

The impact of entrepreneurship education on attitude, subjective norm and self-efficacy among undergraduates



Nazdar Balder^{1,*}, Harcharanjit Singh¹, Nur Naha Abu Mansor¹, Ayu Andirah Sakka¹, Morro Krubally¹, Haseebullah²

¹Azman Hashim International Business School, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

²Department of Marketing, College of Business Administration, King Saud University, Riyadh, Saudi Arabia

ARTICLE INFO

Article history:

Received 11 March 2020

Received in revised form

2 June 2020

Accepted 12 June 2020

Keywords:

Entrepreneurship education

Attitude

Subjective-norm

Self-efficacy

ABSTRACT

The Malaysian government recognized the importance of entrepreneurship's role in developing innovation and knowledge as new engines that could help the Malaysia economy to grow. Entrepreneurship education has become popular for developing economies and creating job opportunities in Malaysia. Entrepreneurship contributes significantly to economic growth; it increases job opportunities, nurtures innovation, and organization productivity. Most of the higher education institutions (HEI) in Malaysia are also engaged with the numerous entrepreneurship development programs and training for small business development. Entrepreneurship programs in HEI could also promote an entrepreneurial culture; for the student who is interested in entrepreneurial activities. This research aims to investigate the impact of entrepreneurship education, attitude, self-efficacy, subjective-norm on entrepreneurial intention among undergraduates in private universities in Kuala Lumpur. Likewise, this research has adopted Theory Planned behavior (TPB) as an underpinning theory for its research framework. Based on the distributed questionnaires, the research only received 226 responses. However, only 216 questionnaires were usable for further analysis. The research has used SPSS and Smart-Pls programs to analyze its data. The research found that there is a positive and significant relationship between entrepreneurship education and (attitude, subjective-norm self-efficacy). The research expands the current body of knowledge on TPB from the landscape of undergraduates' students in private universities in Kuala Lumpur, Malaysia. The research ends with some avenues for future research.

© 2020 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Entrepreneurship has been a major wheel in moving a country's economic growth because it increases job opportunities and creates innovation and productivity (Urbano and Aparicio, 2016). Currently, there are many schools, colleges, and universities that offer entrepreneurship programs. However, the efficiency of the entrepreneurship education program cannot be measured based on the number of students who graduated from this program. This is why some scholars have been trying to examine the effectiveness of entrepreneurship education from various perspectives.

Hence, to overcome the issue of entrepreneurship education effectiveness, much research has been done in the past to enhance or enrich the entrepreneurial mindset, attitude, and awareness as a job option (Hulsink and Rauch, 2015). Likewise, Malaysian government agencies are promoting entrepreneurship programs to the youths, especially students, to consider entrepreneurial as a career choice. Ministry of Higher Education in Malaysia put up an expectation that at least 15% of students would engage in entrepreneurship business through entrepreneurship education or programs. Deputy of Higher Education Minister also stated that they want to encourage the student to start earning income by implementing the 'Learn and Earn' concept. Over 60% of students are currently enrolled in a degree program were involved in entrepreneurship activities. Meanwhile, 3% of these students engage in entrepreneurial activities while being a student and manage to create a job opportunity for themselves (Lee, 2019). The entrepreneurial activity was

* Corresponding Author.

Email Address: niabalder2@graduate.utm.my (N. Balder)

<https://doi.org/10.21833/ijaas.2020.10.012>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0003-3799-8831>

2313-626X/© 2020 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

defined as the major mechanism of moving economic growth. Moreover, to show support for entrepreneurship development, the Government of Malaysia has invested a lot to promote the development of industry 4.0, RM100 million fund for TEKUN, RM 2 billion soft loans for the Business Loan Guarantee Scheme (Lee, 2019). Likewise, these government initiatives encourage entrepreneurship development among youth and reduce the unemployment rate among graduates in this country (Lee, 2019). However, youths in Malaysia do not grab this opportunity due to deficiency of encouragement and lack of self-confident issues (Lee, 2019). Despite government efforts to create job opportunities in the government and private sectors in Malaysia, there still remains unemployment issues among youths in Malaysia (Nachiappan et al., 2018).

2. Problem statement

Malaysia's unemployment rate has declined from 10.78% in 2015 to 10.73% in 2016 (Premand et al., 2016). However, the unemployment rate in Malaysia plummeted to 10.85% in 2017. Likewise, the main reason for the unemployment rate is due to the unemployment rate among youths in Malaysia (Nachiappan et al., 2018; Premand et al., 2016). Ibrahim et al. (2016) suggested that "the unemployment rate among youths has dramatically increased by 1.2% to 10.7%, as compared to the national unemployment rate, which increased only by 0.2% from 2.9% to 3.1%. Thus, the result indicates that unemployment in Malaysia is mostly caused by youths. Similarly, the issue of unemployment has become a sensitive issue to the community, especially among graduates (Nachiappan et al., 2018). Despite that, about 3.5% of these graduates' youths have remained unemployed for six months after their graduation. According to Lam et al. (2018), "it is important to develop a sustainable curriculum that program (Entrepreneurship Education) that could curb the unemployable issues among the graduates in Malaysia. Entrepreneurship education is widely promoted as a suitable approach for addressing youth unemployment (DeJaeghere and Baxter, 2014). Entrepreneurship education programs could reverse graduate unemployment and embed entrepreneurial skills among students; by setting up their own businesses and encourage self-employment (Ekpoh and Edet, 2011). Entrepreneurship education develops an environment that can enrich the entrepreneurial mindset, skill, and behavior (Nabi et al., 2017). Moreover, entrepreneurship education is one (1) of the best approaches to alleviate the issue of unemployment among youths (Sitoula, 2015). Entrepreneurship education could create individuals that can perform entrepreneurial activities, managing their own career, and lead a life in an entrepreneurial way by being their own bosses (Liñán and Fayolle, 2015). Although unemployment issues could be resolved through entrepreneurship

education, youths in Malaysia are least interested in choosing entrepreneurial as their career path (Ibrahim et al., 2016). The present research investigated the entrepreneurial intention among undergraduate students in private universities in Kuala Lumpur. The capital of Malaysia has the highest number of private universities in Malaysia (Ahmad and Buchanan, 2015).

Moreover, the research was mainly focused on students who have taken entrepreneurship courses in their respective universities. Similarly, the present research intends to indulge entrepreneurial intention among students who have taken an entrepreneurship course. Hence, Theory of Planned Behavior by Ajzen (1991), composing three determining factors of behavioral intentions, such as attitude, subjective norm, and perceived behavioral control on students, was used for underpinning the theoretical research model. Nevertheless, the research investigates the impact of entrepreneurship education on attitude, subjective norm, and self-efficacy.

3. Literature review

3.1. The relationship between entrepreneurship education and attitude

Attitude refers to a person's personal feelings based on the favorableness of stimulus objects (Ajzen, 2011). Attitude results from negative or positive appraisal when a person is absorbed in certain behavior than influenced by psychological emotion (Prabandari and Sholihah, 2015). Entrepreneurship education prepares students with entrepreneurial tools such as attitude, competencies, and skills (Abiah et al., 2017). Past research found that there is a correlation between entrepreneurship education and individual attitude toward entrepreneurship (Mwatsika and Sankhulani, 2016). Hence, attitude plays an important role in increasing entrepreneurial intention (Potishuk and Kratzer, 2017).

Entrepreneurship education act as an exogenous variable that influences entrepreneurial attitudes and intention. As such, a clear understanding of what affects student intention is important in designing the entrepreneurship education policy and effectiveness (Nesse et al., 2015). Entrepreneurship education gives exposure to students of the real entrepreneurial world. Here, they perform and participate in entrepreneur activities in their institute. Practicing entrepreneurial skills will enhance student knowledge, attitude, passion, integrity, and determination and towards entrepreneurial intention (Byabashaija and Katono, 2011). However, Nesse et al. (2015), suggested that more research is needed between entrepreneurship education and attitude. Based on the suggestion. The following hypothesis was proposed:

H₁: There is a positive relationship between entrepreneurship education and attitude.

3.2. The relationship between entrepreneurship education and subjective-norm

Entrepreneur education is an important aspect of generating entrepreneurs for the coming future. Entrepreneurship intention is a wish of an individual to start a new business. However, it needs support from people such as family or friends named subjective-norm to start it, which can be developed through entrepreneur education awareness (Utami, 2017). Likewise, efficacy is presumed as a result of entrepreneurial education. Entrepreneurship education molds entrepreneurial behavior and has been an essential factor for entrepreneurship development over the last decade (Bae et al., 2014). Entrepreneurship education able to enrich the proper psychological disposition includes subjective norms that produce an impact on entrepreneurial behavior (Ndofirepi et al., 2018). Individual attributes, family involvement, entrepreneurial education could affect the students' intention to become entrepreneurs positively and significantly (Mustapha and Selvaraju, 2015). Universities have launched entrepreneurship education programs to reverse the trend of graduate unemployment. This program gives students the necessary training and entrepreneurial skills to set up their own businesses. Similarly, the programs also encourage self-employment as a viable career choice (Ekpoh and Edet, 2011). Alharbi et al. (2018) found that student that has taken entrepreneurship education program have a higher intention to become an entrepreneur after graduation. Ismail (2017) stated there is a more positive relationship between entrepreneurship education and self- efficacy. Based on the suggestion. The following hypothesis was proposed:

H₂: There is a positive relationship between entrepreneurship education and subjective-norm

3.3. The relationship between entrepreneurship education and self-efficacy

Entrepreneurship education is an important factor in creating successful entrepreneurs. Entrepreneurship education can kindle student determination to start up a new business by taking advantage of opportunities and risks (Utami, 2017). Moreover, entrepreneurship education can increase individual self-efficacy through a learning process that creates taught values, skills, behavior, and determination to overcome obstacles and pursues success (Alharbi et al., 2018). Moreover, entrepreneurship education could increase entrepreneurial intention by increasing self-efficacy skills among individuals (Liñán and Fayolle, 2015). Entrepreneurship education can create a lot of benefits for the students. Entrepreneurship education programs could bring out entrepreneurial traits such as attitudes, feasibility, knowledge's and, at the same evoke the entrepreneurial intention to start a new business (Nabi et al., 2017). Entrepreneurship education can help to develop a

student's confidence and encourage self-efficacy (Byabashaija and Katono, 2011).

Entrepreneurship education course content and pedagogical approaches can bring a positive impact on the entrepreneur's intention; because through the learning process that provides practical oriented approach it will enhance the student's self-efficacy belief and boost entrepreneurial intention (Piperopoulos and Dimov, 2015). Entrepreneurship education could also affect the interpersonal or personal traits of an individual in terms of self-esteem, self-efficacy, and wanted for excel of achievement (Izquierdo and Buelens, 2011). Ismail (2017) argued that there is a positive relationship between entrepreneurship education and self-efficacy. Based on the suggestion. The following hypothesis was proposed:

H₃: There is a positive relationship between entrepreneurship education and self-efficacy.

3.4. Theory of planned behavior

The theory of Planned Behavior focuses on theoretical constructs relevant to human motivational factors as determinants of the probability of specific behaviors (Ajzen, 1991). Based on TPB theory, the attitudinal factor is related to the entrepreneurial intention such as evasion of workload, seek for financial stability, autonomy, prosperity, and obstacles. Moreover, the components of attitudes in (TPB) social career, workload, and self-realization could lead to the intention of behavior. Entrepreneurial behavior also regarded as planned behavior that refers to the intention which can be influenced by the attitude, self-efficacy and subjective norm as based on the TPB model to the context which these factors are making way for an individual to new venture exploration (Gözükara and Çolakoğlu, 2016).

Pedriani et al. (2017) stated that entrepreneurial intention could be triggered by entrepreneurship education since it has an impact on participants' entrepreneurial self-efficacy, risk propensity, student entrepreneurial knowledge, and networking. Based on the TPB, self-efficacy was found as the strongest predictor of behavior intention (Tolma et al., 2006). Students with strong self-assessed leadership skills are able to accumulate more readily bonding cognitive, social capital, which in turn reinforces their perceptions of the desirability and feasibility of entrepreneurship. Family interactions (subjective norm) are a strong socializing force on the beliefs, attitudes, and behaviors that people adopt during their lives (Carr and Sequeira, 2007). Koropp et al. (2014) argued that in family firms, financial choices are primarily influenced by family norms, mood, perceived behavioral influence, and behavioral intentions. Hamilton and White (2012) suggested that social values affect the entrepreneurial intentions of young-children. Based on TPB, peer pressure influence perceived

behavioral control and behavioral intention (Neuwirth and Frederick, 2004).

3.5. Research framework

In this proposed framework, the independent variable (entrepreneurship education) against the dependent variable relationship (attitude, subjective norm, and self-efficacy) relationship was examined (Fig. 1). Moreover, the research framework was initially established based on Theory Planned Behavior (Ajzen, 2011). However, the research framework was further expended (Nenzhelele, 2014). Although, attitude, subjective norm, and self-efficacy have a positive influence on student entrepreneur intention (Pedrini et al., 2017). Entrepreneurship education has been posited to have a positive influence on attitude, subjective norm, and self-efficacy. Hence, based on the literature review and gap of research, the present research was carried out.

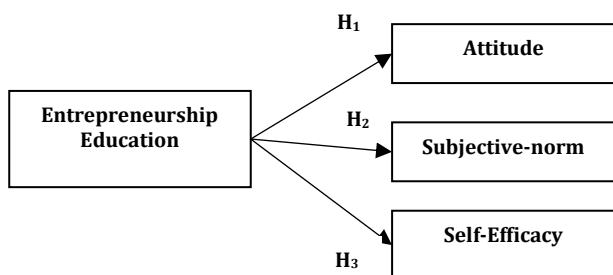


Fig. 1: Research framework underpinned by the theory of planned behavior (Ajzen, 1991)

4. Research methodology

The methodology is an important aspect of every research. That depends on the nature of research, such as qualitative, quantitative, and mixed methods. According to Leedy and Ormrod (2012), research methodology is a vital element of any research that provides a blueprint of how the research would proceed and provide an answer to the research questions (Creswell and Creswell, 2017). However, for the present research, a quantitative approach was adopted. Similarly, a five-point Likert scale was used to measure the constructs from Strongly Disagree 1 to Strongly Disagree 5.

4.1. Data collection

The total number of population (N) was 499 students; who are currently undertaking entrepreneurship education courses in the top three (3) private universities in Kuala Lumpur. Universities, where data were collected, include Sunway University, University Kuala Lumpur, and Help University. Likewise, the questionnaires were distributed among the undergraduate level students. Present research utilized Krejcie and Morgan (1970) Table for Determining Sample Size to obtain the sample size. Hence, a total of 220 questionnaires

were distributed among the three (3) mentioned universities undergraduate level students. Questionnaires were formed in two types electronically (e. link) and a hard- copy. A two-way data collection process was adopted at the convenience of the students. Before handing over the questionnaire to the respondents, they were taking in confidence and assured about the privacy, and the use of data is exclusively for the research purpose only.

4.2. Measures

Present research considered four (4) constructs and three (3) hypotheses. Constructs include entrepreneurship education, attitude, subjective norm, and self-efficacy. The items for measurements the constructs were taken from the previous studies. Such as the items for entrepreneurship education was adopted from the previous research of Rengiah (2013). Items for self-efficacy was adopted from the previous research of Matsheke (2015). Similarly, the items for subjective-norm was adopted from Gurbuz and Aykol (2008). Finally, items for the attitude was adopted from the research by Rengiah (2013).

4.3. Data analysis

Data analysis was performed using Smart Partial Least Square (PLS) Structural Equation Modelling method. When the sample size is small, less than 250, the PLS method is suitable to be used (Reinartz et al., 2009). Nevertheless, for this research, latent construct scores were used to assess predictive relevance, as suggested by Hair et al. (2011). Likewise, the preliminary assessment was conducted via Smart PLS 3.0 software. Based on Hair et al. (2011) suggestion, the research analysis was conducted by assessing the measurement model followed by the evaluation of the structural model. Besides that, the structural model was further assessed through the reliability and validity test of the instruments. Furthermore, convergent and discriminant were tested by looking at the weight of the loading of each item to generate the latent variable scores.

4.4. Measurement model

The measurement model was assessed through convergent validity and discriminant validity. However, the convergent validity was assessed through Average Variance Extracted (AVE) and reliability test. Meanwhile, the discriminant validity was tested using the Fornell and Larcker (1981) criterion and Heterotrait-Monotrait Ratio of Correlations (HTMT) test.

4.4.1. Convergent validity

According to Fornell and Larcker (1981), convergent validity can be assessed through Average

Variance Extracted (AVE). Therefore, to establish convergent validity, the AVE scores should be greater than 0.50 (Fornell and Larcker, 1981). Based on the results in Table 1, the AVE scores for the construct are all above 0.50, as recommended by Fornell and Larcker (1981).

According to Hair et al. (2014), the construct loadings scores should be greater than 0.70; and at the same time, the Average Variance Extracted (AVE) scores also must be greater than 0.50 in order to establish validity. Besides that, the composite reliability scores also must be greater than 0.70 in order to establish questionnaire reliability. Based on the results obtained, convergent validity was established.

Table 1: Measurement model

Constructs	Cronbach's Alpha	Composite Reliability	(AVE)
ATT	0.779	0.83	0.567
EE	0.753	0.734	0.587
SE	0.769	0.736	0.592
SN	0.832	0.869	0.553

4.4.2. Discriminant validity

Discriminant validity can be assessed through Fornell and Larcker (1981) criterion and Heterotrait-Monotrait Ratio of Correlations (HTMT) (Henseler et al., 2015). Thus, the Fornell and Larcker (1981) criterion was established through the square root of the AVE correlation results. Nevertheless, the diagonal elements score should be greater than the off-diagonal scores in the corresponding rows and columns. Based on the results displayed in Table 2, the diagonal elements score is greater than the off-diagonal scores in the corresponding rows and columns. Hence the results confer that there are no discriminant validity issues in the research.

Table 2: Heterotrait-Monotrait ratio correlations (HTMT)

	ATT	EE	SE	SN
ATT	0.753			
EE	0.246	0.663		
SE	0.732	0.339	0.672	
SN	-0.451	-0.148	-0.261	0.537

Another method to measure discriminant validity is the HTMT ratio of correlation (Henseler et al., 2015).

Moreover, through the Monte Carlo simulation research, the authors found that HTMT is able to achieve higher specificity and sensitivity rates (97% to 99%) compared to the cross-loadings criterion (0.00%) and Fornell-Larcker (20.82%). However, when HTMT is higher than this threshold of 0.85 (Kline, 2011) or 0.90 (Gold et al., 2001), there is evidence of a lack of discriminant validity. Henseler et al. (2015) suggested that HTMT values close to 1, indicates there is a lack of discriminant validity. Based on the results obtained in Table 3, the HTMT correlation scores obtained are less than 0.85 as per the threshold recommended by Kline (2011). Based on the test results obtained, there is no discriminant validity issue for the research.

Table 3: Fornell-Larcker criterion

	ATT	EE	SE	SN
ATT				
EE	0.294			
SE	0.792	0.448		
SN	0.653	0.235	0.614	

4.5. Structural model

The structural model will be assessed through three (3) steps coefficient of determination (R^2), Predictive relevance (Q^2), and effect size (f^2). Table 2 displayed the coefficient of determination (R^2) for the direct relationship. Moreover, the bootstrapping procedure (5000) was conducted to detect standard error and generate the t-values. Moreover, Table 4 illustrates the endogenous construct and the path coefficient for the direct relationship.

4.5.1. Coefficient of determination (R^2)

The coefficient of determination (R^2) was used for measuring the predictive accuracy of the models. Ringle et al. (2012) revealed that (R^2) is useful in depicting the model's strength to predict and explain the latent dependent variables. (R^2) values 0.19, are considered as weak, 0.33 as moderate, and 0.67 as substantial (Chin, 1998). Based on the coefficient of determination results in Table 4. The predictive accuracy of the models is considered weak. The research outer model is illustrated in Fig. 2.

Table 4: Coefficient of determination (R^2)

	(R^2)	Adjusted (R^2)
ATT	0.060	0.056
SE	0.115	0.110
SN	0.022	0.017

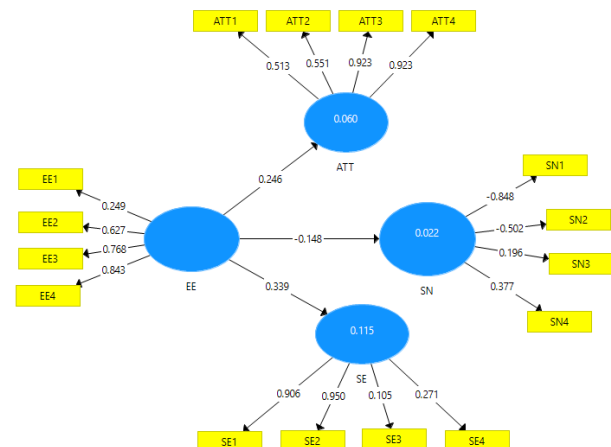


Fig. 2: Research outer model

4.5.2. Effect size (f^2)

Urbach and Ahlemann (2010) suggested that the impact of independent variables on dependent variables is measured by its side effect. Cohen (1988) advised that the interpretation of effect size as $0.02 < f^2 \leq 0.15$ for small effect size, $0.15 < f^2 \leq 0.35$ for medium effect size, and $f^2 > 0.35$ for large effect size. Based on the results obtained in Table 5, the effect

size ranged between 0.022 to 0.129; hence the independent variables have a small effect on the dependent variables.

Table 5: Effect size (f^2)

	ATT	EE	SE	SN
ATT				
EE	0.064			
			0.129	0.022

4.5.3. Results

Based on the results obtained in Table 6 ($\beta=0.07$, t -value=3.512, p -value=0.000). Hence, there is a positive and significant relationship between

Table 6: Structural model results

	Construct	Mean	Std. Deviation	T-Value	P-values	Decision
H ₁	EE -> ATT	0.266	0.070	3.512	0.000	Supported
H ₂	EE -> SE	0.359	0.060	5.686	0.000	Supported
H ₃	EE -> SN	0.002	0.195	0.759	0.001	Supported

Based on the results obtained in Table 6 ($\beta=0.07$, t -value=3.512, p -value=0.000). Hence, there is a positive and significant relationship between entrepreneurship education and subjective norm. According to [Entrialgo and Iglesias \(2016\)](#), many past studies have found empirical evidence for subjective norms affecting the attitude toward entrepreneurial behavior and the perceived control over that behavior. [Zhang et al. \(2019\)](#) found a positive and significant interaction effect between entrepreneurial learning and prior exposure to entrepreneurship on perceived behavior control.

Based on the results obtained in Table 6 ($\beta=0.195$, t -value=0.759, p -value=0.001). Hence, there is a positive and significant relationship between entrepreneurship education and self-efficacy. The result is similar to the previous research that was found that through entrepreneurial education, the learning process that provides practical oriented approach will enhance the student's self-efficacy belief and thus booster the entrepreneurial intention ([Piperopoulos and Dimov, 2015](#)). This finding is in contrast to another research by [Choi et al. \(2019\)](#), who found that entrepreneurship education, did not have a significant effect on achievement desire and self-efficacy. Traditional universities have been used as a career path to advance into society ([Ahn et al., 2017](#)). However, lately, universities have shifted their paradigm by introducing university education that emphasizes entrepreneurial as a career aspect. Students can learn and get insight into how real-life business working by providing experiential learning methods that eventually will help to build the students' confidence ([Chang and Rieple, 2013](#)). According to [Jahani et al. \(2018\)](#), one of many key factors in the development of entrepreneurship in education.

According to [Liñán and Fayolle \(2015\)](#); an individual that has robust self-belief and self-confidence, will perform entrepreneurial action with low-risk acuity and will increase willingness to create new business. Based on the results of the

entrepreneurship education and student attitude. Likewise, the results obtained in the research is similar to research by [Mwatsika and Sankhulani \(2016\)](#) entrepreneurship education creates positives waves that create positive student attitude. Hence, a positive mind and positive would incline graduates to engage in entrepreneurial activity. Personal attitude has a positive relationship with student intention to become an entrepreneur. Similarly, how strong your intention towards entrepreneurship depends on the parameter of attitude ([Ambad and Damita, 2016](#)).

present research and past empirical findings, the key observation is that entrepreneurship education has a positive and significant impact on attitude, subject norm, and self-efficacy relationships. Entrepreneurship education plays a vital role in molding a positive attitude in people. Meanwhile, through entrepreneurship education, people connected to family, friends, and peers appear to be stronger. Despite that, entrepreneurship education also increases self-efficacy

5. Research implication

5.1. Theoretical implication

This research expanded the current body of knowledge in entrepreneurship by looking at entrepreneurship education influence over attitude, self-efficacy, and subjective norm among undergraduates' students in private universities in Malaysia. The present research has used Theory Planned Behaviour ([Ajzen, 1991](#)) to support its theoretical framework. The theoretical framework proposed there is a positive relationship between entrepreneurship education against attitude, subjective norms, and self-efficacy. The research found that there is a positive relationship between entrepreneurship education and (attitude, subjective norms, and self-efficacy). The present research findings concur that entrepreneurship education, changes in individuals' attitudes, perceptions of subjective norm, and perceived behavioral control ([Fayolle and Degeorge, 2006](#)).

5.2. Managerial implications

Entrepreneurship education is very important to develop a student's interest in engaging in entrepreneurial activities when they graduate. As such, higher education institutions and instructors play an important role in facilitating the student learning process, especially business-oriented courses. Moreover, a good academic environment

that is conducive to business development would also generate the interest of students towards entrepreneurial activities. In addition, the teaching and learning experience of higher education institutions plays an important role in changing student attitudes towards becoming an entrepreneur. Despite that, the teaching and learning material used in the lecture must be revised from time to time to cater to the industry needs. Moreover, industry champions could be appointed as almas mater to facilitate learning experience through real-life experiences. Likewise, higher education institution management should monitor and facilitate educator teaching to meet the increasing education standard that is evolving.

5.3. Policy implication

Ministry of Higher Education (MOHE) and other public and private education agencies must strive to come up with futuristic education blueprints that would help to develop a futuristic entrepreneur role. Despite that, preliminary research is needed to get the general opinion of industry and students alike about the difference between past and present and entrepreneurship education in a higher education institution and a way forward future entrepreneurship education. In addition, it is also possible that the government agencies in Malaysia come up with dynamic education programs that could take the social and cultural aspects of people from being employed by other people to a self-creating enterprise that boosts the national economy. Moreover, the government agencies can also look at education strategies of some world top business schools and adopt similar strategies so our higher education institution could become close, at par, or even better than them.

6. Conclusion

There are some limitations to this research. The research findings must be interpreted with caution and cannot be generalized to the entire higher education institution in Malaysia. This was cross-sectional research that analyzes data for specific people and a short point in time. First, this research only conducted in private universities in Kuala Lumpur, and the current sample only used final year students of entrepreneurship education, meaning the result may not represent the entire student population.

Despite that, the research found that entrepreneurship education has a direct impact on (attitude, self-efficacy, and subjective-norm). Likewise, the research found the results from a different perspective, such as private universities in Kuala Lumpur. Based on the analyses, the students feel that entrepreneurship education could significantly affect their (attitude, self-efficacy, and subjective-norm). As such, higher education institution, in Malaysia must ensure their education program is properly tailored and useful so that the

interest of the students in education are well maintained. In addition, it is a joint effort by government agencies, higher education institutions, and social support groups, which will ensure the sustainability of entrepreneurial activities in Malaysia. Nevertheless, future research could expand the present theoretical framework by including other factors that could directly impact (attitude, subjective norms, and self-efficacy). Meanwhile, future research could also investigate other possible mediating or moderating factors that could impact entrepreneurship education and (attitude, subjective norms, and self-efficacy). Hence, through continuous research efforts, we would be able to find a better way to create future entrepreneurs, especially in Malaysia.

Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

References

- Abiah K, Christopher D, Wummen T, Niri Samdi M, Emmanuel M, Adukwu E, and Ninfa DT (2017). An assessment of business students' attitude towards entrepreneurship and entrepreneurial education. *International Journal of Entrepreneurial Development, Education and Science Research*, 4: 101-112.
- Ahmad SZ and Buchanan RF (2015). Entrepreneurship education in Malaysian universities. *Tertiary Education and Management*, 21(4): 349-366.
<https://doi.org/10.1080/13583883.2015.1106577>
- Ahn TU, Lee IH, and Park JW (2017). A study on the effects of creativity competency education on self-efficacy and entrepreneurial intention: The moderating role of social support through parent cooperation. *Asia-Pacific Journal of Business Venturing and Entrepreneurship*, 12(6): 25-39.
<https://doi.org/10.16972/apjbve.12.6.201712.25>
- Ajzen (2011). The theory of planned behaviour: Reactions and reflections. *Psychology and Health*, 26(9): 1113-1127.
<https://doi.org/10.1080/08870446.2011.613995>
PMid:21929476
- Ajzen I (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2): 179-211.
[https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Alharbi J, Almahdi H, and Mosbah A (2018). The impact of entrepreneurship education programs (EEPs) on the entrepreneurial attitudes among higher education students. *International Journal of Management, Economics and Social Sciences*, 7(3): 245-271.
<https://doi.org/10.32327/IJMESS.7.3.2018.16>
- Ambad SNA and Damit DHDA (2016). Determinants of entrepreneurial intention among undergraduate students in Malaysia. *Procedia Economics and Finance*, 37: 108-114.
[https://doi.org/10.1016/S2212-5671\(16\)30100-9](https://doi.org/10.1016/S2212-5671(16)30100-9)
- Bae TJ, Qian S, Miao C, and Fiet JO (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2): 217-254.
<https://doi.org/10.1111/etap.12095>
- Byabashaija W and 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.
<https://doi.org/10.1142/S1084946711001768>
- Carr JC and Sequeira JM (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research*, 60(10): 1090-1098.
<https://doi.org/10.1016/j.jbusres.2006.12.016>
- Chang J and Rieple A (2013). Assessing students' entrepreneurial skills development in live projects. *Journal of Small Business and Enterprise Development*, 20(1): 225-241.
<https://doi.org/10.1108/14626001311298501>
- Chin WW (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2): 295-336.
- Choi TW, Yun SJ, and Pea SM (2019). The influence of entrepreneurship education experiences on the intention of entrepreneurship. *Industry Promotion Research*, 4(2): 61-67.
- Cohen J (1988). *Statistical power analysis for the behavioral sciences*. Erlbaum, Hillsdale, USA.
- Creswell JW and Creswell JD (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications, Thousand Oaks, USA.
- DeJaeghere J and Baxter A (2014). Entrepreneurship education for youth in sub-Saharan Africa: A capabilities approach as an alternative framework to neoliberalism's individualizing risks. *Progress in Development Studies*, 14(1): 61-76.
<https://doi.org/10.1177/1464993413504353>
- Ekpoh UI and Edet AO (2011). Entrepreneurship education and career intentions of tertiary education students in Akwa Ibom and Cross River States, Nigeria. *International Education Studies*, 4(1): 172-178.
<https://doi.org/10.5539/ies.v4n1p172>
- Entrialgo M and Iglesias V (2016). The moderating role of entrepreneurship education on the antecedents of entrepreneurial intention. *International Entrepreneurship and Management Journal*, 12(4): 1209-1232.
<https://doi.org/10.1007/s11365-016-0389-4>
- Fayolle A and Degeorge JM (2006). Attitudes, intentions, and behaviour: New approaches to evaluating entrepreneurship education. In: Fayolle A and Klandt H (Eds.), *International entrepreneurship education: Issues and newness*: 74-89. Edward Elgar Publishing, Cheltenham, UK.
- Fornell C and Larcker DF (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
<https://doi.org/10.1177/002224378101800104>
- Gold AH, Malhotra A, and Segars AH (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1): 185-214.
<https://doi.org/10.1080/07421222.2001.11045669>
- Gözükara İ and Çolakoğlu N (2016). The mediating effect of work family conflict on the relationship between job autonomy and job satisfaction. *Procedia-Social and Behavioral Sciences*, 229: 253-266.
<https://doi.org/10.1016/j.sbspro.2016.07.136>
- Gurbuz G and Aykol S (2008). Entrepreneurial intentions of young educated public in Turkey. *Journal of Global Strategic Management*, 4(1): 47-56.
<https://doi.org/10.20460/JGSM.2008218486>
- Hair JF, Ringle CM, and Sarstedt M (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice*, 19(2): 139-152.
<https://doi.org/10.2753/MTP1069-6679190202>
- Hair JF, Sarstedt M, Hopkins L, and Kuppelwieser VG (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2): 106-121.
<https://doi.org/10.1108/EBR-10-2013-0128>
- Hamilton K and White KM (2012). Social influences and the physical activity intentions of parents of young-children families: An extended theory of planned behavior approach. *Journal of Family Issues*, 33(10): 1351-1372.
<https://doi.org/10.1177/0192513X12437151>
- Henseler J, Ringle CM, and Sarstedt M (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1): 115-135.
<https://doi.org/10.1007/s11747-014-0403-8>
- Hulsink W and Rauch A (2015). Learning to take the entrepreneurial plunge. *RSM Discovery-Management Knowledge*, 24(4): 11-12.
- Ibrahim M, Aslina N, and Wan Mohd Zaifurin WN (2016). Projek keusahawanan sosial dapat memenuhi keperluan penduduk miskin dan miskin tegar. *International Journal of Business and Technopreneurship*, 6: 147-165.
- Ismail AB (2017). We are different: A case study of entrepreneurship education in Malaysia. Ph.D. Dissertation, Queensland University of Technology, Brisbane, Australia.
- Izquierdo E and Buelens M (2011). Competing models of entrepreneurial intentions: The influence of entrepreneurial self-efficacy and attitudes. *International Journal of Entrepreneurship and Small Business*, 13(1): 75-91.
<https://doi.org/10.1504/IJESB.2011.040417>
- Jahani S, Babazadeh M, Haghghi S, and Cheraghian B (2018). The effect of entrepreneurship education on self-efficacy beliefs and entrepreneurial intention of nurses. *Journal of Clinical and Diagnostic Research*, 12(6): 18-21.
<https://doi.org/10.7860/JCDR/2018/31525.11654>
- Kline RB (2011). *Principles and practice of structural equation modeling*. 3rd Edition, The Guilford Press, New York, USA.
- Koropp C, Kellermanns FW, Grichnik D, and Stanley L (2014). Financial decision making in family firms: An adaptation of the theory of planned behavior. *Family Business Review*, 27(4): 307-327.
<https://doi.org/10.1177/0894486514522483>
- Krejcie RV and Morgan DW (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3): 607-610.
<https://doi.org/10.1177/001316447003000308>
- Lam KW, Hassan A, Sulaiman T, and Kamarudin N (2018). Instructional technology competencies as perceived by university lecturers in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(3): 401-417.
<https://doi.org/10.6007/IJARBS/v8-i3/3938>
- Lee J (2019). Startup opportunities abound. Available online at: <https://bit.ly/39WXjsM>
- Leedy PD and Ormrod JE (2012). *Practical research: Planning and design*. Pearson, London, UK.
- Liñán F and Fayolle A (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4): 907-933.
<https://doi.org/10.1007/s11365-015-0356-5>
- Matsheke OT (2015). The influence of entrepreneurial-related programmes on student intentions to venture into new business creation. Ph.D. Dissertation, Vaal University of Technology, Vanderbijlpark, South Africa.
- Mustapha M and Selvaraju M (2015). Personal attributes, family influences, entrepreneurship education and entrepreneurship inclination among university students. *Kajian Malaysia: Journal of Malaysian Studies*, 33(1): 155-172.
- Mwatsika C and Sankhulani E (2016). Effect of entrepreneurship education on students' orientation towards entrepreneurship at the Malawi Polytechnic. *International Journal of Business*

- and Economic Research, 5(6): 235-245.
<https://doi.org/10.11648/j.ijber.20160506.17>
- Nabi G, Liñán F, Fayolle A, Krueger N, and Walmsley A (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning and Education*, 16(2): 277-299.
<https://doi.org/10.5465/amle.2015.0026>
- Nachiappan S, Hock KE, Zabit MNM, Sukri NA, Suffian S, and Sehgar SC (2018). The analysis of career choice factors and ways to address unemployment problems among youths at the Perak State Youth Council. *Development*, 7(3): 14-25.
- Ndofirepi TM, Rambe P, and Dzansi DY (2018). An exploratory study on the gender-based differences in entrepreneurial intention and its antecedents amongst students of a South African University of Technology. *Southern African Business Review*, 22: 1.
<https://doi.org/10.25159/1998-8125/4345>
- Nenzhelele TE (2014). Employability through experiential learning course in open distance learning institution. *Mediterranean Journal of Social Sciences*, 5(20): 1602-1602.
<https://doi.org/10.5901/mjss.2014.v5n20p1602>
- Nesse JG, Årethun T, and Håvold JI (2015). Entrepreneurial intentions among youth in rural areas: Regional differences and changes over time. In the 12th International Conference on Enterprise Systems, Accounting and Logistics, Skiathos Island, Greece: 86-107.
- Neuwirth K and Frederick E (2004). Peer and social influence on opinion expression: Combining the theories of planned behavior and the spiral of silence. *Communication Research*, 31(6): 669-703.
<https://doi.org/10.1177/0093650204269388>
- Pedrini M, Langella V, and Molteni M (2017). Do entrepreneurial education programs impact the antecedents of entrepreneurial intention? *Journal of Enterprising Communities: People and Places in the Global Economy*, 11: 373-392.
<https://doi.org/10.1108/JEC-12-2016-0043>
- Piperopoulos P and Dimov D (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, 53(4): 970-985.
<https://doi.org/10.1111/jsbm.12116>
- Potishuk V and Kratzer J (2017). Factors affecting entrepreneurial intentions and entrepreneurial attitudes in higher education. *Journal of Entrepreneurship Education*, 20(1): 25-44.
<https://doi.org/10.1080/03075079.2017.1336215>
- Prabandari SP and Sholihah PI (2015). The influence of theory of planned behavior and entrepreneurship education towards entrepreneurial intention. *Journal of Economics, Business, and Accountancy Ventura*, 17(3): 385-392.
<https://doi.org/10.14414/jebav.v17i3.360>
- Premard P, Brodmann S, Almeida R, Grun R, and Barouni M (2016). Entrepreneurship education and entry into self-employment among university graduates. *World Development*, 77: 311-327.
<https://doi.org/10.1016/j.worlddev.2015.08.028>
- Reinartz W, Haenlein M, and Henseler J (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, 26(4): 332-344.
<https://doi.org/10.1016/j.ijresmar.2009.08.001>
- Rengiah P (2013). Effectiveness of entrepreneurship education in developing entrepreneurial intentions among Malaysian university students. Available online at:
<https://bit.ly/33lEXAi>
- Ringle CM, Sarstedt M, and Straub DW (2012). Editor's comments: A critical look at the use of PLS-SEM in "MIS Quarterly." *MIS Quarterly*, 36(1): iii-xiv.
<https://doi.org/10.2307/41410402>
- Sitoula T (2015). Challenges and prospects of youth entrepreneurship in Kathmandu. M.Sc. Thesis, Universitetet i Nordland, Bodø, Norway.
- Tolma EL, Reininger BM, Evans A, and Ureda J (2006). Examining the theory of planned behavior and the construct of self-efficacy to predict mammography intention. *Health Education and Behavior*, 33(2): 233-251.
<https://doi.org/10.1177/1090198105277393>
PMid:16531515
- Urbach N and Ahlemann F (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 11(2): 5-40.
- Urbano D and Aparicio S (2016). Entrepreneurship capital types and economic growth: International evidence. *Technological Forecasting and Social Change*, 102: 34-44.
<https://doi.org/10.1016/j.techfore.2015.02.018>
- Utami CW (2017). Attitude, subjective norm, perceived behaviour, entrepreneurship education and self-efficacy toward entrepreneurial intention university student in Indonesia. *Unripen Research Studies Journal*, 20(2A): 475-495.
<https://doi.org/10.35808/ersj/654>
- Zhang F, Wei L, Sun H, and Tung LC (2019). How entrepreneurial learning impacts one's intention towards entrepreneurship. *Chinese Management Studies*, 13(1): 146-170.
<https://doi.org/10.1108/CMS-06-2018-0556>