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# THE INFLUENCE OF SELF-EFFICACY, MOTIVATION, AND INDEPENDENCE ON STUDENTS' ENTREPRENEURIAL INTENTIONS

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#### **ABSTRACT**

Entrepreneurship education has been implemented in higher institutions in order to give exposure and develop students' skills and interest in business. Although entrepreneurship course is taught in many universities, researchers are still arguing whether entrepreneurship education is related to the intention to start a business. This study investigated the impact of self-efficacy, independence, and motivation on entrepreneurial intentions among university students. A total of 496 questionnaires were completed by students of Universiti Kebangsaan Malaysia (UKM) who attended Fundamental of Entrepreneurship and Innovation during the academic year 2017/2018 as their compulsory subject. Using PLS-SEM, a two-step approach was used to analyze the data. Self-efficacy, independence, and motivation were found to significantly influence the students' intention to become entrepreneur, explaining 52% of the variance in intention to become entrepreneur. Additionally, the findings indicate that motivation is the key factor in the

entrepreneurial intent of the students. These findings contribute to a better understanding of students' intention to become an entrepreneur, which is a necessary step to increase more university students to become job creators rather than job seekers. Thus, higher education institutions should revise the curriculum and establish measures to incorporate these three factors for enhancing entrepreneurship education programs at the university.

**Keywords:** Entrepreneurial education, entrepreneurial intention, independence, motivation, self-efficacy

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# 1.0 INTRODUCTION

Over the past two decades, entrepreneurship has become a very active field of research. Enterprise and innovation are regarded as decisive factors for spurring improvements in wealth and economic growth. As a result, the awareness of the importance of entrepreneurship and the creation of new ventures have been growing continuously during this period (Drucker, 1985; Bosma & Harding, 2007).

Several research studies (e.g., Ahmad & Buchanan, 2015; Myrah & Currie, 2006) have documented the rapid development in the demand for entrepreneurship education among higher institutions over the past few decades, both formally and informally. The rise of entrepreneurship subjects and programs in higher education institutions has influenced the growth of entrepreneurship as an academic program (Peterman & Kennedy, 2003; Piperopoulos, 2012). According to Shane (2008) and Bogatyreva, Edelman, Manolova, Osiyevskyy, & Shirokova (2019), most entrepreneurs' actions, including startup decisions, occur after the entrepreneurs develop the intention to start a business.

As a developing country, Malaysia constantly strives to strengthen its entrepreneurial ecosystem. One of the aims of the New Economic Model (NEM) in Malaysia is to transform the country into a developed nation by the year 2020. The Ministry of Higher Education is geared toward producing graduate entrepreneurs through various programs and activities in an effort to

achieve Malaysia's status as a developed nation as articulated in vision TN50. Therefore, many efforts are underway by the Ministry of Higher Education (MoHE) to produce more graduating entrepreneurs such as the development of entrepreneurship centers at universities. These include the Entrepreneurship Development Institute (IPK) at Universiti Utara Malaysia (UUM), the Centre for Entrepreneurial Development (MEDEC) and Malaysian Academy of SME and Entrepreneurship Development at University Teknologi Mara (UiTM), and the Centre for Entrepreneurship and SMEs Development at Universiti Kebangsaan Malaysia. Despite the large number of programs and continuing efforts, some recent studies have shown that the number of Malaysian graduates involved in entrepreneurship is still low compared to other developed countries such as the U.S.A. and the UK (Busenitz et al., 2000; Mohamad, Lim, Yusof, Kassim, & Abdullah, 2014).

To allow students to receive at least a primary introduction to an entrepreneurial environment, most universities in Malaysia have introduced a compulsory entrepreneurship course. This is done to allow students the opportunity to develop and improve their skills and interests in managing a business (Ahmad, Ismail, & Buchanan, 2014). A meta-analysis involving 37,285 students found a positive and significant relationship between entrepreneurship education and entrepreneurial intentions (Bae, Qian, Miao, & Fiet, 2014). Based on the findings, efforts have been undertaken by many institutes of higher education to nurture entrepreneurship education (Ahmad, 2013). However, it has also been reported that most students possess neither the interest nor the confidence to engage in business. A study by Farsi, Arabiun, and Moradi (2012) involving female nursing students revealed that education did not affect entrepreneurial intention. Similarly, Brenner, Pringle, and Greenhaus (1991), Hostager and Decker (1999), and Whitlock and Masters (1996) demonstrate a lower level of entrepreneurial intention. Based on prior studies the effectiveness of entrepreneurial education programs for some students, depend on initial entrepreneurship exposure (Fayolle & Gailly, 2015), course assessment and culture (Bae et al., 2014), need for independence (Barba-Sánchez & Atienza-Sahuquill, 2018), and experiential activities in the program (Woolfolk-Ruiz & Acosta-Alvarado, 2016). Interestingly, study by Soetanto, Pribadi, and Widyadana (2010), found that intelligent students show less interest in becoming an entrepreneur compare to average students. Generally, the entrepreneurial process starts with entrepreneurial intention. Accordingly, entrepreneurial intention has been described as the preeminent predictor of entrepreneurial behavior (Bird, 1988; Moa-Liberty, Tunde, & Tinuola,

2016). Nevertheless, most extant studies have generally ignored research opportunities related to entrepreneurial intention among students (Ip, Wu, Liu, & Liang, 2018; Lüthje & Franke, 2003; Segal, Borgia, & Schoenfeld, 2005), particularly involving those who are exposed to basic entrepreneurship subjects (Ahmad et al., 2014).

Prior studies have highlighted the critical factors that determine the effectiveness of training/programs. Vrgović, Ćirić, and Todorović (2018), and Yukongdi and Lopa (2017) have argued that several non-technical factors have a significant impact on training outcomes and entrepreneurial intention. These include personality traits, self-confidence, task-related attitudes, expectations for training, and pre-training motivation. Interestingly, Orhan and Scott (2001) argued that people become entrepreneurs primarily because of pull factors rather than push factors. Under the pull theory, individuals become involved in entrepreneurial activities in search of self-fulfillment, independence, wealth, and other desirable outcomes. Conversely, the push theory contends that individuals become entrepreneurs because of negative external forces, such as job dissatisfaction, difficulty finding employment, insufficient salary, or an inflexible work schedule (Keeble, Bryson, & Wood, 1992). Past research has argued that motivation is an essential component in the development of new organizations and businesses (Herron & Sapienza, 1992). The desire for independence will motivate self-employment plans and plans to start a business rather than working for others (Barba-Sánchez & Atienza-Sahuquill, 2018; Segal et al., 2005).

However, several researchers, such as Lanyon and Goodstein (1971), and McDonald (1984), have asserted that a student's personality influences academic achievement, and certain students require teaching modifications in order to succeed. Moreover, an entrepreneurial education represents a planned model to modify knowledge, skills, and attitudes through learning experiences (Milkovich & Boudreau, 1994). Lounsbury, Levy, and Gibson (2013) contend that self-efficacy is one of the most essential variables related to the achievement of challenging goals and the development of an entrepreneurial business.

In addition, several studies (e.g. Laviolette, Radu Lefebvre, & Brunel, 2012; Prabhu, McGuire, Drost, & Kwong, 2012) have noted that self-efficacy in individuals is among the primary factors in understanding the complex dynamics behind entrepreneurial intentions and activities. In another study, Segal et al. (2005) noted that individuals with a sense of entrepreneurial self-efficacy are prone to self-employment rather than choosing to work for others because of the

opportunities and benefits gained through self-employment. Recently, Espíritu-Olmos and Sastre-Castillo (2015) proposed that individuals with a strong preference for inner control (independence) and achievement have a higher propensity to become entrepreneurs. The higher the inclination for independence, the greater the enticement to become an entrepreneur and be self-employed (Kihlstrom & Laffont, 1979).

Although several studies have examined the effect of personality traits on entrepreneurs (Fuller, Liu, Bajaba, Marler, & Pratt, 2018; Rauch & Frese, 2007), the results remain inconclusive (Liang, Chang, Liang, & Liu, 2017; Herron & Sapienza, 1992; Nga & Shamsuganathan, 2010; Shaver & Scott, 1992). For example, earlier research by Brockhaus and Horwitz (1986) found that there was no relationship between personality and entrepreneurship. Therefore, many researchers called for more research on personality traits and entrepreneurial intention (Aragon-Sanchez, Baixauli-Soler, & Carrasco-Hernandez, 2017; Kerr, Kerr, & Xu, 2018). Meanwhile, self-efficacy and motivation have been widely recognized in recent studies that examined entrepreneurship career intention (Hsu, Wiklund, & Cotton, 2017; Kim-Soon, Ahmad, & Ibrahim, 2018). This study is motivated by these research gaps. Consequently, the aim of the current study is to examine the effect of self-efficacy, independence, and motivation on student entrepreneurial intention.

#### 2.0 LITERATURE REVIEW

The following subsections further explain the developed constructs as they pertain to entrepreneurship in education and entrepreneurial intention.

# 2.1 Entrepreneurship in Education

The explosive growth of entrepreneurship modules and programs offered at universities has influenced the growth of entrepreneurial pedagogy and enterprise education research (Oftedal, Iakovleva, & Foss, 2018; Peterman & Kennedy, 2003; Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019; Piperopoulos, 2012). There are empirical findings focusing on the effects of entrepreneurship programs at universities and schools (Sanholtz, 1990) and among different sample populations, such as children (Barba-Sánchez & Atienza-Sahuquillo, 2018), women (Shinnar, Hsu, & Powell, 2014), and graduate students (Byun, Sung, Park, & Choi, 2018). Because of the growing world unemployment and poverty-driven crimes and crises, entrepreneurial

education and training are also becoming a global phenomenon. This has caused many countries around the world to become interested in entrepreneurship. Additionally, governments support entrepreneurial progress by assigning more resources towards the development of entrepreneurship activities. For example, the Department for Education in England has drafted national guidance on enterprise learning Nwadiani (2011). As such, Sweden government took an active stand by implementing entrepreneurship in the school setting, from preschool to adult education as part of the learning experiential in all schools (Axelsson, 2017). France is also emphasizing entrepreneurial ability among students, with the support of business associations, to encourage entrepreneurial awareness in school children (Nwadiani, 2011). Hence, over the past decade, entrepreneurship has also become a commonly taught syllabus at universities as a means of fostering skills relevant for entrepreneurship (Lyons & Zhang, 2018).

Today, entrepreneurship courses are offered at most universities in Malaysia. In addition to universities, many business schools offer entrepreneurship courses as a major together with other business major programs, such as accounting, management, finance, marketing, and human resources. Schools or universities can also involve students in different entrepreneurial activities and enhance their interest in venturing into entrepreneurship as education has been found to play a major role in students' entrepreneurial efficacy and activities. Schools or universities can highlight the values of entrepreneurship and encourage students to start their own business ventures (Elert, Andersson, & Wennberg, 2015). Entrepreneurial intentions have also been found to be related to personal perceptions with respect to the business environment, the supportiveness of a given society, and individual capabilities (Bird, 1988). According to Glaeser and Maré (2001), individuals with higher resources and capabilities are able to absorb greater amounts of information and will therefore benefit more from entrepreneurship programs. It was also found that individuals with former entrepreneurial experience are more prone to utilize the knowledge and resources provided by a program, further enabling the development of entrepreneurial ventures (Lyons & Zhang, 2018; Glaeser & Maré, 2001). Moreover, Movahedi, Latifi, and Sayyar (2013) suggested that agriculture students' attitudes toward entrepreneurship and self-employment are positive. Among the important factors that affect student attitudes toward entrepreneurship and self-employment are self-employment ability, grade point average, entrepreneurial features, interest in working in the agricultural sector, and interest in studying agriculture as a major (Movahedi et al., 2013).

# 2.2 Self-efficacy, Motivation, Independence, and Entrepreneurial Intention

In examining the effect of self-efficacy, many of the previous research studies have defined self-efficacy from various perspectives. Self-efficacy relates to individuals' conscious beliefs in their own skills and abilities to perform a task and guide it toward success (Bandura & Wessels, 1997). Audia, Locke, and Smith (2000) defined self-efficacy as task-specific confidence or a person's perception of their capability of attaining certain high-performance outcomes. In addition, some researchers have specifically described entrepreneurial self-efficacy as a critical aspect of entrepreneurship (Cardon & Kirk, 2015). Several scholars refer to self-efficacy as the drive and self-confidence of entrepreneurs toward their own capabilities of accomplishing specific tasks, which will in turn lead to specific outcomes (Jain & Ali, 2015). Other researchers have also defined entrepreneurial self-efficacy as confidence in the personal ability to complete the business start-up process (Segal et al., 2005). Self-efficacy drives a person to persist through many obstacles encountered in starting and continuing a business (Shane, Locke, & Collins, 2003).

According to Markham, Balkin, and Baron (2002), the perception of self-efficacy encourages individuals to demonstrate entrepreneurial behaviour. Rauch and Frese (2007) also found that self-efficacy is significantly related to business creation and success. Byabashaija and Katono (2011) determined that entrepreneurial self-efficacy has a positive effect on the intention to start a business among university students in Uganda. In addition, it has been found that entrepreneurial self-efficacy and entrepreneurial intention positively influence female students in Nigeria (Nwankwo, Kanu, Marire, Balogun, & Uhiara, 2012). In previous studies, self-efficacy has been proposed as a critical antecedent of entrepreneurial intentions and behavior (Lee, Wong, Der Foo, & Leung, 2011; Pihie & Akmaliah, 2009). Many studies have also demonstrated that entrepreneurial self-efficacy is positively related to entrepreneurial intention (Byabashaija & Katono, 2011; Nwankwo et al., 2012).

The term motivation can also be defined as the physiological process involved in the direction, vigor, and persistence of behavior (Bergin, Ford, & Hess, 1993). Formerly, Deci and Ryan (1985) distinguished different types of motivation based on various reasons or goals that lead to an action. The most common distinction is between intrinsic motivation, which refers to doing something because it is interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome. According to Herron and Sapienza (1992), motivation

plays a vital role in the conception of new organizations. Moreover, there is a central organizational difference between self-employed and salaried work, where a self-employed individual or an entrepreneur requires strong motivation for entering the field. Further, according to McClelland (1985), achievement motivation is critical to economic development. Achievement motivation has been found to be a prominent feature of entrepreneurs (Stewart Jr. & Roth, 2007). Additionally, there is a positive association between entrepreneurial behavior and achievement motivation (Shaver & Scott, 1992). An individual needs to have strong motivation to enter the field and start up a business. They will also be more inspired to become an entrepreneur if they trust that self-employment can produce valued results. This is because the drive to become an entrepreneur is affected by the attraction of self-employment (Levesque, Shepherd, & Douglas, 2002; Praag & Cramer, 2001).

The need for independence is important to entrepreneurial intention. According to Carter, Gartner, Shaver, and Gatewood (2003), independence refers to an individual's desire for freedom, control, and flexibility in the use of one's time. Douglas and Shepherd (2002) suggest that there are differences between entrepreneurs and non-entrepreneurs. Generally, entrepreneurs are characterized as independence-seekers. Individuals with a high need for independence are most likely to have a strong reason for opening a new business venture (Kolvereid, 1996). Further, independence is the most vital feature to entrepreneurs as it was found to be negatively related to achieved and intended employment growth. In addition, the longing for independence and the need for greater flexibility in terms of how work can be accomplished by an individual is also negatively related to growth intentions (Wiklund & Shepherd, 2003). In this regard, several studies acknowledge the influence of independence, work-life balance and business start-up/success (Barba-Sánchez & Atienza-Sahuquill, 2018; Clark & Lee, 2006; Carter et al., 2003; Terjesen, 2005). Vinnicombe and Colwill (1995) have suggested that one of the reasons behind the expansion of female ex-corporate entrepreneurs is the promise of flexibility offered through entrepreneurship. In addition, attitude toward independence, income, and ownership have been found to be related to entrepreneurial intentions (Douglas & Fitzsimmons, 2013). Therefore, we can confer that self-efficacy, motivation, and independence have a relationship with entrepreneurial intention.

# H1: Self-efficacy is related to entrepreneurial intention.

**H2:** Motivation is related to entrepreneurial intention.

H3: Independence is related to entrepreneurial intention.

Based on the above-referenced research literature, a conceptual model for the study is proposed. The illustration of the proposed model is shown in Figure 1. It was adapted and extended from the work of Byabashaija and Katono (2011), Kolvereid, 1996), and Herron and Sapienza (1992).

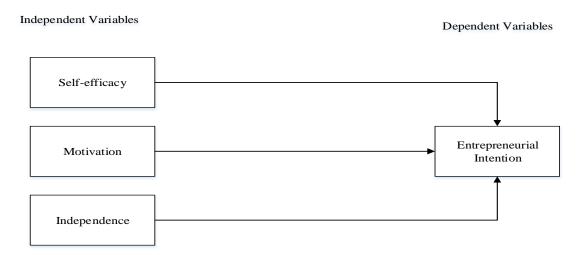


Figure 1: Conceptual framework

#### 3.0 METHODOLOGY

The following subsections explain the research design used in the study.

#### 3.1 Research Design and Procedures

The research setting of this study is the university students of Universiti Kebangsaan Malaysia (UKM). UKM is the target population of this research because it is one of the major public universities in Malaysia that emphasizes multi-disciplinary knowledge, with an excellent reputation for academic achievement in Malaysia (Sani, 2018; UM climb rankings, 2018). The study's objective is to capture the variability of individual benefits derived from a similar course and its effect on student intention to become entrepreneurs. The chosen university had an academic department dedicated to instilling entrepreneurship in all students and offered a compulsory entrepreneurship course across all programs. All first-year students at the university are required to fulfil a *Citra* compulsory course, LMCW1022, Fundamentals of Entrepreneurship and

Innovation. This course seeks to introduce students to the field of entrepreneurship and innovation. The primary objective of this course is to provide basic knowledge of entrepreneurship and to stimulate interest among students to become entrepreneurs as the best alternative in their career. Hence, this is a strategic location for the researchers to obtain a sample because of the availability of the sample at the designated location.

Based on the literature review and relevant previous studies, this study proposed a pool of measurement items for each construct. All scales were derived and adapted directly from their original sources in the English language. Because the questionnaire is to be administered in Bahasa Malaysia, the original English version of the questionnaire has first been translated into Bahasa. Following this, the Bahasa version has been translated back into English. Data collection was carried out for a period of three months, from February to April 2018. This study used convenience sampling, and the sample population was recruited using personally administered questionnaires. After receiving approval from the course coordinator, the questionnaires were distributed in class. The researchers and/or the research assistants delivered the questionnaires to the lecturer/tutor of the course. Some 550 copies of questionnaires were disseminated among the target population, and 496 completed questionnaires were returned, thus constituting a response rate of 90%.

# 3.2 Research Instruments

All of the questions in the survey were formulated based on the measures revised from previous studies. Several portions of the wording in the questionnaires were changed to accommodate the requirements of the target sample. To confirm the content validity of the measurements, the final questionnaire was pre-tested among academics and non-participating students. The questionnaire was converted to Bahasa Malaysia and, following this, was back-translated to English by a different translator in order to ensure the compatibility of the language. In this study, entrepreneurial intention was measured based upon the research of Cox, Mueller, and Moss (2002) and Sequeira, Mueller, and McGee (2007) as a unidimensional construct that encompasses 13 items. Consistent with past studies, self-efficacy was measured as a unidimensional construct that consists of nine reflective indicators (Magaletta, & Oliver, 1999; Usher & Pajares, 2008). Motivation was adopted from the research of Christophel (1990), with 10 items identified. Based on the research of Kolvereid (1996) and Costa, McCrae, and Holland (1984), independence was

measured using six items. In keeping with past studies, all of the constructs of the study were measured as reflective.

# 3.3 Common Method Bias (CMB)

To ensure that there was no common method bias (CMB) problem in this study, the researchers conducted several tests to assess CMB. First, the researchers conducted Harman's one-factor test to determine the existence of CMB (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The result of 23.7% for the first factor did not contribute toward the existence of CMB. Second, the correlations between the constructs were evaluated (Bagozzi, Yi, & Phillips, 1991). According to Kim, Kim, and Wachter (2013), evidence that CMB exists is present if any of the correlations among the research constructs are above the value of 0.90. Hence, based on our results, this study can conclude that there is no CMB present in the data that could compromise the findings of the study.

#### 4.0 FINDINGS

The results are discussed based on the demographic characteristics of the respondents using measurement model and structural model analyses.

#### 4.1 Demographic Variables

Table 1 summarizes the demographic characteristics of the participants. The results show that the sample consists of 138 male and 358 female respondents. Some 61.2% of the respondents were Malaysian. The sample also includes individuals with varying age levels: 174 (35%) are 21 years of age, 135 (27%) are 22 years of age, and 120 (24%) are 24 years of age. More than 79% of the sample was from the non-business program. About 201 (41%) of the total respondents had family members involved in business.

Table 1: Demographic profile of respondents (n= 496)

Characteristic	Category	Number of	Percentage (%)	
		Respondent		
Gender	Male	138	27.8	
	Female	358	72.2	
Ethnicity	Malay	306	61.2	
	Chinese	114	23.0	
	Indian	51	10.8	
	Others	25	5.0	
Age	19 years old	27	5.4	
	20 years old	120	24.2	
	21 years old	174	35.1	
	22 years old	135	27.2	
	23 years old	27	5.4	
	24 years old	10	2.0	
	More than 24 years old	3	0.6	
Program of study	Non business program	394	79.4	
	Business program	102	20.6	
Family Member in	Yes	201	41.0	
Business	No	295	59.0	

# 4.2 Measurement Model Analysis

This study uses Smart PLS-SEM 3.0 software as the primary statistical inferential analysis tool for the research work. Basically, PLS-SEM analysis involves a two-step approach for inferential analysis, which includes assessment of the measurement model and assessment of the structural model to test the hypothesized relationships (Anderson & Gerbing, 1988). The measurement model was employed to test the evaluation of model estimation between the indicators and the constructs. Hence, internal consistency reliability, validity of the scales using Cronbach's alpha, factor loadings, composite reliability (CR), and average variance extracted (AVE) are used to assess the measurement model. The Cronbach's alpha of all constructs ranged from 0.90 to 0.96; this means that the indicators used in this study were highly reliable (Nunnally, 1978). The item

loading was assessed, relying on the common rule of thumb for item loading of 0.60 or higher (Chen & Myagmarsuren, 2011). Based on the results, one item was deleted from entrepreneurial intention and three items were removed from motivation, due to low loading. For self-efficacy, the researchers deleted two items with low item loadings, which make remaining items for this construct is only seven items.

In terms of the composite reliability (CR) of the constructs, the outcomes of the assessment reveal that the CR value exceeds the cut-off value of 0.70; and the value of the average variance extracted (AVE) is above the cut-off point of 0.5, as suggested by Fornell and Larcker (1981). As depicted in Table 2, the AVE and the CR of the constructs ranged from 0.67 to 0.74 and 0.92 to 0.97, respectively, both of which exceeded the cut-off level, indicating there is no major issue in the convergent validity of the scales. To assess the discriminant validity of the constructs, all of the indicators are assessed by examining the cross-loadings, Fornell-Larcker criterion, and HTMT procedure. To ensure discriminant validity, all items were further examined for cross-loading. The cross-loadings results indicated that the loading of each indicator on its assigned latent variable is greater than all of its cross-loadings values. As such, discriminant validity at the indicator level was established. To further test the discriminant validity of the constructs, the Heterotrait-Monotrait (HTMT) ratio of the correlation was used to assess all of the items (Hair, Hult, Ringle, & Sarstedt, 2017). It is vital that the confidence interval of the HTMT statistic should not include the value 1 for all combinations of the constructs (Hair et al., 2017). The results indicated that the findings satisfy the threshold criteria of HTMT .85, which indicates that there is no discriminant validity issue regarding the constructs. Further, as reported in Table 3, all correlations between the constructs were lower than their respective AVE square root estimates. As a result, this study concludes that discriminant validity has been ascertained.

Table 2: The measurement model results

Latent	Items	MV	SD	Std.	Std.	Cronbach's	~~~	
Variable				Loadings	error	alpha	CR	AVE
Self-Efficacy						0.94	0.95	0.74
	E18_1	3.88	0.69	0.84	0.03			
	E19_1	3.87	0.72	0.82	0.04			
	E20_1	3.96	0.70	0.88	0.03			
	E21_1	3.98	0.70	0.83	0.03			
	E22_1	3.88	0.76	0.88	0.04			
	E23_1	3.82	0.73	0.88	0.04			
	E24_1	3.74	0.79	0.88	0.04			
Entrepreneurial Intention	Ei100_1	3.80	0.82	0.85	0.04	0.96	0.97	0.70
	Ei101_1	3.73	0.86	0.81	0.04			
	Ei102_1	3.77	0.83	0.81	0.04			
	Ei103_1	3.76	0.88	0.85	0.04			
	Ei104_1	3.68	0.89	0.86	0.04			
	Ei106_1	3.78	0.89	0.83	0.04			
	Ei107_1	3.72	0.89	0.87	0.04			
	Ei94_1	3.56	0.99	0.87	0.05			
	Ei96_1	3.43	1.01	0.86	0.05			
	Ei97_1	3.36	1.03	0.82	0.05			
	Ei98_1	3.39	1.05	0.83	0.05			
	Ei99_1	3.37	0.99	0.80	0.05			
Independence						0.90	0.92	0.67
	IN28_1	4.26	0.72	0.83	0.04			
	IN29_1	3.97	0.73	0.80	0.04			
	IN30_1	4.01	0.71	0.84	0.04			
	IN31_1	4.07	0.77	0.82	0.04			
	IN32_1	4.14	0.70	0.83	0.03			
	IN33_1	3.97	0.81	0.80	0.04			

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Motivation						0.94	0.95	0.73
	M55_1	3.55	0.93	0.87	0.05			
	M56_1	3.56	0.92	0.87	0.05			
	M57_1	3.73	0.88	0.91	0.04			
	M58_1	3.87	0.86	0.86	0.04			
	M59_1	3.32	1.12	0.76	0.06			
	M64_1	3.72	0.92	0.83	0.05			

Note: Mean value (MV); Standard deviation (SD); Composite reliability (CR); Average variance exchange (AVE)

0.85

0.05

Table 3: Discriminant validity assessments

	EntreINT	IndeP	MotiV	SelfEffi
EntreINT	0.838			
IndeP	0.415	0.818		
MotiV	0.697	0.385	0.852	
SelfEffi	0.373	0.553	0.324	0.858

Note: The diagonal entries represent the AVE for each construct

3.82

0.93

# 4.3 Structural Model Analysis

 $M65_{1}$ 

Following the assessment of the reliability and validity of the measurement model, this subsection evaluates the structural model of the study. Before testing the hypotheses, this study examined the variance inflation factors (VIFs), and the results were in the range of 1.21 to 1.31. VIF values that are less than the threshold value of 5 do not indicate a major problem (Venkatesh, Thong, & Xu, 2012). Therefore, there is no collinearity issue among the predictor constructs in the structural model. Next, this study evaluates the coefficient of determination ( $R^2$ ) and the path coefficient of the structural model (Hair et al., 2017).

To examine the significance of the path coefficient of the structural model, the researchers used a bootstrapping procedure (n=496, sample =2000 samples). Table 4 demonstrates that the estimation of the hypothesized structural model establishes that all of the paths support the positive (+) direction of the hypotheses. Critical values for a one-tailed test are 1.645 (significant

level=5%), 2.326 (significant level=10%), and 3.090 (significant level=1%). According to Hair et al. (2017), researchers should consider path coefficient with a 5% or less probability error as significant.

All of the relationships are significant with a confidence level of 5% (p<0.05). The largest path coefficient between motivation and entrepreneurial intention at ( $\beta$  = 0.617) and t value at 15.295, followed by self-efficacy at ( $\beta$  = 0.108) and t values at 2.310, and independence at ( $\beta$  = 0.117) and t values at 2.093. Therefore, all of the three hypotheses, H1, H2, and H3, are supported. This study further accesses the  $R^2$  value or coefficient of determination. According to Chin (1998), the level of acceptance for  $R^2$  values at 0.67, 0.33, and 0.19, are respectively considered substantial, moderate and weak. The findings revealed that all three of the exogenous constructs jointly explained 52% of the variance in the endogenous construct (i.e., entrepreneurial intention). Based on the above-mentioned results, the model has a moderately strong explanatory capability (Chin, 1998).

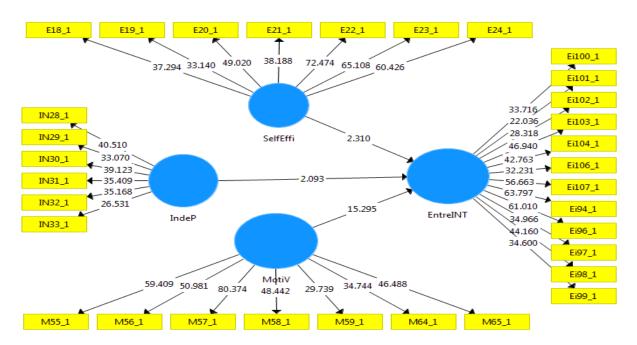


Figure 1: The structural model results

Table 4: Hypotheses findings for the structural model

Hypothesis		Std Beta	Std	<i>t</i> -value	P	Decision	$R^2$
<b>71</b>			Error		values		
H1	Relationship	0.108	0.047	2.31	0.011	Supported	0.519
	between self-						
	efficacy and						
	entrepreneurial						
	intention						
H2	Relationship	0.617	0.040	15.295	0.000	Supported	
	between						
	motivation and						
	entrepreneurial						
	intention						
Н3	Relationship	0.117	0.056	2.093	0.018	Supported	
	between						
	independence						
	and						
	entrepreneurial						
	intention						

Notes: Significant at p < 0.05

# **5.0 DISCUSSION**

This study seeks to shed light on the impact of student self-efficacy, motivation, and independence on entrepreneurial intention. Returning to the proposed hypotheses, Table 4 shows the results relating to the proposed relationships between the constructs. The most significant aspects of these results are as follow:

Hypothesis 1 covers the effect of self-efficacy on entrepreneurial intention. The relationship (p<0.05) was found to be statistically significant, and an effect of 0.108 was detected. Hence, there is statistical support for this hypothesis, and it demonstrates the positive effect of self-efficacy on entrepreneurial intention. Individuals who perceive that entrepreneurship does not meet their personal skills and abilities will not have a strong intention to start a business. Consistent with

Bandura and Wessels (1977) social learning theory, there is a link between self-perceptions of personal skills in performing certain tasks and career decisions. The findings concur with previous research signifying that self-efficacy is a critical predictor of entrepreneurial intentions and venture performance (Hmieleski & Baron, 2008; Lee et al., 2011). Extant studies have confirmed that self-efficacy is one of the essential factors that is significantly linked to entrepreneurial intention (Byabashaija & Katono, 2011; Nwankwo et al., 2012). Moreover, recent studies have found that an individual's perception of fit with entrepreneurship plays a vital role in determining entrepreneurial intention (Hsu et al., 2019; Nowiński et al., 2019).

Hypothesis 2 proposes that motivation is positively related to entrepreneurial intention. The results reveal a statistically significant relationship (p<0.05), and the effect identified stands at 0.617. Therefore, it can be concluded that motivation has a significant and positive effect on entrepreneurial intention. The findings support the extant theories, which had previously suggested that individuals need to have a strong motivation to start up a business. Thus, a person will be more motivated to become an entrepreneur if they believe that self-employment can lead to valued outcomes, such as flexibility. The finding is consistent with previous studies, including Praag and Cramer (2001), and Levesque et al. (2002), supporting the argument that a high level of motivation to become an entrepreneur is related to the appeal of self-employment.

Hypotheses 3 set out to investigate whether independence is related to entrepreneurial intention. The findings suggest that student need for independence is significantly related to entrepreneurial intention. Former studies have shown that one of the factors that affects entrepreneurial desire to start a business is the need for independence (Shane, Kolvereid, & Westhead, 1991; Carter et al., 2003). In addition, Douglas and Fitzsimmons (2013) proposed that attitudes toward independence, income, and ownership have also been found to be related to entrepreneurial intentions.

#### 6.0 CONCLUSION

This paper provides empirical findings demonstrating the manner in which self-efficacy, motivation, and independence contribute to entrepreneurial intention among university students. The findings make a significant contribution to the entrepreneurship education literature. Specifically, the study contributes toward the role of basic entrepreneurship subject matter in developing entrepreneurial intentions among university students. The conclusions of this study

hold some interesting implications for universities that are currently involved in entrepreneurship education. Apparently, the main conclusion of the current study is that entrepreneurial education may be useful in producing high entrepreneurial intentions among students enrolled in higher institutions of education in Malaysia. We can conclude from the findings that three critical drivers, self-efficacy, the need for independence, and motivation, are significant and are positively associated with entrepreneurial intention, particularly among students at higher institutions of learning. We found that student motivation contributes most significantly to entrepreneurial intentions, followed by self-efficacy and independence. The findings should encourage institutions of higher learning to refocus their efforts on entrepreneurship delivery in order to develop motivation, self-efficacy, and independence among students. Our results indicate that programs and courses specifically designed to develop students' entrepreneurial skills and intentions at universities will be more effective by focusing on these three factors.

Finally, there are several limitations to this study, regardless of the useful findings that offer avenues for future research. First, the findings may not represent the entire population as the scope of the study is only limited to one public university in Malaysia. The second limitation related to this study is the composition of the student samples, which consist of students from diverse program fields (business and non-business programs), and also in different academic years of study (1st, 2nd, and 3rd year). Third, this study concentrated primarily on the three factors related to students' entrepreneurial intentions. It is important to note that there are other determinants of entrepreneurial intentions, such as instructional methods, fields of study/programs, exposure to entrepreneurial activities, and supporting entrepreneurial programs. Last but not least, this research can be extended further by incorporating different moderating effects, such as innovativeness, level of involvement, and environment.

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#### REFERENCES

Ahmad, S. Z., & Buchanan, R. F. (2015). Entrepreneurship education in Malaysian universities. *Tertiary Education and Management*, 21(4), 349-366.

- Ahmad, S. Z., Ismail, M. Z., & Buchanan, F. R. (2014). Examining the entrepreneurship curriculum in Malaysian polytechnics. *The International Journal of Management Education*, 12(3), 397-406.
- Ahmad, S. Z. (2013). The need for inclusion of entrepreneurship education in Malaysia lower and higher learning institutions. *Education and Training*, 55(2), 191-203.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411-423.
- Aragon-Sanchez, A., Baixauli-Soler, S., & Carrasco-Hernandez, A. J. (2017). A missing link: The behavioral mediators between resources and entrepreneurial intentions. *International Journal of Entrepreneurial Behavior & Research*, 23(5), 752-768.
- Audia, P. G., Locke, E. A., & Smith, K. G. (2000). The paradox of success: An archival and a laboratory study of strategic persistence following radical environmental change. *Academy of Management Journal*, *43*(5), 837-853.
- Axelsson, K. (2017). Entrepreneurship in a school setting: Introducing a business concept in a public context. (Unpublished doctoral dissertation). Mälardalen University, Västerås, Sweden.
- Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2), 217-254.
- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, *36*(3), 421-458.
- Bandura, A., & Wessels, S. (1997). Self-efficacy. In V. S. Ramachaudran (ed.), *Encyclopedia of human behavior* (pp. 4-6). New York: Academic Press.
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, 24(1), 53-61.
- Bergin, D. A., Ford, M. E., & Hess, R. D. (1993). Patterns of motivation and social behavior associated with microcomputer use of young children. *Journal of Educational Psychology*, 85(3), 437-445.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453.

- Bosma, N., & Harding, R. (2007). *Global entrepreneurship monitor: GEM 2006 summary results*. London: Babson.
- Brenner, O. C., Pringle, C. D., & Greenhaus, J. H. (1991). Perceived fulfillment of organizational employment versus entrepreneurship: Work values and career intentions of business college graduates. *Journal of Small Business Management*, 29(3), 62-74.
- Brockhaus, R. H., & Horwitz, P. S. (1986). The psychology of the entrepreneur. In D. Sexton & R. Smilor (eds.), *The art and science of entrepreneurship* (pp. 25-48). Pensacola, FL: Ballinger Publishing Company.
- Bogatyreva, K., Edelman, L. F., Manolova, T. S., Osiyevskyy, O., & Shirokova, G. (2019). When do entrepreneurial intentions lead to actions? The role of national culture. *Journal of Business Research*, *96*(1), 309-321.
- Busenitz, L., Gomez, C., & Spencer, J. (2000). Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43(5), 994-1003.
- Byabashaija, W., & Katono, I. (2011). The impact of college entrepreneurial education on entrepreneurial attitudes and intention to start a business in Uganda. *Journal of Developmental Entrepreneurship*, 16(1), 127-144.
- Byun, C. G., Sung, C., Park, J., & Choi, D. (2018). A Study on the effectiveness of entrepreneurship education programs in higher education institutions: A case study of Korean Graduate Programs. *Journal of Open Innovation: Technology, Market, and Complexity*, 4(26), 1-14.
- Cardon, M. S., & Kirk, C. P. (2015). Entrepreneurial passion as mediator of the self-efficacy to persistence relationship. *Entrepreneurship: Theory & Practice*, *39*(5), 1027-1050.
- Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, 18(1), 13-39.
- Chen, C., & Myagmarsuren, O. (2011). Brand equity, relationship quality, relationship value, and customer loyalty: Evidence from the telecommunications services. *Total Quality Management & Business Excellence*, 22(9), 957-974.
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling Methodology for Business and Management. Modern methods for business research. Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

- Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39(4), 323-340.
- Clark, J. R., & Lee, D. R. (2006). Freedom, entrepreneurship and economic progress. *The Journal of Entrepreneurship*, *15*(1), 1-17.
- Costa, P., McCrae, R, & Holland, J. L. (1984). Personality and vocational interests in an adult sample. *Journal of Applied Psychology*, 69(1), 390-400.
- Cox, L. W., Mueller, S. L., & Moss, S. E. (2002). The impact of entrepreneurship education on entrepreneurial self-efficacy. *International Journal of Entrepreneurship Education*, 1(2), 229-245.
- Deci, E., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Berlin, Germany: Springer Science & Business Media.
- Douglas, E. J., & Fitzsimmons, J. R. (2013). Intrapreneurial intentions versus entrepreneurial intentions: Distinct constructs with different antecedents. *Small Business Economics*, 41(1), 115-132.
- Douglas, E. J., & Shepherd, D. A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81-90.
- Drucker, P. F. (1985). *Innovation and entrepreneurship practices and principles*. Amsterdam: Elsevier.
- Elert, N., Andersson, F., & Wennberg, K. (2015). *The impact of entrepreneurship education in high school on long-term entrepreneurial performance*. Stockholm: Research Institute of Industrial Economics.
- Espíritu-Olmos, R., & Sastre-Castillo, M. A. (2015). Personality traits versus work values: Comparing psychological theories on entrepreneurial intention. *Journal of Business Research*, 68(7), 1595-1598.
- Farsi, J. Y., Arabiun, A., & Moradi, M. (2012). The impact of opportunity recognition skills training on entrepreneurial intention of female nursing students. *Journal of Knowledge Management, Economics and Information Technology*, 2(4), 1-6.
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93.

- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(1), 39-50.
- Fuller, B., Liu, Y., Bajaba, S., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and Individual Differences*, 125(1), 120-125.
- Glaeser, E., & Maré, D. (2001). Cities and skills. Journal of Labor Economics, 19(2), 316-342.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2<sup>nd</sup>. Los Angeles: Sage Publications.
- Herron, L., & Sapienza, H. J. (1992). The entrepreneur and the initiation of new venture launch activities. *Entrepreneurship Theory and Practice*, 17(1), 49-55.
- Hmieleski, K. M., & Baron, R. A. (2008). When does entrepreneurial self-efficacy enhance versus reduce firm performance? *Strategic Entrepreneurship Journal*, 2(1), 57-72.
- Hostager, T. J., & Decker, R. L. (1999). *The effects of an entrepreneurship program on achievement motivation: A preliminary study*. San Francisco, CA: Small Business Institute Director's Association.
- Hsu, D. K., Burmeister-Lamp, K., Simmons, S. A., Foo, M. D., Hong, M. C., & Pipes, J. D. (2019). I know I can, but I don't fit: Perceived fit, self-efficacy, and entrepreneurial intention. *Journal of Business Venturing*, 34(2), 311-326.
- Hsu, D. K., Wiklund, J., & Cotton, R. D. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship Theory and Practice*, 41(1), 19-47.
- Ip, C. Y., Wu, S. C., Liu, H. C., & Liang, C. (2018). Social entrepreneurial intentions of students from Hong Kong. *The Journal of Entrepreneurship*, 27(1), 47-64.
- Jain, R., & Ali, S. W. (2015). Self-efficacy beliefs, marketing orientation and attitude orientation of Indian entrepreneurs. *Journal of Entrepreneurship*, 22(1), 71-95.
- Keeble, D., Bryson, J., & Wood, P. (1992). The rise and role of small service firms in the United Kingdom. *International Small Business Journal*, 11(1), 11-22.
- Kerr, S. P., Kerr, W. R., & Xu, T. (2018). Personality traits of entrepreneurs: A review of recent literature. *Foundations and Trends in Entrepreneurship*, *14*(3), 279-356.
- Kihlstrom, R. E., & Laffont, J. J. (1979). A general equilibrium entrepreneurial theory of firm formation based on risk aversion. *Journal of Political Economy*, 87(4), 719-748.

- Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2018). Understanding the motivation that shapes entrepreneurship career intention. In Mura, L. (ed.), *Entrepreneurship-development tendencies and empirical approach* (pp. 291-308). Slovakia: Pan-European University.
- Kim, Y. H., Kim, D. J., & Wachter, K. (2013). A study of mobile user engagement (MoEN): Engagement motivations, perceived value, satisfaction, and continued engagement intention. *Decision Support Systems*, 56(1), 361-370.
- Kolvereid, L. (1996). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship Theory & Practice*, 20(3), 23-31.
- Lanyon, R. I., & Goodstein, L. D. (1971). Readings in personality assessment. New York: Wiley.
- Laviolette, E. M., Radu Lefebvre, M., & Brunel, O. (2012). The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention. *International Journal of Entrepreneurial Behavior & Research*, 18(6), 720-742.
- Lee, L., Wong, P. K., Der Foo, M., & Leung, A. (2011). Entrepreneurial intentions: The influence of organizational and individual factors. *Journal of Business Venturing*, 26(1), 124-136.
- Levesque, M., Shepherd, D. A., & Douglas, E. J. (2002). Employment or self-employment: A dynamic utility-maximizing model. *Journal of Business Venturing*, 17(3), 189-210.
- Liang, C., Chang, C. C., Liang, C. T., & Liu, Y. C. (2017). Imagining future success: Imaginative capacity on the perceived performance of potential Agrisocio entrepreneurs. *Thinking Skills and Creativity*, 23(1), 161-174.
- Lounsbury, J. W., Levy, J. J., & Gibson, L. W. (2013). Personality correlates of self-employed small business owners' success. *Work*, 45(1), 73-85.
- Lüthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), 135-147.
- Lyons, E., & Zhang, L. (2018). Who does (not) benefit from entrepreneurship programs? *Strategic Management Journal*, 39(1), 85-112.
- Magaletta, P. R., & Oliver, J. M. (1999). The hope construct, will, and ways: Their relations with self-efficacy, optimism, and general well-being. *Journal of Clinical Psychology*, 55(5), 539-551.

- Markham, G., Balkin, D., & Baron, R. (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship Theory and Practice*, 27(2) 149-165.
- McClelland, D. C. (1985). How motives, skills, and values determine what people do. *American Psychologist*, 40(7), 812-825.
- McDonald, E. R. (1984). The relationship of student and faculty field dependence/independence congruence to student academic achievement. *Educational and Psychological Measurement*, 44(3), 725-731.
- Milkovich, G. T., & Boudreau, J. W. (1994). Human resource management. *International Journal of Human Resource Management*, 5(2), 302-326.
- Moa-Liberty, A. W., Tunde, A. O., & Tinuola, O. L. (2016). The influence of self-efficacy and socio-demographic factors on the entrepreneurial intentions of selected Youth Corp members in Lagos, Nigeria. *Bulletin of Geography: Socio-Economic Series*, *34*(34), 63-71.
- Mohamad, N., Lim, H. E., Yusof, N., Kassim, M., & Abdullah, H. (2014). Estimating the choice of entrepreneurship as a career: The case of Universiti Utara Malaysia. *International Journal of Business and Society*, 15(1), 65-80.
- Movahedi, R., Latifi, S., & Sayyar, L. Z. (2013). The factors affecting agricultural students' attitude towards self-employment and entrepreneurship. *International Journal of Agriculture and Crop Sciences*, 5(16), 1813.
- Myrah, K. K., & Currie, R. R. (2006). Examining undergraduate entrepreneurship education. *Journal of Small Business & Entrepreneurship*, 19(3), 233-253.
- Nga, J. K. H., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of Business Ethics*, 95(2), 259-282.
- Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 44(2), 361-379.
- Nunnally, J. (1978). Psychometric methods. New York: McGraw-Hill.
- Nwadiani, M. (2011). Key note address: Education and training for entrepreneurship. In Eric A. Arubayi, Delson E. Akpotu & Enamiroro P. Oghuvbu (Ed.), *A book of reading: Education*

- and training for entrepreneurship (pp. 1-7). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Nwankwo, B. E., Kanu, G. C., Marire, M. I., Balogun, S. K., & Uhiara, A. C. (2012). Gender-role orientation and self-efficacy as correlates of entrepreneurial intention. *European Journal of Business and Social Sciences*, 1(6), 9-26.
- Oftedal, E. M., Iakovleva, T. A., & Foss, L. (2018). University context matter: An institutional perspective on entrepreneurial intentions of students. *Education & Training*, 60(7/8), 873-890.
- Orhan, M., & Scott, D. (2001). Why women enter into entrepreneurship: An explanatory model. *Women in Management Review*, 16(5), 232-247.
- Peterman, N. E., & Kennedy, J. (2003). Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129-144.
- Pihie, Z. A. L., & Akmaliah, Z. (2009). Entrepreneurship as a career choice: An analysis of entrepreneurial self-efficacy and intention of university students. *European Journal of Social Sciences*, 9(2), 338-349.
- Piperopoulos, P. (2012). Could higher education programmes, culture and structure stifle the entrepreneurial intentions of students? *Journal of Small Business and Enterprise Development*, 19(3), 461-483.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Praag, M., & Cramer, J. (2001). The roots of entrepreneurship and labour demand: Individual ability and low risk aversion. *Economica*, 68(269), 45-62.
- Prabhu, V. P., McGuire, S. J., Drost, E. A., & Kwong, K. K. (2012). Proactive personality and entrepreneurial intent: Is entrepreneurial self-efficacy a mediator or moderator? *International Journal of Entrepreneurial Behavior & Research*, 18(5), 559-586.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A metaanalysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353-385.

- Sani, R. (2018, April 11). Multi-disciplinary degree to prepare for working world. *The New Straits Times*. Retrieved from https://www.nst.com.my/education/2018/04/355834/multi-disciplinary-degree-prepare-working-world
- Sanholtz, K. (1990). MBA: Attitudes. *The College Edition of the National Business Employment Weekly*, *I*(1), 14-15.
- Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *Theory and Practice International journal of Entrepreneurial Behavior & research*, 11(1), 42-57.
- Sequeira, J., Mueller, S. L., & McGee, J. E. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, 12(3), 275-293.
- Shane, S. (2008). The illusions of entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by. Yale: Yale University Press.
- Shane, S., Kolvereid, L., & Westhead, P. (1991). An exploratory examination of the reasons leading to new firm formation across country and gender. *Journal of Business Venturing*, 6(6), 431-446.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*, 13(2), 257-279.
- Shaver, K. G., & Scott, L. R. (1992). Person, process, choice: The psychology of new venture creation. *Entrepreneurship*, 16(2), 23-46.
- Shinnar, R. S., Hsu, D. K., & Powell, B. C. (2014). Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *The International Journal of Management Education*, 12(3), 561-570.
- Soetanto, D. P., Pribadi, H., & Widyadana, G. A. (2010). Determinant factors of entrepreneurial intention among university students. *The IUP Journal of Entrepreneurship Development*, 7(1 & 2), 23-37.
- Stewart Jr, W. H., & Roth, P. L. (2007). A meta-analysis of achievement motivation differences between entrepreneurs and managers. *Journal of Small Business Management*, 45(4), 401-421.
- Terjesen, S. (2005). Senior women managers' transition to entrepreneurship: Leveraging embedded career capital. *Career Development International*, 10(3), 246-259.

- UM continues to climb higher in world varsity rankings. (2018, October 25). *The Star*. Retrieved from https://www.thestar.com.my/news/nation/2018/10/25/um-continues-to-climb-higher-in-world-varsity-rankings/
- Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research*, 78(4), 751-796.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178.
- Vinnicombe, S., & Colwill, N. (1995). *The essence of women in management*. London: PrenticeHall.
- Vrgović, P., Ćirić, D., & Todorović, V. (2018). Assessing entrepreneurial intentions, motivations and barriers amongst WBC students through developing a network of co-creative centers iDEA Labs. In *Entrepreneurship in Post-Communist countries* (pp. 197-209). Cham: Springer.
- Whitlock, D. M., & Masters, R. J. (1996). *Influences on business students' decisions to pursue entrepreneurial opportunities or traditional career paths*. San Diego, CA: Small Business Institute Director's Association.
- Woolfolk-Ruiz, D. E., & Acosta-Alvarado, M. (2016). Experiential activities: A tool to increase entrepreneurial skills. In *Education Tools for Entrepreneurship* (pp. 153-166). Cham: Springer.
- Wiklund, J., & Shepherd, D. (2003). Aspiring for, and achieving growth: The moderating role of resources and opportunities. *Journal of Management Studies*, 40(8), 1919-1941.
- Yukongdi, V., & Lopa, N. Z. (2017). Entrepreneurial intention: A study of individual, situational and gender differences. *Journal of Small Business and Enterprise Development*, 24(2), 333-352.