

THE EFFECT OF HIGH IMPACT ENTREPRENEURSHIP EDUCATIONAL PRACTICES (HIEEPS) ON ENTREPRENEURIAL SELF-EMPLOYMENT AMONG BUSINESS SCHOOL STUDENTS

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Abstract

Purpose of the study: This study is carried out to examine the effects of High Impact Entrepreneurship Educational Practices (HIEEPS) namely Entrepreneurship Internship Program, Business Incubation Program and Entrepreneurial Supportive Environment on Entrepreneurial Self-Employment among business school students from three public Higher Education Institutions (HEIs) located in Northern region of Malaysia.

Methodology: Quantitative research design was employed to conduct this study. This includes the use of a survey method to collect data among business school students from three public HEIs located in the Northern region of Malaysia. Data from 332 usable questionnaires were analyzed using SPSS version 26 and PLS version 3.2.8.

Main Findings: The most important findings were as follows: HIEEPS namely Entrepreneurship Internship Program, Business Incubation Program, and Entrepreneurial Supportive Environment have a significant impact on the Entrepreneurial Self-Employment among business school students. Among these, the Business Incubation Program found to be the strongest predictor of Entrepreneurial Self-Employment.

Applications of this study: This study will benefit the HEIs, Ministry of Higher Education, and policymakers to understand the impact of HIEEPS in producing future entrepreneurs among business school graduates and provide critical insights for redesigning the national entrepreneurship education framework. Students and parents also will be guided in choosing the right business schools that embeds HIEEPS. Finally, the country will be able to address the graduate unemployment issue by producing more job creators instead of job seekers.

Novelty/Originality of this study: The establishment of the HIEEPS framework will the novelty of this study hence HEIs should consider providing Entrepreneurship Internship Program, Business Incubation Program, and Entrepreneurial Supportive Environment as part of HIEEPS to produce future entrepreneurs.

Keywords: High Impact Entrepreneurship Education Practices, Entrepreneurial Self-Employment, Entrepreneurship Internship Program, Business Incubation Program, Entrepreneurial Supportive Environment, Business School.

INTRODUCTION

Entrepreneurship education has become a major focus for educational systems all over the world ([Othman & Othman, 2017](#)). Entrepreneurship Education involves the offering of courses, programs, and processes to students to develop relevant entrepreneurial traits, attitudes, and skills deemed necessary to become entrepreneurs in the future ([Hahn et al., 2017](#)). Acclaimed studies indicated that the creation of new ventures and growing businesses are fundamental solutions to unemployment and the quickest way to accelerate the economy and reduce poverty ([Shi et al., 2019](#)). In this regard, the main objective of entrepreneurship education across the globe was encouraging students to create new ventures ([Shah&Pahnke, 2014](#)). Entrepreneurship education has succeeded in many developed countries and it has been adopted in educational institutions in many developing nations ([Al-Mamun et al., 2016](#)). Moreover, the importance of entrepreneurship education in promoting entrepreneurial career has been extensively recognized ([Gelaidan&Abdullateef, 2017](#)). In this light, entrepreneurship education practices play an important role in the development of necessary entrepreneurial attitudes, skills and competencies which in turn stimulates entrepreneurship as a career choice in the future. At the same time, entrepreneurship education practices are seen as the most effective ways of embedding entrepreneurial culture in HEIs as it fosters students' entrepreneurial mind-set to increase the supply of future graduate entrepreneurs ([Khalifa & Dhiaf, 2016](#); [Hoque et al., 2017](#); [Ismail et al., 2018](#)). Extant research has focused on determining the effectiveness of entrepreneurship education on producing self-employed entrepreneurs among graduates ([Hattab, 2014](#); [Premand et al., 2016](#); [Mustafa et al., 2016](#); [Miranda et al., 2017](#)).

The development of entrepreneurship in Malaysia is showcased through the integration of entrepreneurship elements into curricula at tertiary education ([Zamberi, 2013](#)). In this regard, Malaysian Higher Education has gone through massive reformation in the education system for the past last two decades. To reposition Malaysian Higher Education Institutions (HEIs), Malaysia Education Blueprint 2015-2025 (Higher Education) launched on 07 April 2015 and serves as a new higher education strategy to attain a world-class knowledge economy. One of the keys focuses of the blueprint is to produce holistic, entrepreneurial, and balanced graduates. The blueprint highlights the importance of high impact entrepreneurship educational practices to cultivate an entrepreneurial mindset among graduates and turn them into job

creators instead of job seekers. Furthermore, entrepreneurship education plays a vital role in flourishing entrepreneurship among the new generation by enhancing the entrepreneurial attitudes and activities among both potential and nascent entrepreneurs. To further support the implementation of Malaysia Education Blueprint 2015-2025 (Higher Education), The Malaysian Higher Education Ministry on April 13, 2016, has launched the Higher Education Institution Entrepreneur Action Plan 2016-2020. It is a strategic document to develop and implement entrepreneurial education at Malaysian HEIs with the hope it will produce a greater number of entrepreneurs who will drive the growth of the Malaysian economy to a greater height.

Despite the above development, entrepreneurship education still lacks in terms of unavailability of clear pedagogical guidelines. The responsibility to spearhead the entrepreneurship education is largely on the shoulders of the teachers. Without proper guidelines, teachers are struggling to integrate Entrepreneurship Education into their teaching. To date, teachers are still exploring the best and most useful practices to teach entrepreneurship, experimented through trial, and error ([Maritz et al., 2015](#); [Mandel & Noyes, 2016](#)). Conventionally, business plan development was made mandatory in entrepreneurship courses as a part of coursework which is rather idealistic than realistic. Besides, the courses in Entrepreneurship Education are mainly focused on business planning and prediction rather than ‘doing’ or getting started ([Daniel, 2016](#)), which often failed to motivate students to start a business. Due to the drawbacks of the current teaching techniques, numerous researchers have presented several teaching approaches in entrepreneurship education. [Linton and Klinton \(2019\)](#), for example, suggested educators use design thinking and a methods approach in entrepreneurship education since it enables effective student-centered learning and focuses on the development of skills that are more applicable to entrepreneurs. In the context of Malaysia, despite various efforts to promote entrepreneurship development among the students, yet, the number of graduates ventured into entrepreneurship upon graduation still far below 2% suggesting the need to revamp the entire entrepreneurship education. It has been revealed that solid pragmatic high impact entrepreneurship education practices are absent (HIEEPs) which is aligned with the government policy to accelerate the entrepreneurial mindset among the students ([Yusoff et al., 2015](#)). As such, a holistic framework of HIEEPs needs to be established to address these issues based on the career theories and constructs, such as entrepreneurial self-employment which acts as the dependent variable, while entrepreneurial education knowledge mediates the relationship between entrepreneurship internship program, business incubation program and entrepreneurial supportive environment as independent constructs. This study, therefore, intended to establish a framework for HIEEPs for HEIs in the Malaysian context. The framework for HIEEPs will direct the HEIs in Malaysia to design the program curriculum and extra-curricular activities to promote entrepreneurship and to produce entrepreneurs for the society. Particularly, the business schools will benefit from this research as it will provide a guideline to create and develop entrepreneurs among business students. It will also predominantly contribute to the process of turning students from job seekers to job creators.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Entrepreneurial Self-Employment

Self-employment has remained as the most important stimulus on career-related behavior in the social cognitive theory ([Odewale et al., 2019](#)). Self-employment is generally recognized as a basic concept in social learning theory ([Al-Mamun et al., 2016](#)); whereby the actions, intuitions, and the environment constantly affect each other in the developing an individual's attitude towards a particular entrepreneurial business ([Gelaidan & Abdullateef, 2017](#); [Odewale et al., 2019](#)). Hence, Entrepreneurial Self-Employment is linked to the social cognitive theory and highlights the significance of self-beliefs and self-thought in nurturing personal motivation and subsequently, controls behavior ([Otache, 2019](#); [Ozaralli & Rivenburgh, 2016](#)). Moreover, according to the social learning theory ([Odewale et al., 2019](#)), Entrepreneurial Self-Employment described as a person's belief in his or her ability to succeed in a career. Thus, self-employment as a domain is related to entrepreneurship and could be termed as “Entrepreneurial Self-Employment”. Self-employment refers to an individual's confidence about the chances of effectively accomplishing a specific task ([Nabi et al., 2017](#); [Gelaidan & Abdullateef, 2017](#)). It is also an important part of career-related tasks, such as the entrepreneurial process, as it prompts an individual's choice, determination, and perseverance ([Al-Mamun et al., 2016](#)). Thus, self-employment is concerned with an individual's decision on what to be done with the skills they possess, not just with the skills individual experienced ([Otache, 2019](#)). The greater the individual's self-employment inclination, the more confident he/she is to be successful in a particular task domain ([Otache, 2019](#)). Several studies have established that Entrepreneurial Self-Employment is a strong driver of entrepreneurial behavior ([Al-Mamun et al., 2016](#); [Otache, 2019](#)) and anticipated to affect individual choices, goals, effort, emotional responses, ability to cope, and perseverance ([Gelaidan & Abdullateef, 2017](#); [Al-Mamun et al., 2017](#); [Odewale et al., 2019](#)). [Otache\(2019\)](#) defined Entrepreneurial Self-Employment as the degree at which an individual is certain that he or she can effectively start a new business venture. [Ozaralli and Rivenburgh\(2016\)](#) then emphasized that individuals with high Entrepreneurial Self-Employment have a higher propensity to become an entrepreneur later in the future. Similarly, Entrepreneurial Self-Employment is regarded as a behavioral pattern that can transform a person's belief on whether he/she can accomplish the tasks to efficaciously initiate and launch a new business venture ([Owoseni, 2014](#); [Rae & Woodier-Harris, 2013](#)). Therefore, Entrepreneurial Self-Employment is seen as the level of the individual's believes that he or she can successfully start a new business venture. A handful of studies have been conducted previously to determine the factors that influence entrepreneurial self-employment. Those studies revealed that several individual characteristics such as gender, age, and marital status ([Zisser](#)

et al., 2019; Ahmed et al., 2020), personality (Israr & Saleem, 2018; López-Núñez et al., 2019), attitude (Nowiński & Haddoud, 2019; Fragoso et al., 2020), locus of control (Asante & Affum-Osei, 2019; Mahmood et al., 2020), goal setting (Ayalew & Zeleke, 2018), employment status (Gielnik et al., 2017; Türk et al., 2020), entrepreneurial related education (Liu et al., 2019; Ahmed et al., 2020; Ndofirepi, 2020) and environmental factors (Kabók et al., 2017; Martínez-Climent et al., 2018; Gieure et al., 2019), to name a few, are responsible for entrepreneurial self-employment.

Entrepreneurial Internship Program

Internships refer to on the job training programs, which provide students with field knowledge related to their study in a supervised learning environment (Botha & Bignotti, 2016; Chou et al., 2017). The main objective of the internship program is to reinforce the knowledge learned in the classroom by providing an avenue for students to apply the knowledge in the real-world (Fitzgerald et al., 2014). It also provides an opportunity for students to apply various knowledge learned in the classroom to solve real industry problems (Fitzgerald et al., 2014; Anjum, 2020). Thus, the main objective of the internship program is to embed the modernity characteristic to the students participating in the program, so that they can take risks and learn to be creative, innovative, and dynamic (Ranabahu et al., 2020). As highlighted in recent literature, entrepreneurship education including opportunities to participate in Entrepreneurial Internship Program focuses on the development of an entrepreneurial mindset and enterprising skills among university graduates and consequently, enhances their employability and increases their potentialities of being future entrepreneurs (Chen et al., 2017; Yi, 2018; Castro et al., 2019). Neill and Mulholland (2003) identify that internship engagement and work experience programs are vital as they prepare students to engage in real-world business trials and augment their entrepreneurial intention. Strong internship experience of students brings about high self-efficacy and entrepreneurial learning effects (Wilson et al., 2007). The socialization of entrepreneurial behaviors and feedback from work-integrated learning results in higher entrepreneurial intention. Generally, the Entrepreneurial Internship Program in universities can help inspire students and increase their interest to consider entrepreneurship as a career option (Chen et al., 2017; Zreen et al., 2019). Entrepreneurial Internship Program should be an essential component of the curriculum in HEIs (Mandel & Noyes, 2016; Chen et al., 2017; Nurhuda & Soenarto, 2018). Extant studies have indicated that there is a positive relationship between exposure to the entrepreneurial internship program and self-employment among university students (e.g. Yi, 2018; Zreen et al., 2019; Black & Mischel, 2020; Ranabahu et al., 2020; Blankesteyn et al., 2020). Based on the above argument, the study is proposing the following hypothesis:

H1: *Entrepreneurial internship program is positively related to entrepreneurial self-employment among business school students.*

Business Incubation Program

The Business Incubation Program is a modern business assistance program to nurture new and small-scale enterprises. According to Harrington (2016), the main goals of business incubation programs are; to facilitate the establishment of successful start-up companies that will provide financial viability to the incubators and self-sustainability, in addition to job creation, enables commercialization of new product and technologies as well as wealth generation for economies of countries. The business incubation process involves providing common facilities such as physical space, business advisory services, financial services, and people connectivity to facilitate the operations of selected entrepreneurs and assist them until graduation when they have the capability on their own. Business advisory services are aimed at assisting entrepreneurs to deal with management issues related to business development, financial management, marketing, and legal compliance. Financial services range from seed loans or taking equity into the business whereas people connectivity includes mentorship by experienced business people, networking that provides business opportunities and knowledge sharing with others who have a strong entrepreneurial mindset (Barugahara et al., 2019). A business incubator also can be referred to as a real-life simulative organizational unit that provides space and support services to help initiate new businesses and support existing businesses to achieve growth and profitability. In the meantime, while business incubators normally involve micro and small businesses, they are also conducted in government organizations and universities to promote entrepreneurial activities. HEIs should make business incubator available for students as an avenue to further expand their existing business and related business activities. Additionally, the business incubator can function as a means to motivate entrepreneurs to convert business ideas into a real business (Li et al., 2020). Previous studies reported the significant relationship between the business incubation program and entrepreneurial self-employment, such as access to special programs in universities (Stal et al., 2016; Jamil et al., 2016; Allahar & Brathwaite, 2016; Ayatse et al., 2017), information on the potential business opportunity (Mrkajic, 2017), and the social systems (Mumtaz et al., 2017). Recently, Li et al. (2020) in their study outlined the benefits of a business incubation program which includes access to network services, capital support and training programs. Drawing from the above discussion, the following hypothesis is suggested:

H2: *The business incubation programs positively related to entrepreneurial self-employment among business school students.*

Entrepreneurial Supportive Environment

According to [Javed et al. \(2018\)](#), Entrepreneurial Supportive Environment is defined as a legal, social, financial, and economic environment that likely promotes business start-ups. Past studies argued that attitude and perceived ability toward entrepreneurship is higher when individuals are to be evaluated within the Entrepreneurial Supportive Environment ([Keshtidar et al., 2018](#); [Mandel & Noyes, 2016](#)). Similarly, [Suhaimi et al. \(2018\)](#) mentioned that Entrepreneurial Supportive Environment comprises of the relevant factors in the institution's environment that provide procedures and norms that either restrict or facilitate an individual's entrepreneurial actions. Meanwhile, [Spigel \(2017\)](#) suggested that there is a common environment outside of the entrepreneur's mind that provides guidelines and standards that influence the economy and its values and policies. [Gibbs et al. \(2018\)](#) also described that Entrepreneurial Supportive Environment includes societal support, credible and tacit information, credible role models, as well as physical resources. Entrepreneurial Supportive Environment combines different factors surrounding the business atmosphere that significantly help cultivate entrepreneurial inclination and entrepreneurial activities. Empirically, studies on Entrepreneurial Supportive Environment advocate that adhering to rules and regulations, providing training and counseling services to start-up entrepreneurs could increase the chances of Entrepreneurial Education Knowledge ([Yarima & Hashim, 2016](#); [Castro et al., 2019](#); [Suhaimi et al., 2018](#)). Furthermore, factors such as the accessibility of funds, infrastructural facilities, and access to training provided by the institution of higher education could be critical in nurturing new venture developments and entrepreneurial self-employment career ([Sperber & Linder, 2019](#); [Nowiński et al., 2019](#); [Al-Mamun et al., 2017](#)). According to [Keshtidar et al. \(2018\)](#), access to funds is undoubtedly one of the fundamental factors in launching a new business. Many studies have reported that substantial numbers of individuals have given up their entrepreneurial career intentions due to budget constraints ([Javed et al., 2018](#)). Studies have revealed that students' perceived university support is an important determinant of their intention to become entrepreneurs ([Mustafa et al., 2016](#)). Students, once they have good perception regarding support of the university regarding entrepreneurship development, will have confidence on the feasibility of their business start-up ([Eather et al., 2018](#)), and can become an important determinant factor of entrepreneurial intentions ([Vuorio et al., 2018](#); [Shi et al., 2019](#)). Drawing from the above discussions, the following hypothesis is proposed:

H3: *The entrepreneurial supportive environment is positively related to entrepreneurial self-employment among business school students.*

Theoretical Underpinning

Entrepreneurial self-employment career choice is perceived as a cognitive process that is determined by beliefs, attitudes, and prior experiences ([Moses et al., 2016](#); [Marvel et al., 2016](#); [Solesvik, 2016](#)). The theoretical base of this study is based on the Human Capital Theory (HCT) and Social Cognitive Career Theory (SCCT). HCT advocates that human capital can be improved through proper and quality education and training. Thus, human capital theorists advocate that a nation's investment on a human capital asset can be increased through education, training and development ([Moses et al., 2016](#)). Consequently, human capital development through education is a critical issue that drives economic growth and justifiable development of the nation. The desire to pursue entrepreneurship or self-employment career option is a function of incentives and motivation, which both assimilated through participating in entrepreneurship education, while previous entrepreneurial experience motivates individuals to consider self-employment as a career option ([Marvel et al., 2016](#)). Thus, this justifies the use of another theory, SCCT in this study. SCCT is an extension of Bandura's Social Cognitive Theory ([Blanco, 2011](#)) and has proven that the related concept of outcome expectations, the beliefs about the consequences of execution certain behaviours, together with self-employment beliefs, are the major determining factors for a particular behaviour or action ([Liguori et al., 2018](#)). The theory form the base for advocating that internship program, business incubation program, environmental support, an individual's self-employment learning experiences (acquired through education and training) result in important outcomes, such as career decision and choice. [Liguori et al. \(2018\)](#) also empirically supported the role of SCCT in explaining the link between exposure to entrepreneurial role models and individual's entrepreneurial self-employment intentions. Therefore, this study is based on the integration of both the HCT and SCCT as the consequence of the contact among relative factors, which would act according to how they affect a person's perceptions. Figure 1 depicts the theoretical framework of the study.

METHODOLOGY

Research Design, Research Sample and Data Collection Procedure

This study employed a cross-sectional research design that examines the proposed relationships based on analyses of data collected at a single point in time. The population of this study consist of students from business schools of three public HEIs in the northern region of Malaysia that offer entrepreneurship programs. The unit of analysis of this study is the business school students from three public HEIs located in the Northern region of Malaysia. A total of 664 questionnaires were distributed using the simple random sampling technique. Of these, 348 were returned but only 332 were useable representing a 50% response rate. The data collection process lasted for 4 months from October 2019 to January 2020. The profile of the participants is as follows: more than half were female (76.2%), were in the age group of

18-29 years old (93.1%), and Malays (61.4%). The majority of them are pursuing a degree in business (46.1%) and were from the state of Kedah (21.4%).

Independent variables

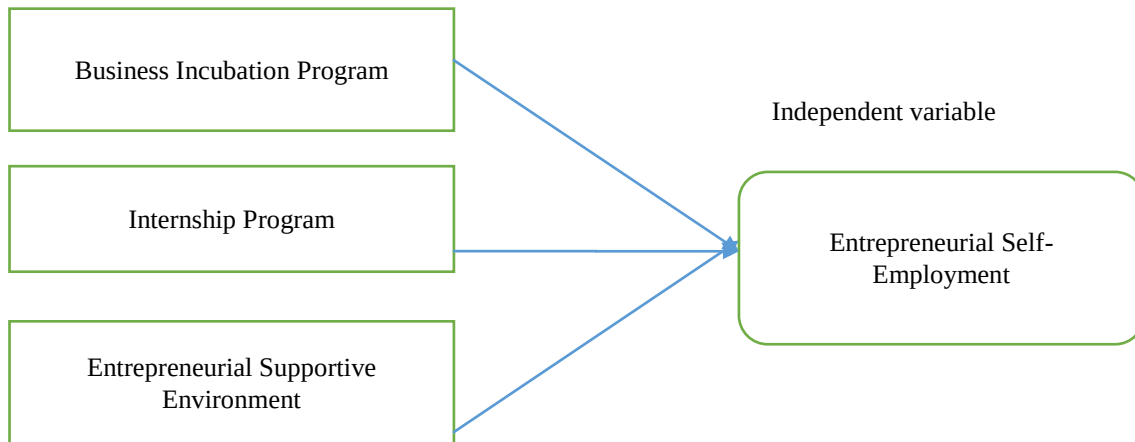


Figure 1: Theoretical Framework of the study

Measures

Entrepreneurial self-employment was operationalized using a scale adapted from [von Graevenitz et al. \(2010\)](#) and [Chen et al. \(1998\)](#). The scale is a 9-items self-report instrument. The entrepreneurship internship program was measured using a 5-items scale from [Keat et al. \(2011\)](#). The measurement of the business incubation program was based on the 8-items scale adapted from [Sahban et al. \(2014\)](#). Finally, the entrepreneurial supportive environment was operationalized with a 10-items self-reported scale developed by [Turker and Selcuk \(2009\)](#). The measurement of all the variables above is based on a five-point Likert-type scale with rating options ranging from 1=strongly disagree to 5=strongly agree.

ANALYSIS AND DISCUSSIONS

This study used SPSS version 26 and PLS version 3.2.8 to analyze the data as well as to test the various hypotheses for this study. The descriptive statistics of the study including analysis of the demographic profile of the respondents was executed using SPSS version 26. The analysis of measurement and structural model of the current research was done using the SmartPLS 3.2.8. The advantage of using the SmartPLS 3.2.8 among others overcome the limitations in terms of small sample size and handling of complex models ([Henseler et al., 2009](#)). Regarding PLS analysis, the first step is to evaluate the outer model or measurement model as it is usually called (refer to Figure 2) which involves assessment of various reliability and validity indicators ([Hair et al., 2016](#)).

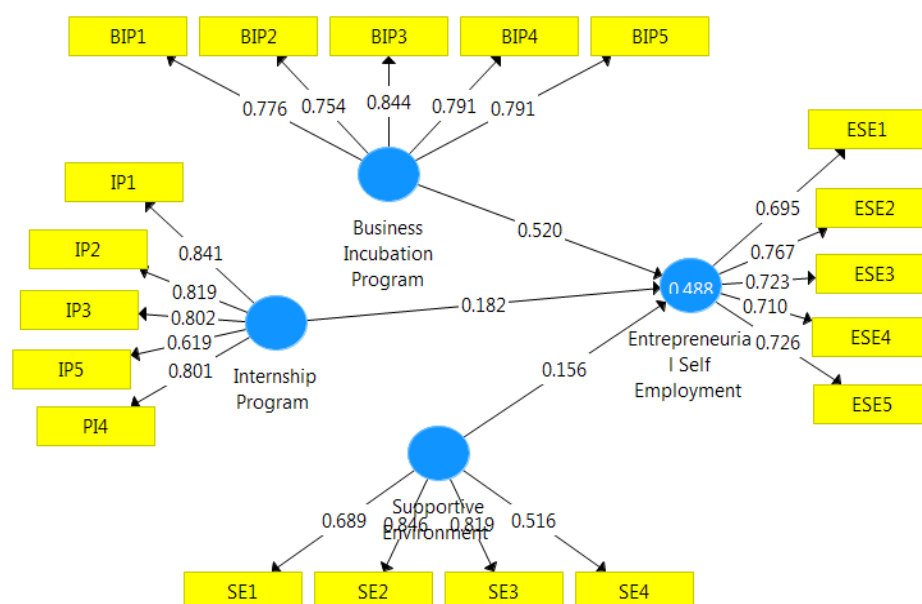


Figure 2: PLS Algorithm Measurement Model

Assessing Internal Consistency Reliability

Internal consistency reliability is the assessment of the extent to which the indicators of a particular (sub) scale are measuring the same concept (Hair et al., 2016). To fulfill the requirement of internal consistency reliability, the composite reliability score value must be at least 0.70. Additionally, the AVE score value should be more than 0.50 (Hair et al., 2016). As shown in Table 1, all the variables studied in this study have met the required level criterion, suggesting the evidence of the fulfillment of the measurement model reliability requirement. Further assessment of the Cronbach's Alpha reveals that the values are in an acceptable range.

Table 1: Indicator Loadings, Internal Consistency Reliability, and Convergent Validity

Construct	Items	Loading	Composite Reliability	Cronbach's Alpha	AVE
Business Incubation Program	BIP1	0.776	0.852	0.894	0.627
	BIP2	0.754			
	BIP3	0.844			
	BIP4	0.791			
	BIP5	0.791			
Entrepreneurial-Self Employment	ESE1	0.695	0.777	0.847	0.525
	ESE2	0.767			
	ESE3	0.723			
	ESE4	0.710			
	ESE5	0.726			
Internship Program	IP1	0.841	0.836	0.885	0.609
	IP2	0.819			
	IP3	0.802			
	IP4	0.801			
	IP5	0.619			
Supportive Environment	SE1	0.689	0.712	0.815	0.532
	SE2	0.846			
	SE3	0.819			
	SE4	0.516			

Discriminant Validity

Discriminant validity is an assessment of the degree to which a particular measured variable is truly not the same as other variables (Hair et al., 2016). In another word, it indicates the extent to which a particular construct differs from other constructs included in the model (Duarte & Raposo, 2010). A greater level of discriminant validity indicates that a variable is distinct from other variables. In this study, the assessment of discriminant validity was done by observing the value of the square root of AVE. To confirm that the requirement to fulfill discriminant validity is achieved, the value of the square root of AVE should be greater than the correlations among latent constructs (Aremu et al., 2019). Table 2 depicts the square root of AVE of the constructs: Business Incubation Program=0.79; Entrepreneurial Self-Employment = 0.73; Entrepreneurship Internship Program = 0.78; and Entrepreneurial Supportive Environment = 0.73. Table 2 shows that the value of the square root of AVE is greater than the correlation between the latent variable, suggesting that the model has fulfilled the acceptable discriminant validity (Fornell & Larcker, 1981).

Table 2: Discriminant Validity Matrix

Constructs	BIP	ESE	IP	EPSE
BIP	0.792			
ESE	0.656	0.725		
IP	0.375	0.427	0.781	
EPSE	0.434	0.441	0.324	0.73

Note: BIP-Business incubation program; ESE- Entrepreneurial self-employment; EPSE- entrepreneurial supportive environment; IP- Internship program

Note: The bolded diagonal shown in Table 2 represents the square route of average. The diagonal represents the latent variable correlations.

Structural Model

Having established the measurement model, this section examines the structural model to establish the relationship between modeling as a total. However, in light of the present development, the current study adopted a two-step process to evaluate and report the results of PLS. The present research assessed the structural model. Equally, this research also

applied the bootstrapping method with 5000 bootstrap estimates to examine the significance of the path coefficients (Hair et al., 2014; Hair et al., 2016). The main objective of this study is to focus on the model assessment of direct-relationships and to examine the hypothesized relationships between the variables via the inner model. Hence, three (3) hypotheses proposing the direct relationships have been tested. All three (3) hypotheses were proved to be supported based on the recommended t-value. Figure 3 reveals the direct influence of every latent construct on entrepreneurial self-employment (dependent variable). Additionally, Figure 3 depicted the output results generated with the help of SmartPLS 3.2.8 (Hair et al., 2016) and clearly illustrates the path p-value, t-value, coefficient value, and also the standard errors. Based on these standard values the hypothesis decision has been made in line with each hypothesis's significance level.

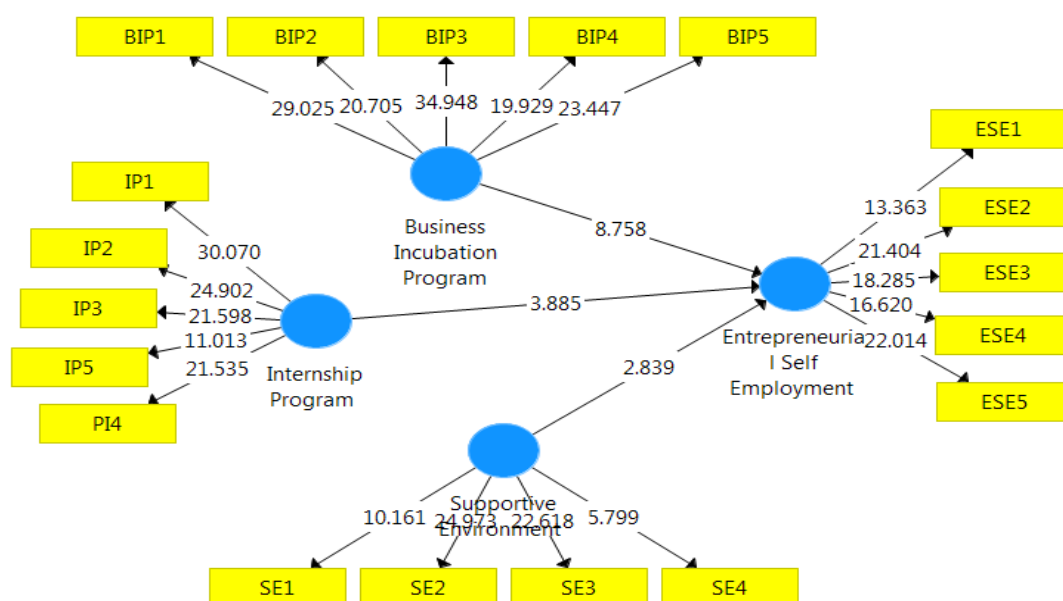


Figure 3: Structural Model Direct Relationships

Table 3 proved that all the hypotheses that were supported in this study have a p-value of less than 0.05. Thus, all the hypotheses were supported in this current study. The result demonstrates that the entrepreneurship internship program has a positive direct impact on entrepreneurial self-employment ($\beta=0.182$; $T=3.885$; $p < 0.000$), hence providing support for H1. Secondly, the business incubation program has a direct significant impact on entrepreneurial self-employment ($\beta=0.520$; $T= 8.758$; $p < 0.000$) or H2 is supported. Finally, H3 is supported by the evidence of the positive direct impact of the entrepreneurial supportive environment on entrepreneurial self-employment ($\beta= 0.156$; $T=2.839$; $p < 0.000$). Therefore, all the hypotheses (H1, H2, and H3) are supported. Besides, the results of this study show that the business incubation program is the strongest predictor of entrepreneurial self-employment ($\beta=0.520$). This is followed by the entrepreneurship internship program ($\beta=0.182$) and entrepreneurial supportive environment ($\beta=0.156$).

Table 3: Result of hypothesis testing

Construct	Paths	T /Values	P Values	Decision
BIP -> ESE	0.520	8.758	0.000	Supported
IP-> ESE	0.182	3.885	0.000	Supported
EPSE ->ESE	0.156	2.839	0.005	Supported

Note: BIP-Business incubation program; ESE- Entrepreneurial self-employment; EPSE- entrepreneurial supportive environment; IP- Internship program

DISCUSSION AND CONCLUSION

This study was conducted among students of business schools in three public HEIs in the northern region of Malaysia that offer entrepreneurship programs. The present study has used SPSS Version 26 and Smart PLS version 3.2.8 to analyze the data and test the proposed hypotheses of the study. Generally, the findings of this study have supported the proposed relationships between the variables, as answered all the research questions of the study. In another word, the study has established the framework of HIEEPs which will guide the efforts of HEIs and the Malaysian government to achieve the aim to produce more job creators instead of job seekers. It is evident from this study that entrepreneurship internship programs, business incubation programs, and entrepreneurial supportive environment formed the HIEEPs which need to be implemented to produce self-employed entrepreneurs among the students of HEIs. The findings of the

present study were also subject to comparison with the findings of past studies in the field in terms of similarities and differences as a means of justifying the outcomes of the study.

The positive relationship found between entrepreneurial internship program and entrepreneurial self-employment among university students indicates that the availability of an entrepreneurial internship program will lead to the entrepreneurial self-employment among the students. The findings are in line with previous studies that found similar results ([Botha & Bignotti, 2016](#); [Chou et al., 2017](#); [Nurhuda & Soenarto, 2018](#); [Zreen et al., 2019](#)). Therefore, universities aimed at designing entrepreneurial development programs should emphasize the entrepreneurial internship program as an intervention to produce entrepreneurs among the graduates. The university academic director who is coordinating the entrepreneurship program must be clear on the intended learning outcomes of the entrepreneurial internship program. Careful planning is required to embed entrepreneurial internships within the study programs and it must take into consideration the content, design, and structure of the course ([Jackson, 2015](#); [Silva et al., 2018](#)). The academics and management of the HEIs especially those in charge of Entrepreneurship Education should be clear that pedagogical approaches and curricula for internships are different from classroom teaching ([Clark et al., 2016](#)).

The findings of this study also have proved that participation in a business incubation program is positively impacting entrepreneurial self-employment among university students. The findings concur with the findings of past studies ([Allahar & Brathwaite, 2016](#); [Ayatse et al., 2017](#); [Zreen et al., 2019](#)). However, for a business incubation program to yield the expected result, the facilitators and incubator staffs need to be well prepared and ready to train students to become real entrepreneurs once they graduate from the universities. Activities such as organizing constant workshops, seminars, and training on entrepreneurship should be carefully designed with the help of successful entrepreneurs who can be appointed as mentors or advisors to the HEIs.

The positive relationship between supportive entrepreneurial supportive environment and entrepreneurial self-employment among university students in Malaysia implies that the higher the supportive environment, the higher the intention displayed towards entrepreneurial self-employment among the university students. The findings are in line with previous studies ([Spigel, 2017](#); [Gibbs et al., 2018](#); [Suhaimi et al., 2018](#)). To sum up, effective entrepreneurship education through HIEEPs will result in entrepreneurial self-employment among university students. In another word, higher the exposure the students get from academics, industry exposures, and incubation programs, as well as internship programs together with conducive entrepreneurship supportive environment, the higher, will be their intention to become self-employed entrepreneurs. The graduate unemployment problem in the country also can be tackled once more graduates chose to become self-employed entrepreneurs.

In terms of the contribution of each HIEEPs on entrepreneurial self-employment, it is evident in this study that the business incubation program is the strongest predictor among all. The entrepreneurship internship program is the second strongest predictor followed by an entrepreneurial supportive environment. This implies that in terms of the impact of business incubation programs, students have developed self-efficacy and confidence in thinking of starting up their own business after getting some hands-on experience when involved in business incubation programs at their respective HEIs. The findings are consistent with previous research (e.g. [Stal et al., 2016](#); [Jamil et al., 2016](#); [Allahar & Brathwaite, 2016](#); [Ayatse et al., 2017](#); [Li et al., 2020](#)).

IMPLICATION OF STUDY

Evidentially, the HIEEPs predictor model can enrich the conceptualization of entrepreneurial self-employment in the context of Malaysian universities. This finding contributes to the human capital and social cognitive theories in which entrepreneurship internship programs, business incubation programs, and entrepreneurial supportive environment factors could explain the dimensions of attitude toward behavior, subjective norm and perceived behavioral control in becoming entrepreneurs in the future. Consequently, this study may provide better insight into the government to change the mindset of people from being job seekers to job creators. Equally, the university may also do its part to promote entrepreneurial self-employment by providing necessary support systems such as internship programs, business incubation program and entrepreneurial supportive environment. This includes but not limited to support in terms of designing and implementing high impact Entrepreneurship Education practices and business development.

LIMITATIONS AND RECOMMENDATION FOR FUTURE RESEARCH

Most respondents of this study were undergraduate students and slightly more than 50 percent of the respondents were in the second and third semesters. Also, this study limited to students of business schools in three HEIs located in the northern region of Malaysia alone. From another methodological perspective, this research limited to a small population. This research provides a few recommendations for future studies. First, it is recommended that more research should be carried out by including a larger population covering the wider geographical area within the country perhaps participation from all the states in the country to generalize the findings of the study to the entire population. Second, future study should be generalized among entire students to see their level of inclination towards self-employed entrepreneurs. Third, universities need to create an incubator center and offer internship programs on entrepreneurship as it has the potential to strongly affect students' entrepreneurial perception to become entrepreneurs. Lastly, faculty members, specifically academics staff need to play an active role in shaping the entrepreneurial culture among students.

CONCLUSION

The present study has achieved its research objectives in identifying factors that can contribute to entrepreneurial self-employment among university students in Malaysia. The findings of the study depict that HIEEPs namely entrepreneurship internship programs, business incubation programs, and entrepreneurial supportive environment factors influence entrepreneurial inclination among students to become self-employed entrepreneurs. In this regard, this study has made a significant contribution to the research on entrepreneurship education in developing countries like Malaysia. Moreover, this study has sound practical relevance to Malaysian universities and even to the Ministry of Higher Education in terms of budget allocation to support the entrepreneurship education activities at the university level.

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AUTHORS CONTRIBUTION

Subramaniam Sri Ramalu is the principal author of this article. His contribution includes writing the introduction, methodology and discussion & conclusion section. Gunalan Nadarajah's contribution includes writing the literature review section and hypotheses development. Adejare Yusuf Aremu has helped on the data analysis and interpretation.

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