

Enhancing the effectiveness of entrepreneurship education: the role of entrepreneurial lecturers

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Abstract

Purpose – Despite the inclusion of entrepreneurship education (EE) in the curricula of tertiary education institutions in Nigeria, graduate unemployment is still an issue of serious concern. This calls into question the effectiveness of EE in influencing students' entrepreneurial intentions (EIs) and behaviours. Perhaps, the issue is with the EE lecturers. The questions, which should be answered include: are the lecturers who teach EE entrepreneurially inclined? Can lecturers who are not entrepreneurially inclined teach students to become entrepreneurs? The purpose of this paper, therefore, is to empirically explore the role of entrepreneurial lecturers in the relationship between EE and students' EIs.

Design/methodology/approach – This study adopted a quantitative approach. Thus, a self-reported questionnaire was administered to a randomly selected sample of 256 Higher National Diploma II students of the Federal Polytechnic, Idah, Nigeria, who were exposed to EE. To analyse the data collected, partial least squares structural equation modelling (PLS-SEM) was performed using SmartPLS 2.0.M3 software.

Findings – Data analysis showed a significantly positive relationship between EE and students' EIs on the one hand and between EE and perceived entrepreneurial lecturers (PELs) on the other hand. It was also found that PELs had a significantly positive link with students' EIs. Further analysis indicated that PELs had a mediating effect on the relationship between EE and students' EIs.

Research limitations/implications – This study was a single institutional study. Thus, the generalisability of its findings to other institutions is limited. Extending the research to other institutions and countries might be required to validate the findings presented.

Practical implications – This research work has some insightful implications for the teaching of EE. By implication, it provides an answer to the question: who should teach EE? To achieve greater impact of EE on students' EIs and behaviours, entrepreneurial lecturers are required. It implies that EE lecturers should be entrepreneurially inclined. They should demonstrate sufficient entrepreneurial attitudes, intentions and behaviours.

Social implications – It has been argued that graduate unemployment constitutes a social problem to the society. In this regard, the suggestions made in this paper, if applied, would help resolve the problem of graduate unemployment in Nigeria and other countries.

Originality/value – This study is the first to provide empirical evidence of the role of entrepreneurial lecturers in the relationship between EE and students' EIs. It has demonstrated that entrepreneurial lecturers could transfer the influence of EE to students' EIs. Also, it has confirmed that EE lecturers are critical in the EE-students' EIs relationship. Overall, this study makes a significant contribution to the discussion on how to enhance the effectiveness of EE in influencing students' EIs and behaviours.

Keywords Entrepreneurship education, Entrepreneurial intentions, Theory of planned behaviour, Entrepreneurial lecturers

Paper type Research paper

Introduction

The issue of whether entrepreneurs are born or made, to a large extent, has been resolved (Fenton and Barry, 2011). There seems to be a common understanding and agreement among academics, governments and policymakers that entrepreneurship can be taught and learned (Ismail and Ahmad, 2013; Gerba, 2012b; Kumara, 2012). Thus, the issue is no longer whether entrepreneurs can be made or whether EE can influence students' entrepreneurial intentions (EIs) and behaviours. The real issues that need to be addressed according to Sirelkhatim and Ganji (2015), Solesvik *et al.* (2014) and Henry (2013) are as follows:

- Who should teach EE?



- What should be its content?
- How should it be taught?
- For whom should it be taught? and
- Where should it be taught?

Fundamentally, this paper addresses the first issue: who should teach EE? This is a serious issue with many tertiary education institutions in Nigeria today. It is noteworthy that the Nigerian government introduced EE into the curricula of tertiary education institutions in the year 2006 and made it compulsory for all undergraduate students, regardless of their disciplines, to take certain entrepreneurship courses before graduation (Agbonlahor, 2016; Olorundare and Kayode, 2014; Anene and Imam, 2011). This entrepreneurship policy aims to equip undergraduate students with entrepreneurial knowledge, skills and competencies, and the motivation to engage in entrepreneurial ventures after graduation (Agbonlahor, 2016; Ojeifo, 2012; Onuma, 2016). To date, one of the major challenges against the success of the policy is that there is a dearth of qualified entrepreneurship lecturers (Agbonlahor, 2016; Onuma, 2016). The practice hitherto in many Nigerian universities, polytechnics and colleges of education is that lecturers are drafted from different departments such as economics, business administration, marketing and accounting, among others, to teach entrepreneurship courses (Agbonlahor, 2016). Note that while majority of these lecturers do not major in entrepreneurship, some of them may not have even taken any entrepreneurship courses during their undergraduate programmes. In effect, such lecturers would not be effective in teaching entrepreneurship courses and the quality of EE provided to the students would be adversely affected. Consequently, EE would not have much impact on students' EIs and behaviours.

It has become very imperative to address the issue of who should teach EE because despite the inclusion of EE in the curricula of higher education systems by many countries like Nigeria, graduate unemployment is still an issue of serious concern to those countries. Strikingly, the number of undergraduate students who became self-employed after graduation as a result of their exposure to EE is insignificant. For example, a study conducted by Othman *et al.* (2012) in Malaysia reveals that of the 1,968 undergraduate students exposed to EE only 24 of them became self-employed after graduation. This calls into question the effectiveness of EE in influencing students' EIs and behaviours. Even though a great deal of empirical studies have affirmed the positive impact of EE on students' EIs (Bae *et al.*, 2014; Martin *et al.*, 2013), it could be argued that the results of the positive impact of EE on students' EIs and behaviours seem to be more on paper than in reality. Perhaps, the issue is with the EE lecturers. The questions, which should be answered include: are the lecturers who teach EE entrepreneurially inclined? Can lecturers who are not entrepreneurially inclined teach students to become entrepreneurs? The underlying assumption of this paper is that EE has not impacted considerably on students' EIs and behaviours in reality because many of the lecturers who teach entrepreneurship courses are not entrepreneurially minded in terms of attitudes, intentions and behaviours. To underscore the importance of entrepreneurial lecturers, Ismail and Ahmad (2013) concluded that it is not only that the entrepreneurship curriculum in Malaysian polytechnics is ineffective, but also the lecturers who teach entrepreneurship courses do not seem to possess appropriate entrepreneurial skills and knowledge. To put it simply, the lecturers are not entrepreneurially inclined.

There are two important issues regarding who should teach EE. The first issue is about the content of EE. Basically, this is a curriculum issue. The issue of content is important because it helps to determine what is to be taught and who is to teach it. Essentially, the course content should determine who teaches the course. If the purpose of EE is to create fully fledged entrepreneurs, then EE curriculum should have both theoretical and

practical content. The theoretical part should educate students about the general field of entrepreneurship while the practical part should equip students with specific trade-related skills. Both parts should prepare students to become fully fledged entrepreneurs, who would be willing to establish their own businesses after graduation. To this end, the EE curriculum should be designed in such a way that the theoretical part precedes the practical part. The theoretical part helps to lay a solid foundation for the practical part. This enables the students to develop an entrepreneurial mindset. In other words, students' entrepreneurial mindset must be developed before they acquire specific trade-related skills. Otherwise, they would not have a strong inclination to establish their own businesses after graduation. The second issue is about who should teach the theoretical part and the practical part. The issue of who should teach the practical part is not complicated to decide. Since the practical part involves acquisition of trade-related skills, then experts in those trades should teach the practical part. However, the problem is with who should teach the theoretical part. For clarification purposes, this paper is concerned with the issue of who should teach the theoretical part of EE. Therefore, wherever the phrase "EE lecturers" is used in any part of this paper, it should be taken to mean the lecturers who teach the theoretical part of EE.

The issue of who should teach EE means that not everybody is qualified to teach EE. To all intents and purposes, entrepreneurship itself requires passion. Basically, entrepreneurship is a course that should be taught with passion. Therefore, EE lecturers should be passionate about the course to be able to inculcate entrepreneurial culture into the students. The lecturers' attitudes and behaviours must be supportive of the main purpose and the intended outcome of EE, which is to create fully fledged entrepreneurs. This implies that if EE lecturers are teaching students to be creative and innovative, they themselves must be creative and innovative. The point is not that EE lecturers must become business entrepreneurs before they can teach EE. The emphasis here is that EE lecturers must be entrepreneurially minded. They must have an entrepreneurial mindset. It should be noted that lecturers (or teachers generally) are sources of influence to the students. They are role models to the students, suggesting that EE lecturers could influence the students entrepreneurially. Moreover, the extant literature has demonstrated the role of role models such as entrepreneurial parents and successful entrepreneurs in the relationship between EE and students' EIs (Farrington *et al.*, 2012; Muofhe and Toit, 2011).

Furthermore, according to Croci (2016) and Carlsson *et al.* (2013), the field of entrepreneurship is still evolving, and this makes the issue of who should teach EE more complicated. Up till now, the debate on whether or not entrepreneurship should be regarded as an academic discipline has not been concluded (Croci, 2016). Moreover, entrepreneurship as a subject appears to be interdisciplinary (Croci, 2016). This is because many existing EE curricula cut across different disciplines such as finance, economics, sociology, management, marketing, psychology, anthropology and strategy (Croci, 2016; Carlsson *et al.*, 2013). Apart from that, not many universities offer entrepreneurship as an academic field of study, and consequently, the number of people who major in entrepreneurship is limited (Croci, 2016). For example, out of the 233 degree-awarding institutions in Nigeria, it is only 16 of them that offer entrepreneurship as a major (JAMB, 2018). Otherwise, the issue of who should teach EE should not have arisen. If core medical or engineering courses are taught by experts in those areas, then core entrepreneurship courses should be taught by entrepreneurship scholars.

In summary, while it is justifiable to recommend that the people who studied entrepreneurship as a major should teach EE, it should be noted that the position of this paper goes beyond studying entrepreneurship as a major for one to be qualified to teach EE. This paper stresses further that EE lecturers must be entrepreneurially inclined for EE to

have a significant impact on students' EIs and behaviours. In other words, even those who studied entrepreneurship as a major must be entrepreneurially minded for EE to have a considerable influence on students' EIs and behaviours.

Problem statement/rationale for the study

Youth unemployment is one of the challenges facing many countries today, particularly the developing countries (David, 2015; Ajufu, 2013; Gorlich *et al.*, 2013). Available statistics shows that about 70.5 per cent of the world's unemployed are youths (ILO, 2016). In Nigeria, youth unemployment rate is estimated at 53.3 per cent of the total labour force (NBS, 2017). The resultant effects of youth unemployment are numerous, grievous and contagious. These include armed robbery, drug trafficking and addiction, human trafficking, prostitution, kidnapping (or hostage taking), advance fee fraud, cultism, political thuggery, uprising and terrorism (Anene and Imam, 2011).

Of more worrisome is graduate unemployment (Gerba, 2012b; Li and Liu, 2011). For example, the extant literature shows that graduate unemployment rate in Nigeria increased from 25.6 per cent in 2003 to 42.7 per cent in 2011 (Muhammad *et al.*, 2015). Also, according to Olukayode (2017), about 60 per cent of Nigerian graduates are unemployed. To complicate matters further, graduates are churned out in large numbers into the labour market that is already overcrowded on yearly basis (Onuma, 2016; Lourenco *et al.*, 2013). Thus, supply of labour far outweighs demand for labour. Moreover, it has been argued that many Nigerian graduates are unemployable, as they do not possess the requisite knowledge and skills to match today's challenging jobs (Onuma, 2016). In order to tackle the problem of graduate unemployment in Nigeria, the Federal Government has initiated a number of entrepreneurship development policies and programmes, which include; first, the inclusion of EE in the curricula of tertiary education institutions; second, the establishment of functional entrepreneurship development centres; and third, the introduction of different entrepreneurship development programmes such as Youth Entrepreneurship Support Programme (YES-Programme) and Youth Enterprise with Innovation in Nigeria (YouWin), among others. However, despite government's efforts to tackle the problem of graduate unemployment through entrepreneurship development, many Nigerian graduates are still unemployed (Agbonlahor, 2016; Ojeifo, 2012; Onuma, 2016).

Ever since EE is integrated into the curricular of tertiary education systems in some countries, a plethora of empirical studies have explored its impact on students' EIs. While some studies have investigated the direct link between EE and students' EIs (Bae *et al.*, 2014; Hattab, 2014; Gerba, 2012a; Fayolle *et al.*, 2006), other studies have examined the moderating effects of factors such as role model, self-confidence, family background and support, culture, age and gender on the relationship between EE and students' EIs (Mahmood and Abdullateef, 2017; Farrington *et al.*, 2012; Laviolette *et al.*, 2012; Sesen, 2012; Uddin and Bose, 2012; Fayolle *et al.*, 2006). However, there is no empirical evidence of the role of entrepreneurial lecturers in the relationship between EE and students' EIs; a gap this study addresses. This study addresses the identified gap by providing an answer to the question (who should teach EE?) asked by Sirelkhatim and Ganji (2015), Solesvik *et al.* (2014) and Henry (2013). This paper argues that entrepreneurial lecturers should teach EE. This line of argument is in agreement with the submission made by Lope Pihie and Bagheri (2011) that entrepreneurship teachers should be entrepreneurial. To the author's knowledge, this study is the first to empirically explore the role of entrepreneurial lecturers in the relationship between EE and students' EIs. This study argues that the entrepreneurial attitudes and behaviours of EE lecturers are critical in the relationship between EE and students' EIs and in the teaching of EE as a subject. The study stresses that entrepreneurial lecturers, who are perceived to be entrepreneurially minded by the students, could help transfer the impact of EE to students' EIs. This suggests that entrepreneurial lecturers

enhance the effectiveness of EE in influencing students' EIs. Put differently, the more entrepreneurial the EE lecturers are, the greater the impact of EE on students' EIs.

This study makes theoretical and practical contributions to the existing literature on EE and students' EIs. Specifically, it contributes greatly to the discussion on how to enhance the effectiveness of EE in influencing students' EIs and behaviours. More importantly, it addresses the problem of who should teach EE that many tertiary education institutions are facing today. Moreover, this study is able to show that entrepreneurial lecturers help to increase the impact of EE on students' EIs. Lastly, aside from higher education institutions in Nigeria that would benefit from this research work, higher education institutions in other countries that are facing similar problem of who should teach EE would equally benefit immensely from this study.

In view of the above discussion, the general purpose of this study is to empirically explore the role of entrepreneurial lecturers in the relationship between EE and students' EIs. The specific objectives of this study are:

- to determine whether EE has a significantly positive relationship with students' EIs, and
- to empirically establish whether the relationship between EE and students' EIs is mediated by entrepreneurial lecturers, who are perceived to be entrepreneurially inclined by the students.

To achieve the above objectives, the rest of this paper is structured as follows. After this introduction, the second section reviews the related literature on EIs, antecedents to EIs, EE and the social learning theory. The third section presents and explains the study's conceptual framework while the fourth section explains the methodological approach adopted for this study. The fifth section presents and discusses the results of the study whereas the sixth section concludes the paper and highlights the implications of the findings of the study. The last section highlights the study's limitations and suggests for future studies.

Literature review and hypotheses development

This section specifically reviews the related literature on EIs, antecedents to EIs, EE, direct impact of EE on students' EIs, the social learning theory and the role of entrepreneurial lecturers with a view to developing research hypotheses and framework.

EIs

Basically, intention is an underlying factor when explaining people's behaviours. This implies that people's behaviours are intentional. Studies have demonstrated that intention is positively related to behaviour (Ajzen, 1991). In other words, intention is an antecedent to behaviour (Urban and Ratsimanetrimanana, 2015). Intention can be defined as the state of mindset, which guides and directs people's attention towards performing a particular behaviour (Uygun and Kasimoglu, 2013). Ajzen (1991) defines intention as "the indication of how hard people are willing to try, of how much an effort they are planning to exert, in order to perform the behaviour" (p. 181). Usually, the stronger the intention, the more likely that the person will perform the behaviour (Thu and Hieu, 2017). Based on the general definition of intention, EI is, therefore, defined as an individual's decision to launch a business venture in the future (Sesen, 2012). It is a state of mind that directs and guides individuals towards the establishment of an entrepreneurial venture (Karimi *et al.*, 2016). The decision to become an entrepreneur involves a conscious and mental process (Sesen, 2012). This means that entrepreneurial behaviour is both planned and intentional (Bellò *et al.*, 2018; Molaei *et al.*, 2014; Yang, 2013; Ulysses *et al.*, 2011). Research evidence shows that entrepreneurial attitudes are positively related to EIs and, by extension, to entrepreneurial behaviours (Bahadur and Naimatullah, 2015; Souitaris *et al.*, 2007).

Antecedents to EIs

Several factors affect people's EIs (Hattab, 2014). These factors are called antecedents to EIs. The antecedents act as the key to understanding the complexities of the entrepreneurial process. From the extensive review of the existing literature carried out, antecedents to EIs are as follows.

Personality or psychological factors affect people's EIs and their decisions to start a business. The extant literature has shown that personality characteristics such as self-confidence, risk-taking proclivity, creativity, innovativeness, tolerance for ambiguity and uncertainty, internal locus of control, self-efficacy and independence influence people's EIs (Solesvik *et al.*, 2014; Sesen, 2012; Uddin and Bose, 2012; Fayolle *et al.*, 2006). It has been argued that people with higher need for achievement, increased self-efficacy and stronger internal locus of control possess stronger EIs than those with lesser need for achievement, lesser self-efficacy and weaker internal locus of control. Also, self-confidence is a significant factor when taking a decision to start a new business. Available empirical evidence has confirmed that self-confidence moderates the EE–EIs relationship (Mahmood and Abdullateef, 2017). Additionally, research has demonstrated that internal locus of control and risk-taking propensity are positively related to attitude towards entrepreneurial behaviour (Vuorio *et al.*, 2017; Bacq *et al.*, 2016; Lüthje and Franke, 2003).

Environmental factors such as social, economic, cultural, political and technological factors influence people's EIs. The existing literature underscores the importance of environmental factors in the entrepreneurship process (Covin and Slevin, 1991). Environmental factors are capable of facilitating or impeding the birth and growth of an enterprise. Environment presents opportunities that people could exploit. Equally, it poses threats that could retard the birth and growth of an enterprise. The presence of viable business opportunities could influence people's disposition to start a business. Similarly, it has been argued that the impact of EE on people's entrepreneurial behaviours varies according to cultural settings (Urban and Ratsimanetrimanana, 2015; Solesvik *et al.*, 2014). More so, technological advancements may possibly mean more business opportunities that could influence people's decision to engage in the entrepreneurial process.

Contextual or situational factors such as parental influence, role models, prior work experience and social networks affect people's EIs (Hattab, 2014; Iacobucci and Micozzi, 2012). Generally, parents play an important role in their children's decision to choose an entrepreneurial career (Muofhe and Toit, 2011; Fayolle *et al.*, 2006). This is true, especially when one has parents who are successful business entrepreneurs. There is the likelihood that successful entrepreneurial parents would tilt their children towards becoming entrepreneurs. Moreover, many children see their parents as role models. Studies have confirmed a positive link between parental role model and preference for a self-employment career (Fayolle *et al.*, 2006). Role models could also be successful businessmen and businesswomen in the society. Empirical research has established that role model moderates the relationship between EE and EIs (Farrington *et al.*, 2012; Muofhe and Toit, 2011). In addition, it has been argued that people with previous work experience in entrepreneurial activities are more likely to start a business than those whose previous experience is not related to entrepreneurial activities (Alessandro *et al.*, 2016; Ucbasaran *et al.*, 2001). Besides, empirical studies have established that previous entrepreneurial experience moderates the relationship between EE and students' EIs (Alexandros, 2016).

Several motivational factors influence one's decision to become an entrepreneur. Motivational factors can be categorised into push and pull factors (Deli, 2011). Push motivational factors are negative factors that drive people towards business ownership not so much out of choice but out of necessity (Varghese and George, 2015). Push motivational factors lead to necessity entrepreneurship. Examples of push motivational factors are: dissatisfaction with one's current financial position, dissatisfaction with a salaried job,

family pressure and difficulty in finding a job. On the other hand, pull motivational factors are positive factors that attract individuals into business ownership (Varghese and George, 2015). Pull motivational factors lead to opportunity entrepreneurship. Examples of pull motivational factors include: desire for independence, existence of viable business idea or opportunity, desire for social status, desire for wealth or financial reward, desire to achieve one's ambition and desire for security.

Demographical factors such as age and gender influence people's EIs (Saraf, 2015; Farrington *et al.*, 2012). Generally, owning and managing a business venture is perceived by many people as men's activities (Chaudhary, 2017; Westhead and Solesvik, 2016). It has been argued that men are significantly more likely to develop strong EIs than their women counterparts (Westhead and Solesvik, 2016). To confirm that submission, research evidence shows that there are more male entrepreneurs than female entrepreneurs (Fayolle *et al.*, 2006; Turker and Selcuk, 2009). Some studies have cited societal norms and cultural factors as barriers to women's active participation in entrepreneurial activities (Shinnar *et al.*, 2017; Gupta *et al.*, 2009). However, the limiting factors notwithstanding, it has been acknowledged that some women have strong EIs, especially in industries that are considered feminine, for example hospitality industry (Gupta *et al.*, 2009). Also, the extant literature acknowledges that age is related to entrepreneurial behaviour (Chaudhary, 2017). It has been argued that younger people who are energetic and ready to take risks are more likely to engage in entrepreneurship compared to older people who are less energetic and averse to risk-taking. Fung *et al.* (2001) submit that older people are not willing to invest in a business that takes time to yield returns. To sum up, empirical studies have demonstrated that men and young people are more amenable to entrepreneurial activity than women and old people (Austin and Nauta, 2015; Isabella *et al.*, 2015; Johansen, 2013; Crant, 1992).

Education can influence students' EIs. Generally, education is a tool that can be used to mould people's behaviours. Martin *et al.* (2013) argue that the general human capital that is acquired through education is presumed to provide the motivation, discipline, self-confidence, skills and knowledge that enables one to adapt to new and changing situations. Westhead and Solesvik (2016) describe education as "a key driver of entrepreneurial performance" (p. 4). While education generally helps to equip people with the knowledge, skills, attitudes and values that they need to live and function properly in the society; education programmes that concentrate on entrepreneurship play a significant role in influencing students' attitudes towards EIs and behaviours. EE is an educational process that is designed to influence people's attitudes, intentions and behaviours entrepreneurially. More importantly, exposure to EE is an important factor that influences students' decision to become entrepreneurs. A great deal of empirical studies have demonstrated that students who are exposed to EE are more likely to think and act entrepreneurially and have strong predisposition towards starting a new business venture after graduation than those who are not exposed to EE (Ahmad, 2015; Ismail and Ahmad, 2013; Iacobucci and Micozzi, 2012; Piperopoulos, 2012).

Drawing on Ajzen's (1991) theory of planned behaviour (TPB), people's intentions and behaviours are affected by three factors (Henley *et al.*, 2017). The first is attitude towards behaviours, which refers to individual's perceived positive or negative outcomes of a given behaviour. The second is social or subjective norms, which refer to individual's perception of people's opinions for and against performing a particular behaviour. And the third is perceived behavioural control, which refers to individual's perception of factors that facilitate or impede the performance of a particular behaviour (Rohit, 2016; Bahadur and Naimatullah, 2015; Mohamed *et al.*, 2012; Franco *et al.*, 2010; Ajzen, 1991). Therefore, applying the TPB to entrepreneurship, it has been argued that positive attitude towards entrepreneurial behaviour, encouraging subjective norms for entrepreneurial behaviour and favourable perceived behavioural control for entrepreneurial behaviour are

positively related to people's EIs (Bahadur and Naimatullah, 2015). This means that people are more likely to engage in entrepreneurial behaviour if they have favourable assessments of the behaviour in question, if they have positive perception that their reference people agree with the behaviour, and if they have positive perception that their engagement in the behaviour is feasible.

Furthermore, Shapero and Sokol's (1982) entrepreneurial event model (EEM) posits that people's EIs are influenced by three factors: perceived desirability, propensity to act and perceived feasibility (Guzmán-Alfonso and Guzmán-Cuevas, 2012; Sesen, 2012; Shapero and Sokol, 1982). Perceived desirability is the degree of attractiveness for an individual to start a business venture while propensity to act refers to an individual's predisposition to act on an identified business opportunity. On the other hand, perceived feasibility is the degree to which an individual perceives his or her ability to become an entrepreneur or to start a business. Research has demonstrated that positive perceived desirability of an entrepreneurial venture, stronger propensity to act entrepreneurially and positive perceived feasibility to start an entrepreneurial venture increase individuals' predisposition towards choosing an entrepreneurial career (Urban and Kujinga, 2017; Bacq *et al.*, 2016). It implies that people are more likely to engage in entrepreneurship if they perceive that it is attractive and practicable, and if they have the capacity to act on the identified opportunity.

EE

Like its parent field (entrepreneurship), EE defies a commonly accepted definition. It has attracted a plethora of definitions from different entrepreneurship scholars. According to Ramayah *et al.* (2012), EE is defined "as the collection of formalized teachings that inform, train and educate learners who are interested in setting up a business" (p. 69). Also, Liñán (2004) defined EE as "the whole set of education and training activities – within the education system or not – that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, desirability of the entrepreneurial activity, or its feasibility" (p. 166). Furthermore, according to Iacobucci and Micozzi (2012), EE is defined "as the process of providing individuals with the ability to recognize commercial opportunities and the insight, self-esteem, knowledge and skills to act on them" (p. 678). Similarly, Gerba (2012a, b) defined EE "as the structured formal conveyance of entrepreneurial competencies, which, in turn, refers to the concepts, skills and mental awareness used by individuals during the process of starting and developing their growth oriented ventures" (p. 227).

The above definitions imply that EE is meant to promote the spirit and culture of entrepreneurship among students (Johansen, 2013; Iacobucci and Micozzi, 2012). It has been reported that EE increases students' propensity to start a new business after graduation (Byabashaija and Katono, 2011; Olomi and Sinyamule, 2009). Also, research evidence has demonstrated that students who studied entrepreneurship are more likely to have the proclivity for an entrepreneurial career than those who did not study entrepreneurship (Piperopoulos, 2012). Basically, EE prepares and encourages students to discover, create and exploit opportunities (Westhead and Solesvik, 2016). It equips students with the necessary knowledge, skills and competencies that they need to translate opportunities into viable ventures. The entrepreneurship literature has acknowledged that EE is capable of tackling the problem of graduate unemployment (Jones and Colwill, 2013).

Development of hypotheses

Direct impact of EE on students' EIs. A great deal of empirical studies have explored the impact of EE on students' EIs (Bae *et al.*, 2014; Martin *et al.*, 2013). Also, empirical evidence of the positive impact of EE on students' EIs abound in the literature on EE and EIs

(Farashah, 2013; Hattab, 2014; Gerba, 2012a, b; Westhead and Solesvik, 2016). Nevertheless, in spite of the compelling research evidence of the positive impact of EE on students' EIs, empirical evidence of the direct impact of EE on students' EIs is limited. Most of the past studies tested the impact of EE on students' EIs through the TPB constructs (i.e. ATB, SN and PBC) (Aslam *et al.*, 2012; Ahmed *et al.*, 2017; Gerba, 2012a, b; Fayolle *et al.*, 2006; Maresch *et al.*, 2016; Byabashaija and Katono, 2011). Thus, the direct link between EE and students' EIs is not clearly established in the literature on EE and students' EIs (Lorz, 2011; Oosterbeek *et al.*, 2010; Pittaway and Cope, 2007; von Graevenitz *et al.*, 2010). This calls for more research on the direct impact of EE on students' EIs. Note that while the TPB constructs could absorb and transfer the effects of EE to students' EIs, it is also possible for EE to have a direct link with students' EIs without being mediated by the TPB constructs (Maresch *et al.*, 2016; Passaro *et al.*, 2018). It has been argued that students' EIs are affected by a multiplicity of factors; factors other than the TPB constructs (Passaro *et al.*, 2018). Moreover, the effectiveness of EE in influencing students' EIs does not seem to be affected by the TPB constructs (Maresch *et al.*, 2016). Based on the above premise, it is hypothesised that:

H1. EE has a significantly positive relationship with students' EIs.

Social learning theory and the mediating role of entrepreneurial lecturers. A lot of theories have been proposed to explain why people exhibit a particular behaviour. Albert Bandura's (1971) social learning theory is one of such theories. It is a theory of learning and social behaviour, which propounds that a new behaviour can be acquired by observing and imitating other people (Bandura, 1971). It is argued that learning is a cognitive process that can take place in a social context through observation, imitation and modelling. Bandura theorizes that people learn from one another. In real life, it is evident that people have role models who are sources of influence to them. They look up to them and even desire to be like them. Some people develop behaviours that are similar to the behaviours of those they see as their role models. In other words, people acquire new behaviours by direct observation and imitation of other people's behaviours.

Social learning theory is very much related to the subject matter under discussion. For instance, EE is taught in a social context, which involves an interaction between the lecturers and the students. Besides, lecturers (or teachers) are widely regarded as role models by the students. Some students aspire to be like their teachers. Role models influence people's behaviours. A lot of people model themselves on their role models. Besides, it has been noted that role models such as entrepreneurial parents and successful business entrepreneurs influence students' EIs and behaviours (Saraf, 2015; Laviolette *et al.*, 2012). Therefore, if EE lecturers, who are regarded as role models by the students, are entrepreneurially minded in terms of attitudes and behaviours, there is the likelihood that many of the students would like to be like them, and that would increase the impact of EE on the students' EIs and behaviours.

From the above discussion, it can be deduced that the impact of EE on students' EIs would be greater if EE is taught by lecturers who are entrepreneurially minded. According to Lope Pihie and Bagheri (2011), entrepreneurial teachers help to enhance the impact of EE on students' EIs. Similarly, Ali *et al.* (2009) stress that an entrepreneurially minded teacher is required for effective implementation of EE. From a practical point of view, EE lecturers transfer entrepreneurial knowledge and skills to students. However, to be able do that, the EE lecturers themselves must possess entrepreneurial knowledge and skills before they can transfer the knowledge and skills to students. More importantly, EE lecturers should possess certain entrepreneurial qualities such as creativity, innovativeness and self-confidence, among others, and they should be perceived by the students that they possess these qualities. In that regard, this paper argues that students are more likely to be

inspired if they perceive their EE lecturers to be entrepreneurially minded. The mere fact that the students perceive their EE lecturers to be entrepreneurially inclined can increase the effects of EE on the students' EIs. Based on the above premise, it is hypothesised that:

H2. The relationship between EE and students' EIs is mediated by entrepreneurial lecturers, who are perceived to be entrepreneurially inclined by the students.

Conceptual framework

The detailed literature review undertaken formed the basis for the development of the following conceptual framework. Thus, Figure 1 shows the mediating effect of entrepreneurial lecturers on the relationship between EE and students' EIs. The assumption here is that the impact of EE on students' EIs would be greater if EE is taught by entrepreneurial lecturers, who are perceived to be entrepreneurially inclined by the students. Henceforth, entrepreneurial lecturers shall be referred to as perceived entrepreneurial lecturers (PELs). Specifically, in Figure 1, EE is conceptualised to have a direct link with students' EIs. This suggests that EE is capable of affecting students' EIs directly, either positively or negatively. Also, EE is hypothesised to have a direct relationship with PELs. Additionally, PELs is conceptualised to have to a direct link with students' EIs, implying that PELs could predict students' EIs. Lastly, it is hypothesised that the relationship between EE and students' EIs is mediated by PELs, suggesting that PELs could absorb and transfer the influence of EE to students' EIs.

Methods

This section explains the methods adopted in data collection and analysis and how the study's variables were operationalized.

Research design

The purpose of this study is to infer from the analyses performed the relationships that exist among the variables examined. Thus, this study adopted an inferential research design. It was a cross-sectional study as data were collected at one point in time.

Population and sampling technique

The population of this study consists of 750 Higher National Diploma (HND) II students of the School of Business Studies (SBS), Federal Polytechnic, Idah, Kogi State, Nigeria. From Krejcie and Morgan's (1970) Population and Sample Size Table, a sample size of 256 was arrived at. Consequently, a sample of 256 HND II students were selected following a simple random sampling technique. The class list served as the sampling frame.

Data collection and analysis

A self-reported questionnaire was administered to the selected students for primary data collection. The questionnaire was administered after the HND II students were exposed to EE.

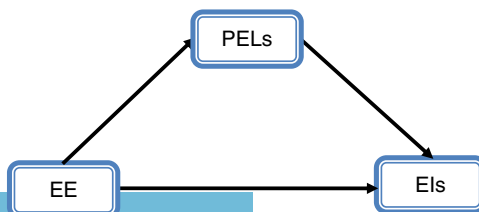


Figure 1. Conceptual framework

To be precise, the HND II students took an entrepreneurship course (i.e. EED 413: Entrepreneurship Development) as part of their first-semester coursework.

To analyse the data collected, partial least squares structural equation modelling (PLS-SEM) was performed using SmartPLS 2.0.M3. PLS-SEM was employed because it allows different relationships to be tested simultaneously. Also, indirect effects can easily be calculated with PLS-SEM. This study tested a mediation model, which consists of EE as the independent variable, PELs as the mediator variable and EIs as the dependent variable. Specifically, in line with the objectives of this study, two models were tested. Model I was tested for the direct effect of EE on students' EIs while Model II was tested for the indirect effect of PELs on the relationship between EE and students' EIs. Note that PRPCESS v3.0 procedure for SPSS was followed in order to test for the significance of the indirect effect.

Operationalization of variables

The variables examined in this study were operationalized as follows.

EE. It is the extent to which students have acquired entrepreneurial knowledge and skills as a result of their exposure to EE. EE was measured with five items adopted from Tung (2011) and Souitaris *et al.* (2007).

EIs. It is the extent to which students desire to become entrepreneurs in the future. It was measured with six items adopted from Kolvereid and Isaksen (2006), Zhao *et al.* (2005) and Chen *et al.* (1998).

PELs. It is the extent to which students perceive their EE lecturers to be entrepreneurially inclined. It was measured with four items. Note that all the variables were measured with reflective items using a seven-point Likert scale, where 1 represents "strongly disagree" and 7 represents "strongly agree".

Common method variance

As was stated before, this study used a self-reported questionnaire to collect data for analysis. It has been noted that data gathered using a self-reported questionnaire is characterised by common method variance (CMV). CMV exists when data on the variables are collected from a single person. Thus, it is recommended that the data be checked to establish whether a single factor is accountable for the variation in the data. One method that is commonly employed to test for CMV is Harman's single-factor test. In this study, Harman's single-factor test was carried out to make sure that the data collected for analysis did not suffer from CMV using principal component analysis in SPSS (Podsakoff *et al.*, 2003). The results indicated that a single factor did not emerge. Out of the four-factor solution that emerged with a total variance of 62.566 per cent, the first factor explained only 20 per cent, implying that CMV is not an issue in this study.

Results and discussion

This section presents and discusses the results of the data analysis carried out. More precisely, it presents and discusses the results of the measurement and the structural models examined.

Assessment of the measurement model

Composite reliability, convergent validity and discriminant validity were used to assess the quality of the measurement model. The results of the measurement model showed that all the conditions for assessing a reflective measurement model were met (see Tables I and II).

Composite reliability was employed to assess the internal consistency of the items measuring the variables. An assessment of the measurement model showed that the composite reliability values for all the variables were above the threshold value of 0.70

Table I.

Results summary for the reflective measurement model

Variables	Indicators	Loadings	Indicator reliability	AVE	Composite reliability	Discriminant validity
EE	EEed3	0.870	0.757	0.662	0.80	Yes
	EEed4	0.754	0.569			
PELs	PELs1	0.714	0.510	0.612	0.83	Yes
	PELs3	0.808	0.653			
	PELs4	0.819	0.672			
EIs	EIs3	0.863	0.745	0.731	0.92	Yes
	EIs4	0.900	0.810			
	EIs5	0.862	0.743			
	EIs6	0.791	0.626			

Note: Noted that some indicators whose outer loadings could not meet the threshold value of 0.7 were dropped in order to enhance the AVE and the composite reliability values of the variables they reflect

Table II.

Discriminant validity

Variables	EE	EIs	PELs
EE	<i>0.814</i>		
SEIs	0.247	<i>0.855</i>	
ELs	0.279	0.532	<i>0.782</i>

(Hair *et al.*, 2010, 2014; Fornel and Larcker, 1981). This suggests a high internal consistency among the items measuring the variables.

Additionally, the average variance extracted (AVE) and the individual indicator reliability were used to evaluate the convergent validity of the variables. An evaluation of the measurement model revealed that the AVE values for all the variables were more than the recommended value of 0.50 (Hair *et al.*, 2014). This means that all the variables passed the convergent validity test criterion. Additionally, the indicator reliability values for all the items measuring the variables were loaded above the recommended value of 0.50 (Hair *et al.*, 2014). The results showed that all indicators' outer loadings were statistically significant.

Furthermore, Fornell–Larcker criterion and cross loading were used to assess the discriminant validity of the measurement model. Discriminant validity is defined as the extent to which a variable differs from the other variables (Hair *et al.*, 2010, 2014). It is the association between a variable and other variables. Fornell–Larcker criterion matches the square root of the AVE values with the correlations of the latent variables. A variable passes a discriminant validity test if the square root of the variable's AVE value is more than the highest correlation that the variable has with other variables (Fornel and Larcker, 1981). The results of the measurement model showed that all the variables passed the discriminant validity test. The square root of each variable's AVE value was more than the correlation that the variable had with other variables (see Table II for details). Note that the numbers shown diagonally in bold and italics represent the square root of the variables' AVE values and the rest are the correlations between the variables.

Cross loadings, on the other hand, describe how strongly each indicator measuring a variable loads on the other variables. An assessment of the measurement model indicated that the variables passed the discriminant validity criterion. All indicators' outer loadings on the associated variable were greater than all of their loadings on other variables (see Table III for details).

Assessment of the structural models and hypotheses testing

Table IV and Figure 2 show the details of the bootstrapping results of the structural relationships among the variables.

Model I was tested for the direct effect of EE on students' EIs. As hypothesised, the results of the structural model indicated a significantly positive relationship between EE and students' EIs, $\beta = 0.269$, $t = 5.293$. This means that *H1* is supported. The findings show that EE predicts students' EIs. It suggests that an increase in EE would lead to a corresponding increase in students' EIs. In practical terms, it means that EE can increase students' disposition to choose entrepreneurial career paths. The findings are consistent with the findings of the previous studies that examined the links between EE and students' EIs (Hattab, 2014; Maresch *et al.*, 2016; Passaro *et al.*, 2018).

Model II was tested for the mediating effect of PELs on the relationship between EE and students' EIs. A mediating effect exists when a third variable intervenes between two variables that are related (Hair *et al.*, 2014). To test for the mediating effect of PELs on the relationship between EE and students' EIs, the conditions stipulated by Baron and Kenny (1986) were applied. According to the authors, a mediating effect exists if the following four

Table III.
Indicators' cross loadings

Constructs	EE	EIs	PELs
EE3	0.8697	0.2364	0.2481
EE4	0.7536	0.1581	0.2035
EIs3	0.1792	0.8634	0.4625
EIs4	0.1591	0.8998	0.5007
EIs5	0.2216	0.8615	0.434
EIs6	0.2936	0.7909	0.4182
PELs1	0.262	0.2587	0.7139
PELs3	0.159	0.5425	0.8083
PELs4	0.2607	0.3942	0.8195

Table IV.
Results summary for the structural models

Models	Path coefficients	SE	t-values
EE → EIs ^a	0.269	0.0523	5.293
EE → PELs	0.279	0.0562	5.008
PELs → EIs	0.502	0.0560	8.946
EE → EIs ^b	0.107	0.0616	1.730

Notes: ^aWithout mediator variable and ^bwith mediator variable

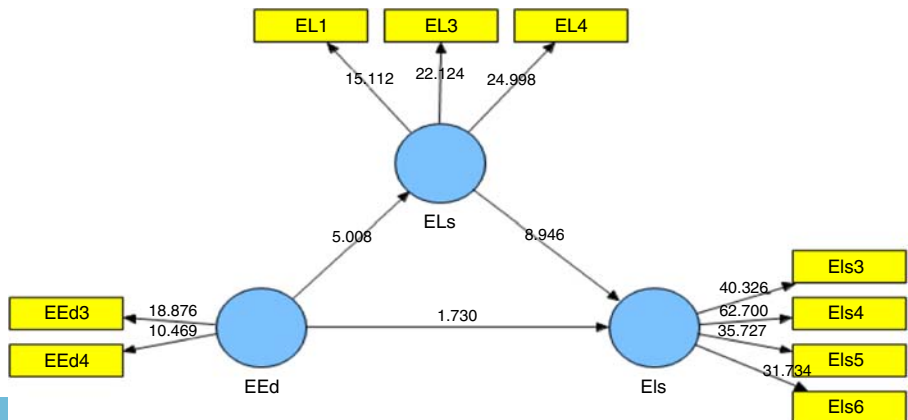


Figure 2.
The structural model

conditions are met: one, the link between the independent variable and the dependent variable should be significant in the absence of the mediator variable; two, the link between the independent variable and the mediator variable should be significant; three, the link between the mediator variable and the dependent variable should be significant; and four, when the independent variable and the mediator variable are controlled, a previously significant relationship between the independent variable and the dependent variable should become non-significant or reduce significantly. In Model I, the direct path between EE and students' EIs was tested and the results showed a significantly positive relationship between the two variables ($\beta = 0.269, t = 5.293$). Next, the mediator variable (PELs) was added to Model I to create a mediation model (Model II).

As expected, an assessment of the mediation model revealed a significantly positive relationship between EE and PELs, $\beta = 0.279, t = 5.008$ and between PELs and students' EIs, $\beta = 0.502, t = 8.946$. These results provide some evidence of the presence of a mediating effect (Wu and Zumbo, 2008). When the paths between EE and PELs and between PELs and students' EIs were controlled (Baron and Kenny, 1986), the previously significantly positive relationship between EE and students' EIs according to Model I changed significantly. In other words, the erstwhile statistically significant relationship between EE and students' EIs became nonsignificant with the inclusion of PELs in the model, $\beta = 0.107, t = 1.730$. This was a case of full or complete mediation effect (Hair *et al.*, 2014; Baron and Kenny, 1986). It means that the indirect effect was significant and absorbed the direct effect of EE on students' EIs (Hair *et al.*, 2014). From the findings, $H2$ is supported.

To determine the size of the indirect effect in relation to the total effect, the variance accounted for (VAF) was assessed. VAF is calculated by dividing the indirect effect by the total effect (Hair *et al.*, 2014). The indirect effect was calculated by multiplying the coefficients for the path between EE and PELs, $\beta = 0.279$, and the path between PELs and students' EIs, $\beta = 0.502$. That is, the indirect effect is $0.279 \times 0.502 = 0.140$. On the other hand, the total effect was calculated by adding the direct and the indirect effects (i.e. $0.107 + 0.140 = 0.247$). Thus, $VAF = 0.140/0.247 = 0.57$. It means that 57 per cent of the variance in students' EIs is explained by EE through PELs. Note that a VAF that is more than 20 per cent but less than 80 per cent indicates partial mediation (Hair *et al.*, 2014).

Furthermore, a formal significance test of the indirect effect was assessed following Hayes' (2013) PROCESS procedure in SPSS (Kane and Ashbaugh, 2017; Hayes, 2013; Zhao *et al.*, 2010; Preacher and Hayes, 2004). Thus, using a bias-corrected bootstrapping with 10,000 resamples, the indirect effect was statistically significant, $\beta = 0.140, SE = 0.032$, with a 95% confidence interval excluding zero (0.08 to 0.20). Additionally, the PROCESS output confirmed a statistically nonsignificant direct effect of EE on students' EIs, $\beta = 0.046, p = 0.646$, suggesting a full mediation effect.

From the results of the mediation test, it can be deduced that EE has an indirect effect on students' EIs via PELs. What it means is that students' EIs can be greatly influenced if they perceive their EE lecturers to be entrepreneurially inclined. That is, the more positive the students perceive their EE lecturers to be entrepreneurially minded, the greater the impact of EE on the students' EIs. The results suggest that EE would have greater impact on students' EIs if it is taught by lecturers who are entrepreneurially inclined.

Conclusions and implications

This study empirically explores the role of entrepreneurial lecturers in the relationship between EE and students' EIs. Specifically, this study aims to determine whether EE has a significantly positive relationship with students' EIs and to empirically establish whether entrepreneurial lecturers mediate the relationship between EE and students' EIs. As expected, the results of Model I showed that EE had a significantly positive relationship with students' EIs. Also, analysis of Model II revealed that entrepreneurial lecturers

mediated the relationship between EE and students' EIs. Based on the findings, it can be concluded that, even though EE has been confirmed to have a strong positive impact on students' EIs, the impact would be greater if EE is taught by entrepreneurial lecturers, who are perceived to be entrepreneurially inclined by the students. This means that entrepreneurial lecturers enhance the effectiveness of EE in influencing students' EIs and behaviours. As a matter of fact, there is the likelihood that the lecturers' entrepreneurial attitudes and behaviours would rub off on students' EIs and behaviours. This is possible because many students see their lecturers as role models and even desire to be like them.

As stated in the introduction, EE lecturers do not need to become business entrepreneurs before they can teach EE. Nonetheless, the influence of business entrepreneurs on students' EIs should not be undermined. In this regard, to further enhance the impact of EE on students' EIs, schools should organise seminars where successful business entrepreneurs would be invited to have an interaction with the students. The seminar provides the platform for successful business entrepreneurs to share their personal experiences and success stories with the students. This would help to motivate students to think entrepreneurially and develop a strong predisposition towards starting a business venture after graduation. Certainly, there is the possibility that many students would like to be like the business entrepreneurs. Moreover, the existing literature confirms the moderating effect of role models such as successful business entrepreneurs on the relationship between EE and students' EIs (Saraf, 2015).

The findings of this study provide some insightful implications for the teaching of EE. By implication, this study has provided an answer to the question: who should teach EE? To achieve greater impact of EE on students' EIs and behaviours, entrepreneurial lecturers are required. The study has demonstrated that EE should be taught by lecturers whose entrepreneurial attitudes, intentions and behaviours are supportive of the main purpose and the intended outcome of EE, which is to create fully fledged entrepreneurs. It implies that EE lecturers should be entrepreneurially inclined. EE lecturers should demonstrate sufficient entrepreneurial attitudes and behaviours and be seen by the students as entrepreneurial role models. It should be noted that it goes beyond acquisition of entrepreneurial knowledge for EE lecturers to be entrepreneurial. As a matter of fact, EE lecturers should imbibe and develop a strong entrepreneurship culture. More specifically, they should be creative, innovative, self-confident, passionate, energetic, visionary, show initiative and risk-taking abilities, open to new ideas, have a positive attitude and be able to inspire others. More importantly, they should bring all these qualities to bear in the teaching of EE. The tertiary education institutions' administrators have an important role to play in making sure that EE lecturers are entrepreneurially minded. In that regard, the EE lecturers should be trained and retrained. Mandatory entrepreneurship training programmes or seminars should be organised for them at intervals. These programmes would equip them with sufficient entrepreneurial knowledge and skills that they need to teach EE effectively. The programmes would also enable them to develop an entrepreneurial mindset.

Furthermore, the results of this study have implications for the development of EE curriculum. EE curriculum should be enriched with both theoretical and practical content. More importantly, it should be developed in such a way that it spells out clearly what is to be taught and who is to teach it. It would help resolve the issue of who should teach EE. According to Johannisson (1991), an enriched EE curriculum should have four components (Tung, 2011; Fayolle *et al.*, 2006). The first component is the "know-what". It should focus on entrepreneurship concepts and theories. Students should be educated about entrepreneurship. It has been argued that EE curriculum should encompass the following areas of business management: accounting and finance, marketing, human resource, production, research and development, operations, risk management, team building, new product development, strategy development and implementation, legal issues, new venture creation and

organisational management, among others. The second component is the “know-why”. It should cover the benefits of acquiring entrepreneurial knowledge and skills. Students should be taught why they should engage in entrepreneurial activities. The third component is the “know-how”. It should focus on how to take entrepreneurial actions. Students should be taught the entrepreneurial process (i.e. how to identify and translate viable business ideas and opportunities into real entrepreneurial ventures). Specifically, they should be taught how to conduct a feasibility study and write a realistic and comprehensive business plan. The “know-how” should link entrepreneurial knowledge with practice. The fourth component is the “know-who”. Students should be exposed to different entrepreneurial role models and professionals. The EE curriculum should make it mandatory for students to interact with practicing and successful entrepreneurs. Overall, EE curriculum should emphasise more on skills acquisition. For instance, undergraduate students should be made to choose trades that interest them and acquire relevant skills.

As noted earlier, Nigeria’s graduate unemployment rate is high and it has been argued that many Nigerian graduates do not possess the requisite skills and knowledge needed by employers. The above suggestions, if applied, would help resolve the problem of graduate unemployment in Nigeria. First, the Nigerian undergraduate students’ entrepreneurial inclination would increase significantly as a result of their exposure to EE and the fact that they are taught by entrepreneurial lecturers, and consequently, the tendency for them to engage in entrepreneurial activities after graduation would be high. Second, the enrichment of EE curriculum, as suggested earlier, would help to equip undergraduates with entrepreneurial skills and knowledge, and accordingly, their employability or marketability in the labour market after graduation would be enhanced significantly.

Limitations and suggestions for future studies

Despite the significant contributions of this study, it has some notable limitations. First, this study was a single institutional study. Thus, the generalisability of its findings to other institutions is limited. Extending the research to other institutions and countries might be required to corroborate the findings presented.

Second, there are no universally accepted instruments for measuring EE. Most of the previous studies on the impact of EE on students’ EIs only explored the indirect impact of EE through factors such as attitudes towards behaviour, subjective norms, perceived behavioural control, among others (Bae *et al.*, 2014; Tung, 2011). This may be partly due to paucity of universally accepted instruments for measuring EE. Thus, future researchers could develop a universally acceptable instrument for measuring EE.

Third, this study recommends that potential EE lecturers must be entrepreneurially inclined. However, the question is: how do we measure the entrepreneurial orientation (EO) of the potential EE lecturers? Originally, EO defines organisational-level entrepreneurship, that is, the extent to which an organisation undertakes entrepreneurial activities (Covin and Wales, 2012). It defines the entrepreneurial behaviour or posture of an organisation. The existing EO instruments are specifically designed to measure firm-level entrepreneurship and not individual-level entrepreneurship. While the existing EO instruments can be modified to measure individual-level entrepreneurship, future researchers should design a specific instrument that can be used to determine the EO of prospective EE lecturers.

Finally, another limitation that is worth mentioning is the fact that this study adopted a cross-sectional approach to explore the impact of EE on students’ EIs. Specifically, the students were studied after they were exposed to EE with a view to determining the impact of EE on their EIs. Note that this approach is highly criticised on the grounds that it is difficult to establish cause-and-effect relationships (Sekaran and Bougie, 2013). It has been said that a longitudinal approach is more appropriate in determining the effect of

EE on students' EIs than a cross-sectional approach (Byabashaija and Katono, 2011). Thus, it is recommended that future researchers should adopt a longitudinal approach in examining the impact of EE on students' EIs.

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