, in turn, has elevated the function of internship programmes into an important integral part of present-day educational curriculum in preparing university students towards an entrepreneurial career (Chou & Shen 2015). In other words, having effective entrepreneurial internship programmes will increase the number of university students interested in pursuing a career as an entrepreneur.

Internships are required as part of a bachelor's degree in Malaysia, and without them, a student cannot be accredited as a graduate. Internships are often completed in the final year of university and last 3 to 6 months. Students and their employers must countersign an internship contract, and students will receive formal reviews from their companies and university lecturers after the internship is completed. Following the internship, students must prepare for graduation and consider what career path to take, whether it is self-employment, gaining a position in a firm, or continuing their education at a university. Therefore, it remains of great significance to study the effects of the internship on graduates' intention to get into business or self-employment.

Table 2.8 below summarises previous studies on internship programme as discussed in this section.

Table 2.8 Author's compilation of previous studies on internship programmes

No	Author(s)	Year	Methodology	Findings
1	Anjum	2020	Interview Survey	Internships allow students to apply what they've learned in class to address real-world challenges in the industry.
2	Ranabahu et al.	2020	Secondary Data	The internship program's major goal is to instil a sense of modernity in the students that participate in it, allowing them to take risks and learn to be creative, original, and dynamic.
3	Sumual and Soputan	2018	Case Study ▪ In-depth Interview ▪ Focus Group Discussion	Entrepreneurial education must be taught in dynamic environment.
4	Yi	2018	Interview Survey	Internship provides undergraduates with a precious opportunity to personally experience and gain practical knowledge by taking part in supervised and planned work in an authentic professional environment before graduation.
5	Chou et al.	2017	Survey	Internships refer to on-the-job training programmes that give students with practical experience in a supervised learning environment connected to their studies.
6	Botha and Bignotti	2016	Interview Survey	Interns who have participated in the internship programmes tend to have higher career preparation about their jobs and higher level of intrinsic and extrinsic rewards satisfactions.
7	Chou and Shen	2015	Experiment	Internship programmes are an important integral part of today's educational curriculum in preparing university students towards entrepreneurial career.
8	Ruch	2014	Semi-structured Interview	Entrepreneurial internship is a good mechanism to provide students with learning experience in a real business.
9	Radu Lefebvre & Redien-Collot	2013	Mix-method approach: ▪ Participant Observation ▪ Semi-structured Interview ▪ Survey	Internship program is the process whereby knowledge is created through the acquisition and adaptation of experience: thus, knowledge that results from the combination of acquiring and transforming experience.
10	Wan et al.	2013	Interview Survey	Importance of internship program to enhance entrepreneurial experience among students.

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11	Viviers et. al.	2013	Survey	Internship program as platform for students to practise business.
12	Anderson and Siemers	2012	Review Study	Work- integrated learning opportunities that aim to incorporate the workplace setting.
13	Moghaddam	2011	Survey	Internships as a means of providing business students with practical experience and preparing them for their future careers.

2.3.3 Mediating Variable

a. Entrepreneurial self-efficacy

Self-efficacy is a construct first revised by Bandura (1977) in the psychological field and is defined as the strength of people's convictions about their own ability to execute the behaviour required to achieve specific results in the psychological area. People who have a high level of self-efficacy are more likely to set difficult objectives, persist even when they fail, and see difficult tasks as challenges to master rather than problems to avoid (Kibassa 2012). In an entrepreneurship context, it is called as entrepreneurial self-efficacy (ESE). ESE is defined as the belief individuals have in their capability to perform entrepreneurial tasks and activities (Newman et al. 2019). ESE has also been found to be linked to new venture performance, especially in very young ventures (McGee & Peterson 2017). In this case, launching a new business is seen as a deliberate effort that entails multiple attempts to exert control over the process in order to reach the intended result. Thus, among other constructs of personality, ESE is regarded as a major antecedent of the desire to become an entrepreneur in theory (Newman et al. 2019; Crespo et al. 2018).

Many academics have focused their research efforts investigating the relationship between entrepreneurial intention (EI) and ESE (BarNir et al. 2011; Prabhu et al. 2012) and have found that ESE is linked to the development of EI, as well as functioning as both mediator and moderator of the effects of other variables on EI. Individuals with higher ESE are thus expected to have higher EI. In terms of comprehending how ESE is created, it is worth mentioning that Bandura (1977) advocated that self-efficacy can be formed by, among other things, performance

accomplishments and vicarious experience. The former is concerned with a person's accomplishment in completing a specific behaviour, whereas the latter is concerned with a person's observation of others succeeding at a tough activity. Both factors strengthened self-efficacy by helping individuals to have a stronger belief in their ability to perform certain tasks successfully.

A robust body of research in the field of entrepreneurship has overtly investigated the relationship between entrepreneurial self-efficacy and self-employment intention. Clear patterns displaying individuals with higher entrepreneurial self-efficacy have higher entrepreneurial intentions and desire to become self-employed (Drnovšek et al. 2010; Kazeem & Asimiran 2016; Shaheen & Al-Haddad 2018). Respondents with high entrepreneurial self-efficacy also have higher levels of confidence in their ability to come up with a viable company idea. In short, those with high entrepreneurial self-efficacy are more likely to believe they have the confidence to pursue towards an entrepreneurial career or to become self-employed.

Not surprisingly, the concept of self-efficacy has been widely used in the literature on career theory to explain perceived career alternatives, professed career preferences, and, ultimately, career-oriented behaviour (Betz & Hackett 1981; Eccles 1994). A study by Bandura et al. (2001) included self-efficacy as one of a multitude of socio-cognitive factors on children's career goals and found that academic self-efficacy had the strongest direct effect. Research by Perez-Lopez et al. (2019) further suggested that entrepreneurial goals and activities were found to be influenced by self-efficacy.

In the career theory literature, the link between self-efficacy and profession choice has been thoroughly documented, but most studies have not included specific career options around entrepreneurship. Certainly, it would seem logical that the same effects of self-efficacy would exist in entrepreneurial careers. Given the difficult responsibilities of identifying an opportunity, gathering resources, establishing a business, and growing it into a profitable organisation, self-efficacy, or confidence in one's ability to succeed as an entrepreneur, would appear to be especially vital (Wilson et al. 2007).

Table 2.9 below summarizes previous studies on entrepreneurial self-efficacy as discussed in this section.

Table 2.9 Author's compilation of previous studies on entrepreneurial self-efficacy

No	Author	Year	Methodology	Finding
1	Newman et al.	2019	Secondary Data	The belief individuals have in their capability to perform entrepreneurial tasks and activities.
2	Shaheen and Al-Haddad	2018	Survey	Individuals with higher entrepreneurial self-efficacy have higher entrepreneurial intentions and desire to become self-employed.
3	McGee and Peterson	2017	Survey	ESE has also been found to be positively linked to new venture performance, especially in very young ventures.
4	Kazeem and Asimiran	2016	Survey	High entrepreneurial self-efficacy also has higher degrees of belief that they possess a viable idea for new business.
5	Kibassa	2012	Secondary Data	Someone with high level of self-efficacy tend to set challenging goals, persist even in the face of failure and approach difficult tasks as challenges to be mastered rather than issues to be avoided.
6	Prabhu et al.	2012	Survey	Individuals with higher ESE are expected to have higher EI.
7	BarNir et al.	2011	Self-administered Survey	ESE to relate to the development of EI, as well as to function as both mediator and moderator of the effect of other variables on EI.
8	Drnovšek et al.	2010	Review Study	High entrepreneurial self-efficacy are more likely to believe they have the confidence to pursue towards an entrepreneurial career or to become self-employed.
9	Wilson et al.	2007	Survey	Self-efficacy or the belief in one's ability to succeed as an entrepreneur would seem to be especially important.
10	Boyd and Vozikis	1994	Survey	<ul style="list-style-type: none"> ▪ Self-efficacy influences the development of both entrepreneurial career intentions and subsequent actions. ▪ Individuals with higher degrees of entrepreneurial self-efficacy in the early stages of career development will have higher entrepreneurial intentions, and that those with both higher self-efficacy and higher intentions will have a higher probability of being involved in entrepreneurial activity later in life.
11	Bandura	1977	Review Analysis	Self-efficacy is the strength of people's convictions of their own effectiveness in executing the behaviour required to achieve certain outcomes

2.3.4 Moderating Variables

a. Perceived university support

Universities in both rich and developing countries have been working hard to encourage and promote new business enterprises (Bergmann et al. 2016). Universities are increasing their involvement in entrepreneurial education, supporting entrepreneurship, and contributing to economic and social well-being (Budyldina 2018). This marks a change away from the traditional university mission of doing research and providing teaching in favour of a new strategy that links the university to its surroundings and encourages local development (Dalmarco et al. 2018). The basic idea behind this mission shift is that by providing training and support, colleges may have a direct impact on people's self-efficacy and desire to start a new enterprise (Bergmann et al. 2016).

According to literature, university assistance is described as a series of actions aimed at improving national economic development through consistent investment in high-quality education backed by a sufficient number of teachers and appropriate learning technologies (Mwoma & Pillay 2016). Additionally, university support, as a booster of entrepreneurship, provides free entrepreneurial education and sustenance, both of which are required to increase the potential of entrepreneurship and continued development; as a result, they are major players in training (Romero et al. 2011).

On the other hand, perceived university support also refers to the students' assessments of how their university has aided them in their entrepreneurial activities (Kraaijenbrink et al. 2010). This institutional assistance is largely believed to have had a significant influence in encouraging entrepreneurship (Lüthje & Franke 2003). Peterman and Kennedy (2003) found that participation in entrepreneurship programmes during college enhanced students' perceptions of the feasibility and desirability of starting their own business. Likewise, Souitaris et al. (2007) advanced that students' entrepreneurial attitudes and intentions were raised as a result of collegiate entrepreneurship programmes.

Similarly, a study by Kraaijenbrink et al. (2010) provided a more thorough classification of university support and proposed three comprehensive types of

university support: educational support (ES), concept development support (CDS), and business development support (BDS). ES refers to the providing of general information and skills required to establish a new business, and so encompasses current university knowledge support views. CDS refers to providing awareness, motivation, and business ideas in the early stages of the entrepreneurial process while the term BDS refers to the provision of support typically given to start-ups in the later stages of the entrepreneurial process.

According to Anjum et al. (2020), market research and commercialisation, providing of an enabling environment, and, most notably, seed money to student-teams or groups were all examples of university support. Moreover, universities can help with entrepreneurship career growth by employing role models in training, providing entrepreneurial support network, and encouraging business plan competitions among students. Those who took part in the business plan competition said it influenced their decision to pursue a career (Maigida et al. 2013).

Universities can play an important role in identifying and developing students' entrepreneurial traits and inclinations in preparing them to start their own business, so effectively contributing to economic prosperity and employment creation (Philomena & Philomena 2014). It is, therefore, important for universities to establish themselves as a centre for new venture creation by encouraging entrepreneurship and making a significant contribution to the economy and society (Carayannis et al. 2015; Pugh et al. 2018).

Previous research has recognised the value of entrepreneurship education (EE) and university support in the development of favourable perceptions of competence for start-up firms. EE has been associated with enhanced attitudes and intentions towards starting a new business. A prior study indicated that students' perceptions of university support influenced their entrepreneurial goals directly or indirectly (Mustafa et al. 2016; Saeed et al. 2015). In fact, university students who took entrepreneurship courses had a greater interest in becoming entrepreneurs compared with those who did not take it. Those who took entrepreneurship classes were more likely to have launched their own businesses (Wei et al. 2019; Zaring et al. 2021).

It is clear that an effective EE program and the entrepreneurial support provided by universities are efficient ways of obtaining the necessary knowledge about entrepreneurship and motivating young people to seek an entrepreneurial career. A study by Ahmad Yasruddin et al. (2011) revealed that due to rigorous rules and a lack of support in real entrepreneurial activity, students on Malaysian polytechnic campuses found it difficult to engage in entrepreneurial activities. Therefore, one way for higher learning institution to support the students is to provide mastery experiences or “learning by doing.” Apart from the traditional entrepreneurship mode of instruction, institutions should focus on their commercialisation role so as to provide students with the resources they need to develop their entrepreneurial skills.

Among the roles identified in a study by Saeed et al. (2015) were to offer awareness, give motivation, and help to deliver business ideas. Another way is to foster a supportive environment, for example, by providing resources such as a network of people who can supply specialised knowledge in areas such as marketing or accounting, the inclusion of role models, and the provision of one-to-one support. Some students might have the confidence to start their own business as a result of this encouragement (Kraaijenbrink et al. 2010).

Kraaijenbrink et al. (2010) also suggested that although universities can foster entrepreneurship in a variety of objectively measured ways, it was critical to assess the extent to which such measures could have an impact on students in order to fully comprehend their impact. This can be achieved by measuring students’ perceptions of the university support (PUS) that they receive. They proposed two aspects of PUS. First, universities can provide EE as part of their conventional teaching role by educating students the general information and skills required to start a new enterprise. Second, considering their commercialisation function, universities can also provide more targeted and customised support to individual students or groups of students who want to establish their own business.

Table 2.10 below summarises previous studies on perceived university support as discussed in this section.

Table 2.10 Author's compilation of previous studies on perceived university support

No.	Author	Year	Methodology	Findings
1	Zaring et al.	2021	Survey	EE has been associated with enhanced attitudes and intentions toward starting a new business.
2	Anjum et al.	2020	Survey	The university support provides in terms of market research and commercialization, provision of enabling environment, and interestingly, seed funding to student-teams or groups.
3	Wei et al.	2019	Survey	University students who took entrepreneurship courses had a greater interest in becoming entrepreneurs compared with those who did not take it. Higher percentage of those who attended entrepreneurship courses had started their own businesses.
4	Pugh et al.	2018	Survey	Higher learning institute must be a place for business creation by producing an entrepreneurial environment.
5	Budyldina	2018	Secondary Data	Universities are becoming more involved in entrepreneurial education, entrepreneurship encouragement, and contributing to economic and social welfare.
6	Mustafa et al.	2016	Survey	Study findings indicated that students' perceived university support as directly or indirectly influencing their entrepreneurial intentions.
7	Mwoma and Pillay	2016	Survey	University support is described as a series of activities aimed at boosting national economic development by investing in high-quality education that is backed up by a sufficient number of teachers and appropriate learning equipment.
8	Saeed et al.	2015	Survey	Students' perceived university support as directly or indirectly influencing their entrepreneurial intentions.
9	Philomena and Philomena	2014	Survey	Higher learning institute plays an important role in identifying and developing entrepreneurial traits and inclinations among students and making them capable of starting their own venture, thus effectively contributing to economic prosperity and job creation.
10	Carayannis et al.	2015	Survey	Universities to position themselves as a hub of new venture creation by nurturing an entrepreneurial environment and contributing substantially to the economy and society.
11	Saeed et al.	2015	Survey	HLI to provide awareness, give the motivation to the students and help to provide business ideas.

b. Family background

The influence of familial factors on an individual's decision to enter self-employment has been well established (Andersson & Hammarstedt 2010, 2011). Individuals' degree of confidence, attitude, and behaviour, as well as their creative capacity and risk-taking propensity, are all influenced by family. In addition, family and parents have a substantial impact on professional choices (Stamboulis & Barlas 2014). This is confirmed by Edelman et al.'s (2016) findings, which revealed that family support is particularly vital during the idea generation phase, as this stage necessitates a high level of emotional and moral support, which the family can give.

Since family support is the most influential factor in the formation of ideas and their conversion to action (Edelman et al. 2016), it is reasonable to believe that it has a significant impact on intentions. Altinay et al. (2012) appreciated that the function of family in determining entrepreneurial goals was investigated, and it was discovered that family background and support have a direct impact on the outcomes. According to Searman et al. (2016), family can impact profession and business type choices, as well as determine an individual's emotional responses and serve as the foundation for educational and institutional support.

Moreno-Gomez et al. (2019) further commented that family members, particularly the parents, take on the role of role model and so affect siblings' risk-taking intents. Pham et al. (2019) while elaborating the family roles further added that parents perform diverse roles at different stages of learning and growth, for example, an exemplary role in their son's childhood, supporter during education, and mentor and trouble-shooter during venture formation and administration, so the role of family is essential in the venturing process.

According to Lingappa et al. (2020), the presence of family members in entrepreneurship has always been a significant aspect, as their opinions are highly valued by people who live in countries with collectivist cultures. Due to earlier exposure, the family's involvement in entrepreneurship provides an advantage of knowledge, which may increase self-efficacy perceptions. However, if the student is

expected to take over the family business, which is nontechnical in nature, institutes may have a limited role to play in encouraging students to pursue technological entrepreneurship.

A study by Marques et. al. (2018) found that strong entrepreneurial intentions is easier to attain when backed up by a supportive familial environment. From the perspective of the theory of planned behaviour, individuals' perception of subjective norms, which can be a predictor of intentions to behave in specific ways, materialise society's norms and values. Family background, particularly parents' occupation, affects children's lives since their attitudes and behaviours might be influenced directly or indirectly by their parents' values and conventions.

In social cognitive theory, Bandura (1986) stated that for their children, parents serve as role models. Individuals raised in a business environment have more entrepreneurial learning experiences than those raised in a non-business one. Family members, particularly parents, serve as role models for the younger generation by offering inspiration, education, and motivation, as well as assisting them in defining their own self-concept (Nguyen 2018), through support and guidance (Osorio et. al. (2017).

Most studies in the field are limited to considering the effect that a self-employed father has on his son. However, a more generalised model looked at how family composition and dynamics influenced the chance of self-employment intention being passed down, taking into account the impact of close kinship and strong social relationships within families. However, strong family expectations can sometimes lead to conflicting situations, making it difficult for kids to make career options (Leung 2011; Murphy & Lambrechts 2015). Role models gave opportunities for vicarious learning (learning from others) as well as social persuasion, boosting people's confidence in pursuing an entrepreneurial career (BarNir et al. 2011). Newman et al. (2019) suggested that individuals would be better equipped to create ways to deal with obstacles and maintain a positive physiological state if they learned from role models about how they cope with challenges and stress.

In addition, personal ties within social networks were considered as resources that are important in establishing a business (Davidsson & Honig 2003; Johannisson 1996). Individuals with strong links, such as supportive family members, may be able to receive encouragement, advice, and other forms of assistance in order to achieve their entrepreneurial goals (Sequeira et al. 2007). As a result of their deep bonds, family members played an important part in influencing an individual's decision to establish a business (Aldrich & Martinez 2001; Greve & Salaff 2003; Henderson & Robertson 2000; Sequeira et al. 2007).

In principle, employment, autonomous professional activity, public service, academic career, or the entrepreneurial road are all influenced by one's home environment. The latter, on the other hand, has a particularly strong and multidirectional impact (Tognazzo et al. 2016). Direct involvement in the parents' business has proven to be an effective way of getting valuable hands-on experience (informal human capital) that would otherwise be unavailable to people who were not born into business-owning families (Parker & Van Praag 2012). However, the informal capital accumulation by the next generations very much depends on the intensity of involvement in the day-to-day operations.

Previous studies found that merely having a business owning parent or parents played a minor role, whereas working in the family business was much more important. There was ample evidence suggesting those with a family business background, in general, and university students in particular, were more likely than their counterparts without a family business background to pursue entrepreneurship (Laspita et al. 2012; Lindquist et al. 2015). At the same time, they increasingly chose to start their own business rather than joining the family firm. As a result, the interest in succession of students and graduates with a family business background was pretty low and decreasing.

The study of family factors inevitably involves confronting questions of nature vs nurture. Several studies have found that genetic variables influence both men and women's chances of being self-employed (Nicolaou & Shane 2010), whereas, others suggested that this causal relationship pertained only to women (Zhang et. al. 2009).

The studies agreed, however, that the impact of family factors was significant. A Swedish adoption study demonstrated that having a self-employed parent boosted the likelihood of being self-employed by 60 percent, and that contextual factors were twice as important as hereditary factors (Lindquist et. al. 2016).

It also found support for the hypothesis that the intention to be self-employed is transferred within families. It was found that the intention to be self-employed in the future is heritable, and that a single genetic component influences both the expression of entrepreneurial goals and the desire to work for oneself (Nicolaou & Shane 2010). Thus, the results reported in these studies indicated that there exists a hereditary disposition for self-employment intentions and that the intention to be self-employed is more likely to be passed down within families. Indeed, nature vs. nurture research was still rare, and the results were sometimes contradictory. Besides, all of the above-mentioned research employed quantitative behavioural genetic techniques, which drew widespread criticism (Johnson 2009; Van Der Loos et al. 2010).

Table 2.11 summarises previous studies on family background on entrepreneurial involvement as discussed in this section.

Table 2.11 Author's compilation of previous studies on family background on entrepreneurial involvement

No	Author	Year	Methodology	Finding
1	Lingappa et al.	2020	Survey	Familial presence in entrepreneurship has always been an impactful factor as their opinion is highly regarded.
2	Moreno-Gomez et al.	2019	Survey	Family (father and mother) become role models and hence affect siblings' entrepreneurial goals.
3	Pham et al.	2019	Survey	At different stages of learning and development, parents have a different role.
4	Marques et al.	2018	Survey	Strong entrepreneurial intention can be more easily achieved when supported by a conducive family background.
5	Nguyen	2018	Self-administered Survey	Parents become role models for the younger generation providing them with inspiration, learning, motivation, and help to let the younger generation define their self-concept.

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6	Osorio et al.	2017	Survey	Family provides support and guidance for entrepreneurial activities.
7	Edelman et al.	2016	Literature Review	The importance of family support throughout the idea creation phase cannot be overstated.
8	Tognazzo et al.	2016	Survey	Family environment influences all career options employment, independent professional activity, public service, academic career or the entrepreneurial route.
9	Lindquist et. al.	2016	Secondary Data	Probability of an individual being self-employed increases by 60 percent if that individual has a self-employed parent, but also that environmental factors are twice as important as genetic factors.
10	Murphy and Lambrechts	2015	In-depth Interview	Issues and challenges of students with family business background to have own entrepreneurial activities.
11	Lindquist et al.	2015	Secondary Data	Students with family business background will be more attracted to start their own business too.
12	Parker and Van Praag	2012	Survey	Direct exposure in the parents' business is an efficient way of gaining valuable hands-on experience.
13	Laspita et al.	2012	Secondary Data	People with family business traditions and university students in particular are more inclined to choose the entrepreneurial route than their counterparts with no family business background
14	Leung	2011	Survey	Strong parental expectations may sometimes lead to conflicting situations and making career decisions by students difficult.
15	Andersson and Hammarstedt	2010, 2011	Secondary Data	Family factors on an individual's decision to enter into self-employment intention.
16	Nicolaou and Shane	2010	Twin Studies (Experiment)	Genetic factors impact both men's and women's likelihood of being self-employed. Intention to be self-employed in the future is heritable and that a common genetic factor influences both the expression of entrepreneurial intentions and the tendency to be self-employed.
17	Van Der Loos et. al.	2010	Interview	Genetics reasons play its role to influence entrepreneurial activities among individuals.
18	Zhang et al.	2009	Secondary Data	The genetic factors that influence self-employment intention largely pertains only to women.
19	Johnson	2009	Review Study	There exists a genetic disposition for self-employment intention and that the intention to be self-employed is more likely to be transferred within families.

2.4 THEORETICAL BACKGROUND AND DEVELOPMENT OF HYPOTHESES

2.4.1 Relationship between Entrepreneurship Education and Self-Employment Intentions

The effectiveness of entrepreneurship education is characterised as providing individuals with a practical sense of business, instilling self-confidence, and developing skills necessary for a successful business venture (Otilia & Daniel 2015). Worldwide, entrepreneurship education is becoming more widely recognised as a component of university education (Fretschner & Weber 2013). It is one of the environmental factors that had been identified as crucial linkers between a person's personal characteristics and entrepreneurial goals (Franke & Lüthje 2004). Students' entrepreneurial intentions were expected to be encouraged by academic institutions, notably universities (Premand et al. 2016; Saeed et al. 2015). In addition, Hagebakkan et al. (2021) pointed out three relevant contributions of entrepreneurial education. First, students are taught the entrepreneurial themes as an economic or sociological idea. Second, students are taught to develop the attitude and capabilities of becoming a successful entrepreneur, and the third is they are taught to apply action-based pedagogy between learning and doing where ideas are from.

An effective entrepreneurship education programme revealed the necessity for faculties and universities to intervene in their various roles to help new graduates accomplish their objective of starting and growing their own businesses (Carayannis et al. 2015). Entrepreneurship education aims at providing a basis in areas such as business planning, strategies of market entry, acquisition of resources, and organising and managing a new venture. Students should feel confident enough to contemplate beginning their own business after learning about entrepreneurship (Mohd Nor Hakim et al. 2015) and promote entrepreneurial self-efficacy (Newman et al. 2019). Prior studies had demonstrated a positive link between entrepreneurship values and business venture performance. Similarly, entrepreneurs who have completed business lessons believe they are more qualified to carry out their jobs successfully (Hadi et al. 2015) and advance the start-up process faster than others.

Researchers have recently become more interested in the relationship between entrepreneurial education and self-employment intentions in general. In terms of the general educational context, empirical research had shown that the availability of entrepreneurship education programmes as well as a positive image of venture founders within educational institutions have become motivators for students to pursue entrepreneurship as a career. For example, Li and Wu (2019), stressed the importance of students' perspectives of entrepreneurship as a career choice, as well as the relevance of resources and other support mechanisms accessible in the educational environment. Finally, Rachwal et al. (2016) highlighted the significance of contextual elements in the university setting, which played a role in either preventing or enabling the prevalence and intensity of entrepreneurial behaviours among students in higher education institutions.

Nevertheless, in developing countries, the research on entrepreneurship education and self-employment intention was highly under researched (Nabi & Liñán 2011), highlighting the need for more study into the link between successful entrepreneurship education and self-employment intentions (Solesvik 2013). Given the growing importance of entrepreneurship in today's workforce (Rachwal et al. 2016), it is crucial to figure out what factors influence people's decision to choose self-employment as a career. Empirical research in the field of entrepreneurship education have been studied in the context of entrepreneurial intentions and proven that university students involved in business after their studies showed strong interest to become self-employed (Hadi et al. 2015; Weber 2011).

From an organisational norm's perspective, self-employment intentions are socially desirable, according to entrepreneurship education and universities should raise students' awareness for self-employment intention as a respectable employment option and encourage students to pursue entrepreneurial careers. Studies have indeed proven a correlation between entrepreneurship education and ambitions to start a business. Most importantly and consistent with research on the early formation of career interests, additional studies indicated that entrepreneurship education at the pre-college level may be particularly beneficial in piquing people's interest in pursuing entrepreneurial professions (Duval-Couetil & Long 2014; Li & Wu 2019; Mohamad et al. 2014).

2.4.2 Curricular Content

Entrepreneurship education and training has clearly become a trendy issue in colleges and universities all around the world (Otilia & Daniel 2015). As a result, many entrepreneurial educators are working on establishing entrepreneurial curricula to prepare students for a career as entrepreneurs (Hadi, Wekke & Cahaya 2015; Yusoff, Zainol & Ibrahim 2015).

In today's digital culture and globalised globe, educational institutions and entrepreneurial curriculum must be able to emphasise the most pressing challenges in the present labour market, as well as the competitiveness of employment (Santos 2012). However, the lack of unanimity on the suitability of entrepreneurial curricular content as well as pedagogical approaches had hindered research in entrepreneurship education linked to the curriculum (Linton & Klinton 2019). Even though entrepreneurship education had undoubtedly gained increased attention from academia, the entrepreneurial curriculum appeared to be an inconclusive debate with little consistency concerning how, who, and what to impart to students in entrepreneurship education with regard to its conceptual and contextual understandings (McLarty et al. 2010). Furthermore, the adequacy of the curriculum and methods used in developing students' entrepreneurial skills and capacities was a major challenge in entrepreneurship education (Lackéus & Middleton 2015).

With regard to what entrepreneurial courses encompasses, McLarty et al. (2010) remarked that, to fit the current emphasis on hands-on teaching methodologies, the entrepreneurship course syllabus should be both formal and casual. The nature and value of entrepreneurship education curriculum have been discussed by researchers (Othman et al. 2012; Meyers & Pruthi 2011). Regardless of the differences in curriculum material, the ultimate purpose of entrepreneurial programmes is to increase entrepreneurship awareness among students in higher education institutions, which, in turn, will increase their desire to pursue self-employment as a career option.

Student entrepreneurship intention has increasingly been linked to the sufficiency of curriculum and course content in recent literature. Gelaidan and

Abdullateef (2017) and Ahmad et al. (2018) are in agreement on this pointed and proposed that an approach with entrepreneurial intention endorsing the relevance and adequacy of curriculum and course contents to be implemented. Essentially, they claimed that the technique will improve students' learning and practical understanding outcomes, as well as their entrepreneurial inclination. This viewpoint is connected to an earlier study by Korres et al (2011) who contended that to maximally activate entrepreneurial aspirations, youngsters must be encouraged to learn how to exploit market opportunities, necessitating the creation of a nomological web between course relevance and adequacy and entrepreneurship intention (EI). Therefore, this study assumes that the objective conditions that lead to a good perception of entrepreneurship should contain motivating aspects and activities that encourage students to pursue self-employment as a profession, in this example, the curricula and course content.

2.4.3 Teaching Methodologies

Entrepreneurship can be taught, and many global institutions are teaching entrepreneurship programmes. Individuals may be born with entrepreneurial proclivities, but if basic entrepreneurial skills were taught in higher education institutions, the degree of entrepreneurship activity would be higher (Arasti et al. 2012; Esmi et al. 2015).

Entrepreneurship educators have now discovered non-traditional and alternative teaching methods that provide students with an academically rigorous learning experience, such as using case studies to evaluate entrepreneurship ideas, models, or methodologies that have real-world relevance. Rather than increasing the number of courses given in the programmes, the books called for the inclusion of all aspects of the entrepreneurial experience, from start-up through growth and maturity, using an interdisciplinary approach that included business, economics, and management. Many support programs were supported, such as establishing a programme that allowed new entrepreneurs to improve their formal or informal banking conditions, foray into capital investors, and participate in intense mentoring programmes (Zaidatol Akmaliah 2009).

Levie (1999) further contended that whether the courses are about entrepreneurship or for entrepreneurship, the decision to adopt a teaching technique in entrepreneurship is usually based on this. The latter was aimed at producing capable students dealing with actual entrepreneurial activities or transforming their entrepreneurial knowledge and skills in a practical way. Previously, entrepreneurship courses focused on using unorthodox techniques to teach entrepreneurship as a preparatory course in the curriculum (Gibb 2002). The differences in courses *for* and *about* entrepreneurship in terms of teaching methods used are shown in Table 2.12.

Table 2.12 Differences between courses *for* entrepreneurship and courses *about* entrepreneurship

Courses for entrepreneurship	Courses about entrepreneurship
<ul style="list-style-type: none"> ▪ Case studies ▪ Guest speakers ▪ Group project ▪ Group business plans ▪ Class participation assessed 	<ul style="list-style-type: none"> ▪ Lectures ▪ Individual essays ▪ Individual end-of-term written exam

Source: Levie 1999

With reference to pedagogical approaches, there were many researchers who stressed for a variety of approaches to teaching students the entrepreneurial skills and knowledge, ranging from formal techniques such as textbooks and regular examinations to informal techniques such as writing a business plan, learning from the experiences of existing entrepreneurs, attending expert discourses and field surveys, and visiting established ventures (Blass 2018; Esmi et al. 2015; Oyelola 2013).

Historically, a range of curricula and teaching methods have been used in all types of entrepreneurship education courses at the postsecondary level. As far back as year 1997, Gorman et. al.'s literature review concluded that a focus on attributes and skills should be one of the ideal pedagogical components of entrepreneurship education programmes. It also involved tasks, a tangible aspect resulting from active engagement in projects and the like, as well as material tailored to the stage of venture development and emphasising functional integration.

2.4.4 Entrepreneurial Internship Programmes

Despite the increased interest in internships by firms, governments, and universities, scholarly research on internships in the entrepreneurship field has been sparse (Alpert et al. 2009; Peltier & Scovotti 2010). Conversely, a large number of research have been undertaken to determine what factors influence entrepreneurial behaviour. The view that traditional classroom-based teaching approaches are insufficient to equip students with the tools and abilities they need to start and run their own businesses is gaining traction in the entrepreneurship education industry (Varghese et al. 2012). Consequently, to properly develop entrepreneurial approaches to education, established teaching methods must be supplemented by innovative ways of thinking, diversified talents, and new styles of behaviour (Alpert et al. 2009; Peltier & Scovotti 2010; Zhao 2013).

Conversely, experiential internship programmes have been found to have an impact on students' understanding, attitudes, beliefs, and intentions about entrepreneurship and small enterprises, according to various research (Varghese et al. 2012; Volery et al. 2013). Much has been inscribed about the value of experiential learning (Mason & Arshed 2013; Martínez et al. 2010). Experiential learning theory posits that, students learn best when they are actively immersed in an experience and then reflect on it. Experiential learning exercises assisted students in integrating theory and real-world application (Peltier & Scovotti 2010; Pittaway et al. 2011).

As previously stated, an internship is a type of experiential learning. A wide definition of an internship is a temporary job that focuses on education rather than employment (Weible 2009). There are varying definitions of internships (Moghaddam 2011; Zhao 2013), but they all concurred on some similar core characteristics. For the purposes of this study, an internship is defined as an organised and career-related work experience in an external organisation that takes place in a controlled learning environment and for which a student obtains academic credit and/or relevant knowledge. 'Learning by doing', 'action learning' and 'gaining experience' are regarded as some of the most important benefits that students get, and which are frequently

deemed by students to be superior forms of learning when compared to traditional forms of learning encountered in the curriculum (Chen & Shen 2012; Pittaway et al. 2011).

According to Alpert et al. (2009), several studies have proven the various advantages of internships in instilling entrepreneurial mindset and behaviour. An internship provides students with the opportunity to 'learn by doing' in a real-world corporate setting, but with direction and assistance. Internships helped to bridge the gap between theory and practise, as well as between classroom learning and real-world experience. They increased the significance of the academic programme and produced sentiments of personal and social efficacy by providing a more worthwhile learning experience (Alpert et al. 2009; Daugherty 2011).

A study by Kim and Park (2013) found that an internship can provide participants with the opportunity to learn about what the sector has to offer, which may differ from what they study in class, and can have a favourable or negative impact on a student's career decision (Chen & Shen 2012; Daugherty 2011). More specifically, internships in an entrepreneurial endeavour or small business would encourage the intern to seek a career as an entrepreneur or self-employed person. The experience gained via this form of internship was likely to have a substantial impact on whether students decided to join the organisation and pursue a career in that field (Nabi & Liñán 2013; Zhao 2013).

Generally, the university entrepreneurial internship programmes can excite students and pique their interest in pursuing entrepreneurship as a career option (Chen et al. 2017). Chen et al. (2017) and Nurhuda and Soenarto (2018) also suggested that an entrepreneurial internship programme should be a required part of the curriculum in HEIs. Existing research has found a link between exposure to entrepreneurial internship programmes and self-employment among university students (Black & Mischel 2020). Based on the above argument, the study is proposing the following hypothesis:

H1: Entrepreneurship education will positively influence self-employment intention among public university students in Malaysia

2.4.5 Entrepreneurial Self-Efficacy as a Mediator in the Relationship between Entrepreneurship Education and Self-Employment Intention

In general, personal traits connected with entrepreneurship include locus of control, proclivity to take risks, self-efficacy, need for achievement, tolerance for ambiguity, and innovativeness, to name a few (Shaheen & Al-Haddad 2018).

Self-efficacy is based on people's perceptions of their own talents and abilities, as well as their competence to accomplish specific activities, and it reflects a person's belief in his or her own potential to achieve (Kazeem & Asimiran 2016; Prabhu et al. 2012). Entrepreneurial self-efficacy is a word used in the entrepreneurial world to describe an individual's belief in his or her ability to succeed in entrepreneurial positions and duties (McGee et al. 2009). Self-efficacy has been widely used in the career theory literature to explain perceived job alternatives, expressed career preferences, and, ultimately, career-oriented behaviour (Betz & Hackett 1981; Eccles 1994). In line with this, Bandura et al. (2001) listed self-efficacy as one of several social cognitive variables on children's career goals, with entrepreneurial self-efficacy having the biggest direct effect.

The Social Cognitive Career Theory (SCCT) proposed by Lent and Brown (2005), which was based on Bandura's theory, integrates psychological development with social, economic and other factors. The theory has guided researchers to one important discovery that entrepreneurial decision-making self-efficacy can predict the emergence of entrepreneurial intention, and that both entrepreneurial self-efficacy and entrepreneurial intention can impact people's entrepreneurial decisions (Mei, Lee & Xiang 2020).

Evidence revealed that general self-efficacy was crucial to most human functioning and was based on people's beliefs rather than actual truth. The importance of perceived self-efficacy as a major factor in determining human agency has been constantly underlined in research in this field and has shown that those who believed they had strong self-efficacy for a particular task were more likely to pursue and complete it (Bandura 1992).

Students' entrepreneurial attitudes and self-efficacy are influenced by entrepreneurship education, which improves the likelihood of entrepreneurial intents among students. There is enough data to say that ESE is a strong predictor of EI, and that people with higher ESE likely to have higher EI (Chen et al. 1998; DeNoble et al. 1999; Krueger et al. 2000). A study by Krueger and Dickson (1994) showed that an increase in risk taking is linked to an increase in perceived self-efficacy, through influencing how opportunities and risks are perceived (Krueger & Dickson 1994). Furthermore, in an interesting study, Markman et al. (2002) found that, innovators with higher self-efficacy seek to exploit their inventions by founding new enterprises in high-tech industries, whereas inventors with lower self-efficacy prefer to work for established corporations. This finding suggests that perceived self-efficacy encourages people to try new things and take risks. The preceding explanation implies that ESE is a predictor of both entrepreneurship and intention, and that while EE predicts EI, ESE has a significant impact on this relationship.

In addition, entrepreneurial self-efficacy has been recognised as a mediator of the favourable association between personality and both growth-oriented and lifestyle-related entrepreneurial ambitions (Prabhu et al. 2012). Furthermore, Bellò et al. (2018) examined entrepreneurial self-role efficacy as a mediator in the relationship between creativity and entrepreneurial inclinations among young people. Liu et al. (2011) claimed that entrepreneurial self-efficacy was discovered to have played a role in antecedents, risk-taking characteristics, and entrepreneurial ambition while Oyugi (2015) found that self-efficacy could partially mediate the entrepreneurship education and entrepreneurial intention. In this vein, this study aims at formally testing the mediating influence of ESE in the context of entrepreneurship education towards self-employment intention.

Baron and Kenny (1986) too examined a model for the possibility of mediation and to have a better understanding of how the third variable works, or in this case, ESE, which has a significant impact on the dependent variable - self-employment intention. This, therefore, suggests that the association between entrepreneurial education and SEI can be mediated via ESE. However, this role (in the relationship between entrepreneurship education and SEI) is generally under-researched, explicitly in

Malaysia. Despite the fact that a few studies have examined it (e.g. Chen and He, 2011; Kassean et al. 2015; Piperopoulos and Dimov, 2015), this may not reflect the conditions in Malaysia, thus, further investigation of this issue in the Malaysian context is necessary. Based on the above, this study hypothesises:

H2: The relationship between entrepreneurship education and student's self-employment intention will be mediated by entrepreneurial self-efficacy

a. Entrepreneurial self efficacy and self-employment intentions

Entrepreneurial intentions have been remarkably predicted by entrepreneurial self-efficacy (Fitzsimmons & Douglas 2011; Newman et al. 2019). Entrepreneurial self-efficacy influences decisions, goals, and effort, as well as perseverance when entrepreneurs face challenges, and it plays a key part in the formation of a desire to start and operate a new business (BarNir et al. 2011; Newman et al. 2014).

In addition, Boyd and Vozikis (1994), in their proposal has further refined a study by Bird (1988) on intentionality in that the development of self-employment intentions and subsequent behaviours were influenced by self-efficacy. People's ultimate behaviours were chosen based on their assessments or perceptions of personal self-efficacy, hence incorporating self-efficacy into Bird's model was deemed appropriate.

Boyd and Vozikis (1994) suggested that individuals with higher levels of entrepreneurial self-efficacy early in their careers would have higher entrepreneurial aspirations, and those with both higher self-efficacy and higher intents would be more likely to engage in entrepreneurial activities later in life. Self-efficacy is also incorporated into proposed models of self-employment intentions (Krueger et al. 2000; Shapero & Sokol 1982) have been rigorously tested (Krueger 1993) and shown to have strong predictive ability. Still, other researchers have concentrated on developing and testing scales for entrepreneurial self-efficacy and have shown that they are effective in distinguishing those with entrepreneurial ambitions from those who do not (Kazeem & Asimiran 2016; Prabhu et al. 2012).

Some studies looked into whether self-efficacy was a crucial element in understanding why some people were driven to start businesses while others were not (Shaheen & Al-Haddad 2018). In this regard, the research revealed convincing and consistent trends, indicating that those with higher entrepreneurial self-efficacy had more entrepreneurial and self-employment intentions (Kibassa 2012; Newman et al. 2019). Along these lines, Esnard-Flavius (2010) identified the relevance of self-efficacy in the consideration of entrepreneurship as a professional career was stressed in their conclusions, which stated that women's career options are likely limited due to a sense that they lack the skills required for entrepreneurial professions. Even young women with adequate levels of entrepreneurial self-efficacy were less likely than males to pursue an entrepreneurial career, believing that they would have more chances in other fields.

Particularly, this study aims at self-efficacy. Kibassa (2012) stated that self-efficacy was found to be an entrepreneurial trait that was linked to other psychological traits such as locus of control, risk-taking proclivity, and ambiguity tolerance. This evidence should be expected, given the understanding of personal traits that are unique to entrepreneurs. Thus, one of the difficulties was determining whether entrepreneurship may have an impact on both cognitive and personal development in young people (Groves et al. 2011; Sánchez 2011). This study focuses on the specific personality traits, entrepreneurial self-efficacy and its relation to the intention to become self-employed. Therefore, the following hypothesis is proposed:

H3: There is a significant and positive effect between entrepreneurial self-efficacy and students self-employment intention.

b. Entrepreneurship education and entrepreneurial self efficacy

Krueger and Brazeal (1994) claimed that entrepreneurship education improved students' knowledge, confidence, and self-efficacy, which in turn improved their opinion of the feasibility of entrepreneurship and encouraged them to pursue it. Similarly, Zhao et al. (2005) established that ESE provided a sound theoretical foundation for the link between formal education and entrepreneurial desire. Through mechanisms known to

promote self-efficacy beliefs, entrepreneurship education would boost students' confidence in their ability to become entrepreneurs. Pihie and Bagheri (2010) suggested that ESE can be learned through entrepreneurship education since it aids in the development of critical skills and favourable work attitudes, which in turn influences ESE.

According to Lim et al. (2017), during entrepreneurship courses, students were able to complete practical tasks, which boosted their self-efficacy by providing them with tangible results. They could meet, watch or discuss stories of successful entrepreneurs which provided opportunities of vicarious learning. Finally, they could be persuaded that entrepreneurship is an attainable objective that elicited happy emotions, for example, as a result of group relationships. In fact, several prior studies have identified and examined the intervening function of ESE in the link between entrepreneurship education and entrepreneurial inclination (Maresch et al. 2016; Zhao et al. 2005).

In order to understand the impact of an entrepreneurship education on student's self-employment intention, the author used a well-established theoretical foundation of Theory of Planned Behaviour, (Ajzen 1991) and Social Cognitive Career Theory SCCT (Lent et. al. 1994), to investigate the association between entrepreneurship education and self-employment intention, as mediated by entrepreneurial self-efficacy. Therefore, the following hypothesis is proposed:

H4: There is a significant and positive effect between entrepreneurship education and entrepreneurial self-efficacy

2.4.6 Perceived University Support as a Moderator in the Relationship between Entrepreneurship Education and Self-Employment Intentions

Perceived university support refers to the students' assessments of how their university has aided them in their entrepreneurial activities (Kraaijenbrink et al. 2010). It is widely suggested that this type of institutional assistance is crucial in promoting entrepreneurship (Lüthje & Franke 2003). Kolvereid and Moen (1997), for instance, documented that college students who took entrepreneurship classes expressed a greater

desire in becoming entrepreneurs than those who did not. Peterman and Kennedy (2003) found that participation in entrepreneurship programmes while in college raises the perceived attractiveness and feasibility of starting a firm. Likewise, Souitaris et al. (2007) advanced that students' entrepreneurial attitudes and ambitions are improved by collegiate entrepreneurship programmes.

The institution provides market research and commercialisation assistance, as well as an enabling atmosphere and, most notably, initial financing to student-teams or groups. Additionally, university assistance promotes entrepreneurship by providing free entrepreneurial education and support, both of which are required to boost entrepreneurship potential and subsequent development; as a result, they are important players in the training process (Romero et al. 2011).

According to Ooi et al. (2011) universities play an important role in the creation of entrepreneurial curriculum and content, as well as in making entrepreneurship more appealing to students. The entrepreneurial university has been viewed as a source of identifying entrepreneurial opportunities and, as a result, as drivers of later entrepreneurial action (Edelman & Yli-Renko 2010; Urbano & Guerrero 2013). University support acts as an indirect incentive by affecting other elements that have been shown to improve intention. Thus, universities provide a levelled playing field for development entrepreneurs (Geissler et al. 2011; Wang & Verzat 2011).

The emergence of entrepreneurial universities is a global phenomenon that has piqued policymakers' interest. Patents, licences, start-up companies, and technology transfer channels are all valuable economic outcomes of entrepreneurial colleges. Furthermore, a significant amount of scholarship has considered universities as seedbeds for fostering an entrepreneurial spirit and culture. Universities could play a key role in recognising and fostering entrepreneurial skills and tendencies in students, preparing them to launch their own business and thus contribute to economic growth and employment creation (Zaring et al. 2021). As a result, universities must position themselves as a centre for new venture creation by cultivating an entrepreneurial atmosphere and making significant contributions to the economy and society (Wei et al. 2019).

Previous studies have shown the importance of entrepreneurship education and perceived university assistance in the development of favourable judgments of competence for start-up businesses and self-employment intentions (Philomena & Philomena 2014). According to some research, some university support policies and practises, such as technology transfer offices and faculty consultants, university incubators and physical resources, and university venture funds, might encourage students to engage in entrepreneurial activities (Kraaijenbrink et al. 2010; Pugh et al. 2018). It is evident that an excellent entrepreneurship education programme and entrepreneurship knowledge and motivating young people to pursue an entrepreneurial career (Saeed et al. 2015).

Earlier studies have also demonstrated that university support does, in certain situations, promote entrepreneurship, for example, support in the form of university incubators (Mas-Verdú et al. 2015), technology transformation, consultants and financial funds (Lerner 2004; Munari et al. 2015). Students could benefit from a helpful university atmosphere in terms of education, concept creation, and company development (Saeed et al. 2015). Such assistance would provide students with the knowledge, skills, internships, and other parts of entrepreneurship that they require, as well as increase their entrepreneurial awareness and enthusiasm, and assist them in continuing to develop their businesses after graduation.

Using some samples from Malaysia, Mustafa et al. (2016) investigated the direct positive benefits of the three types of assistance stated above on entrepreneurial inclinations. Further, Choi and Markham (2019) performed a thorough investigation of the impact of university support. Overall, earlier researches have found a link between students' perceptions of university support and their entrepreneurial goals. Their perception of academic support contributed to their increased view of feasibility (Eather et al. 2018). It is thought to be a significant driver of entrepreneurial purpose (Krueger et al. 2000; Vuorio et al. 2018).

A study by Pugh et al. (2018) found that the entrepreneurship attitude model has implications for entrepreneurship education since attitudes were malleable and hence could be modified by educators and practitioners. However, empirical studies

attempting to identify university support factors that can foster entrepreneurship among university students remained limited. Kraaijenbrink et al. (2010) suggested that although colleges might foster entrepreneurship in a variety of objectively defined ways, determining the extent to which such measures could have an impact on students was critical in order to understand the impact of such measures. This can be accomplished by assessing students' perceptions of the university's assistance.

Entrepreneurship support programmes also convey that a desire to work for oneself is a socially desirable goal. In many countries, universities receive extra public funding to launch programmes. Consequently, their existence represented a public interest in entrepreneurship, whereas entrepreneurship education, as previously noted, showed an interest in entrepreneurship on the part of a university. Some students may be inspired to seek entrepreneurial jobs, or at the very least be made aware of the possibility of self-employment as a career option, as a result of these programmes. Similarly, empirical research by Nabi et al. (2017) suggested that the main value of programmes was inspiration rather than resource utilisation.

Even though the impact of educational support on entrepreneurial attitudes and intents has been extensively studied, most of the research has concentrated on knowledge, leaving the significance of broader types of university assistance unexplored. As an exception, Kraaijenbrink et al. (2010) provided a more thorough classification of university support and proposed three comprehensive types of university support: educational support (ES), concept development support (CDS), and business development support (BDS). ES refers to the provision of general information and skills required to establish a new enterprise, and hence encompasses current university knowledge support perspectives. In the early stages of the entrepreneurial process, CDS refers to the providing of awareness, motivation, and business ideas while BDS refers to business development services, which are often provided to new businesses in their later stages of development including business incubators and physical resources (Kraaijenbrink et al. 2010).

In all, students should anticipate full university assistance to give them with knowledge, mastery experience, and resources to boost their self-efficacy, which will

influence their perception of the feasibility of establishing a business (Shapero & Sokol 1982). Furthermore, these college experiences may have an impact on students' motivation to pursue occupations that are related to their educational experiences. Thus, students' opinions of university support should raise their awareness of launching new firms as a desirable and viable action (Gibb 1999).

In fact findings by Saeed et al. (2015) showed that positive student impressions of their academic environment can influence entrepreneurial inclinations through raising entrepreneurial self-efficacy. Through a variety of means, a supportive university environment for entrepreneurship can offer students with the required business knowledge, talent, or strategies to enable them to realise their entrepreneurial goals. Moreover, by expanding their knowledge, boosting confidence, and fostering their entrepreneurial self-efficacy, a supportive university environment for entrepreneurship can enhance a student's interest in entrepreneurship and the feasibility of them pursuing it as a career.

According to literature, university assistance may act as a moderator in the relationship between EE and entrepreneurial intent. Rigg et al. (2015) discovered that students who lived in a supportive environment both inside and outside of school were less weary, more self-assured, and more engaged. These elements can assist students in overcoming obstacles and balancing multiple roles in life. As a result, a student with an EE will have a strong desire and great self-confidence to establish a business, particularly if he or she recognises the presence of a support system when doing so in the future. This implies that educational infrastructure and university assistance can help to foster entrepreneurial self-efficacy and intention (Segal et al. 2005; Vázquez et al. 2011).

Therefore, integrating perceived university support as a moderator of the link between EE and SEI can provide essential and practical insights for theory and practise in the entrepreneurship area. Hence, perceived university support can be speculated to moderate the relationship between EE and SEI.

Thus, it can be inferred that university support is critical in enhancing the impact of entrepreneurship education and favourably influencing students' self-employment intentions. Therefore, Hypothesis 5 is stated as follows:

H5: The relationship between entrepreneurship education and student's self-employment intention will be moderated by perceived university support.

2.4.7 Family Background as a Moderator in the Relationship between Entrepreneurship Education and Self-Employment Intention

The degree of involvement of parents or family members in self-employment or other entrepreneurial activities is referred to as family entrepreneurial background. Children's professional choices may be influenced by the family's business activities (Aldrich et al. 1998; Hout & Rosen 1999). It allows them to gain information and expertise that will help them improve their abilities and ability to develop ideas and establish a business (Altinay & Altinay 2006). As such, the family provides a framework for future entrepreneurs to immerse themselves in social networks, as well as human and financial resources (Steier & Greenwood 2000). In terms of project management and development, persons with past family experience may benefit from this experience. As a result, the family business has a significant impact on the career paths of individual family members.

Muhammad et al.'s (2015) research stated that parents with entrepreneurial background have an effect on children's intention to become entrepreneurs. This crucial finding has provided theoretical implications that comes with empirical evidences in the sense that parents' background plays an important role in the intention of pursuing entrepreneurship. A study by Ayodele (2014) also supported this point, where family background significantly impacts entrepreneurial intention in college graduates, particularly among families are a source of peers who provide a positive experience and influence on the intention to pursuing entrepreneurship.

According to Nguyen (2018), parents can also influence their children's desire to work for themselves by granting them access to the business through the transfer of social and financial capital. He found that these two processes are more likely to

interact. In line with that, the concepts of "exposure" and "closure" can be used to examine the impact of family on the individual entrepreneur. Exposure refers to the impact of a family's values and goals over the first 20 years of a person's existence, and can be divided into the effects of values and aspirations on the one hand, and skills acquired during those first 20 years on the other. Closure is concerned with the impact of the individual's family when he or she becomes an entrepreneur for the first time (often later in life, at the age of 30 or more). Closure consists of two types of entrepreneurial resources that a family can bestow on an individual: social and financial capital. However, parents can also provide the essential tools to enable their children to pursue self-employment goals by serving as role models (Osorio et al. 2017).

Parents have a lot of power over their children's enthusiasm in pursuing a career as a self-employed person. Current explanations of the family's role are also based on the learning process that occurs between parents and their children; for example, children of self-employed parents learned about entrepreneurship during their childhood and may receive useful resources in order to engage in entrepreneurship as an adult.

A Swedish adoption study demonstrated that not only did having a self-employed parent boost the likelihood of being self-employed by 60 percent, but contextual factors were also twice as relevant as genetic ones in determining self-employment (Lindquist et. al. 2015). It also supported the hypothesis that the intention to be self-employed was passed down via families. It was found that the desire to work for oneself in the future was heritable, and a single genetic component influenced both the expression of entrepreneurial goals and the desire to work for oneself (Nicolaou & Shane 2010). Thus, the findings of these research suggested that there was a genetic inclination for self-employment intention, and that the desire to be self-employed was more likely to be passed down via families. Nature vs. nurture research has produced some contradicting results. All of the above-mentioned research used quantitative behavioural genetic methodologies that were vulnerable to more general criticism (Johnson 2009; Van Der Loos et al. 2010).

Researchers have also found that exposure to role models of entrepreneurship in the general population (Farashah 2015) and in family business settings (Pfeifer et al. 2016) were positively linked to an individual's EI and that strong ties with friends and family were favourably associated to EI (Chen & He 2011). Similarly, Huyghe and Knockaert (2015) found that the SEI of potential entrepreneurs was positively associated to the presence of role models in the family. Both resources that support self-employment aspirations, as well as norms, attitudes, and values that support self-employment, could be passed down or developed within the family through transmission. These were necessary tools for identifying business opportunities, mobilising resources and developing a business strategy.

As advocated by Fishbein, Jaccard, Davidson, Ajzen & Loken (1980), entrepreneurial intentions (EI) are significantly influenced by the family business's attitudinal and behavioural mechanisms. Aldrich and Cliff (2003), nevertheless, suggested that how different stages of the entrepreneurial process are influenced by family systems ought to be more researched. In another setting, Andersson & Hammarstedt (2010) found that third-generation male immigrants' intentions to be self-employed is the positive effects of having a self-employed father and grandfather together, based on their Swedish data set, where a generational link was identified across three generations of immigrants in terms of self-employment. However, this did not ring true among the native Swedes, where having a self-employed father do somewhat influence self-employment intention but not extended to having a self-employed grandfather. Clearly, family background has a significant impact on the likelihood of choosing self-employment intention only among immigrants in Sweden.

Several researchers have discussed the role of family in entrepreneurship and self-employment intention. Self-employment aspiration becomes a natural choice as a result of socialisation processes, and parents encourage their children to pursue self-employment aspirations. Entrepreneurial ambitions can be influenced indirectly by family business backgrounds, according to empirical study, which has consequences for EI antecedents (perceptions of venture feasibility and desirability, attitude, and subjective norms).

Due to family background has been determined as significantly inspiring individuals' self-employment intention, researchers in the field have further explored this relationship and discovered that living in an entrepreneurial household did generate stronger entrepreneurial intention among the children as compared to those coming from non-entrepreneurial families (Georgescu & Herman 2020). Students' entrepreneurial goals were positively influenced by the entrepreneurial family history, effectiveness of entrepreneurship education, and entrepreneurial personality attributes.

However, entrepreneurial family background has negatively mitigated the association between the effectiveness of entrepreneurship education and entrepreneurial intention. Dijinira, José, & AR (2020) claimed that when the parents are entrepreneurs, their children do not necessarily end up as entrepreneurs. Others such as Krueger et al. (2000), and Peng, Lu and Kang (2012) too claimed that students' entrepreneurial intention is not due to their family background. However, Osorio et al. (2017) revealed that college students' perceptions of the desirability and feasibility of launching a business is favourably due to the perceived family support received. This finding by Osorio et al. (2017) not only authenticated that increasing entrepreneurial attitudes and intentions are because of the critical function of family support received (Aldrich & Cliff 2003; Henderson & Robertson 2000; Shapero & Sokol 1982) but they also added and tested the function of perceived family support as an exogenous factor on entrepreneurial attitudes and intentions to the EE.

Peterman and Kennedy's (2003) study, that was based on a sample of Australian high school students have found that prior exposure to family business and entrepreneurship education, as well as the antecedents of entrepreneurial intention, have a substantial positive association. In addition, Carr and Sequeira (2007) found that previous exposure to the existence of family companies has a considerable, direct and indirect, impact on entrepreneurial intention, as measured by factors such as attitude toward establishing a business, sense of family support, and entrepreneurial self-efficacy.

On the other hand, growing up in an entrepreneurial environment creates a favourable learning environment, resulting in good ideas about pursuing an

entrepreneurial career (Chlosta et al. 2012). Students who participate in family entrepreneurial activities develop intellectual and social abilities as well as a desire to pursue entrepreneurial courses. Finally, as they participate in entrepreneurship education, they also benefit from examples of successful projects and ideas which increases their intention to start their own projects (Honig 2004). As such, these pedagogical aspects help to improve the abilities and attractiveness obtained via family.

In addition, the EE–EI relationship has yielded mixed results. The literature has also shown that family background affects the EE– EI relationship. For example, Zellweger et al. (2011) mentioned in their study that EE has less of an impact on students from entrepreneurial backgrounds. Essentially, the value of entrepreneurship courses is diminished by the ease with which family networks provide access to various resources. Hence, students who come from a family of entrepreneurs may look at entrepreneurship course materials in a different way. Based on this discussion, Hypothesis 6 for this study is formulated as below:

H6: The relationship between entrepreneurship education and student's self-employment intention will be moderated by family background.

2.5 CONCEPTUAL FRAMEWORK

Entrepreneurship education is the focus of the present study and constitutes the educational level perspective. In the conceptual framework is where a university student's intent to start a new business is represented by self-employment intentions (Kibassa 2012). Such an intention is a state of mind that comes before actions and focuses attention on the objective of starting a new business (Shaheen & Al-Haddad 2018). It is, therefore, necessary to investigate the impact of perceived feasibility on entrepreneurial intention and behaviour in order to comprehend how this intention is generated.

In this study, perceived feasibility has been conceptualised as entrepreneurial self-efficacy (Newman et al. 2019; Prabhu et al. 2012). Individuals who have a strong sense of entrepreneurial self-efficacy are more likely to be lured to the appealing chances and benefits of self-employment, and hence to set goals and intents for self-

employment. According to previous studies, self-efficacy is a malleable quality that may be altered. Considering that changes may come from targeted educational, organisational, demographic and psychological traits, the possible link between entrepreneurship education, entrepreneurial self-efficacy, perceived university support, family background and self-employment intention among Malaysian public universities students were examined.

Therefore, following the discussions in this chapter, an integrated conceptual framework was designed for this study that examined the impact of entrepreneurship education towards self-employment intentions within the context of other perspectives and their influence, such as entrepreneurial self-efficacy (personal traits), perceived university support (organisational), and family background (demographic), among public universities students in Malaysia.

Considering that there were very few studies measuring the impact of entrepreneurship education on student's self-employment intention, this study fills the gap in literature by measuring the impact of entrepreneurship within an integrative, multi-perspective framework, which are organisational, demographic, and individual perspectives, thus providing a broader view of this topic. The findings will help university managements and policymakers in gaining a better understanding of the impact of current entrepreneurship education practises and efforts, particularly in a developing economy such as Malaysia.

The framework of this study demonstrates the relationship between the main independent variable (entrepreneurship education), dependent variable (self-employment intentions), mediator variable (entrepreneurial self-efficacy), and moderator variables (family background and perceived university support).

As shown in Figure 2.5, it shows the direct relationship between the main independent variable (entrepreneurship education) and the dependent variable (self-employment intention), then the indirect relationship between entrepreneurship education and self-employment intentions, mediated by entrepreneurial self-efficacy. This figure also shows the relationship between entrepreneurial self-efficacy (mediator variable)

and self-employment intention and the relationship between entrepreneurial education and entrepreneurial self-efficacy. The moderation of the relationships between entrepreneurial education and self-employment intentions by family background and perceived university support also shown respectively.

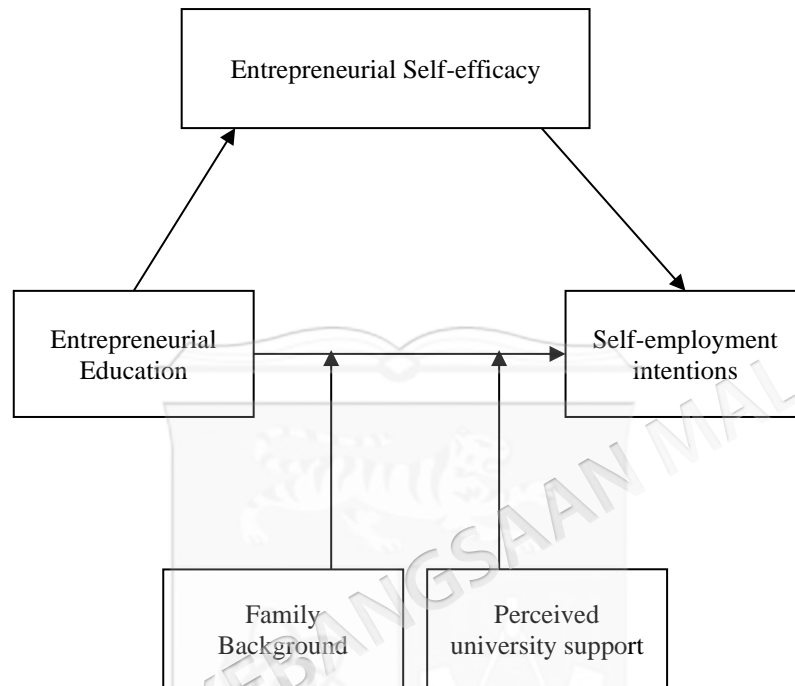


Figure 2.5 Research framework

2.6 CHAPTER SUMMARY

Chapter 2 established the foundation of this study using relevant literature. Two theories were integrated for the development of the theoretical underpinning of this study. This is followed by the review of related literature presenting the relationship between each variable of the study. Next, the framework, together with the hypotheses, were presented. Chapter 3 describes the methods and sampling used to explore all the hypotheses proposed in this study.

CHAPTER III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter focuses on the method used in this research. It begins with the framework of the study, research design, and the step-by-step process involved throughout the study. Next, the study setting, sampling, and data collection procedures are outlined. This chapter also presents the justifications and elaborations on the operationalisation and measures of the constructs used. The section ends with an overview of the statistical techniques used to analyse the data.

3.2 RESEARCH DESIGN

Sekaran and Bougie (2016) defined a research design as “a blueprint of data collection, measurement, and analysis designed to answer specific research questions” encompassing research strategies like conducting experiments, surveys, case studies or a combination of these strategies, for the purpose of identifying the scope of research, the level of data analysis, or the time frame for the research. All these aspects are discussed in this section.

A proper structural and architectural plan for a building is synonymous with designing a research, without which the builder will only operate in a vacuum (Adebakin 2013; Osuagwu 1999). Zikmund and Babin (2007) defined research design as a plan that displays how, when, and where data is collected and analysed. It is a statement that serves as a master plan for executing scientific investigation. A study design is also defined as an action plan for conducting an investigation with a high level of control over factors that could impact the discovery of the findings (Burns & Grove

2010). Similarly, Polit et al. (2001), defined it as a full procedure for answering research questions or testing a study's hypothesis.

Hence, depending on the purpose of a scientific study, a research design can be characterised into two categories (Bhattacharjee 2012). The first is the positivist design, meant for theory testing, while the latter is the interpretive design, meant for theory building. The positivist design seeks generalised patterns based on a target perspective of reality, whereas the interpretive design seeks subjective interpretations of social processes from the points of view of the people involved. Also, depending on the purpose of research, scientific research can be classified into three types: exploratory, descriptive, and explanatory research (Bhattacharjee 2012; Polit et al. 2001). Exploratory research is often conducted in new areas of inquiry while descriptive research is aimed at making thorough observations and documenting a phenomenon of interest, step by step. These observations must be based on scientific techniques. Explanatory research, on the other hand, aims to explain phenomena, issues, or behaviours that have been observed. Therefore, the descriptive research examines the “what”, “where”, and “when” of a phenomenon but the explanatory research seeks the answers to the “why” and “how” in an enquiry (Bhattacharjee 2012).

The present study is inclined towards explanatory research because its purpose is to examine the interrelationship between entrepreneurship education and self-employment intentions. According to Sekaran and Bougie (2013), when a researcher is interested in exploring the link between the variables that represent a population or circumstance, explanatory research is regarded appropriate.

Meanwhile, data for a research design can be obtained in a variety of ways, both experimental and non-experimental. By isolating the cause from the effect in time, the experimental procedures aim to examine cause-effect links and hypotheses in a tightly controlled setting, administering the cause to one group of subjects (the “treatment group”) but not to another group (“control group”), and observing how the mean effects differ between these two groups (Bhattacharjee 2012).

Non-experimental designs do not modify or control independent variables or treatments, but instead assess and test their effects using statistical methods. Field survey is an example of this, which could be cross-sectional or longitudinal. Independent and dependent variables are estimated at the same time in cross-sectional field surveys (e.g., using a single questionnaire), while in longitudinal field surveys, the independent variables are measured first, and the dependent variables are measured subsequently.

The data for this study was collected concurrently and in a non-multiple time frame using a cross-sectional approach. This is justified in line with the claim of Cooper and Schindler (2014), who posited these cross-sectional studies are less expensive and do not necessitate lengthy longitudinal studies that must be repeated over time.

Furthermore, the quantitative data acquired in this study were analysed using quantitative methodologies. This method of analysis allows for setting an understanding of a number, subsequently, is a good decision-making technique (Babbie 2010; Cooper & Schindler 2014). This method was chosen because it is more capable of finding the best solution and determining a notion or idea with greater credibility than other research methods (Anderson et al. 2004), along with the fact that it is well-suited to previously unrevealed research and would be able to provide insight into the phenomena under investigation (Creswell 2009).

Data were gathered using questionnaires in accordance with the techniques described in the preceding discussion. The survey method, according to Sekaran and Bougie (2016), has the potential to acquire a variety of data from huge sample sizes at a low cost and in a short amount of time. Furthermore, the survey method establishes the foundation for selecting the overall population sample. Researchers best use it to look at the relationship between variables as well as to study people's perception about a particular phenomenon. In business and management, the use of a survey questionnaire is commonly acknowledged (Rowley 2014) because it ensures confidentiality of the respondents' personal information. In addition, Rowley (2014) and Babbie (2010) posited that its use ensures quick feedback in big populations and allows for the collection of more thorough data when compared to other methods.

Surveys used in the research were conducted over the internet and via mail. It has the benefit of increased response rates at cheaper costs and both internet surveys and mails would have the same internal reliability (Cronbach's Alpha exceeding 0.7) and consistency in their answers at an average of over 0.7 (Guttman split half) for all items, which has been recommended by Pallant (2011). The mixed method used in this study has significantly reduced the overall cost because the cost would be higher if only the traditional mail method was delivered and was able to maintain sufficient response rates. Figure 3.1 below shows the proposed research method for this study.

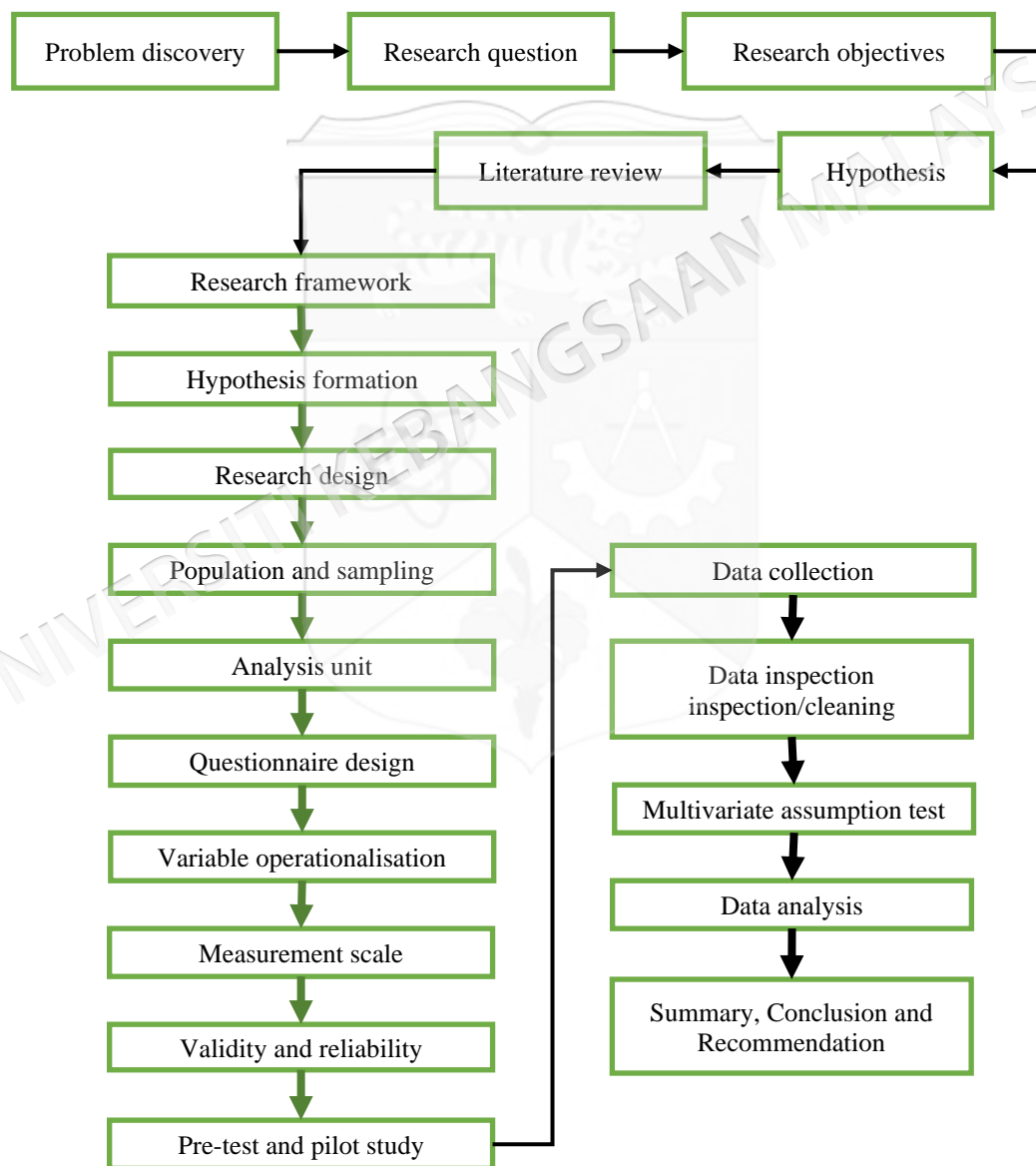


Figure 3.1 Research methodology

Source: Adapted from Sekaran and Bougie 2016

3.3 SURVEY INSTRUMENT

The survey questionnaire designed for this study consisted of a cover letter and questions which were divided into Parts A and B. The cover letter briefly states the purpose of study, confidentiality of the gathered data, and instructions on how to answer the questionnaires. Part A is related to demographic information provided by respondents, such as university name, course and degree of study, gender, race, age, marital status, and family size.

Part B of the questionnaire is focused on the main constructs being examined in the present study, for example, self-employment intention, entrepreneurship education, entrepreneurial self-efficacy, perceived university support, and family background. The respondents were asked to indicate their agreement or disagreement based on their intention after attending the entrepreneurship courses.

3.4 POPULATION AND SAMPLING

In this section, the research population, selection of representative sample for the characteristics of the population, the sample size, and suitable sampling method will be discussed, in line with the aim of the study.

3.4.1 Population

A population is defined as the sum total of all elements that conform to a set of specifications, comprising of the entire elements that is of interest to the researcher and the output can be generalized (Polit et al. 2001). Meanwhile, Sekaran and Bougie (2016) defined population as a group of people, events, or components. Individuals or units within the study population are referred to as elements.

Based on the definitions above, the population for this study were students from five public universities in Malaysia, who had attended an entrepreneurial programme (See Table 3.1). Since entrepreneurship is a compulsory subject in all public universities in Malaysia, and this study was specifically conducted for final year students who could be described as ready to launch into their professional careers and express their own

choices, we limited our selection to final year students in public universities. Data for this study were collected using a purposive sampling technique.

Table 3.1 List of Malaysian public universities involved

No.	Name of university (Acronym)	University type	Year founded	Ownership
1.	Universiti Malaya (UM)	Research university	1905	Government
2.	Universiti Sains Malaysia (USM)	Research university	1969	Government
3.	Universiti Kebangsaan Malaysia (UKM)	Research university	1970	Government
4.	Universiti Putra Malaysia (UPM)	Research university	1971	Government
5.	Universiti Teknologi Malaysia (UTM)	Research university	1972	Government

Sources: Ahmad and Buchanan 2015

3.4.2 Sampling Size

A sample is a subset of a population that has been chosen to take part in a study. It is a subset of the total population under investigation that are chosen to take part in the research (Polit et al. 2001). The sampling size is also defined by Sekaran and Bougie (2016) as the number of elements that represents a subset of the entire population that is being considered in the study. It is the selection of several aspects and elements in a population (Cooper & Schindler 2014).

Generally, a complete identification of the entire population (census) is known to be rigorous and also time and cost ineffective. Therefore, a study should take samples based on: selection of a sample that reduces cost, stress, and time, and it is practically impossible to collect data for the whole population, hence, there is a need to ensure that the sample taken provide a comprehensive overview, and so it would result in greater accuracy of research findings. Cohen (1992) stated that the cost and linearity of the number of responses, determining sample size is critical.

Based on the discussions above, this study employed the approach that is the common rule-of-thumb to always select and use the largest sample possible. This is because larger samples are more typical of the population, but smaller samples are less accurate since they are less representative of the population (LoBiondo-Wood & Haber

1998). Coakes et al. (2006) suggested 100 respondents as the acceptable sample size for factor analysis, but the sample size of 200 or more, is better. Comfrey and Lee (1992) also suggested that a sample size of 200 or more is better to perform factor analysis. This is in line with the Roscoe's (1975) rule which confirmed that the sample size greater than 30 and less than 500 is ideal for most studies.

The sample size for this study was determined by the researcher's level of confidence in collecting data, the margin of error that can be measured, the sort of analysis that will be performed, and if the survey findings may be generalised (Hair et al. 2015). Based on total population for this study, the total number of undergraduate students in five public universities selected are 87,787 students with the highest number of undergraduates were from USM (28,000) followed by UTM (15,526), UPM (15,000), UKM (14,971) and UM (14,290) (MOHE 2020). Therefore, as suggested by Krejcie and Morgan (1970), the appropriate sample size is 382 as illustrated in Table 3.2 (see Table 3.2).

Table 3.2 Sample size

Population size (N)	Sample Size (S)
1000	278
2000	322
3000	341
5000	357
10000	370
50000	381
75000	382
1000000	384

Sample Error 5%
(Significant Level <0.05)

Source: Krejcie and Morgan 1970

3.4.3 Sample Design

Sample design is a plan used in selecting some elements in a population with its main target is to draw conclusions about the whole population that has been studied (Cooper & Schindler 2014). It is the process of selecting the sample for estimating the population

characteristics. In other words, it entails the gathering data on an entire population by investigating only a portion of it (Kabir 2016). Before constructing a sample, there are numerous steps to consider, including demographic objectives, measurement parameters, sampling frame, acceptable sampling method, and sample size (Cooper & Schindler 2014; Sekaran & Bougie 2016;).

The sampling design can be divided into two types: the probability sampling and the non-probability sampling. The probability sampling that consists of simple random sampling, stratified sampling, systematic and cluster sampling, provides every unit of the population an equal chance of being represented. Meanwhile, the non-probability sampling is a sampling method (quota, convenience and snowball) whereby elements of the population have no chance of selection into the sample (Kabir 2016). The types and methods of sampling design are determined by the study's objective, time constraints, other resources, and the extent to which the sample-based study's conclusions represent the overall study population (Sekaran & Bougie 2016).

This study uses non-probability random sampling method, a purposive sampling technique as it is involved final year students who had taken entrepreneurship course and ready to launch their career upon graduation. Hair et al. (2015) defined it as the technique of using judgements to decisively select groups that are believed to accurately represent the population. Despite having a lot of limitations due to the subjective nature in choosing the sample and not a good representation of the population, nonprobability sampling is useful especially when randomisation is impossible, for example, when the population is very large. It is useful for research conducted under limited resources, time and workforce and can also be used when the research does not aim to generate results or create generalisations pertaining to the entire population. Therefore, there is a need to use nonprobability sampling techniques in this study.

Purposive sampling, also known as judgement sampling, is the purposeful selection of a participant based on the participant's characteristics. This entails identifying and selecting individuals or groups of individuals who are knowledgeable and skilled about a phenomenon of interest (Creswell & Clark 2011). Unlike random studies, which aim to include people of all ages, backgrounds, and cultures, the goal of

purposive sampling is to focus on those who have specific traits and will be better equipped to help with the research. In this recent study, purposive sampling technique was used among final year undergraduate students from five selected public universities in Malaysia who have taken entrepreneurship subjects during their study.

3.5 ANALYSIS UNIT

Unit of analysis refers to the respondents under study, that is, the whole unit being researched. According to Trochim et al. (2006), the definition of the unit of analysis is the initial decision to be made in deciding how the research data will be analysed. This study was conducted on respondents who were undergraduate students at public universities in Malaysia enrolled in entrepreneurial programmes.

3.5.1 Questionnaire Design

The questionnaire design for this study has undergone various processes. Generally, in order to develop measuring tools, the principles of questionnaire should focus on words or phrases from questions, how variables are related and categorised, scales, and codes, after receiving feedback, as well as on the general appearance of the questionnaire. The primary difficulties that needed to be addressed initially, according to the research, were to eliminate bias in a study (Sekaran & Bougie 2016).

The questionnaire was divided into six sections. Section A consisted of the demographic information about the respondents, while Section B focused on the dependent variable of self-employment intentions. This was followed by Section C, as the independent variable, which was entrepreneurship education, and Section D for the mediator, which was entrepreneurial self-efficacy. The last parts were Sections E and F, for the moderator variables of family background and perceived university support, respectively.

3.5.2 Measurement Scale

All constructs were operationalised using Likert scales. The main advantage of Likert Scale questions is that they use a universal method of collecting data, which means it is

easy to understand them. According to Sekaran and Bougie (2016), Likert Scale is an interval scale that specifically uses the 5-point scale. In this study, a 5-point Likert-type scale was used to increase response rate and response quality (Babakus & Mangold 1992). This scale ranging from 'strongly agree' to 'strongly disagree' was employed in this study as it was highly recommended by researchers in the field that it would lower patient responders' annoyance levels and boost response rate and quality (Sachdev & Verma 2004).

Table 3.3 Measurement scale

Constructs	No of Items	Scale
Self-Employment Intention	20 items	Five-Point Likert Scale
Entrepreneurship Education	4 items	Five-Point Likert Scale
Entrepreneurial Self-Efficacy	9 items	Five-Point Likert Scale
Perceived University Support	5 items	Five-Point Likert Scale
Family Background	4 items	Five-Point Likert Scale

Source: Sekaran and Bougie 2016

3.5.3 Words in Questionnaire

The adequacy of the content of questions, words, and the level of language refinement used, the type and type of inquiries being posed, the rules of questions, and the personal data gathered from replies are all covered by the rule of words. The type of question that will be addressed is determined by the variables employed, and a full literature review relating to the research will be undertaken (Sekaran & Bougie 2016).

3.5.4 Questionnaire Language

The language used in a survey question should be about the same level of the respondent's understanding. The choice of words must be based on the respondent's educational level, the term's use in the organisation, and the respondent's reference frame (Sekaran & Bougie 2016). In this study, in order to reduce mistakes and vague questions, the questionnaire was translated into Malay.

3.5.5 Type and Format of Questionnaire

Several procedures were followed during the questionnaire administration process to guarantee that the instrument was tidy, accurate, and represented professional viewpoints. In order to meet the study's objectives, special attention was paid to the aspects that would keep end users' interest. Some other steps were also taken to win the interest of the respondents. These include making the questionnaire more interesting, compact and specialised to entice the respondents to be keener on reacting.

The questionnaire was also developed by considering the aims of this study and the elements that could attract respondents to respond. The questionnaires were then printed in black and white ink with the font size 12 for easier readability.

Furthermore, the question form refers to whether the questions employ positive or negative statements, and the question type refers to whether the questions are alternative fixed questions. In this study, alternative questions were employed, in which the respondents were asked to make choices from a set of alternatives. The type and format of the question helped the respondents to pick among a few options and this additionally made a difference when encoding the data to analyse.

In this study, there were questions containing both positive and negative remarks, which was included to lessen the respondents' inclination to select a scale solely on one end. The last step was to administer the questionnaires to the selected respondents.

3.6 VARIABLE OPERATIONALIZATION: OPERATIONAL DEFINITIONS AND INSTRUMENTS

The process of designing accurate metrics for abstract theoretical constructs is known as operationalisation; undeniably a crucial component of any research project to make it apparent and possible to measure and evaluate variables (Oni 2003). According to Bhattacharjee (2012), an operational definition or conceptualisation of the constructs of interest is the first step in the operationalisation process. It also refers to an empirical

standard that can be used to measure variables in a research project (Cooper & Schindler 2014).

This study aims to examine the impact of entrepreneurship education on the intentions of public university students towards self-employment in Malaysia. Mediator variable (entrepreneurial self-efficacy) and moderator variables (perceived university support and family background) were also investigated in this study.

Three factors were addressed in order to secure the gathering of necessary data from respondents: first, the general design of the questionnaire; second, the pre-test validation; and third, the manner by which the questionnaire was passed through (Hair et al. 2015). The instruments used in this study were supported from various models and had been pre-tested before being adopted from previous studies.

As such, the measures used to assess the students' intentions were adopted from Ajzen and Driver (1992), Azevado and Sugahara (2012), Karakaya et al. (2011), and Pauceanu et al. (2018). Self-efficacy was also an instrument adopted from Scwarzer and Jerusalem (1995) while entrepreneurship education, perceived university support, and family background scales were adopted from Pauceanu et al. (2018).

3.6.1 Operational Definition

a. Dependent variable of self-employment intentions

In the context of this study, self-employment intentions refer to a student's attitude, desire, and drive to work for himself or herself rather than for a salary-paying job. It is also indicated as a student's self-efficacy beliefs and attitude that forecasts his or her practicality and desire for self-employment as a lifelong choice after graduation (Mudashir 2015). Self-employment intention, according to Ajzen (2006), is defined as a person's willingness to exhibit suitable behaviour. The scale to measure the dependent variable, self-employment intention, was adapted from various sources as described in the operationalisation of the variables above.

The items used to measure self-employment intention are presented in Table 3.4 below.

Table 3.4 Items for self-employment intentions

Code	Item	Source
SEI 1	I am actively encouraged to pursue my own ideas/ self-employment intention plans	Pauceanu et al. (2018)
SEI 2	I know many people in my university who have successfully started up their own business	Pauceanu et al. (2018)
SEI 3	Starting a business and keeping it working would be easy for me	Pauceanu et al. (2018)
SEI 4	Starting my business will make me financially independent	Pauceanu et al. (2018)
SEI 5	I would have a high chance of success if I would start my own business	Pauceanu et al. (2018)
SEI 6	I wish to be my own boss, make my own rules and work to fulfil my dreams	Pauceanu et al. (2018)
SEI 7	It is preferable to be an entrepreneur, rather than a company employee	Pauceanu et al. (2018)
SEI 8	Becoming an entrepreneur will contribute to the growth and development of my country	Pauceanu et al. (2018)
SEI 9	I intend to be self-employed upon graduation	Ajzen and Driver (1992)
SEI 10	I will be happy being self-employed	Ajzen and Driver (1992)
SEI 11	It is important for me to be self-employed	Azevado and Sugahara (2013)
SEI 12	I am determined to be an entrepreneur	Azevado and Sugahara (2013)
SEI 13	I intend to start-up a business upon graduation	Karakaya et al. (2011)
SEI 14	I am serious to be self-employed upon completion of my study	Karakaya et al. (2011)
SEI 15	I may not necessarily be self-employed	Karakaya et al. (2011)
SEI 16	I feel excited to be an entrepreneur	Karakaya et al. (2011)
SEI 17	I will start-up any business if I am self-employed	Karakaya et al. (2011)
SEI 18	I believe that being self-employed will satisfy me	Karakaya et al. (2011)
SEI 19	My Intention to be self-employed is not too high	Karakaya et al. (2011)
SEI 20	I will try my best to be self- employed	Karakaya et al. (2011)

Sources: Azevado and Sugahara 2013, Karakaya et al. 2011, and Pauceanu et al. 2018

b. Entrepreneurship Education

In the context of this study, entrepreneurship education refers to a traditional teaching method for instilling entrepreneurial abilities in pupils (Mudashir 2015). It also

identifies a boost for wealth generation and independent work as a goal, resulting in monetary expansion for the countries (Fayolle et al. 2006; Li & Liu 2011). The scale to measure entrepreneurship education was adopted from Pauceanu et al. (2018).

Table 3.5 shows items used to measure entrepreneurship education.

Table 3.5 Items for entrepreneurship education

Code	Items	Source
EE 1	Entrepreneurship courses at my university prepare students well for an entrepreneurial career	Pauceanu et al. (2018)
EE 2	An intensive entrepreneurship course would be extremely beneficial for students who would like to start a business	
EE 3	I will have a high chance of success in my own business if I take my entrepreneurship courses seriously	
EE 4	Entrepreneurship education gives me the skills and capabilities required to succeed as an entrepreneur	

Source: Pauceanu et al. 2018.

c. Entrepreneurial Self-efficacy

In this study, entrepreneurial self-efficacy refers to people's belief in their ability to complete entrepreneurial activities and exercises (Hmieleski & Corbett 2008). The scale for measuring self-efficacy was adopted from Swarzer and Jerusalem (1995).

Table 3.6 shows the items used to measure entrepreneurial self-efficacy among students.

Table 3.6 Items for entrepreneurial self-efficacy

Code	Items	Source
ESE 1	I can always perform any entrepreneurial task if I try my best	Swarzer and Jerusalem (1995)
ESE 2	If I am opposed by someone, I will find a way to get what I want	
ESE 3	It is easy for me to stick to my goals and achieve my goal of becoming self-employed	

to be continued...

...continuation

ESE 4	I am very confident with the entrepreneurship education I have that I can efficiently deal with unexpected thing in my self-employed business	
ESE 5	I am confident I can perform difficult entrepreneurship task	Scwarzer and Jerusalem (1995)
ESE 6	I can successfully perform any entrepreneurial task if I work harder	
ESE 7	I can remain calm in difficult situation as I can rely on my ability in entrepreneurship	
ESE 8	I can usually handle anything that comes to me	
ESE 9	I am very confident with my ability to be self-employed	

Source: Scwarzer and Jerusalem 1995

d. Perceived University Support

The university can play the important role of recognising and developing entrepreneurial characteristics and tendencies among students in order to increase their capability of being self-employed. This is the meaning of perceived university support as described by Debackere and Veugelers (2005). The scale for measuring the perceived university support variable was adopted from Pauceanu et al. (2018).

Table 3.7 shows the items used to measure perceived university support

Table 3.7 Items for perceived university support

Code	Items	Source
PUS 1	I know many people in my university who have successfully started up their own business	Pauceanu et al. (2018)
PUS 2	A mentor/professor from my university would be of great help in assisting me preparing for being an entrepreneur	
PUS 3	In my university, there is a well-functioning support infrastructure to support the start-up of new business.	
PUS 4	I will get full support of my university if I decide to become an entrepreneur.	
PP5	Starting a business and keeping it working would be easy for me if I have support from my university	

Source: Pauceanu et al. 2018

e. Family Background

Family background as used in this study refers to factors that are family-related and having an effect on a person's choice to take up self-employment intentions (Sørensen 2007). The scale for family background was adopted from Pauceanu et al. (2018).

Table 3.8 shows the items used to measure family background.

Table 3.8 Items for family background

Code	Items	Source
FB 1	There are entrepreneurs among my relatives.	Pauceanu et al. (2018)
FB 2	A mentor from my family would be of great help in assisting me preparing for being an entrepreneur.	
FB 3	I will get full support of my family if I decide to become an entrepreneur.	
FB 4	Starting a business and keeping it working would be easy for me if I have support from my family.	

Source: Pauceanu et al. 2018

3.7 MEASUREMENT VALIDITY

It is crucial to check the measurement validity before moving on to the primary analysis so as to ensure that the instrument is measuring what it is intended to measure (Brown 1996; Cook & Campbell 1979). In addition, it helps the researcher to identify whether or not the measure is consistent with the theoretical concept. Content validity, face validity, convergent validity, discriminant validity, and reliability are all examples of measurement validity (Campbell & Fiske 1959). These measurement validities will be conducted step-by-step.

First, the content needs to be ensured of its validity. The identification of measuring items based on the theory that is assumed to measure the constructs is referred to as content validity (O'Leary-Kelly & Vokurka 1998). There is not a rigorous statistical test to measure whether or not the measures adequately represent a construct. Therefore, the content validity of the present study was determined through pre-testing.

The extent to which a measure adequately and appropriately taps the construct to be measured is referred to as face validity (Lewis-Beck et al. 2004). In the present study, face validity was assessed through a pilot study. A detailed process on content and face validity is discussed in the next section.

The next step was to examine convergent and discriminant validities. Convergent validity states that measurements of the same construct should theoretically be connected to one another (Trochim et al. 2006) and would be measured through average variance extracted (AVE). The average variance extracted value higher than 0.50 indicates that the constructs explain more than half of the variance of its indicators. Discriminant validity, on the other hand, implies that the measurements are unrelated to one another (Trochim et al. 2006). This validity would be assessed via cross loadings of the indicators and Heterotrait-Monotrait ratio test so both convergent and discriminant validities are reported in the present study.

The final step of measurement validity is examining the reliability of the measures. The degree to which responses are consistent across items on a measurement scale is referred to as reliability (Kline 2005). There are two tests commonly used to establish the reliability of a construct: the Cronbach's coefficient alpha (Cronbach 1951) and the composite reliability (Hair et al. 2014). Cronbach's alpha and composite reliability tests are both used to assess reliability, but they work in distinct ways. Cronbach's alpha represents the correlation of all the indicators in the measure, thus, Cronbach's alpha increases in tandem with the inter-correlation between indicators (Hair et al. 2014). Concerns about indicator reliability, which does not imply equal indicator loadings, are raised by composite reliability; providing a better estimate of variance shared by the respective indicators (Hair et al. 2014). The recommended threshold value for Cronbach's alpha and composite reliability are between the range of 0.70 and 0.90 for advanced research, whereas a value less than 0.70 is for exploratory studies (Nunnally & Bernstein 1994). The next section describes the pre-testing and pilot study in detail.

3.7.1 Pre-testing

Pre-testing is a test on a limited number of respondents to assess the appropriateness and ‘understandability’ of the questions that will be included in the real study (Sekaran & Bougie 2016). The aim of pre-testing is to avoid poor data quality and to reduce or prevent the deletion of items during the measurement model evaluation (Memon et al. 2017). There is no distinctive rule for sample size in a pre-test. Long, complex instruments require bigger samples compared to short and simple instruments, thus, larger pre-test sample is required if the questionnaire is used for unsophisticated populations, when compared to sophisticated audiences (Hunt et al. 1982).

Two experts were invited in the pre-testing phase to provide feedback on the questionnaire items. The experts involved were one academician and an expert in Entrepreneurship Education from Universiti Malaysia Sabah, while the second expert is an academic/expert in Social Sciences study from the Universiti Pendidikan Sultan Idris (UPSI). All experts were requested to comment on multiple elements, such as the appropriateness of the scales used, the accuracy of instructions provided, the clarity or uncertainty of construct definitions, and the representation of items. In summary, pre-testing assesses the designed questionnaire for content validity.

3.7.2 Pilot Test

Before distributing the questionnaires to the samples, the researcher must conduct a pilot study to determine the time taken to complete the questionnaires and to check the clarity of the instructions and the questions (Bell et al 2019).

The main purpose of the pilot study was to measure the reliability between items in the measurement scales. When a measurement produces consistent results, it is said to be reliable. In addition, the stability and consistency with which an instrument assesses a notion is referred to as the dependability of a measure, and it aids in determining the measure's usefulness. Validity is influenced by reliability, and a reliable measuring instrument may or may not be valid, but a valid instrument should be reliable (Krishnaswamy et al. 2006).

Reliability is an assessment of the degree of consistency between multiple measurements of a variable. There are two types of reliability: test-retest and internal consistency. Internal consistency is the more often employed of the two (Hair et al. 2007). Meanwhile, the present research has adopted the internal consistency, which applies to the consistency among the variables in a summated scale.

Inter item consistency reliability is a test of the consistency of the respondent's responses to all the items in a measure. The items will be connected to the extent that they represent independent measures of the same notion. The most popular test of inter item consistency reliability used for multipoint scaled items is the Cronbach's alpha; a reliability coefficient that evaluates the consistency of the entire scale. The generally agreed upon lower limit for Cronbach alpha is 0.70 although it may decrease to 0.60 in exploratory research (Hair et al. 2007).

A pilot study was conducted in order to estimate the reliability of the survey instrument. The questionnaire was designed after a thorough literature review and considering several variables and given to 30 participants from three private universities via online, specifically distributed via an email invitation.

Data collected from the pilot study became the initial database for analysis using the SPSS (Statistical Package for the Social Sciences) for reliability analysis. Table 3.9 presents the Cronbach alpha of different constructs for both the independent and dependent variables, respectively.

Table 3.9 Value of Cronbach alpha for all constructs

Construct	Cronbach's alpha	N of items
Entrepreneurship Education	0.8150	4
Entrepreneurial Self-efficacy	0.856	9
Perceived University Support	0.958	5
Family Background	0.943	4
Self-employment intention	0.797	20

From the table above, it can be seen that the Cronbach's alpha coefficients ranged from a low of 0.797 to a high of 0.958. According to Pallant (2011), Cronbach alpha values which exceed 0.7 are acceptable while values greater than 0.80 are better. Therefore, the measurement scale was considered highly reliable, thus, all constructs were accepted.

3.8 DATA ANALYSIS TECHNIQUES

3.8.1 Data Inspection

The main objective of data inspection is to identify or locate missing data or bad data prior to conducting the statistical analysis so as to determine its performance (Odom & Henson 2002). Therefore, the present study checked the missing or bad data before carrying out data analysis based on the explanation in the following section.

3.8.2 Missing Data

Missing data occurs when no *data value* is recorded for the variable in an observation. They have the potential to impair a study's statistical power, resulting in biased estimates and erroneous findings (Kang 2013). According to Tabachnick and Fidell (2007) missing data constitute nuisance with a profound impact on the data analysis results despite being a common problem in data analysis. Therefore, frequency distribution and missing value analysis were conducted for each variable in this study to ensure a completely clean set of data.

After administering the questionnaire, all questions were checked to see if the respondents had answered them appropriately and if missing data existed in the data file. Missing data has a number of consequences, including a reduction in the size of the sample accessible for analysis, resulting in an insufficient sample, and biased statistical decision-making, resulting in an incorrect conclusion (Hair et al. 2015).

In this present study, the missing data were dropped. This is due to the assumption that, when data are missing, available data required must be more than 15 percent, but should be removed if the sample meets the requirement for the study. This

proposal is consistent with that of Tabachnick and Fidell (2007) that data loss cases should be dropped.

3.8.3 Outliers Assessments

In research, data points that differ significantly from other observations in a data set are known as outliers, and they can suggest measurement variability, experimental errors, or innovation (Santoyo 2017). They are observations with unique combinations of features that can be identified as distinctly different from other observations in the data set.

Hair et al. (2015) identified four classes of outliers: procedure errors, exceptional circumstances, exceptional observations, and unique combinations, which also exist either as univariate or multivariate (Santoyo 2017). Tabachnick and Fidell (2007) suggested to first examine outliers as univariate. Graphic methods such as histogram, box plot and normal probability plot, including a detrended normal probability plot, which was used in this study, allowed for the initial data analysis prior to implementing the time-consuming, in-depth statistical analysis, as recommended by Tabachnick and Fidell (2007).

Mahalanobis distance was evaluated as *Chi*-square with degrees of freedom equal to the dependent variable on all other variables as independent variable in the simultaneous regression model. Extreme values were identified by calculating the Mahalanobis distance for the initial regression procedure. This was intended to determine whether the case did not exceed *Chi*-square criteria. In order to support the regression analysis, four assumptions, such as normality, linearity, homoscedasticity, and residual independence were examined (Tabachnick & Fidell 2007) through histogram, regression residual, plot normal plot (PP plot) from residual scatter plot, uniformed, scattered diagrams plot (consisting of QQ plot and Detrended QQ plot), and Durbin Watson statistics (Hair et al. 2015). Coakes et al. (2006) suggested that Durbin-Watson's statistical observation value must be between 1.50 and 2.50 to indicate the freedom of ascent.

3.8.4 Multivariate Assumption Test

Multiple regression for data analysis was also employed in the examining the model. It is a method for examining the relationship between a set of independent variables and a single dependent variable (Hair et al. 2015). In this study, there were certain assumptions that needed to be addressed in order to provide data for multiple regression analysis, as their violation would negatively affect the findings of the study. The required multivariate assay tests are normality, multicollinearity, path coefficients, R^2 value, effect size (f^2) and lastly, predictive relevance (Q^2).

3.8.5 Normality Test

Normality is one of the most important assumptions in multivariate analysis, and it is required for inferential statistical procedures to work (Hair et al. 2015; Coakes & Ong 2011). This test was conducted to ascertain that the data is close or in normal distribution. Defining skewness and kurtosis is one of the most popular ways of normality testing. Skewness and kurtosis refer to a form of distribution with internal level, ratio data, and unimodal symmetry of the bell-shaped curve (Coakes & Ong 2011). These were the two steps that were mostly used for this study in determining the data norms. The divergence was used to measure the symmetry that illustrated the form of the mean distribution. The positive divergence graph depicts a distribution with symmetry tails to the right of the normal curve, whereas the negative divergence graph depicts a distribution with symmetry tails to the left (Hair et al. 2015; Kline 2015).

As suggested by Kline (2015), the kurtosis value of ± 1 is considered very good for most psychometric uses, but ± 2 is usually sufficient. This study used the deviation of ± 2 as proposed by Tebaldi and West (1998) and Bentler and Yuan (1999). In order for the data to be regarded as normal, Kline (2015) suggested the range values for kurtosis to be ± 10 . In which each variable and all linear variables of combinations must be normalized as a pre-requisite assumption of regression analysis. When the sample size is at least 30, the sample taken is deemed almost typical, according to the general rule (Berenson et al. 2012). As this study involved a large sample, the central limit Theorem can be used, and the data can be considered normal (Ahmad Sabri 2015; Alam

& Yasin 2010). The term "normality" refers to the normal distribution, which is used as a benchmark in statistical approaches (Hair et al. 2015).

3.8.6 Multicollinearity

A link or correlation between independent variables is referred to as multicollinearity. Before completing the multiple regression analysis, the data must be verified to guarantee that there is no multicollinearity (Hair et al. 2015). Furthermore, multicollinearity is due to the high correlation of some independent variables with other independent variables (Ahmad Sabri 2015; Murjan 2012). Multicollinearity may affect the accuracy and stability of the parameters estimated in the model but can be traced using the variance inflation factor (VIF).

For this study, each independent variable was tested according to the recommendations proposed by Hair et al. (2015). Based on their recommendations, a 0 VIF indicates that the variables were not correlated with each other, while a VIF greater than 5 shows that there was a large correlation between the independent variables (Hair et al. 2015). But when the maximum value of VIF exceeded 5, it is then often considered as an indication that multicollinearity have a large influence on square estimates (Neter et al. 1985).

3.9 ANALYSIS OF DATA

In this study, descriptive statistics was performed using the SPSS (Version 24). On the other hand, Structural Equation Modeling (SEM) statistical technique was used to test the research model of this study. Among SEM statistical techniques, SmartPLS (Partial Least Squares) was applied to validate and test the structural model. First, the assessment of the measurement models including internal consistency, reliability, convergent validity, and discriminant validity, were performed to confirm the adequacy of the measurement model. Second, the assessment of structural models including path coefficient, variance explained, effect size and predictive value were also performed.

3.9.1 Descriptive Analysis

Appropriate descriptive statistics, such as frequency, percentage, mean and standard deviation will be used in analysing the respondents' characteristics. It can be calculated to show the sample size used in the analysis, based on demographic data such as gender, race, age, and other socio-economic characteristics.

3.9.2 Assessment of Measurement Models

a. Reliability

Reliability and validity of the scales employed are two important tests performed in determining the adequacy of the measurement model that measures the latent constructs. Measure Reliability was assessed using Individual Item Reliability from SPSS and Internal Consistency Scores, calculated by composite reliability scores (Werts et al. 1974). Composite Reliability is recommended by Werts et al. (1974) to measure the reliability of the constructs. According to Hulland (1999), Composite Reliability can provide a better estimate since it includes item loadings from a causal model. As a result, it is a good measure to use with a survey instrument that generally tackles a variety of constructs. The interpretation of the values obtained is similar to Cronbach's alpha where Fornell and Lacker (1981) recommended that the acceptable value of composite reliability for each construct should be greater than 0.70.

b. Validity

Validity was assessed using scale validation that proceeded in two phases: convergent validity and discriminant validity analysis. Convergent validity and discriminant validity are two validities that capture some aspects of the measurement model's goodness of fit (Gefen & Straub 2005). Convergent validity, according to Hulland (1999), is defined as whether each measurement item on a scale correlates strongly with a common underlying construct while connecting weakly or not significantly with other constructs. Franke and Lacker (1981) proposed three criteria for determining scale item convergent validity.

The first criterion is for all items factor loading (λ) with a significant t -value on its latent construct should be significant and exceed 0.70. The p -value of this t -value should be significant at least at the $p < 0.05$. Second, the composite reliability for each construct should be greater than 0.70. Third, the Average Variance Extracted (AVE) for each construct should exceed the variance attributable to measurement error ($AVE \geq 0.50$).

Discriminant validity, on the other hand, is demonstrated when each measurement item has a weak correlation with, or differs from, all other constructs in the same model (Gefen & Straub 2005). In this study, the two criteria indicated for determining discriminant validity between constructs were prescribed by Hulland (1999) and Chin (1998). Firstly, all the loadings of measurement items should be stronger on their corresponding construct than on other constructs in the model. Secondly, the square root of AVE for each construct is greater than the correlations between that construct and other constructs. This means that the construct has more variance with its own measurements than with other constructs.

3.9.3 Assessment of the Structural Models

According to Loehlin (1998), the structural model can specify the relationship pattern between latent components. In other words, a structural model provides information as to how well the conceptual model predicts the hypothesised paths. In addition, examining the structural model was intended to capture both the linear regression effects of the exogenous constructs on the endogenous constructs and the regression effects of the endogenous constructs upon another (Hair et al. 1998). Variance explained (R^2), path coefficients (β), path significant (p -value), effect size (f^2), and predictive relevance (Q^2), were all employed separately in the examination of the structural model. The statistical objective of PLS was overall identical to linear regression, which showed high R^2 and significant t -values, thus rejecting the null hypothesis of no-effect (Thompson et al. 1995).

a. Variance Explained (R^2)

A variance explained is used to measure the discrepancy between a model and actual data. In other words, it is the part of the overall variance in the model that is explained by components genuinely present rather than with error variance. Higher percentages of explained variance indicate a stronger strength of association. It also means that better predictions can be made (Rosenthal & Wong 2011).

b. Path Coefficients (β)

Path coefficients are standardised regression coefficient (beta) demonstrating the direct effect of an independent variable on a dependent variable in the path model (Hair et al. 2013). When all other variables in the model are kept constant, a path coefficient indicates the response of the dependent variable to a unit change in an explanatory variable (Bollen 1989).

c. Path Significant (p -value)

In this study, any path with a p -value of less than 0.10 (*i.e.*, $p < 0.10$) were considered to be significant (Gujarati 1995). The t -value needs to be significant to support the hypothesised paths by showing above 1.46, 1.96 or 2.58 for alpha levels of 0.10, 0.50 and 0.01, respectively. Two-tail- t -test was administered to assess the significance and effect size of the path coefficients. Results of the analysis for the overall model, including path coefficients (β), path significant for all independent constructs (p -values) and variance explained (R^2) for dependent construct were examined and the hypotheses tested.

d. Effect Size (f^2)

Effect size is an important complement to null hypothesis significance testing (e.g., p -values), in that they provide a practical significance metric in terms of the magnitude of the effect that is independent of sample size. As an additional benefit, dimensionless, or standardised measures of effect size allow for the direct comparison of two or more quantities, for example variables measured on different scales or independent studies in a meta-analysis. With effect size, users can establish whether the effects indicated by

the path coefficients are small, medium, or large, where the recommended values typically are 0.02, 0.15, and 0.35, respectively (Cohen 1988). Values below 0.02 suggested effects that are very insignificant to be relevantly considered from a real-world point of view, even when the corresponding p values are statistically significant; a situation that may occur with large sample sizes.

e. Predictive Relevance (Q^2)

Q^2 is generally estimated using an omission distance of 5-10 under existing PLS software packages. The rule of thumb indicates that a cross validated redundancy $Q^2 > 0.5$ is regarded as a predictive model (Chin 2010). In addition to the size of R^2 , the predictive sample reused technique (Q^2) can be used as a predictive relevance criterion with success (Chin 2010; Fornell & Cha 1993; Geisser 1975; Stone 1974). Based on a blindfolding procedure, Q^2 evaluates the predictive validity of a large complex model using PLS. This technique omitted data for a specific block of indicators while estimating parameters for a model using the blindfolding procedure, and then predicted the omitted part based on the calculated parameters. Thus, Q^2 shows how well the data gathered empirically can be recreated using the model and PLS parameters (Fornell & Cha 1993).

3.10 ETHICAL CONSIDERATIONS

In this study, it was planned that before the survey process began, a few ethical considerations would deliberately be taken care of. Bearing in mind some ethical issues proposed by Md Shidur (2017), the following steps were performed prior to gathering information from the subjects.

Gathering information: Before any data were gathered or any individuals were included in the survey study, the subjects need to give their consent to the researcher. All participants were informed of the voluntary nature of their involvement and that they could exit from the process at any point of the study. The consensus was obtained two times: during the initial approach for the respondents to join the face-to-face survey, and once again before they participated in the survey.

Seeking consent: Before requesting consent, the researcher made certain that all subjects were fully informed about the sort of data that would be collected, the rationale for the data collection, the aim of the survey, and the way in which they were to engage in the study, and the direct or indirect effects that the study would have on them.

Sensitive information: All participants were regarded as anonymous in order to protect all obtained data. For all respondents, the fundamental principle of data privacy and confidentiality was affirmed. Since this study evaluated the effect of entrepreneurship education towards self-employment intentions and family background as one variable, it is unavoidable that the individuals will be asked about their family. Little but reasonable sensitive information was requested for each respondent (for example, parents' job and support from family). In addition, all information obtained was kept strictly confidential. The researcher did not reveal the names or personal particulars of any individuals in any of the reports or publications arising from this study.

3.11 SUMMARY OF THE CHAPTER

Chapter 3 discussed the methodology for this study. This included the pre-test and pilot test which were performed. The test scales' validity and reliability using the SPSS Version 24 were also addressed. The statistical test results report as proposed in Chapter 3 are presented in Chapter 4.

CHAPTER IV

FINDINGS

4.1 INTRODUCTION

This section of the thesis reflects on the study results, which were analysed using different statistical tests. Findings were evaluated based on gender and age. In this section of the analysis, the measurement model was examined by analysing the parameters that were designed to quantify. The findings of the analysis are discussed in the final section of this chapter with respect to the structural model. Concluding comments will be included at the end of this chapter.

4.2 DATA ANALYSIS OVERVIEW

4.2.1 Response Rate

The survey had a response rate of 86.2 percent (Table 4.1). A response rate of 20 to 30 percent demonstrated great possibilities that could be useful in future studies. A meta-analysis of 17 scholarly publications from 2000 to 2005 with 1,607 responses showed a response rate of 30.5. Due to superior handling of partial data as contrasted to missed data, the Expectation-Maximization (EM) analysis approach is more effective than list-wise analyses, mean substitution, and pairwise deletion percent. In another report, the response rate for organisational research was 30.5 percent (Sekaran & Bougie 2003). For this analysis, an appropriate response rate was obtained at 86.2 percent. The breakdown of the sample size from each public university where this study was conducted is presented in Table 4.2 showing that the total number of respondents is 388.

Table 4.1 Response rate

	Total	Percentage
Distributed	450	100%
Received	399	88.6%
Rejected	11	2.7%
Useable	388	86.2%

Table 4.2 Breakdown of total sample size from each public university

No.	PUBLIC UNIVERSITY NAME	NO. OF RESPONDENTS
1.	Universiti Malaya (UM)	76
2.	Universiti Putra Malaysia (UPM)	82
3.	Universiti Kebangsaan Malaysia (UKM)	80
4.	Universiti Sains Malaysia (USM)	72
5.	Universiti Teknologi Malaysia (UTM)	78
	TOTAL RESPONDENTS:	388

4.2.2 Missing Values

The Expectation-Maximization (EM) algorithm requires expectation and maximisation relations to give rise to a set of criteria. Hosseini et al. (2019) proposed that the most appropriate metric for estimating overall data inaccuracy is data log-likelihood. In the case of M, the log-likelihood under the structural model was maximised to achieve a formal parameter estimation. Also, the missing data were analysed using the EM approach. Due to superior handling of partial data as contrasted to missed data, the EM analysis approach is more effective than list-wise analyses, mean substitution, and pairwise deletion (Allison 2001; Nelwamondo et al. 2007).

First, in the IBM SPSS Data Analysis 24.0 software, data was entered and assessed using different standard operating procedures to analyse missed data and incomplete responses. Of the 399 questionnaires, 11 were not engaged, and 11 were removed from the final data review.

4.3 DESCRIPTIVE ANALYSIS

Before evaluating the measurement and structural model characteristics, a comprehensive descriptive study was conducted on the respondents. The following section addresses the descriptive findings.

4.3.1 Profile of Respondents

The demographic analysis revealed that a majority of the participants were male, which accounted for 60.1 percent of the total respondents. The female respondents made up 39.1 percent. Based on age group, a majority of the respondents were in the age group of 19 to 22 years, which accounted for 43.8 percent of the total respondents. All of the respondents were undergraduates, with 53.9 percent of the total respondents were in degree and 46.1 percent were in diploma. In addition, with regard to race, a majority of the respondents were Malays, with 47.7 percent. Out of 388 respondents, 350 respondents were unmarried and single. Based on the household size, a majority of the respondents had 2 to 3 household sizes, that accounted for 67.5 percent of the total respondents. Lastly, two screening questions were asked on the entrepreneurship practice and course. Based on the practice, 80.2 percent of the respondents were practicing entrepreneurship and 100 percent of the respondents had taken entrepreneurship as a formal course. Details of the demographic information are presented in the table below:

Table 4.3 Demographic characteristics (N=388)

Variable	Category	Frequency	Percent
Gender	Male	233	60.1
	Female	155	39.9
Age	<18	127	32.7
	19-22	170	43.8
	23-26	80	20.6
	27-30	11	2.8
Education	Diploma	179	46.1
	Degree	209	53.9
Race	Malay	185	47.7

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	Chinese	130	33.5
	Indian	73	18.8
Marital Status	Single	350	90.2
	Married	38	9.8
Household Size	<1	2	0.5
	2-3	262	67.5
	4-5	104	26.8
	6-7	20	5.2
Practice Entrepreneurship	Yes	311	80.2
	No	77	19.8
Entrepreneurship Course	Yes	388	100
	No	0	0

4.4 VARIABLES CHARACTERISTICS (MEAN & SD)

The scale was employed with 5 ratings (1: strongly disagree to 5: strongly agree), which was explicitly designed for the purpose of this analysis. In the five-point Likert scale, low ratings are less than or equal to 1.99, intermediate ratings are 2.00 to 3.99, and high values are 4.00 or higher (Dawes 2008; Sekaran & Bougie 2013). The values for the variables are presented in Table 4.3. The values show that the ESE has the mean value of 3.580 and average responses falls between Point 3 and Point 4 of the Likert scale. Similarly, EE has the mean value of 3.519. FB has the mean value of 3.53, US has the minimum mean value among all variables with 3.438, and SEI has the maximum value among all variables with 3.609.

Table 4.4 Variable characteristics

Construct	Mean	Standard Deviation
ESE	3.580	1.074
EE	3.519	1.154
FB	3.535	1.060
US	3.438	1.052
SEI	3.609	1.101

Note: Self-Employment Intention (SEI); Entrepreneurship Education (EE); Entrepreneurial Self-Efficacy (ESE); Perceived University Support (US); Family Background (FB)

4.5 TEST FOR COMMON METHOD VARIANCE

In this section, traditional process bias was investigated using a single-factor analysis. For study variables, CMV was asked because it was the respondent's data that was being evaluated for the dependent variable, and the independent variables were retrieved from the same participants. As Podsakoff et al. (2013) mentioned, for a descriptive study design, bias might be a concern.

Due to the significant association found, response bias is an issue if one hidden component is the sole relevant factor. The single factor analysis was conducted on all measurement items, collecting five variables with more than 1.0 Eigen values. Almost 40.83 percent of the variance came from the differences within group. Therefore, in the present study, the common method of variance has failed to explain meaningful variations and there was no issue found on common method biasness.

4.6 MEASUREMENT MODEL EVALUATION

SmartPLS 3.2.3 was employed to test the model used in this study. The theoretical description was provided by analysing various sources. Most commonly, the reliability was used to test the calculation. Hair et al. (2013) employed tools to estimate the constructs. Convergent validity, discriminant validity, internal consistency such as Cronbach Alpha, and composite reliability must be employed to test the measurement model in a reflective model, according to their advice.

4.6.1 Validity

Researchers must examine the model's suitability as well as the quality of fit to determine the measurement's validity (Hair et al. 2010). In this study, the researcher concentrated on the convergent and discriminant validity by using different procedures. The measuring techniques were used to determine whether the measurement was accurate or inaccurate.

4.6.2 Convergent Validity

For the significance results on convergent validity or how well the predictor correlates with overlap of the same models, Hair et al. (2010) suggested additional internal consistency elements and the average variance extracted (AVE). Table 4.4 shows the loadings and AVE of the observed latent variables. Overall, the AVE and loading should both exceed 0.5 (Hair et al. 2013).

It is clear that the study has fulfilled its analysis goals since it was based on the PLS method. The convergent model validation statistics were determined first: Model AVE, Composite reliability, and Load. The number of substantially positive loadings for each of the six built scales are presented in Table 4.4, whereby the values were within the benchmark values, as suggested by Hair et al. (2016). The results from the current study showed that the values of AVE for EE was 0.721, ESE was 0.546, FB was 0.717, SEI was 0.564, and US was 0.666. All these values revealed that according to Hair et al. (2016), the study surpassed the cut-off value of 0.50. In line, Composite Reliability (CR) stayed between 0.908 to 0.968, that also surpassed the minimum value of 0.70, as suggested by Hair et al. (2016). Furthermore, the loadings were also above the recommended values, as per Hair et al. (2016), which had the recommended value at 0.50. Lastly, the Cronbach's alpha in this study was also above the cut-off value. All of these recommended values showed that the Model of the study is appropriate and the structural analysis to assess the hypotheses can be proceeded.

Table 4.5 The results of measurement model

Variable	Item	Loading	Cronbach's Alpha	CR	AVE
Entrepreneurship Education	EE1	0.867	0.872	0.912	0.721
	EE2	0.894			
	EE3	0.833			
	EE4	0.800			
Entrepreneurial Self-Efficacy	ESE1	0.735	0.897	0.915	0.546
	ESE2	0.753			
	ESE3	0.655			
	ESE4	0.771			

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	ESE5	0.735			
	ESE6	0.837			
	ESE7	0.734			
	ESE8	0.700			
	ESE9	0.713			
Family Background	FB1	0.853	0.869	0.910	0.717
	FB2	0.819			
	FB3	0.861			
	FB4	0.854			
Self-Employment Intention	SEI1	0.809	0.958	0.962	0.564
	SEI2	0.841			
	SEI3	0.766			
	SEI4	0.788			
	SEI5	0.752			
	SEI6	0.794			
	SEI7	0.789			
	SEI8	0.769			
	SEI9	0.755			
	SEI10	0.775			
	SEI11	0.761			
	SEI12	0.682			
	SEI13	0.541			
	SEI14	0.736			
	SEI15	0.585			
	SEI16	0.773			
	SEI17	0.811			
	SEI18	0.737			
	SEI19	0.764			
	SEI20	0.721			
Perceived University Support	US1	0.817	0.873	0.908	0.666
	US2	0.821			
	US3	0.833			
	US4	0.885			
	US5	0.713			

Note: Self-Employment Intention (SEI); Entrepreneurship Education (EE); Entrepreneurial Self-Efficacy (ESE); Perceived University Support (US); Family Background (FB)

4.6.3 Discriminant Validity

The model was tested by comparing the effects of the heterotrait-monotrait ratio test. This modern approach is considered to be more superior than other conventional approaches. To define unequal validity, there was one criterion used with either 0.85 or 0.90. Based on the criteria of 0.90, this is a valid test (i.e., HTMT.90). The model has discriminant validity because all the results of the HTMT.90 were below the cut-point of 0.90. Overall, both discriminant validity and convergent validity were appropriate in this study.

Table 4.6 Discriminant validity (HTMT.90)

Constructs	1	2	3	4	5
Entrepreneurial Self-Efficacy					
Entrepreneurship Education	0.307				
Family Background	0.342	0.78			
Perceived University Support	0.350	0.599	0.678		
Self-Employment Intention	0.786	0.444	0.480	0.391	

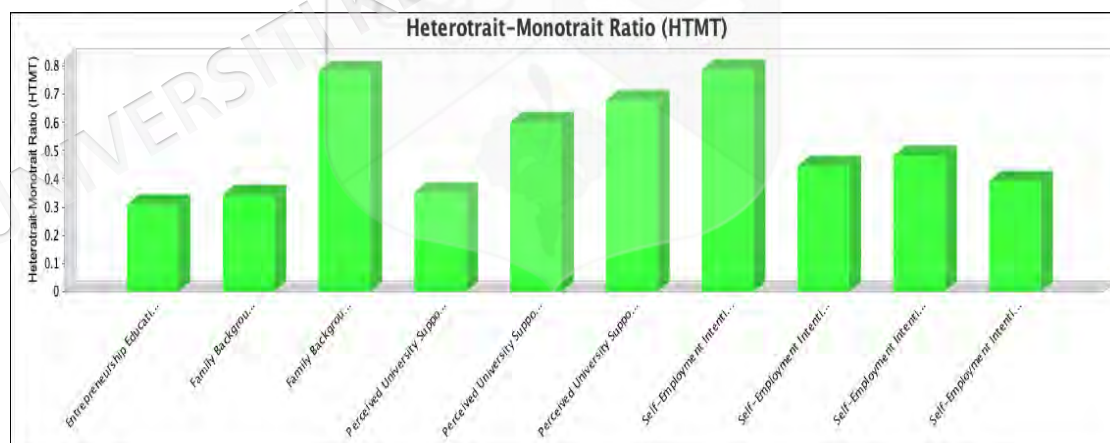


Figure 4.1 Heterotrait-Monotrait ratio

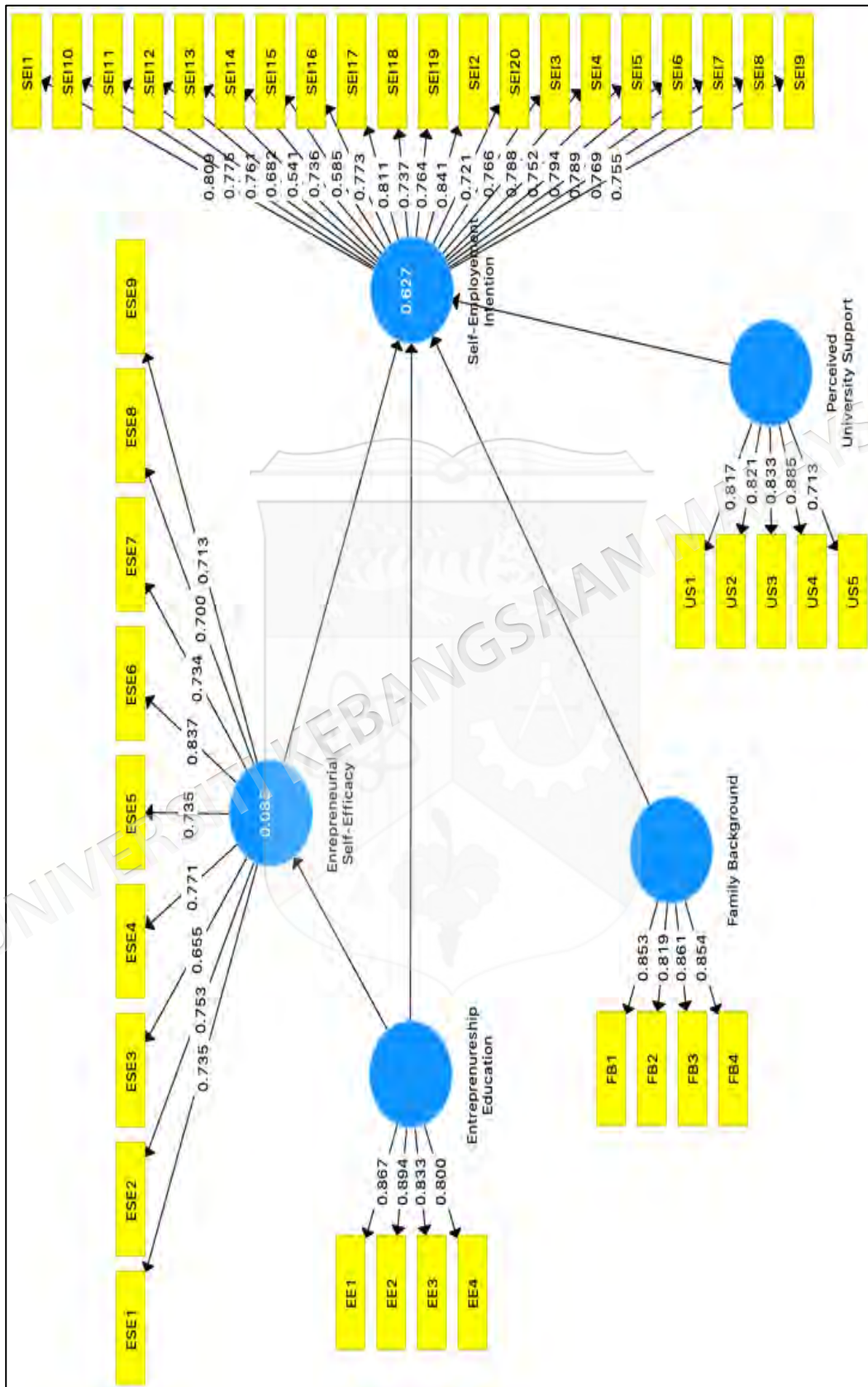


Figure 4.2 Output of measurement model

4.7 ASSESSMENT OF STRUCTURAL MODEL

A valid multiple regression analysis was carried out to evaluate this research model. Hair et al. (2013) mentioned that the five steps for assessing the structural model are: first, the collinearity values, then path coefficients, thirdly the equation's R^2 value, fourthly the f^2 , and lastly, how much the approximation can be relevant.

4.7.1 Collinearity Assessment

Hair et al. (2013) called attention to that test of collinearity (VIF) and tolerance (TAU) would be required in evaluating the structural model. VIFs should be no greater than 5.0. As a result, in this study, VIF had a lower value than the recommended point value. In this case, collinearity was not a factor to consider. The VIF values are presented in the table below: Entrepreneurial Self-Efficacy had obtained the variance inflation factor of 1.149, which was less than 5.0, as per the recommended value. Similarly, Entrepreneurship Education had 1.933, Family Background had 2.135, and Perceived University Support had 1.634. All the variance inflation factors were less than 5.0 which confirmed that collinearity was not an issue in this research.

Table 4.7 VIFs for collinearity evaluation of the structural model

Constructs	Entrepreneurial Self-Efficacy		Self-Employment Intentions	
	VIF	Tolerance	VIF	Tolerance
Entrepreneurial Self-Efficacy			1.149	0.870
Entrepreneurship Education	1	1	1.933	0.517
Family Background			2.135	0.468
Perceived University Support			1.634	0.612

4.7.2 Checking of Data Normality

The data was examined using the Outliers check, which is not appropriate for this type of sample (Hair et al. 2013), because an examination of the data would reveal whether the various characteristics are normal or not. If the results were significantly out of the ordinary, it would be difficult to estimate the relevance of parameters (Hair et al. 2013). It is possible to differentiate extreme anomalies on the statistics of skewness and kurtosis values which are greater than 2.828 and 12, respectively. The approach

proposed by PLS-SEM was implemented in this study to make the findings more meaningful and robust.

Table 4.8 Skewness and kurtosis of main variables

Constructs	Excess Kurtosis	Skewness
ESE1	-0.646	-0.433
ESE2	-0.739	-0.063
ESE3	-0.462	-0.38
ESE4	-0.618	-0.136
ESE5	0.069	-0.538
ESE6	-0.314	-0.401
ESE7	0.404	-0.838
ESE8	-0.378	-0.546
ESE9	-0.24	-0.707
EE1	-1.184	-0.211
EE2	0.033	-0.688
EE3	-0.389	-0.628
EE4	-0.95	-0.189
FB1	-0.677	-0.301
FB2	0.765	-0.635
FB3	-0.622	-0.264
FB4	-0.807	-0.264
US1	-0.456	-0.267
US2	-0.617	-0.541
US3	-0.754	-0.455
US4	-0.184	-0.238
US5	-0.649	-0.006
SEI1	-0.527	-0.633
SEI2	-0.27	-0.621
SEI3	0.178	-0.804
SEI4	-0.193	-0.51
SEI5	-0.369	-0.574
SEI6	-0.151	-0.683
SEI7	-0.179	-0.693

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SEI8	-0.138	-0.562
SEI9	-0.298	-0.593
SEI10	-0.608	-0.483
SEI11	-0.251	-0.484
SEI12	-0.379	-0.401
SEI13	-0.839	-0.314
SEI14	-0.624	-0.409
SEI15	-0.071	-0.512
SEI16	-0.246	-0.696
SEI17	-0.071	-0.661
SEI18	0.261	-0.708
SEI19	-0.099	-0.447
SEI20	-0.819	-0.341

Note: Self-Employment Intention (SEI); Entrepreneurship Education (ED); Entrepreneurial Self-Efficacy (ESE); Perceived University Support (US); Family Background (FB)

The analysis of the skewness and kurtosis values revealed that the skewness and kurtosis value of each item was under the recommended cut-off value of +1.96 to -1.96.

4.7.3 Multi-Variate Normality

Multivariate skewness and kurtosis were analysed using the statistical analysis software WebPower (2019). The findings showed that this data was not a multivariate normal, with Mardia's multivariate skewness ($\beta = 2.61, p > 0.05$) and Mardia's multivariate kurtosis ($\beta = 41.28, p > 1.40$). Therefore, the Smart PLS programme was used to analyse this data. Besides, Ramayah et al. (2017) had a common approach to determine multivariate normality in their research on the Technology Adoption Model. In this study, the significance of P values shows that the data was unstandardised and not normal. Therefore, the SmartPLS assumption is fulfilled and can be used to analyse the structural equational modelling.

```

Sample size: 388
Number of variables: 5

Univariate skewness and kurtosis

      Skewness  SE_skew  Kurtosis  SE_kurt
Entrepreneurial.Self.Efficacy -0.2328090 0.1238768 -0.1554647 0.247129
Entrepreneurship.Education -0.4037803 0.1238768 -0.5673943 0.247129
Family.Background -0.3171724 0.1238768 -0.1012065 0.247129
Perceived.University.Support -0.1803696 0.1238768 -0.2422474 0.247129
Self.Employment.Intention -0.4474798 0.1238768 0.0627067 0.247129

Mardia's multivariate skewness and kurtosis
      b      z      p-value
Skewness 2.615209 169.116847 0.000000e+00
Kurtosis 41.282580 7.395625 1.407763e-13

```

Figure 4.3 Multivariate normality assessment

Source: WebPower 2019

4.7.4 Structural Model Path Coefficient

The path coefficient was also used to evaluate the model. To evaluate if the path coefficient was substantially different, t -values were used for individual group samples, to gain meaning for values less than or equal to the recommended value. Hair et al. (2017) suggested using bootstrapping of coefficients to compute the t -value for significance of multiple regression coefficients. Table 4.8 displays the path coefficients derived from multiple regression. Beta value shows the path coefficient of the relationship, t value shows the regression coefficient, and p value shows the significance of the relationships.

Based on the findings, in the relationship between Entrepreneurship Education and Self-Employment Intention, the beta value was 0.210, the t value was 6.303 (p -value 0.000), the lower limit was 0.144, and upper limit was 0.277. This shows that the relationship was positively significant, and hence, H1 was supported. In testing the next hypothesis, which referred to the relationship between Entrepreneurship Education and Entrepreneurship Self-Efficacy, the beta value was 0.292, t value was 6.060 (p -value 0.000), the lower limit was 0.208, and the upper limit was 0.389. This showed that the relationship was positively significant, hence, H2 was also supported. Lastly, in the relationship between Entrepreneurship Self-Efficacy and Self-Employment Intention,

the beta value was 0.696, t value was 21.655 (p -value 0.000), the lower limit was 0.634, and the upper limit was 0.751. This confirmed that the relationship was positively significant, and hence, the hypothesis H3 was also supported.

Table 4.9 Results of structural model analysis (direct hypothesis)

Hypothesis	Path	Beta	Standard Error	t Values	p Values	LL	UL	Result
H1	EE -> SEI	0.107	0.033	6.303	0.000	0.144	0.277	Supported
H2	EE -> ESE	0.291	0.048	6.060	0.000	0.208	0.389	Supported
H3	ESE -> SEI	0.677	0.032	21.655	0.000	0.634	0.751	Supported

Note: Self-Employment Intention (SEI); Entrepreneurship Education (ED); Entrepreneurial Self-Efficacy (ESE); Perceived University Support (US); Family Background (FB)

Note: the min recommended value for $t=1.64$ and $p=0.05$



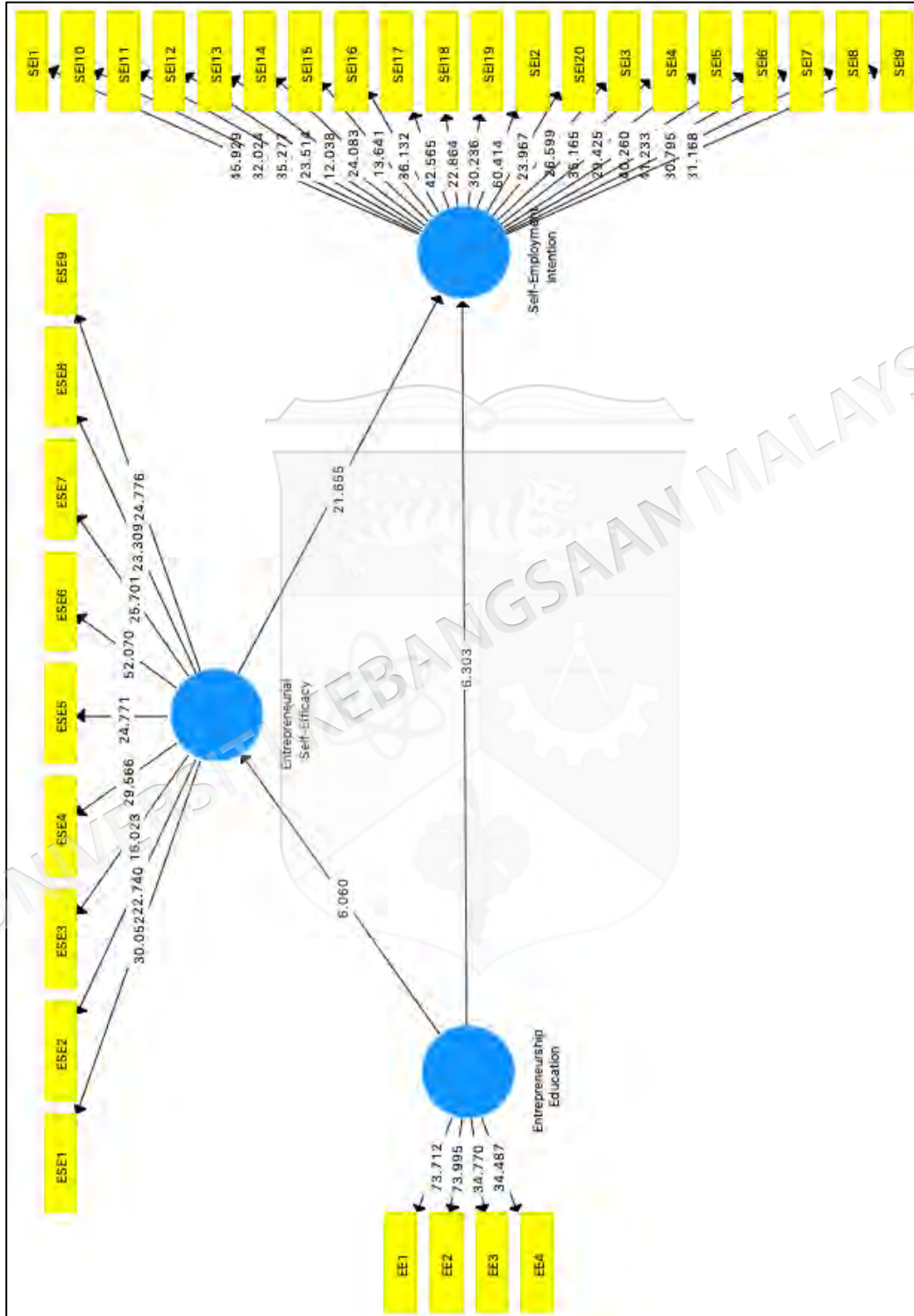


Figure 4.4 Output of structural model

4.7.5 Mediation Relation

In this section, the relationships of the indirect paths of the exogenous variables and endogenous variables are explained. The model was tested to find important paths to consider the systemic relationship. There are six main hypotheses proposed in this study. According to the study prepositions, one hypothesis was linked to the role of the mediating impact between independent and dependent variables.

To investigate mediation effects, a Sobel test might be employed (Preacher & Hayes 2008). The Sobel test is used to assess mediation in linear relationships and should not be applied to PLS since accurate calculation of scaled uniform path coefficients is not guaranteed. The test also suggests that the indirect effect sampling distribution was normally distributed. This approach provides experts the confidence in doing the sampling distribution of the instantaneous indirect effect presumption but because of its inherent inaccuracies, this is not a straightforward estimator.

Alternatively, a nonparametric re-sampling technique was applied, which did not presume the normality of the sampling distribution (Preacher & Hayes 2008). Bootstrapping is a rather difficult technique to understand, however, it is possible to determine the sampling distribution of bootstrapping analysis by repeating this technique numerous times, which is particularly useful in mediation analysis when the corresponding theory has been constructed. Researchers only need to operate very carefully using the interfering variables. Since it does not require many assumptions and may be used to evaluate a theory, bootstrapping techniques are particularly valuable. Therefore, this study has employed the latest approach to estimate the mediation hypothesis results.

4.7.6 Mediating Hypothesis Result

H2 asserts that entrepreneurship self-efficacy plays a mediating role in the link between entrepreneurship education and self-employment intention. The findings revealed that the beta value was 0.203, the t value was 6.786 (0.000), the lower limit was 0.152, and the upper limit was 0.264. Hence, it was found that entrepreneurship self-efficacy has

significantly mediated the relationship between entrepreneurship education and self-employment intention, thus, H2 was supported. Table 4.9 below shows the results.

Table 4.10 Mediating hypothesis results

Hyp	Path	Beta	Standard Error	t Values	p Values	LL	UL	Results
H2	EE->ESE->SEI	0.203	0.030	6.786	0.000	0.152	0.264	Supported

Note: Self-Employment Intention (SEI); Entrepreneurship Education (ED); Entrepreneurial Self-Efficacy (ESE)

Note: the min recommended value for $t=1.64$ and $p=0.05$

Based on the findings ESE shows a strong mediating role between EE and SEI. Such that the Lower limit and the upper limit has one direction. If the LL or UL have the -ve sign such as one of them have the -ve sign and the other have the positive, then the mediation will be rejected. In the direct relationship the t value for EE and SEI relationship was 6.303 while in the mediation the t value is 6.786. It shows that the mediation relationship is 0.483 more stronger than direct relationship.

4.7.7 Moderation Relation

A moderator, also known as an independent variable or construct, changes the strength or direction of the association between two constructs in the model (Hair, Hult, Ringle, & Sarstedt, 2017). This study investigated two moderators, namely, perceived university support and family background. It was predicted that a higher perceived university support and family background will strengthen the student's self-employment intention.

This study employed continuous types of data as the moderator, while the analysis of data was done with the assistance of SmartPLS software. The moderation assessment followed the Orthogonalising Approach (Henseler & Chin, 2010), where this approach builds on the indicator approach and requires the creation of all product indicators of the interaction term (Ramayah et al., 2018).

Based on the moderating relationship guideline by Kenny (2016), the standards for small, medium, and large effect sizes must have a value of 0.005, 0.01, and 0.025, respectively. Subsequently, the most widely used guides for effect size as suggested by Cohen in 1988 were used in this study, where the values of effect size between 0.02 and 0.12 is considered small, 0.13 to 0.25 as moderate, and above 0.26 is regarded as large.

4.7.7 Moderating Hypothesis Results

This study has further tested the moderating role of family background and perceived university support as the moderator variables in the relationship of entrepreneurship education and self-employment intentions. The results revealed that all the moderating hypotheses were supported. Table 4.10 below shows the results of this moderation. Based on the findings, H5 exhibited the moderating role of university support between the relationship of Entrepreneurship Education and Self-Employment Intentions, as it was found that the beta value was 0.090 and the t value for the relationship was 4.166 (p -value 0.000). H6 also showed the moderating role of family background between the relationship of Entrepreneurship Education and Self-Employment Intention, as it was observed that the beta value was 0.107 and t value for the relationship was 4.954 (p -value 0.000).

$$f^2 = \frac{R^2 \text{ include moderator} - Q^2 \text{ excluded moderator}}{1 - R^2 \text{ included moderator}}$$

$$f^2 = \frac{0.642 - 0.627}{1 - 0.642}$$

$$f^2 = \frac{0.15}{0.358}$$

$$f^2 = 0.418$$

Table 4.11 Moderating hypothesis

Hyp	Path	Beta	Standard Error	t Values	p Values	Results
H5	US*EE -> SEI	0.090	0.022	4.166	0.000	Supported
H6	FB*EE -> SEI	0.107	0.022	4.954	0.000	Supported

Note: the min recommended value for $t=1.64$ and $p=0.05$

Based on the guideline by Kenny (2016), 0.005, 0.01 and 0.025 respectively show the standards for small, medium, and large effects sizes. Therefore, based on the value of 0.418, it can be concluded that the effect size is large (Kenny, 2016). Therefore, it can be concluded that the hypothesis H5 and H6 is accepted.

Next, this study draws the interaction curve for the moderating effects. For H5, it is concluded that the EE has the beta value on SEI 0.107, Moderator variable beta value is 0.042 and the interaction relationship beta value is 0.090. Hence, it the curve below shows the interaction of the moderating variable US.

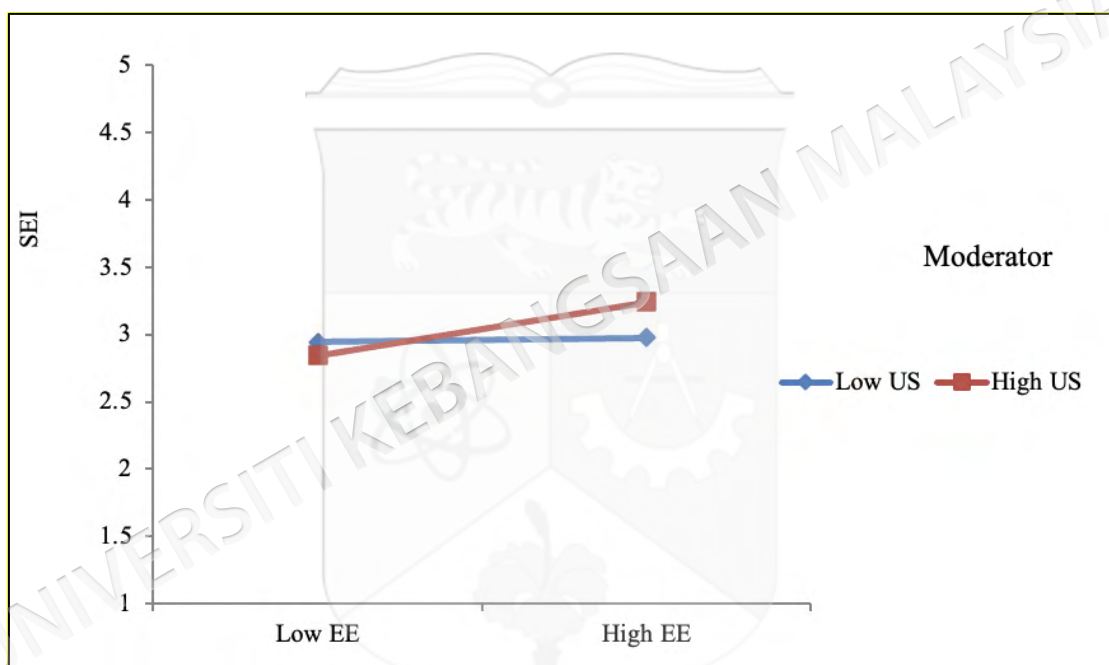


Figure 4.5 Interaction curve for US

Further, the current study examined the interaction curve for the moderating relationship of concluded that the EE has the beta value on SEI 0.107, Moderator variable beta value is 0.136 and the interaction relationship beta value is 0.107. Hence, it the curve below shows the interaction of the moderating variable FB.

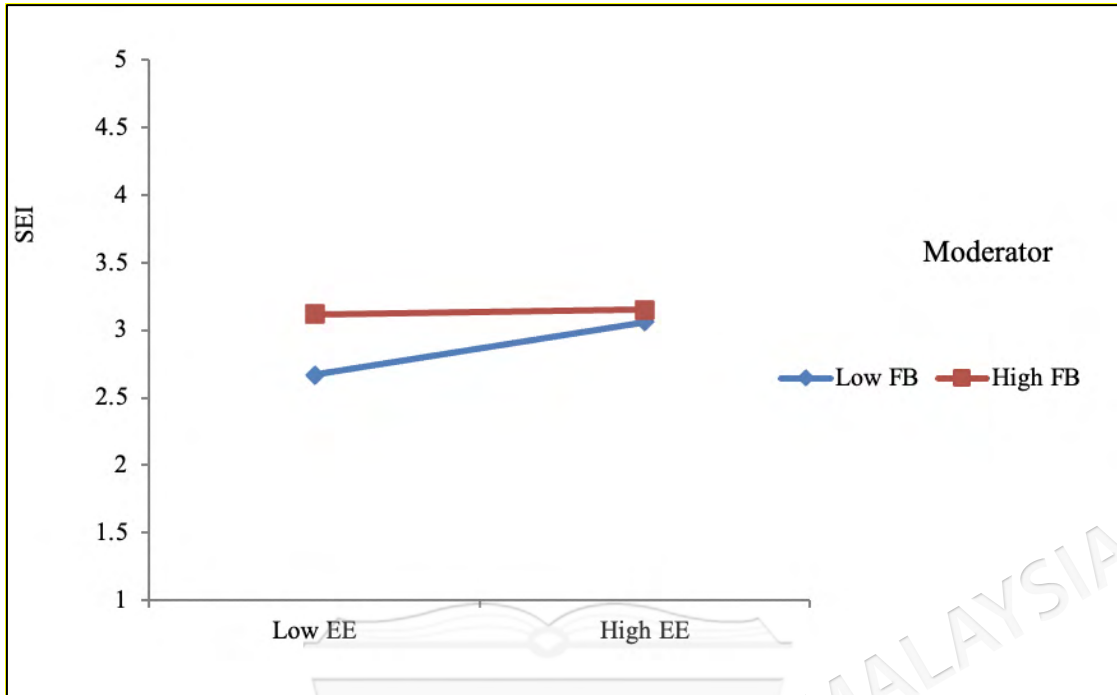


Figure 4.6 Interaction curve for FB

4.8 VARIANCE EXPLAINED (R^2)

In PLS, the coefficient of determination, denoted R^2 and pronounced "R squared", is the portion of the variance in the dependent variable that is predictable from the independent variable(s) (Hair et al. 2013). The value of R^2 is from 0.02 and 0.12, to be regarded as small, 0.13 to 0.25 as moderate, and above 0.26 is regarded as large. With reference to the qualification by Hair et al. (2016), the researcher considered these measurements based on the context of the objectives.

Figure 4.2 provides the R^2 value for endogenous variables while Table 4.11 reports the R^2 values. The R^2 value for the entrepreneurial self-efficacy was 0.085, which shows that the variance on self-efficacy was 8 percent, and explained by entrepreneurial education, and similarly, R^2 for self-employment intention was 0.625, which shows that 62 percent of the variance on self-employment was explained by self-efficacy and entrepreneurial education.

Table 4.12 Variance explained (R2)

Constructs	R Square
Entrepreneurial Self-Efficacy	0.085
Self-Employment Intention	0.627

4.9 EFFECT SIZES

The effect sizes are shown in the current analysis. The p -value, as well as the significance of the analytical result, should be indicated, as proposed by Sullivan and Feinn (2012). The studies stated that exogenous variables should be omitted in order to show the relationship between the independent and dependent variables. The most widely used guides for effect size were suggested by Cohen in 1988. These parametric projections were based on the assumption that any of these three variables have a strong relationship. It is concluded that small effect size variables did not become less significant. An analysis should be carried out with caution, using proper testing devices to determine the precise magnitude of the effects of the various factors. The value of effect size is similar to R^2 ; 0.02 and 0.12 is considered small, 0.13 to 0.25 as moderate, and above 0.26 is regarded as large. Table 4.12 revealed the effect size of variable considered. The effect size revealed a significant change in the variable as a result of the other variables. Entrepreneurship education and entrepreneurial self-efficacy had 0.104 and 0.1443 effect size on self-employment intentions, however, entrepreneurship education had 0.093 effect size on entrepreneurial self-efficacy. Therefore, based on the findings, the result of the effect sizes showed that the effect size of ESE on SEI is moderate which is 0.144; while the result of the effect size of direct relationship between EE towards SEI is small 0.104. This indicated that the relationship of SEI towards SEI is more stronger with the existence of ESE as mediator compared to the absence of ESE.

Table 4.13 Effect size of the study variables

Construct	Entrepreneurial Self-Efficacy	Self-Employment Intention
Entrepreneurial Self-Efficacy		0.144
Entrepreneurship Education	0.093	0.104

4.10 PREDICTIVE RELEVANCE (Q^2)

The parameter Q^2 of the Stone-Geisser model may be helpful in evaluating the model predictive value. The model is efficient in providing data points for the endogenous constructs, if the threshold was bigger than zero (Hair et al. 2013). To attain Q^2 value, they applied Smart-PLS. After half of the exposure points were excluded from the reaction markers of the measured endogenous construct, an additional half of the blindfolding process was considered by the model. Smart PLS has learned to handle lost data points. In order to approximate the mean of Q^2 , a distinction was established between the missing and projected numbers (Hair et al. 2013). The Q^2 values for entrepreneurial self-efficacy was 0.041 and self-employment intention was 0.318. A Q^2 value larger than zero for a certain endogenous latent variable indicated that the PLS path model has predictive relevance for this construct.

Table 4.14 Predictive relevance (Q^2)

Constructs	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Entrepreneurial Self-Efficacy	3,492.00	3,349.98	0.041
Self-Employment Intention	7,760.00	5,296.01	0.318

4.11 CHAPTER SUMMARY

Data were analysed statistically in two stages in the segment. In the first phase of the research, experimental data analysis was performed using pilot training. Reviewing the pilot data was important before a statistical data collection. Data were analysed using linear simultaneous equations in the second method. In this study, a research model was used to assess the relationship between variables. The research purpose was to validate the principles developed in Chapter 2.

CHAPTER V

DISCUSSION

5.1 INTRODUCTION

This chapter discusses the findings reported and elaborated in the previous chapter. Initially, a recapitulation of the study is presented, followed by the discussion on every objective of the study. Additionally, the current chapter elaborates on the theoretical and practical contributions of the study. In the last section of this chapter, the limitations and conclusion are presented.

5.2 RECAPITULATION OF THE STUDY

The aim of the present study was to identify the influence of entrepreneurship education on self-employment intentions and to find the indirect influence through moderated mediated approach. It was mentioned in the present study because entrepreneurial education is important, particularly in the Malaysian context.

In Malaysia, the 21st century has seen the burgeoning of entrepreneurship education resulting in the growing of newly emerging knowledge-based economy. Realising the importance of entrepreneurs in the development of a knowledge-based economy and to solve the unemployment problem, efforts are being taken to cultivate entrepreneurship in all ways. However, the researcher of this present study highlighted the practical and theoretical gaps that exist in examining the entrepreneurial intentions and self-employment intentions. The unemployment problem among graduates has been the major motivation for assessing entrepreneurial education and self-employment intentions in this country. Based on the problem statement, the researcher has formulated the research questions and research objectives.

The objectives of the present study are as follows:

1. To examine the relationship between entrepreneurship education and self-employment intention among public university students in Malaysia.
2. To analyse the mediating role of entrepreneurial self-efficacy on the relationship between entrepreneurship education and self-employment intention.
3. To identify the relationship between entrepreneurial self-efficacy and self-employment intention.
4. To investigate the relationship between entrepreneurship education and entrepreneurial self-efficacy.
5. To analyse the moderating role of perceived university support on the relationship between entrepreneurship education and self-employment intention.
6. To analyse the moderating role of family background on the relationship between entrepreneurship education and self-employment intention.

Chapter 2 elaborated on the theoretical background of the study. Based on the Theory of Planned Behavior (TPB) and Social Cognitive Career Theory (SCCT), the present study developed the relationship between entrepreneurial education and self-employment intentions with entrepreneurial education and entrepreneurial self-efficacy, mediating role of entrepreneurial self-efficacy, and moderating role of family background and university support. Hypotheses were developed based on the conceptualisation of the variables of the present study, problem statement and theoretical background.

Entrepreneurship education is the focus of the present study and has helped establish the educational level perspective. Self-employment intentions is the conceptual framework that depicts a university student's desire to establish a new business (Kibassa 2012). A conscious state of mind that precedes activities and directs attention toward the objective of starting a new business is known as intention (Shaheen & Al-Haddad 2018). In order to understand how this intention is formed, the researcher

was pertinent to examine the impact of entrepreneurial self-efficacy on entrepreneurial intention and behaviour.

Chapter 3 discussed the methodology for this study. This included the pre-test and pilot test which have been administered. The test scale validity and reliability using the SmartPLS were also discussed. The chapter described different measures used for this study, and the rationale for these specific measures. Moreover, it also justified the methodology adopted for the current research, and explained the research design, sampling strategy, data collection methods, data analysis and the questionnaire design. The chapter then concluded by elucidating the limitations of the study and the ethical considerations that were adhered to during the course of this research.

In the results and findings section, SPSS and SmartPLS were used to assess the data collected from the respondents. The data were analysed using the PLS-SEM approach. The research model used in this study has managed to meet the requirements of the validity and reliability tests. Subsequently, the structural model test was performed in order to examine the hypotheses that were developed in Chapter 2. The findings revealed that all the hypotheses were found to be significant.

5.3 DISCUSSION

There was inconsistency of the findings in the literature between entrepreneurship education and self-employment intentions. Hence, there was a need to further explore this particular topic. It was found that very few scholars have addressed entrepreneurship education and other factors in one comprehensive model, mainly as the antecedents of self-employment intentions in Malaysia. By integrating the Theory of Planned Behaviour (TPB) and the Social Cognitive Career Theory (SCCT), this present study has proposed a comprehensive model that included entrepreneurial self-efficacy as a mediator variable, as previously suggested by Li and Wu (2019), Newman et al. (2019), Nowiński et al (2019), and Shi et al. (2018) while perceived university support was suggested by Lingappa et al. (2020), Muhammed et al. (2020) and Anjum et al. (2020), family background was suggested by Bouhaleb (2020), Georgescu and Herman (2020) and Marques et al. (2018), as moderating role in explaining the effect

of entrepreneurial education on self-employment intention. Researchers have argued on the necessity for conducting this study, the results have tried to fill the gaps that existed in entrepreneurship education and its effect toward self-employment intentions among Malaysian public universities students. An additional discussion elaborating on the research objectives of the study is presented in the section below.

5.3.1 Objective 1

Objective 1 of the study was to investigate the relationship between entrepreneurship education and self-employment intention among public university students in Malaysia. To achieve objective one, Hypothesis 1 was developed in the second chapter of the study which states that “*Entrepreneurship education (curricular content, teaching methodologies and internship programs) will positively influence self-employment intention among public university students in Malaysia*”. The findings revealed that the beta value was 0.210 and t value for the relationship was 6.303 (p -value 0.000), with the lower limit at 0.144 and upper limit was 0.277. This shows that the hypothesis was positively significant. Hence, H1 was found to be supported.

In the present study, entrepreneurship education was described as providing participants with knowledge of the fundamentals of starting and running a company as well as a realistic sense of business, along with encouraging personal trust and improving ability. Findings shows that in the context of Malaysian colleges and universities, there has been a gradual shift towards identifying entrepreneurship as a component of the curriculum. Findings showed that colleges and universities believe now that students may have the innate wish to start their own businesses, which clarifies that people going into entrepreneurship schools may want to start a business. In this present study, entrepreneurship education was found to be a combination of curricular content, teaching methodologies and internship programmes. The findings showed that all three dimensions represent the entrepreneurship education as loadings of the instrument, surpassing the minimum cut-off point of 0.5.

Furthermore, the findings for these significant results explained that there are series of inconsistencies found in the prior literature (Ariff & Abu Bakar 2003; Badariah

et al. 2016b; Creswell 2015; Norasmah et al. 2012; Ooi et al. 2011). Yet in this present study, the results were found to be significant. The possible reason for this is attributed to the entrepreneurship encouragement given by the government of Malaysia. Advancing the overall goal of industrialisation has a favourable effect on entrepreneurship.

Second possible reason could be the role of entrepreneurship education policies which encouraged the people to join the programs and employ themselves in their organizations. The Ministry of Higher Education (MOHE) has rolled out a new program to promote business education among institutions by promoting entrepreneurship education. This was presented in the framework of a program to boost high-quality, entrepreneurial thinking, values, and facilitate economic transformation. That is, as part of the Plan for Entrepreneurship Growth, which was unveiled in February of 2010 (Institutes of Higher Learning Entrepreneurship for Higher Education 2010; Malaysia 2010;).

From the theoretical perspective, these results represent a new knowledge for the researchers, who found that in earlier studies the entrepreneurship education to be mired in uncertainty and confusion, due to unclear content and improper teaching methods (Linton & Klinton 2019; Othman et al. 2012). Despite this apparent lack of consensus on entrepreneurship education's core concepts and contexts, the entrepreneurially related education training continues to be under-taught, unguided, and highly underutilized in practice (McLarty et al. 2010). Even though the researchers has highlighted the issues associated with the curriculum, still it can be seen that curriculum content is the dimension of entrepreneurship education which is the antecedent of self-employment.

Furthermore, the teaching methodology as a dimension of entrepreneurial education was also found to be a significant predictor of self-employment. It is considered typical about learning how to do business. Levie (1999) contended that the choice of an entrepreneurship curriculum usually revolves around whether or not it deals with business. The aim is to produce capable students who carry out actual entrepreneurial activities or transform their entrepreneurial knowledge and skills in

practical way. For that in the context of Malaysia, entrepreneurial education and its methodology to transmit knowledge plays a critical role.

Students' awareness, behaviours, expectations, and intentions have all been proven to be affected by exposure to entrepreneurship and small business internships in numerous studies (Varghese et al. 2012; Volery et al. 2013). The activities involved in experiential learning help students integrate theory and real-world practices which develop their intention to make new start-ups, the findings were in line with the concepts of experimental learning. In Malaysia, internship programmes play a major role in developing the interests among students to start their own business. That is, the findings from the present study supported the proposition, in which the entrepreneurial education is positively significant to the self-employment intentions.

5.3.2 Objective 2

The second objective of the study was to analyse the mediating role of entrepreneurial self-efficacy on the relationship between entrepreneurship education and self-employment intention. To achieve the objective of the study, Hypothesis 2 was developed to investigate the mediating role of entrepreneurial self-efficacy between entrepreneurship education and student's self-employment intentions. The findings showed that the beta value is 0.203, the t value is 6.786 (0.000), with the lower limit was 0.152 and the upper limit was 0.264. This shows that the hypothesis is positively significant. Hence, H2 was found to be supported. In other words, it can be stated that entrepreneurial self-efficacy is a significant mediator between entrepreneurial education and self-employment intention.

Self-efficacy was conceptualised to be confident with success in specific roles and skills. Entrepreneurship is characterised as the most precise degree of confidence in one's capacity to excel as an individual's confidence in one's willingness to play and carry out entrepreneurial roles and tasks. This study strongly believes that a low level of self-efficacy discredits the new business construction ideas and advancement, as well as when challenged, affects the target conflict and persistence. Self-efficacy in self-employment grows and gives people more innovative ideas for start-ups.

The findings of the present study were in line with Krueger and Brazeal (1994), where students have believed that entrepreneurship education raises their awareness, gains their skills, and strengthens their self-efficacy, and this will raise their beliefs in the potentials of entrepreneurship, which will in turn raise their perceptions of the likelihood of being able to follow through to action. Furthermore, the present study proved that self-efficacy is a good mediator.

As Prabhu et al. (2012) recognized the entrepreneurial self-efficacy is a mediator for determining the connection between the person's general and growth-oriented personalities, with respect to both their abilities and the kind of behaviour they embrace. Furthermore, the researchers investigated the association between entrepreneurial self-efficacy and young people's ability to develop entrepreneurial intentions. The present study attempts to identify whether or not entrepreneurial self-efficacy plays a critical role in encouraging the advancement of students in starting their own businesses by acting as a mediator. This highlights the fact that entrepreneurship education not only develops the intention but also boost the confidence of the individuals which can further enhance the self-employment intention. Another reason for this significant result is the age of the respondents, where as majority of the respondents falls in the age group of 20s. At this age, individuals are more motivated and can take risks to establish their own enterprise.

The findings showed that this hypothesis supported that, the more the students receive the entrepreneurial education, their confidence, abilities and skills will increase and they will be more interested to be self-employed. Theoretically, the findings of present study have highlighted the link between Theory of Planned Behaviour (Ajzen 1991) and Social Cognitive Career Theory SCCT (Lent et. al. 1994) in the context of entrepreneurship.

5.3.3 Objective 3

The third objective of the study was to identify the relationship between entrepreneurial self-efficacy and self-employment intention. To achieve the objective Hypotesis 3 was developed which states that there is a significant and positive effect between

entrepreneurial self-efficacy and student's self-employment intention. Findings of the hypothesis 3 revealed that the beta value was 0.696 and t value for the relationship was 21.655 (p -value 0.000), the lower limit was 0.634 and upper limit was 0.751, this shows that the hypothesis is positively significant. Hence, H3 was found to be supported. In other words, it can be confirmed that entrepreneurial self-efficacy is positively significant to the self-employment intention.

Prior studies have specifically focused on whether self-efficacy is a major aspect in explaining why some people are driven to start businesses while others are not (Shaheen & Al-Haddad 2018). The current study has shown positive and consistent trends that the entrepreneurial efficacy develops strong intent and desire to become self-employed among the participants. The findings of the present study also highlighted the importance of self-efficacy in the consideration of entrepreneurship as a professional career regardless of gender specification. Along with men, women open their options in career selection because they have confidence in their abilities and consider entrepreneurial careers. In the present study, 39.9 percent of the respondents were female, which shows that women reflecting considerable levels of entrepreneurial self-efficacy showed more interest to choose an entrepreneurial career similar to men and believed they would have more opportunities in opening their own ventures.

The results of the present study are consistent with the findings of Boyd and Vozikis (1994). They suggested that individuals with higher levels of entrepreneurial self-efficacy in the early stages of career development will have higher entrepreneurial intentions, and that those with both higher self-efficacy and higher intentions will have higher probability of being involved in entrepreneurial activities later in life. Similarly, integration of self-efficacy into proposed models of self-employment intentions (Krueger et al. 2000; Shapero & Sokol 1982) have been rigorously tested (Krueger 1993) and shown to have a strong predictive ability. The findings of the present study also showed that the level of self-efficacy triggers the individuals to take risks in choosing self-employment as a career.

5.3.4 Objective 4

Objective four of the study was to investigate the relationship between entrepreneurship education and entrepreneurial self-efficacy. To achieve the objective of the study, Hypothesis four was developed to examine the significant and positive effects between entrepreneurship education and entrepreneurial self-efficacy. The results found that the beta value was 0.292 and t value for the relationship was 6.060 (p -value 0.000), the lower limit was 0.208 and upper limit was 0.389, which shows that the hypothesis is positively significant. Hence, H4 was found to be supported. In other words, there was a positive significant relationship between entrepreneurship education and entrepreneurial self-efficacy.

These findings showed that entrepreneurship courses create self-efficacy in students, which they need in acquiring knowledge of the success factors and the ability to master the projects of their interest. Respondents reported that watching, interviewing, or sharing their experiences with one another helps them gain confidence. In this regard, they may acknowledge that an entrepreneurship is a practical option and builds self-efficacy factors, such as excitement, happiness, and develop a belief in themselves, e.g. by means of networking with people (Maresch et al. 2016; Zhao et al. 2005).

In Objective 2, prior research claimed that entrepreneurship education enhances students' knowledge, increases their confidence, and boosts their self-efficacy, which in turn, would enhance their perception of the feasibility of entrepreneurship and henceforth, foster their intentions. Similarly, Zhao et al. (2005) have established that ESE offers a solid theoretical explanation for the relationship between formal learning and entrepreneurial intentions. Entrepreneurship education increases students' confidence to become an entrepreneur through a mechanism that is known to affect self-efficacy beliefs. In the current study context, respondents acknowledges that the knowledge they get in their entrepreneurship course enhances their confidence to start their own ventures.

The major reason for these findings is that students learn about the ventures they are interested in, explore the possible challenges and outcomes regarding their profession, and develop strategies to overcome those challenges. In such cases, the risk of feeling loss would be reduced by taking into consideration the failure and success factors. Also, entrepreneurship education develops individuals' skills that helps with attaining their potential objectives in their businesses. The findings of the present study were in line with several previous research that there is a significant impact of entrepreneurship education on the entrepreneurial self-efficacy of the individuals, as found by Krueger and Brazeal (1994) in their study. They claimed that entrepreneurship education enhances students' knowledge, increases their confidence, and boosts their self-efficacy.

5.3.5 Objective 5

Objective five of the study was to analyse the moderating role of perceived university support on the relationship between entrepreneurship education and self-employment intention. To achieve the objective of the study, Hypothesis 5 was developed which proposed that the relationship between entrepreneurship education and student's self-employment intentions are moderated by perceived university support. The findings of the present study reported that the beta value was 0.107 and t value for the relationship was 4.954 (p -value 0.000), hence, Hypothesis 5 was supported. It can be stated that, perceived university support is significantly moderated the relationship between entrepreneurship education and self-employment intentions.

The present study has found that an effective entrepreneurship education programme and the entrepreneurial support furnished by universities are resourceful ways of obtaining the necessary knowledge about entrepreneurship and motivating young people to seek an entrepreneurial career which enhances the self-employment intentions. That is, lack of resources and opportunities may discourage the individuals to start a new venture. If individuals received support in terms of resources and opportunities from their universities, their interest in starting their own venture is increased. The findings of the present study also highlighted the importance of university support as a moderating variable in the entrepreneurship literature.

University support was found to be a significant moderator variable in prior research, however, in the context of entrepreneurial literature, it was being studied as a predictor variable. Earlier studies also suggested that university support does, in some cases, promote entrepreneurship by providing university incubators (Mas-Verdú et al. 2015), technology transformation, consultants and financial funds (Lerner 2004; Munari et al. 2015). This present study acknowledges the role of university support as a moderating variable in that a supportive university environment can provide educational concept development and business development support to students. Such support equips students with the knowledge, skills, internships and other necessary aspects of entrepreneurship which enhances their entrepreneurial awareness, motivation and help them further to start their own enterprises after graduation.

The findings of the present study were consistent with the prior literature, particularly in the context of Malaysia. Mustafa et al. (2016) examined the direct positive effects of support on entrepreneurial intentions. Choi and Markham (2019) performed an exhaustive check of the effects of university support. Overall, earlier research suggested a positive relationship between students' perceived university support and entrepreneurial intentions. But in this study, university support enhances the relationship between entrepreneurial education and self-employment intention. It was established that through the acquisition of required training and education provided by universities to help in the development of the student's entrepreneurial intention, university support do enhance entrepreneurial education and self-employment intention. This support may also help students succeed in business in a competitive and unstable economy by investing continuously in high-quality education backed by a sufficient number of teachers and relevant learning materials, apart from gaining the required knowledge of how to run a business whilst still at school (Mwoma & Pillay 2016).

The possible reason for this significant relationship is due to the entrepreneurship support programmes that highlights the self-employment intention as socially desirable. Universities receive extra public funding to establish programmes that can foster the learning process and starting their own ventures. Funding

programmes can also encourage students to pursue entrepreneurial careers or at least sensitise them of self-employment intentions as one career option.

5.3.6 Objective 6

Objective six of the study was to analyse the moderating role of family background on the relationship between entrepreneurship education and self-employment intention. To achieve the objective of the study Hypothesis six was developed which states that the relationship between entrepreneurship education and student's self-employment intention is moderated by family background. The findings of the current study reported that the beta value was 0.090 and t value for the relationship was 4.166 (p -value 0.000), hence the hypothesis 6 was found to be supported. This means that family background is significantly moderated the relationship between entrepreneurship education and self-employment intention.

Family background exerts a powerful influence over an individual's choice to work for themselves. Professionally strong parents are fostering their children into self-employment has become the new normal practice. Empirical studies revealed that the goals of becoming an entrepreneur can be influenced by family background.

In the current study it was noted that students with an entrepreneurial family background had higher levels of intention to be self-employed than students without entrepreneurial family background. In previous research, family experience, schooling, and personality qualities that favour the entrepreneur's way of thinking were found to have a beneficial impact on students' motivation to become entrepreneurs, as highlighted by Georgescu and Herman (2020). For this reason, entrepreneurial education had a strong association with start-up aspiration.

The present study found entrepreneurial education has strong relationship with the intention to self-employ, but the relationship is stronger with the family background. That is, the resources, and opportunities available to the individual whose parents are self-employed are more as compared to the individual with no entrepreneurial background. Further, in the context of Malaysia, Parents encourage their children to join their businesses after their graduation. Such individuals whose parents have their own

enterprises add-on more to their business when they are equipped with entrepreneurial education. Therefore, the findings of the study reported family background as a significant moderator.

5.4 THEORETICAL CONTRIBUTIONS

This study attempts to offer a more comprehensive understanding of the effects of entrepreneurship education on self-employability. Several previous surveys have shown that no matter what has been adopted by the government, the percentage of graduates who are entrepreneurs has remained relatively unchanged. When studying for their bachelor's degrees, many college graduates gravitate toward searching for jobs instead of creating them. This study tried to address the issue of self-employability from the lens of entrepreneurial education.

Many theoretical contributions can be drawn from this research. The study intends to provide empirical data on the determinants of self-employment- intention and intent to start their own business, and to date, no empirical research has been done to gauge its effect on students' level of determination. This study is the first to try to change the focus of policymakers to allow the Government to focus their efforts on encouraging students to choose the entrepreneur career path after graduation, in Malaysian setting.

Secondly, the researcher integrated the applicability of an important Theory of Planned Behaviour (TPB) by Ajzen (1991) and Social Career Cognitive Theory by Lent et. al. (1994) to modify the theory into a more complete plan of personal growth. Teaching entrepreneurial ideas would provide a more comprehensive understanding of the student's goals and highlights more relevant reasons that lead to self-employment decisions.

Thirdly, TPB's antecedents and implications are investigated to find out what influence the student's intent to start their own business. The impact of TPB aspects as a result of self-employment was confirmed in this study, which followed the strategy advocated in previous studies that this area will undoubtedly be advantageous for that entrepreneurial goal (Sam & Van Der Sijde 2014). The TPB theory is supported in this research by expanding the concept of goal into educational heterogeneity (self-

employment), which adds to the body of knowledge and the results obtained in particular. The study showed that students who engage in an entrepreneurial education are more likely to choose and plan to enter into self-employed careers after they finish their education than students who do not. Further the study found that education can be quantified by three factors, including curricula, teaching methods, and internships.

Fourthly, there is a well-established belief that entrepreneurship education is required for a startup to succeed (Hartshorn & Hannon 2005; Zhao et al. 2005). In different contexts, using entrepreneurship education (EE) to stimulate students' self-employment intentions (SEI) has been widely practised despite contrasting results were produced (Kisubi et al. 2021). On the other hand, there are different results between entrepreneurial education and entrepreneurial self-employability research. Current research found that entrepreneurial self-efficacy creates an effect such as self-employment. However, aspects such as family background and the student's perception of university support are analysed and found as significant drivers to start a business. Therefore, our results make a significant contribution to teaching entrepreneurial education and encouraging the idea of self-employment.

Overall, to the best of researcher knowledge, this study is among the first to explore the effect of entrepreneurship education towards self-employment intention among university students, particularly in Malaysia context along with the moderating role of family background. Consequently, the results of this study may contribute to the knowledge pertaining student's self-employment intention.

5.5 PRACTICAL IMPLICATIONS

This study has practical significance for the government, ministries, universities, and policy makers. To date, there are total 170,300 unemployed graduates in 2019 (DOSM 2020) increase 5.5 per cent as compared to 2018 with 161,300. In this light, entrepreneurship education is gaining popularity because of its trust in its ability to foster new businesses and employment development (Fayolle et al. 2006; Lanero et al. 2011). As such, the results guide policymakers to understand the importance of business education and to enhance students' self-employment intentions. The fundamental goal

of entrepreneurship education around the world was to encourage students to start new businesses (Shah & Pahnke 2014). Because of its potential to create new firms and employment development, entrepreneurship education has been successful in many industrialised countries and has been implemented in educational institutions in many developing countries (Al-Mamun et al. 2016). Moreover, the importance of entrepreneurship education in promoting entrepreneurial career has been extensively recognized (Gelaidan & Abdullateef, 2017). As such, the results guide policymakers to understand the importance of business education and to enhance students' self-employment intentions.

Secondly, this study also holds practical significance to the policy makers to develop policies based on perceived university support and entrepreneurial family background as they have key role in influencing entrepreneurship education and self-employment intention. Additionally, the knowledge obtained from this study will also give the insight to the government in order to achieve recent National Entrepreneurship Policy 2030 especially the 5th objective which is to make entrepreneurship as preferred career of choice.

Lastly, this research give insight to governments and policymakers with informative and realistic solutions to graduate unemployment. It highlights the dilemma of graduate joblessness. It is also important to note that widespread employment of individuals with an EE degree alone is not going to be sufficient to bring down the issue of graduate unemployment. There is a need to take further action such as the government and decision makers work to enhance the well-being of graduates after they have completed their university studies. Specifically, the government and the policymakers should steer students away from a work mindset in favor of finding paying employment after they finish their education. Students should also be aware of the unique advantages of a self-employment, including their independence and flexibility.

5.6 LIMITATIONS

In this research, the following limitations were found. Firstly, since the data was gathered from the participants' own responses, the results were open to criticism due to

the reliance on self-reporting (Podsakoff & Organ 1986). Several alterations were made to accommodate Podsakoff and Organ Guidelines (1986), and therefore, their single-factor test revealed that process bias was not a significant concern. Nevertheless, for future research, data can be gathered from two different groups to minimise this issue.

Secondly, another possible drawback is the usage of a cross-sectional analysis design in this sample that might not be able to determine the hypothesized cause and effect. Future research will prove to be stronger on the direct correlation between EE and self-employment when taken using a longitudinal design. The current study has used university support and family background as the influencing variable, for future research it is recommended to consider these moderators as the mediating variables.

Finally, the data was collected during the Covid 19 pandemic, due to this issue major data was collected online from the students, during the pandemic students were suffering with the mental health challenges, researcher was unable to answer all the questions of the respondents during the data collection process. However, it is recommended to replicate the research after pandemic.

5.7 SUGGESTIONS FOR FUTURE RESEARCH

Based on the findings of this study, the result of all hypotheses developed were all significant and supported. It shows that all programmes and efforts taken by the Ministry of Higher Education (MOHE) specifically, and the Malaysian Government generally in promoting entrepreneurship education among students to encourage self-employment among them is on the right track. Nevertheless, the level of SEI seems to be at moderate level among the Malaysian students in public universities with a mean of 3.609 even after 10 years of implementation. This might be due to other factors that call for future research.

Factors such as the competency of entrepreneurship educators will make for one beneficial research that is well timed and befitting the next generation of entrepreneurs. As reported by the Higher Education Department in their website (<https://jpt.mohe.gov.my>) one of the top main issues in entrepreneurship education was the lack of competency among lecturers and educators in universities. Pauceanu et al.

(2019) explored educators competency as determinant which influence students to start their own business in United Arab Emirates Universities. While Yi (2017) explored the relationship between lecturer's quality, entrepreneurial desirability, entrepreneurial feasibility, and entrepreneurial intention among graduating engineering students of research universities in China. Yin suggests that a competent educators will produced competent students in pursuing their career into entrepreneurship (Yin et al., 2019). Therefore, the future research should focus on factors of lecturer's competency and ability to impart knowledge and skills that would enhance the effectiveness of entrepreneurship education as well as increasing awareness and instilling entrepreneurial mindsets among Malaysian graduates in becoming self-employed.

It is also recommended that the future research could also address the question of demography and the impact of monitoring models on self-employment. Despite these shortcomings, this research findings and the theory have considerable potential to explore the antecedents of future self-employment including the moderated mediated approach.

5.8 CONCLUSION

The aim of the current study was to examine the role of entrepreneurial education and self-employment intention. The results of the study showed that entrepreneurial education is the significant predictor of self-employment intention, and entrepreneurial self-efficacy. Also, self-efficacy mediates the relationship between entrepreneurial education and self-employment intention. Further, it was found that family background and university support are the significant moderator between the relationship of entrepreneurial education and self-employment intention. To encourage self-employment in Malaysia, there is need to focus on all these variables.

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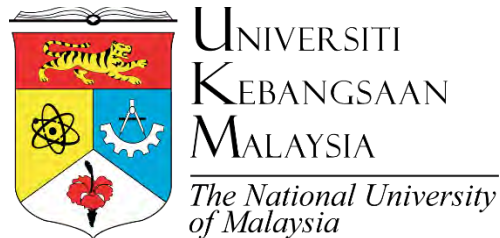
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APPENDIX A

FINAL SURVEY QUESTIONNAIRE



**THE EFFECT OF ENTREPRENEURSHIP EDUCATION
TOWARDS SELF-EMPLOYMENT AMONG MALAYSIAN
PUBLIC UNIVERSITY STUDENTS**

Dear Sir/ Madam,

My name is Asmaul Husna bin Haris Fadzilah Matric No. ZP03247 and I am a PhD candidate at Graduate School of Business, Universiti Kebangsaan Malaysia (UKM). For my dissertation, I am examining The Impact of Entrepreneurship Education towards Self-Employment among Malaysian Public University Students. I am welcoming you to participate in this research study by completing the attached survey in this google form.

The following questionnaire will require approximately 10 - 15 minutes to complete. There is no compensation for responding nor is there any known risk. Let me assure you that all the information that you provide will be dealt with anonymously and confidentially and will only be used for purpose of this study. If you choose to participate in this research project, please answer all the questions as honestly as possible in this google form. I must emphasise that your participation is entirely voluntary according to your discretion.

If you have any enquiry, please contact me on my mobile phone number or my email address as listed below. I am grateful for your kindness and thank you for your generous help in completing this research questionnaire.

Thank you.

Sincerely,

Asmaul Husna

ASMAUL HUSNA HARIS FADZILAH

PhD Candidate
Graduate School of Business
Universiti Kebangsaan Malaysia (UKM)
Contact No.: 013-6878810
Email: ashzafrel08@gmail.com

SECTION A: DEMOGRAPHIC PROFILE*Please fill in the blank or tick (✓) at the appropriate box.*

1. Name of University:	2. Course of study:
3. Level of study: <input type="checkbox"/> Diploma <input type="checkbox"/> Degree	4. Age: <input type="checkbox"/> ≤ 18 years <input type="checkbox"/> 19 – 22 years <input type="checkbox"/> 23 – 26 years <input type="checkbox"/> 27 – 30 years <input type="checkbox"/> ≥ 30 years
5. Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	6. Race: <input type="checkbox"/> Malay <input type="checkbox"/> Chinese <input type="checkbox"/> India <input type="checkbox"/> Others:
7. Marital Status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Widow/widower	8. Household Size: <input type="checkbox"/> ≤ 1 <input type="checkbox"/> 2 – 3 <input type="checkbox"/> 4 – 5 <input type="checkbox"/> 6 – 7
9. Do you practice entrepreneurship? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes above, for how many years?	10. Have you attended any entrepreneurship course? <input type="checkbox"/> Yes <input type="checkbox"/> No

Kindly indicate your level of agreement with the following statements based on your experience studying in this university.

Scale: 1 = Strong Agree, 2 = Agree, 3 = Undecided, 4 = Disagree, 5 = Strongly Disagree.

Please tick (√) or circle.

**SECTION B.
PERCEPTION OF RESPONDENTS ON ITEMS FOR SELF-EMPLOYMENT INTENTION.**

Code	Item	Scale				
		1	2	3	4	5
SEI 1	Students in my university are actively encouraged to pursue their own ideas/ self-employment plans	1	2	3	4	5
SEI 2	I know many people in my university who have successfully started up their own business	1	2	3	4	5
SEI 3	Starting a firm and keeping it working would be easy for me	1	2	3	4	5
SEI 4	Starting my business will make me financially independent	1	2	3	4	5
SEI 5	I would have a high chance of success if I would start my own business	1	2	3	4	5
SEI 6	I wish to be my own boss, make my own rules and work to fulfil my dreams	1	2	3	4	5
SEI 7	It is preferable to be an entrepreneur, rather than a company employee	1	2	3	4	5
SEI 8	Becoming an entrepreneur will contribute to the growth and development of my country	1	2	3	4	5
SEI 9	I intend to be self-employed upon graduation	1	2	3	4	5
SEI 10	I will be happy being self-employed.	1	2	3	4	5
SEI 11	It is important for me to be self-employed	1	2	3	4	5
SEI 12	I am determined to be an entrepreneur.	1	2	3	4	5
SEI 13	I intend to start-up a business upon graduation	1	2	3	4	5
SEI 14	I am serious to be self-employed completion of my study.	1	2	3	4	5
SEI 15	I may not necessarily be self-employed.	1	2	3	4	5
SEI 16	I feel excited to be an entrepreneur.	1	2	3	4	5
SEI 17	I will start-up any business if I am self-employed.	1	2	3	4	5
SEI 18	I believe that being self-employed will satisfy me.	1	2	3	4	5

SEI 19	My Intention to be self-employed is not too high.	1	2	3	4	5
SEI 20	I will try my best to be self- employed.	1	2	3	4	5

Kindly indicate your level of agreement with the following statements based on your experience studying in this university.

Scale: 1 = Strong Agree, 2 = Agree, 3 = Undecided, 4 = Disagree, 5 = Strongly Disagree.

Please tick (√) or circle.

**SECTION C.
PERCEPTION OF RESPONDENTS ON ENTREPRENEURSHIP EDUCATION.**

Code	Items	Scale				
		1	2	3	4	5
EE 1	Entrepreneurship courses at my university prepare people well for an entrepreneurial career.	1	2	3	4	5
EE 2	An intensive entrepreneurship course would be extremely beneficial for anyone who would like to start a business.	1	2	3	4	5
EE 3	I will have a high chance of success in my own business if I take my entrepreneurship courses serious	1	2	3	4	5
EE 4	Entrepreneurship education gives me the skills and capabilities required to succeed as an entrepreneur	1	2	3	4	5

**SECTION D.
PERCEPTION OF RESPONDENTS ON ENTREPRENEURIAL SELF-EFFICACY.**

Code	Items	Scale				
		1	2	3	4	5
ESE 1	I can always perform any entrepreneurial task if I try my best.	1	2	3	4	5
ESE 2	If I am opposed by someone, I will find a way to get what I want.	1	2	3	4	5
ESE 3	It is easy for me to stick to my goals and achieve my goal of becoming self-employed	1	2	3	4	5
ESE 4	I am very confident with the entrepreneurship education I have that I can efficiently deal with unexpected thing in my self-employed business.	1	2	3	4	5
ESE 5	I am confident I can perform difficult entrepreneurship task	1	2	3	4	5
ESE 6	I can successfully perform any entrepreneurial task if I work harder.	1	2	3	4	5
ESE 7	I can remain calm in difficult situation as I can rely on my ability in entrepreneurship	1	2	3	4	5

ESE 8	I can usually handle anything that comes to me.	1	2	3	4	5
ESE 9	I am very confident with my ability to be self-employed.	1	2	3	4	5

Kindly indicate your level of agreement with the following statements based on your experience studying in this university.

Scale: 1 = Strong Agree, 2 = Agree, 3 = Undecided, 4 = Disagree, 5 = Strongly Disagree.

Please tick (✓) or circle.

**SECTION E.
PERCEPTION OF RESPONDENTS ON PERCEIVED UNIVERSITY SUPPORT.**

Code	Items	Scale				
		1	2	3	4	5
PUS 1	I know many people in my university who have successfully started up their own business	1	2	3	4	5
PUS 2	A mentor/professor from my university would be of great help in assisting me preparing for being an entrepreneur	1	2	3	4	5
PUS 3	In my university, there is a well-functioning support infrastructure to support the start-up of new firms.	1	2	3	4	5
PUS 4	I will get full support of my university if I decide to become an entrepreneur.	1	2	3	4	5
PUS 5	Starting a firm and keeping it working would be easy for me if I have support from my university	1	2	3	4	5

**SECTION F.
PERCEPTION OF RESPONDENTS ON FAMILY BACKGROUND.**

Code	Items	Scale				
		1	2	3	4	5
FB 1	There are entrepreneurs among my relatives	1	2	3	4	5
FB 2	A mentor from my family would be of great help in assisting me preparing for being an entrepreneur	1	2	3	4	5
FB 3	I will get full support of my family if I decide to become an entrepreneur	1	2	3	4	5
FB 4	Starting a firm and keeping it working would be easy for me if I have support from my family	1	2	3	4	5

APPENDIX B

EXPERT'S BIBLIOGRAPHY

1. PROFESSOR DATO' DR. MOHAMMAD SHATAR BIN SABRAN

Professor Dato' Dr. Mohammad Shatar Sabran is a well known motivational speaker. He has delivered more than 700 motivational talks on various topics such as learning and management strategies, youth, leadership, parenting, community development, and social problems to both public and private agencies either at the national or the international level. Mohammad Shatar Sabran has also very active in writing. At present, he has published more than 199 publications including journals, books, chapters in books, modules and articles.

Previously, Professor Dato' Dr. Mohammad Shatar Sabran was the Deputy Vice Chancellor (Student Affairs and Alumni) UPM. Prior to this appointment he was the Director for Center of Entrepreneurship Innovation and Student Development (*CEISeD*) Universiti Putra Malaysia (UPM), the Fifth College Principal Universiti Putra Malaysia and a Deputy Dean for Student Affairs at the Faculty of Human Ecology, UPM. In 20th February 2017, Professor Dato' Dr Mohammad Shatar Sabran has been promoted as the new Vice-Chancellor of Universiti Pendidikan Sultan Idris (UPSI) and later started from 5th February 2021 he has been appointed as the new Chief Executive Officer of Malaysia Qualifications Agency (MQA) until recent.

Mohammad Shatar Sabran has also been appointed by more than wenty government agencies and learning institutions as an expert panel for various areas mainly in the fields of human development, social issues, soft skills, graduate employability, and leadership. Mohammad Shatar Sabran is also received recognitions from several international agencies due to his continuous commitment and contribution to the development of the people. His appointment as the expert panel in community and social development by Asian Productivity Organization, Tomorrow People Organization, and Community Development Academy are some examples of his excellent achievements.

Besides his expertise in education, community development and leadership, Mohammad Shatar Sabran has also diversified his expertise into other disciplines such as entrepreneurship, rural population, soft skills development, social problems, social capital, parenting, youth, and motivation.

The field of expertise has given him a chance and opportunity to be concerned with issues that affect the world - the preservation and enhancement of the quality of life in a community, the protection of the environment, and the management of growth and change of all kinds.

At present, Mohammad Shatar Sabran, along with his graduate and undergraduate students, are working on several researches related to entrepreneurship, youth, leadership, community development and social problems. In addition, he is also involved in students supervision, both at the undergraduate and graduate levels.

2. DR. NOOR FZLINDA FABELL

Dr. Noor Fzlinda Fabeil is a senior lecturer of Entrepreneurship at the Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah (UMS). She graduated with a PhD in Entrepreneurship from the University of Edinburgh, Scotland, UK. She has also completed three professional certificates awarded by the Malaysian Ministry of Higher Education – Executive Certificate in Advanced Business and Entrepreneurship Management, Professional Certificate for Entrepreneurial Educators and Diploma in Digital Entrepreneurship. She teaches and supervises undergraduates and postgraduates in courses related to business, management and entrepreneurship. Presently, Dr. Noor is also a research fellow in Entrepreneurship Research and Development Center (ERDEC) and Small Island Research Center (SIRC) in Universiti Malaysia Sabah. Her research pursuits are focused on entrepreneurship and vulnerable groups including women, youth, disabled people, pensioners, indigenous; and rural entrepreneurs.

