





## Impact of entrepreneurship education programme (EEP) on entrepreneurial intention of real estate graduates

Hasniyati Hamzah , Zahiriah Yahya , Abdul Ghani Sarip  and Yasmin Mohd Adnan 

Faculty of Built Environment, University of Malaya, Kuala Lumpur, Malaysia

### ABSTRACT

In the current socio-economic context of the “risk society” characterised by uncertainty and turmoil, entrepreneurship is one of the soft skills that is important among university graduates to ensure their survival in the real world. Realising that this skill can be taught and honed in professional undergraduate programmes, many universities have made entrepreneurship education a compulsory subject to improve undergraduate’s entrepreneurship skills. The discourse on entrepreneurship education programme (EEP) revealed a number of issues being discussed within conventional professional programmes such as engineering and management. Little is known about the impact of EEP on entrepreneurship intention within less popular professional programmes such as real estate. This paper provides an insight into how the compulsory entrepreneurship course impacts the entrepreneurial intentions of graduates of a real estate programme in a public university in Malaysia. Using a mixed method approach, a questionnaire survey and interview were undertaken to elicit respondents’ views about the success of the course in terms of instilling and shaping characteristics associated with entrepreneurship. Respondents were found to be less impressed with theory, and more influenced by real-life examples and experiences when emulating entrepreneurship behaviour.

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## Introduction

A number of studies have been conducted on entrepreneurial education programme (EEP) in terms of its effectiveness (Fayolle, Gailly, & Lassas-Clerc, 2006; Souitaris, Zerbinati, & Al-Laham, 2007) and factors that contribute to its success (Turker & Selcuk, 2009; Zhang, Duysters, & Cloudt, 2014). In an era of rapid changes in technology, economic liberalisation and globalisation, entrepreneurship is increasingly seen as a skill that could provide a good source of livelihood for graduates due to limited employment opportunities in the public or private sector. Furthermore, sustainable growth based on innovation and excellence requires an increasing number of new business set-ups. For these reasons, EEP has become an obligatory part of university education.

**CONTACT** Hasniyati Hamzah  [hasniyati@um.edu.my](mailto:hasniyati@um.edu.my)

At its very basic, entrepreneurship concerns an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage business towards set objectives. EEP is aimed at fostering entrepreneurship values and fostering the spirit of self-reliance and entrepreneurial culture within the graduates, where students will be brought up to the ability to explore opportunities, become creative and innovative and understand related aspects of business, market, risk, competition and so on. By having entrepreneurial skills, graduates are expected to not only seize business opportunities and manage their own enterprise but also create jobs for others.

Malaysia is in the need of more innovative and creative product, process and people not only to further but also to sustain its economic development. As part of the strategy to promote a culture of business nascency, EEP is made compulsory at various education levels in the country. This research tests the impact of a compulsory EEP on the entrepreneurial inclination of graduates. Underpinned by the Theory of Planned Behaviour (TPB), whereby intention is seen to affect future entrepreneurial behaviour (Ajzen, 2011), the paper addresses two research questions: Does the EEP raise entrepreneurial intention among graduates? In particular, does the EEP help to proliferate entrepreneurial attitude, awareness and inclination, as variables of intention, among graduates? A questionnaire survey was undertaken on a sample derived from different cohorts of real estate graduates of a public university in Malaysia to test if entrepreneurial behaviour can be linked to EEP.

The EEP literature revealed examinations of issues within the context of conventional professional programmes, such as engineering and management (see for instance von Graevenitz, Harhoff, & Weber, 2010; Zhang et al., 2014). This paper fills the gap in exploring EEP within less popular professional programmes, in this case, real estate. Real estate professions including valuation, marketing, agency, consultancy, property development and management are significant contributors to the economy, yet have been hitherto understudied. Thus, this paper provides a new insight into the formation and sustenance of entrepreneurial inclination among real estate practitioners. The paper first presents the literature related to the concepts and development of entrepreneurship, EEP and the behavioural implications of EEP. Discussions on the methodology will precede results' presentation before conclusions.

## Contextual variables

### *Entrepreneur and entrepreneurship*

The French word *entreprendre*, meaning to carry out task or to try, forms the basis for the term "entrepreneur". Joseph Schumpeter became the proponent of individual contribution towards national economic growth, including entrepreneurs in his influential book entitled "Theory of Economics Development" (Schumpeter, 1911). Schumpeter defines an entrepreneur as an individual who innovates the existing economic environment by creating opportunities from self-improved economic conditions through the introduction of new products and services or by creating new businesses (Schumpeter, 1911).

The Schumpeterian definition of an entrepreneur has significantly influenced the later definitions by other researchers; for instance, Scarborough and Zimmerman (2005) defined entrepreneurs as individuals involved in creating new businesses, identifying and seizing opportunities by dedicating their resources, and in the process accept risks and uncertainties

**Table 1.** Major features of entrepreneurship.

No	Features of Entrepreneurship
1	The commitment, determination and perseverance
2	Motivation for success and thrive
3	Orientation towards opportunities and goals
4	Take the initiative and personal responsibility
5	Ongoing decision-making
6	Realistic
7	Seeking and using feedback
8	Have an internal locus of control
9	Take risks
10	Lower impetus towards status and power
11	Integrity and reliability

Source: (Kao, 1991).

to achieve their goals. Kuratko and Hodgetts (2007) stated that an entrepreneur is an individual who can identify opportunities that other people see as a distraction or confusion. Taking it further, Hamilton and Harper (1994) treated entrepreneurs as a factor of production, with varied supply curve elasticities being influenced by non-economic factors, such as psychological and sociological factors. Despite these variations, there exists common consensus on the required aptitude of an entrepreneur as the creator and contributor of wealth, including self-efficacy, creativity, motivation and innovativeness.

Entrepreneurship is seen as a process of creating something new involving time, effort, risk, finance and psychological and social development. According to Hisrich and Peters (1998), the process is wealth creation by individuals who bear the risk in the form of capital, time and career commitment, whilst Kuratko and Hodgetts (2007) saw the creation process occurring within individual, organisational and environmental dimensions that are set inside a network of government, education and legal systems. Both definitions support entrepreneurship as a symbol of continuity and business achievements, as individuals with an entrepreneurial mindset are predisposed towards opportunity-seeking, risk-taking and constant self-checking of personal goals.

Thus, entrepreneurship is more than just setting up and running a business. Kao (1991) outlined the major features of entrepreneurship in Table 1. As shown, entrepreneurship involves the integration of an individual's attitudes, skills and knowledge, reflecting the manifold aspects of entrepreneurship, including business, economics, psychology and sociology. Nowadays, the term "entrepreneur" does not only refer to those who are in business, but expanded to individuals who have the characteristics of entrepreneurship, who do not own their own business as an internal entrepreneur and social entrepreneurs.

The contributions of entrepreneurship as expressed above have led policy-makers, government and non-government organisations and education providers to push for the formalisation of entrepreneurial education at different levels of study.

### ***Entrepreneurial education programme (EEP)***

EEP is important in producing more entrepreneurs who have necessary knowledge and skills in conducting a business, and is oftentimes supported by government policy. Formal EEP is available, sometimes made a mandatory programme in higher learning institutions, and has been researched in countries such as Canada (Ibrahim & Soufani, 2002), Singapore

(Wang & Wong, 2004), UAE (Mamjudar & Varadarajan, 2013), Turkey (Turker & Selcuk, 2009); the Netherlands (Oosterbeek, van Praag, & Ijsselstein, 2010) and Germany (von Graevenitz et al., 2010). Even so, a contradictory view of the role of EEP was argued by von Graevenitz et al. (2010), whereby education and exposure on the actual entrepreneurship experience were seen to supersede indoctrination.

As mentioned above, EEP can either be offered as an elective or made mandatory. In terms of EEP contents, usually they comprise both theoretical and practical elements. For instance, the UK's QAA requires the exposure of extra-curricular opportunities through marketing, student engagement and communication (QAA, 2012). Mediums of teaching and learning normally comprise lectures and tutorial, with preferences for involvements by real-life entrepreneurs (von Graevenitz et al., 2010).

Drawing from the literature review, it can be concluded that the objective and structure of an EEP differ between countries, depending on many factors including the country's history, prevailing policies, development level and economic systems.

### ***EEP in Malaysian higher education***

The growth of entrepreneurship in Malaysia is in tandem with business-friendly policies and concerted efforts of various parties. The government plays a pivotal role in providing financial and advisory services for upcoming entrepreneurs. Besides the government, educational institutions have also played an important role in promoting the interests of the students to become entrepreneurs after they graduated. The private sector contributes to the enhancement of entrepreneurship via internship programmes, for instance: final-year work placement programme and work experience (Ministry of Higher Education, 2007).

The EEP in Malaysia is guided by two main government policies, i.e. the National Higher Education Strategic Plan 2011–2015 and the latest Higher Education Blueprint 2013–2025. The Plan focuses on mainstreaming entrepreneurship education, and was further strengthened by the Blueprint which highlights entrepreneurship as part of the vision and aspiration towards a paradigm shift in the Malaysian education system,

The “Basic Entrepreneurship Culture” (BEC) course is an EEP designed by the Ministry of Education to inculcate undergraduates in Malaysian public higher education institutions with basic entrepreneurial elements (Ministry of Higher Education, 2007). Introduced in 2008, BEC is a mandatory course that gives an overview of entrepreneurship education and business skills, with the main aim to promote entrepreneurship as a feasible livelihood option among graduates, as self-employment is seen to bring about not only self-growth, but also is sustainable in the long term as opposed to paid employment.

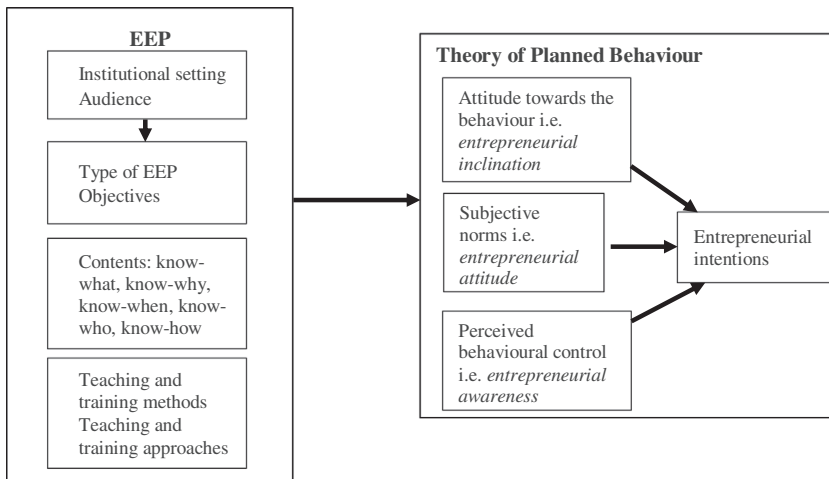
The BEC education structure is prescribed by the Ministry of Higher Education to streamline its curriculum and delivery (Ministry of Higher Education, 2007). It adopts an interactive learning structure comprising both classroom and practical learning environments. To integrate, apply and test students' business theories, they have to participate in BEC Day, a compulsory one-day event where students set up and operate a business project on and off campus according to their field of study. The course consists of four modules as shown in the Appendix 1, as follows:

Module 1: Fostering entrepreneurship culture

Module 2: Opportunities and business plans

Module 3: Entrepreneurship practical

Module 4: Presentation of entrepreneurial activity



**Figure 1.** EEP assessment model. Source: Adapted from Fayolle et al. (2006).

BEC involves two-way communications with active participation of students either individually or in groups, guided by lecturers. The methods of assessment will take into account the attendance, course assignments or quizzes, reports and presentation of business activity or project undertaken.

### TPB as a predictor of entrepreneurial intention

The TPB provides a “prediction of human social behaviour” (Ajzen, 2011; p. 1113) used in social psychology to show the linkage between intention and various social behaviours (Kautonen, van Gelderen, & Tornikoski, 2013). Behavioural studies have generally accepted that intention provides the impetus in the undertaking of any planned behaviour (Ajzen, 2011). The definition on entrepreneurial intention as per Thompson (2009) is a conscious conviction by an individual that they intend and plan to set up a business undertaking in the future. Intention depends on attitudes, norms and perceived control over the planned activities, with possible influence from past behaviour (Ajzen, 2011). For entrepreneurial behaviour, intention was confirmed as its significant predictor by Kautonen et al. (2013), involving a survey on the entrepreneurial intention followed by another survey on the entrepreneurship behaviour after a three-year gap.

In the context of EEP, the TPB has been extensively used to frame examinations into the effects of the entrepreneurial education programmes on students’ entrepreneurial intention (see for instance Oosterbeek et al., 2010; Souitaris et al., 2007; von Graevenitz et al., 2010). Figure 1 shows the framework developed by Fayolle et al. (2006) which is commonly used to guide EEP studies. The framework suggests that three main factors can be used in evaluating EEP: attitude towards the behaviour (*entrepreneurial inclination*), subjective norms (*entrepreneurial attitude*) and perceived behavioural control (*awareness through self-efficacy, i.e. entrepreneurial awareness*).

Nonetheless, the positive link between intention and subsequent entrepreneurial behaviour has been shown to deteriorate with time due to what Ajzen termed as “the temporal

distance between measurement of intention and observation of behaviour” (2011, p. 1115). In other words, the insignificant relationship between intention and nascency at the end of an undergraduate’s entrepreneurial programme may be explained by the time lag between entrepreneurial intention and behaviour (Souitaris et al., 2007). Oosterbeek et al. (2010) even reported that students’ entrepreneurial intention was negative after undertaking the entrepreneurship programme, explained by a more realistic perspective on what it takes to be an entrepreneur post-programme.

In other words, TPB acknowledges that the time distance between intention and behaviour can introduce variables that can change the predicted behaviours, including affect and emotions, rationality and beliefs. As Ajzen (2011) went on to explain, the temporal distance has caused entrepreneurship studies to accept relatively low correlation between intention and behaviour of about .60. For instance, Sheeran (2002) reported a correlation of .53; Armitage and Conner (2001) showed a correlation of .40. Overall, Ajzen found the intention–behaviour correlation to range from .59 to .66 in other such studies.

Turker and Selcuk (2009) stated that the most significant factor to enhance entrepreneurial intention is the educational support in terms of adequate knowledge and inspiration of entrepreneurship. Entrepreneurship education provided by the university can positively influence the entrepreneurial inclination of students. Thus, the learning process can enhance and inspire entrepreneurship via the course contents, teaching approaches and assessment methods. An effective educational support that imparts business knowledge to undergraduates can sustain long-term interest in entrepreneurship (Wang & Wong, 2004).

## **Methodology**

Framed by the TPB, a mixed methods approach was employed in data collection. Data collection adopted a two-stage strategy with a questionnaire survey that was followed by in-depth interviews with nine participants.

Both descriptive and non-parametric statistics were used to analyse the questionnaire data. Non-parametric tests were chosen to identify the correlation and differences between the examined criteria. These tests were also chosen as they are normally used to measure the human affective aspects. They are also used since the data are assumed not to be normally distributed. The analysis adopted a comparative approach between takers and non-takers of the entrepreneurial programme.

Qualitative data were used to complement and enhance the understanding of the questionnaire survey results. We undertook a thematic analysis of the structured interviews to derive the tendencies and explanations that could further support or negate the quantitative results. Different from the comparative approach of the quantitative analysis, the qualitative analysis employed an explanatory approach for the takers’ results.

## **Instrument**

A survey was generated to address the research questions. The components of the survey aimed at determining the demographic characteristics of the population, the entrepreneurial awareness, inclination and the attitudinal capacity together with perceptions on the course contents, teaching strategy and assessment methods. The framework by Fayolle et al. (2006), i.e. Figure 1, was used to guide the formulation of the questionnaire survey. The majority of the questions were close-ended and rated on a five-point Likert scale.

**Table 2.** Trigger questions and examined element.

Trigger question	Element of intention being examined
What are your impressions of BEC?	All elements
How effective was the delivery of the BEC content?	All elements
How has BEC affected your attitude towards entrepreneurship?	Inclination
How has BEC affected your entrepreneurial skills?	Attitude
How has the BEC course affected awareness of entrepreneurship in you?	Awareness

For the in-depth interviews, trigger questions were prepared prior to the interviews for purposes shown in Table 2.

In interpreting the data, only responses relevant to the research questions were extracted and analysed, whilst the rest were eliminated to maintain consistency.

### *Data collection procedures*

A questionnaire survey was administered among graduates of a real estate undergraduate programme of a public university in Kuala Lumpur, Malaysia. The population size was 550, comprising cohorts that both took the BEC, i.e. “takers” (graduated in and after 2010), and did not take BEC, i.e. “non-takers” (graduated before 2010). Using purposive sampling, 250 questionnaires were sent out via mail, comprising equal proportions of takers and non-takers, and 95 were returned giving a response rate of 38%. From the returned survey which was also through mail, 64% or 59 graduates comprised takers and 36% or 36 graduates comprised non-takers. Subsequently, a structured interview was undertaken with nine takers who indicated willingness to be interviewed from the returned survey form. The interviews were undertaken to explore issues and questions that arose from the results of the questionnaire survey. Face-to-face interviews, taking between 30 and 45 min, were recorded and transcribed for analysis.

The findings of the quantitative and qualitative methods of data collection are presented together in the next section.

### *Data analysis*

For the quantitative data, descriptive statistics and non-parametric tests were used to identify correlations and differences. For qualitative data, thematic analysis guided the manual coding that produced themes and sub-themes on the research questions.

## **Results and discussion**

Data analysis was based on the responses given by 95 graduates. Mann–Whitney tests were conducted to determine whether there are significant differences between takers and non-takers on entrepreneurial inclination, attitudinal capacity towards entrepreneurship and entrepreneurial awareness. Spearman correlation tests were also conducted to examine the correlation between the BEC course contents, teaching approaches and assessment methods with the aspects of entrepreneurship inclination, entrepreneurship attitudinal capacity and entrepreneurship awareness. Correlation coefficients below .60 are interpreted as significant as supported by the analysis of correlation coefficients in the TPB literature by Ajzen (2011).

**Table 3.** Respondents' profile.

Profile factor	Variables	Percentage (%)
Gender	Male	52
	Female	48
Ethnicity	Malay	65
	Chinese	32
	Indian	3
Current job sector	Government	19
	Private	79
	Self-employed	2
Work experience	Less than 1 year	12
	1–3	40
	3–5	29
	More than 5 years	19

### Profile of respondents

The gender ratio of respondents was balanced, whilst the ethnic proportions somewhat reflected the general trend of the programme, with the most respondents being Malay (65%), followed by Chinese (32%) and Indian (3%). In terms of work, 75% were in the private sector, 23% were in the government sector and 2% were self-employed. It is noted that the self-employed respondents took BEC during their studies, hinting a possible link between BEC and entrepreneurial behaviour. The majority of the respondents had just started working, with a cumulative percentage of 52% having worked 3 years or less (Table 3).

### Entrepreneurial inclination

The Mann–Whitney  $U$  test data analysis results show that there are no significant differences between takers and non-takers on the inclination towards entrepreneurship [ $U(n_1 = 59, n_2 = 36) = 95, p > .05$ ]. The mean rank values of all the variables within entrepreneurial inclination do not show any differences between takers and non-takers. This indicates that BEC may not have the desired effect on the entrepreneurial inclination for takers. One possible explanation is the recentness of the completion of their study, especially for takers, suggesting capital issues to start up the business. The recentness of the study completion also suggests that the majority of respondents are salaried employees, who are still undergoing the compulsory training towards being a registered real estate professional such as valuers, estate agents and property managers before they can set up their own practice.

However, interview findings somewhat presented a different outlook on BEC's role in fostering entrepreneurial inclination among respondents. In general, there was consensus that BEC provided the initial “spark” towards an entrepreneurial culture. Themes extracted and analysed from the interviews contain keywords such as “inspiring”, “unleashing”, “polishing” and “igniting”, among others, respondents’ “potentials”, “innovation”, “skills” and “desire”.

Student 5's comment typified the perception of BEC's positive influence on inclination.

Since BEC provided all those basic knowledge on entrepreneurship, somehow it ignited the desire and inclinations to start a business on our own. It is a turning point for some student to become entrepreneur in the future ... (Student 5, personal communication)



### **Entrepreneurial attitude**

The Mann–Whitney  $U$  test data analysis results show that there are no significant differences between takers and non-takers on the entrepreneurial attitude [ $U (n_1 = 59, n_2 = 36) = 95, p > .05$ ]. The mean rank values of all the variables within inclination do not show any differences between takers and non-takers. However, there is one factor that has shown a slightly higher mean rank between the two groups of graduates which is *withstanding risks in business*. Takers have a higher mean rank (39.6) for this factor as compared to non-takers (31.1). This result is supported by previous empirical research's results linking entrepreneurial attitude with a risk-taking venture (see for instance Kao, 1991; Kuratko & Hodgetts, 2007).

An explanation of the higher risk tolerance shown by takers is the exposure to risk theories during BEC lecture, which could have provided the relevant tools to manage risk. Furthermore, the mandatory participation in the BEC Day, which involved planning, setting up and running a business, had forced the BEC students to “manage the product, finance and problems” (Student 5, personal communication).

### **Entrepreneurial awareness**

The Mann–Whitney  $U$  test data analysis results also show that there are no significant differences between takers and non-takers on the awareness towards entrepreneurship [ $U (n_1 = 45, n_2 = 27) = 72, p > .05$ ]. The mean rank values of all the variables within awareness factors do not show any differences between takers and non-takers. However, there is one factor that has shown a slightly higher mean rank between the two groups of graduates which is *family entrepreneurship*. Takers showed a higher mean rank (41.23) for this factor as compared to non-takers (27.48). This result suggests how family background could enhance the entrepreneurial awareness among takers compared to non-takers, perhaps due to early and intimate exposure to entrepreneurship, and how this exposure could have conditioned takers in understanding entrepreneurship theories.

Nonetheless, the interviews yielded yet again contradictory findings. Whilst there were two takers who stated that BEC had no influence on their entrepreneurial awareness, the majority of the interviewees showed a stronger agreement on BEC as the main provider of support and the first exposure towards entrepreneurship.

### **Course contents vs Entrepreneurial inclination, attitude and awareness**

The results of the Spearman correlation test analysis show significant correlation between the course contents and entrepreneurship inclination ( $r = .573, p < .05$ ) and course contents and entrepreneurial attitude ( $r = .67, p < .05$ ). When compared with the entrepreneurship awareness, the Spearman correlation test shows that the correlation is not significant ( $r = .424, p > .05$ ) and the level of correlation is low.

The interviews revealed that course contents that are instrumental in positively influencing entrepreneurial inclination, attitude and awareness are marketing, networking, presentation skills, negotiation skills and finance. In particular, respondents reported how BEC helped polish their soft skills. However, some respondents felt that the theoretical elements of BEC were less instrumental in affecting their entrepreneurial inclination and attitude,

compared to the accounts of actual entrepreneurial experiences and tips delivered by guest lecturers comprising real-life entrepreneurs.

### ***Teaching approaches vs. entrepreneurial inclination, attitude and awareness***

The results of the Spearman correlation test analysis show a strong correlation between the teaching approaches and entrepreneurial inclination ( $r = .6, p < .05$ ). However, the results of the Spearman correlation test showed weak relationship between teaching approaches and the level of entrepreneurial attitude ( $r = .432, p > .05$ ) and between the teaching approaches and the level of entrepreneurial awareness ( $r = .444, p > .05$ ).

Interestingly, the interviewees revealed that the delivery method of course contents somewhat affected them. In general, aversion was expressed towards a theoretical-based lesson plan and preference was indicated for a more practical-based approach with opportunities for real-life application. Almost all interviewees cited how the BEC Day, the culmination of the programme which involves students selling a product or service, made them more aware of the entrepreneurship requirements. The practical experience also seemed to improve entrepreneurship inclination as they became aware of their entrepreneurial capability in setting up and running the business. For instance, the EEP was mentioned by Graduate 2 to be instrumental in rousing the motivation to become “a unique entrepreneur” and “be different (so as) to attract customers”. Conversely, conventional teaching involving lectures and textbooks was criticised as “theoretical, uninspiring and boring” (Graduate 3, personal communication).

### ***Assessment methods vs. entrepreneurial inclination, attitude and awareness***

The Spearman correlation test results between the assessment methods and entrepreneurship inclination show that the correlation is significant ( $r = .527, p < .05$ ). Similarly, a significant correlation is shown between the assessment methods and the level of entrepreneurial attitude ( $r = .529, p > .05$ ). When compared with the entrepreneurship awareness, the Spearman correlation test shows that the correlation is not significant ( $r = .27, p > .05$ ) and the level of correlation is low.

From the interviews, assessment methods were portrayed as being an ineffective measurement of participants' entrepreneurial inclination and awareness. For instance, the quality of the multiple-choice examination question was questioned, whereby some questions may have “two similar answers” and the lecturer's assessment on BEC Day was deemed gratuitous (Graduate 1, personal communication). Thus, assessment methods were not seen as particularly useful in enhancing entrepreneurial intention. However, assessments naturally forced the graduates to apply theories that they learn in class, thus explaining the significant correlation between assessment methods and inclination and attitude. Respondents indicated that in order to pass BEC, a requirement to graduate, they have to adjust their attitude to become more entrepreneurial, if only to pass the course.

### ***Summary of findings***

The quantitative inquiry revealed that BEC, which is an EEP for Malaysian higher education institutions, did not seem to have a direct effect on the entrepreneurial behaviour for

both takers and non-takers of the module. No significant differences were shown in the non-parametric tests in the entrepreneurial inclination, attitude and awareness between takers and non-takers of the course. However, BEC takers showed a slightly higher mean score for withstanding risks in business compared to non-takers, attributable to the exposure of theories on risks and their management during BEC.

Both quantitative and qualitative data indicated that the entrepreneurial inclination, attitude and awareness sparked by BEC were not sustained after graduation. This finding contrasts research by Turker and Selcuk (2009) and (Wang & Wong, 2004) that found educational support to be a core determinant of entrepreneurial intention. As an explanation, the “temporal distance” (Ajzen, 2011) between the EEP and the year of graduation may have weakened the initial entrepreneurial intention.

A further examination was made on the impact of the course contents on the entrepreneurial inclination, attitude and awareness. The results showed that a strong correlation exists between the course contents and entrepreneurial inclination and attitude, but weak correlation with awareness. Interview data supported that the course contents are instrumental to the success of the BEC course. On the other hand, teaching approaches and assessment methods were shown to have little influence on the entrepreneurial inclination, attitude and awareness.

## Conclusion and recommendations

This paper examines the effect of EEP on the entrepreneurial behaviour of real estate graduates of a public university in Malaysia. The findings could provide some guidance for the improvement of the current undergraduate entrepreneurial education course in Malaysian universities. The effectiveness of the Malaysian EEP (the Basic Entrepreneurship Course or BEC) was assessed using a well-tested TPB framework, whereby entrepreneurial intention – comprising entrepreneurial inclination, attitude and awareness – was used as a predictor of entrepreneurial behaviour among the respondents. The study on BEC’s effectiveness on entrepreneurial behaviour was done in two stages, a questionnaire survey followed by a semi-structured interview. The survey found no real impact of BEC on the respondents, but the qualitative inquiry revealed interesting contradictions.

As with other studies, this study acknowledges some limitations, including the fact that the population of this study was limited to graduates from the real estate programme in one university. With a limited sampling, the validity of generalising the results for the whole of the real estate graduates’ population is undoubtedly low. As for the semi-structured interview, researcher bias and participant reservation could affect the reliability of the data. Finally, the effects of social factors such as gender and ethnicity on entrepreneurship intention were not examined, and can be further explored in future endeavour. More research is needed in order to further explore the possible causes and impact of the entrepreneurial education on these graduates.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## ORCID

Hasniyati Hamzah  <http://orcid.org/0000-0002-6622-6542>

Zahariah Yahya  <http://orcid.org/0000-0003-3989-7452>

Abdul Ghani Sarip  <http://orcid.org/0000-0003-1658-076X>

Yasmin Mohd Adnan  <http://orcid.org/0000-0002-5964-2353>

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## Appendix 1. Modules in the Malaysian basic entrepreneurial culture course

Module	Aim	Topic	Learning outcome
1. Fostering a culture of entrepreneurship	This module aims to explore the basic concepts of entrepreneurship and provide training for students to know the characteristics and nature of entrepreneurship and raise awareness about the importance of ethics, creativity and innovation in them and also in business	<p>The concept and the development of entrepreneurship</p> <p>Analysis of entrepreneurial self-competence Business ethics</p> <p>Creativity and innovation in business Business opportunities</p>	<p>Explain the concept of entrepreneurship</p> <p>Identify the characteristics and nature of entrepreneurship in oneself Understand and evaluate the importance of ethics, creativity and innovation in oneself and in the business</p> <p>Formulate the basic management skills needed to succeed in business</p>
2. Opportunities and business plans	This module aims to open the minds of students about business opportunities and methods of planning and managing an effective and efficient business project. The main emphasis is on the application of basic business skills. Among the learning activities are business game, brainstorming, self-study, field work, team work, site visit, role-play, discussion and presentation in the classroom	<p>Skill to start a business</p> <p>Business plan</p> <p>Business project management skills Business activities</p>	<p>Apply the general techniques of management, marketing and accounting in business Analyse the economic and financial information for business interests</p> <p>Prepare a written report on a business activity</p>
3. Entrepreneurship practical	This module aims to expose students to set up and handle all business activities where a business plan or proposal should be drafted and implemented	<p>Entrepreneurship seminar and forum</p> <p>Presentation sessions</p>	<p>Organise or carry out a project or activity from start to finish in a certain period Appreciate hard work, joy and sorrow and bitter for being self-employed Exhibit leadership and entrepreneurship within oneself Present business activities using appropriate visual aids</p> <p>Demonstrate public-speaking skills and communication Inculcate a culture of entrepreneurship in all aspects of life</p>
4. Presentation of entrepreneurial activity	This module aims to present the works in Module 3 to panels of assessor		