



African Journal of Economic and Management Studies

Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa

Albert Puni, Alex Anlesinya, Patience Dzigbordi Akosua Korsorku,

Article information:

To cite this document:

Albert Puni, Alex Anlesinya, Patience Dzigbordi Akosua Korsorku, (2018) "Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa", African Journal of Economic and Management Studies, Vol. 9 Issue: 4, pp.492-511, <https://doi.org/10.1108/AJEMS-09-2017-0211>

Permanent link to this document:

<https://doi.org/10.1108/AJEMS-09-2017-0211>

Downloaded on: 13 June 2019, At: 05:29 (PT)

References: this document contains references to 92 other documents.

To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 299 times since 2018*

Users who downloaded this article also downloaded:

(2012), "Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia", African Journal of Economic and Management Studies, Vol. 3 Iss 2 pp. 258-277 https://doi.org/10.1108/20400701211265036

(2019), "Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter?", International Journal of Entrepreneurial Behaviour & Research, Vol. 25 Iss 2 pp. 259-280 https://doi.org/10.1108/IJEER-12-2017-0522

Access to this document was granted through an Emerald subscription provided by emerald-srm:534301 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa

Albert Puni

Faculty of Management, University of Professional Studies, Accra, Ghana

Alex Anlesinya

*Department of Organisation and Human Resource Management,
University of Ghana Business School, University of Ghana, Legon, Ghana, and
Patience Dzigbordi Akosua Korsorku
School of Graduate Studies of University,
University of Professional Studies, Accra, Ghana*

Abstract

Purpose – The purpose of this paper is to examine the mediating role of entrepreneurial self-efficacy (ESE) in the relationship between entrepreneurship education and intention in Ghana, Africa.

Design/methodology/approach – In all, 357 questionnaires from final year undergraduate students at a public university in Ghana are analysed using linear multiple regression.

Findings – The study reveals that entrepreneurship knowledge acquisition and opportunity recognition as dimensions of entrepreneurship education positively affect entrepreneurial intention (EI) and self-efficacy. Also, ESE increases the development of EI. The results further show that ESE mediated the relationship between the two measures of entrepreneurship education and EI.

Practical implications – The findings imply that when students are exposed to entrepreneurship knowledge and opportunity recognition skills via entrepreneurship education, they can develop high ESE and intention to engage in venture creation. Findings therefore urge stakeholders in the education sector in Africa to formulate policy guidelines for the design and teaching of entrepreneurship education. Such policies and guidelines should emphasise more students' acquisition of adequate knowledge in venture creation and management, and the development of skills for identifying business opportunities while instilling confidence in their abilities to become successful entrepreneurs.

Originality/value – The mediating role of ESE in the relationship between entrepreneurship education and intention has been under-researched globally not just in Africa. Hence, this first study to the best of the knowledge in a Sub-Saharan African context, contributes further empirical evidence by demonstrating that ESE is a central psychological mechanism that can convert entrepreneurship education into EI. Besides, the study defies some of the findings in advanced economies by indicating that a theoretical entrepreneurship education course in Africa may work differently than in advanced economies and may actually foster the development of EI unlike in advanced economies.

Keywords Ghana, Entrepreneurship education, Sub-Saharan Africa, Entrepreneurial self-efficacy, Entrepreneurial intention, Entrepreneurship training

Paper type Research paper

Introduction

Unemployment remains a daunting task for most authorities in Sub-Saharan Africa. Graduate unemployment in Ghana, for example, has increased from 14.7 per cent in 1987 to 40 per cent in 2011 (Baah-Boateng, 2015; Zakaria *et al.*, 2014). Earlier, Aryeetey (2001) revealed that approximately half of the graduates from higher institutions of learning in Ghana often remain unemployed for two years after their mandatory national service. To address this problem and its attendant economic and social problems sustainably, attention is being given

The authors would like to express the deep appreciation to the two anonymous reviewers and the editor for their constructive comments and supports throughout the review process.



to the inculcation and the promotion of an entrepreneurial culture through entrepreneurship education (Mundy and Verger, 2015; Mayhew *et al.*, 2012). Entrepreneurship education creates more entrepreneurs who can also create more jobs for poverty reduction and economic development (e.g. Adekiya and Ibrahim, 2016; Gerba, 2012; Küttima *et al.*, 2014; Linán and Chen, 2009; Pedrini *et al.*, 2017). Entrepreneurship education is the transfer of knowledge in business creation and management for students with the view of arousing their interest in venture creation (DeTienne and Chandler, 2004).

While studies (Lorz *et al.*, 2011; Müller, 2011; Pedrini *et al.*, 2017; Zhang *et al.*, 2014) indicate that entrepreneurial education increases entrepreneurial intention (EI), generally the results appear to be contradictory. For example, out of 41 researches that assessed the influence of entrepreneurship education, 33 found positive effects, six found no effect and two found negative results (Lorz *et al.*, 2011). Also, in a recent meta-analytic review, Bae *et al.* (2014) found that although entrepreneurship education has positive effect on EI, the effect was weak or small. Thus, on one hand, entrepreneurship education has a positive effect on EI (Gerba, 2012; Pedrini *et al.*, 2017), on the other hand, it has a negative effect (Martin *et al.*, 2012; Oosterbeek *et al.*, 2010) or no influence on EI (e.g. do Paço *et al.*, 2015). This contradiction in the findings is consistent with the views of some prior researchers (Bechard and Gregoire, 2005; Harrison and Leitch, 2005) that the despite extant literature on entrepreneurship education, evidence and greater understanding of how it affects EI and behaviours are still lacking. Moreover, although there are significant literature on the subject matter in several advanced economies (e.g. Iakovleva *et al.*, 2011; Krueger, 2009; Küttima *et al.*, 2014; Linán and Chen, 2009; Müller, 2011), entrepreneurship education research in Sub-Saharan Africa is generally very limited. Adekiya and Ibrahim (2016), Gerba (2012) and Pedrini *et al.* (2017) are among the few researchers who investigated this topic. Although they found positive results, due to the wide discrepancies in the entrepreneurship syllabi among universities across regions and even within countries (Jones and Matlay, 2011), further empirical researches are worthy of investigation. Besides, entrepreneurship education research in Africa compared to other regions in the world (Gerba, 2012; Nabi *et al.*, 2017; Naude and Havenga, 2005), can be described as embryonic, and needs more empirical evidence to deepen the insights of and expand stakeholders' understanding in order for appropriate interventions to be made. Hence, our first research objective seeks to examine the effect of entrepreneurship education on EI in Sub-Saharan Africa.

Additionally, entrepreneurship involves taking risks and managing severe difficulties (Krueger, 2003). Perception of these difficulties and risks among people can limit the effectiveness of entrepreneurship education on their EI. Thus, to surmount socio-cultural, economic and political challenges in the entrepreneurial arena, one may require a certain level of positive psychological resource, motivation and energy (Baron, 2004; Shane *et al.*, 2003). This suggests the need for mechanisms that convert entrepreneurship education into EI to be identified since knowledge about them will provide the avenue for the design and content of entrepreneurship education programmes to take into consideration factors that will facilitate the development of potential entrepreneurs (Edelman *et al.*, 2008). Indeed, the need to investigate other antecedents of EI as mediators in the relationship between entrepreneurship education and EI has become an important issue for advancing evidence-based knowledge about the impacts of entrepreneurship education on EI. In a recent meta-analytic review, Bae *et al.* (2014) noted that EI is affected by other antecedents, as a result, the "differential impacts of entrepreneurship education on EIs arise through (i.e. can be mediated by) those factors" (p. 242). They consequently made calls for future empirical studies to investigate mediators in the relationship between EE and EI. In this regard, entrepreneurial self-efficacy (ESE) has emerged from the literature as one of these potential mechanisms. ESE can be described as the entrepreneur's belief in his or her

ability to succeed in specific entrepreneurial situations or tasks (Drnovsek *et al.*, 2010). People who have high self-efficacy tend to exhibit higher intrinsic interests in entrepreneurial behaviours and activities (e.g. Boyd and Vozikis, 1994; Krueger, 2009; Miranda *et al.*, 2017). Besides, an efficacy judgment enhances the likelihood that people's intention will subsequently be translated into actions (McGee *et al.*, 2009). ESE can be acquired through entrepreneurship education since it helps in nurturing critical skills and positive attitudes towards work and eventually influence ESE (Pihie and Bagheri, 2010; UNCTAD, 2010). This therefore suggests that ESE can mediate the relationship between entrepreneurship education and EI. However, the mediating role of ESE in the relationship between entrepreneurship education and EI is generally under-researched and specifically in Africa. Admittedly, few studies (e.g. Chen and He, 2011; Kassean *et al.*, 2015; Piperopoulos and Dimov, 2015; Zhao *et al.*, 2005) have examined it elsewhere, but this may not reflect the conditions of countries in Sub-Saharan Africa giving cultural differences in EI (Kuada, 2015). Further investigation of this issue in the African context is thus necessary. Based on the above, the study seeks to add to the entrepreneurship education research in Sub-Saharan Africa by examining whether ESE can mediate the relationship between entrepreneurship education and EI.

This study contributes to literature in the following ways: First is theoretical contribution. The mediating role of ESE in the relationship between entrepreneurship education and EI has been under-researched (not just in Africa). Studying the mediating role of ESE has the potential to unveil a powerful mechanism for entrepreneurship education courses to translate into EI and facilitate the development of potential entrepreneurs (Edelman *et al.*, 2008). This is because, acquired gradually via entrepreneurship education, self-efficacy increases the level and content of personal aspirations, goals and decisions of people (Bandura *et al.*, 2001) and strategic risk taking (Krueger and Dickson, 1994). It also serves as an important motivational attribute of the entrepreneurial process as individuals accept the terms of the ambiguity surrounding the business situation which needs effort, persistence and planning through setbacks (Ali, 2013; Bandura, 1997; McGee *et al.*, 2009; Miranda *et al.*, 2017; Sesen, 2013; Setiawan, 2014). The study also responds to future research calls (e.g. Bae *et al.*, 2014) for the investigation of mediators or mechanisms that can translate entrepreneurship education into EI.

Moreover, there is no evidence on whether the mediating role of ESE in the relationship between EE and EI actually holds in Sub-Saharan Africa, as these constructs have been developed in different contexts. Hence, this is the first study to the best of our knowledge that investigates the mediating role of ESE in the relationship between EE and EI in an African context. Although few studies (e.g. Adekiya and Ibrahim, 2016; Gerba, 2012; Pedrini *et al.*, 2017) have examined the impacts of entrepreneurship education on EI in some African countries, based on the literature reviewed so far, we are yet to find a study that examines the mediating role of ESE in the relationship between entrepreneurship education and EI in Sub-Saharan Africa. For example, Pedrini *et al.* (2017) found that entrepreneurship education programmes have a positive effect on the antecedents of EI in Ghana. Some of the specific EI antecedents the authors focussed on are locus of control, self-efficacy, tolerance for ambiguity, needs for achievement, risk propensity, creativity, flexibility, and networking. Similarly, in Nigeria, Adekiya and Ibrahim (2016) indicated that entrepreneurship training influence EI positively among students. Prior to this, Gerba (2012) revealed that Ethiopian students who were exposed to some entrepreneurship education reported higher level of EI than their counterparts who were not. They further showed that male students demonstrate higher ESE than their female counterparts. However, none of these studies examine the indirect role of entrepreneurship education on the EI relationship via ESE. In addition, the few studies (e.g. Chen and He, 2011; Kassean *et al.*, 2015; Piperopoulos and Dimov, 2015; Zhao *et al.*, 2005) investigating the indirect role of

entrepreneurship education on EI relationship via ESE in contexts such as USA, Britain and China are insufficient due to cultural and contextual differences in EI (Bae *et al.*, 2014; Kuada, 2015). For example, in the more formal sectors, the unavailability of entrepreneurial experience and expertise pose major challenge to growth in even the most advanced economies in Africa (George *et al.*, 2016). In addition, creating and sustaining start-up businesses are challenging due to numerous obstacles one has to overcome, including harsh economic and cultural environments (Abor and Biekpe, 2006; Abor and Quartey, 2010; Olawale and Garwe, 2010). As a result, the mortality rate among entrepreneurial ventures or businesses in Africa is high, with most of them unable to beyond their second birthday (Okpara, 2011). Similarly, Olawale and Garwe (2010) found that globally, South Africa has the highest failure rates (70 per cent) of small and medium scale enterprises. This common feature of the Sub-Saharan African context obviously can obstruct entrepreneurial activities and behaviours by discouraging potential entrepreneurs. In this regard, strong psychological mechanisms like ESE are needed for entrepreneurship education courses in African universities to be translated into EI among students. More so, in a recent editorial of the Academy of Management Journal entitled “Bringing Africa in: Promising directions for management research”, George *et al.* (2016) argued that we cannot just apply the conclusions of studies in other parts of the world to the African context, and that, it is time to bring Africa into mainstream research and theories. They further maintained that “Africa offers great potential as a context for management research, and more empirical and conceptual work is warranted to explain the richness of the opportunities on the African continent and address the challenges within them” (p. 389). Thus, although few studies are available on the topic in mainly developed economies’ context, African-based research is needed. Besides, prior entrepreneurship studies in Africa focussed overly on EI rather than examining its determinants (Gerba, 2012) although few studies as earlier indicated recently have examined entrepreneurship education as an antecedent of EI. Therefore, this study provides further empirical evidence to extend existing knowledge about the topic in Sub-Saharan Africa, a region which according to prior studies (e.g. Gerba, 2012; Nabi *et al.*, 2017; Naude and Havenga, 2005) has been largely neglected in the entrepreneurship literature compared to its other counterparts in the world. It contributes further empirical evidence by demonstrating that ESE provides a mechanism through which entrepreneurship education can be converted into EI.

Third, the study made practical contributions. Given the claim that African countries are yet to fully exploit and realise their entrepreneurial potentials (Anlesinya *et al.*, 2015; Buame, 1996; Chamlee-Wright, 1997; Robson and Obeng, 2008) coupled with the rising rates of unemployment (see Aryeetey, 2001; Baah-Boateng, 2015; Zakaria *et al.*, 2014) and its attendant economic and social problems, this study highlights entrepreneurship education as a major conduit in shaping the quality of human capital, productive work and full employment. We subsequently provide advice on measures that can be implemented to ensure that the acquisition of entrepreneurship knowledge and building of the capacity and skills of students in identifying entrepreneurship opportunities are strongly emphasised in the design and teaching of entrepreneurship education courses in universities in Sub-Saharan Africa. The rest of the paper is organised as follows: The next section reviews related studies and proposed a conceptual model for testing. This is then followed by the research methods, analysis and discussions, and finally, the implications of findings and conclusion.

Literature review and conceptual model

Entrepreneurship intention encompasses attitudes towards the pursuit of entrepreneurship as a career option, and a willingness to act (Ajzen, 1991; Krueger *et al.*, 2000). According to Ajzen (1991), intentions are “assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an

effort they are planning to exert in order to perform the behaviour" (p. 181). While not all intentions translate into actual actions, there is still consensus that EI represents an important step in the formation of entrepreneurial behaviour and thus, regarded as a determinant of actual entrepreneurial behaviour (Ajzen, 1991; Krueger and Brazeal, 1994). It has been recognised that the inclusion of entrepreneurship education courses in the university curriculum can raise EI (Smith *et al.*, 2006), as it represents a major way of equipping people with the requisite knowledge, skills and attitudes to pursue entrepreneurial careers (Souitaris *et al.*, 2007). Entrepreneurship education teaches students the necessary behavioural traits an entrepreneur needs to possess to handle ambiguities and complexities to be successful (Neck and Greene, 2011). It involves mixing mental factors (knowledge, skill, and experiences) with inspirational factors to energise and shape the EI of students (Locke, 2000). It arouses and unearths entrepreneurship potential students are unaware of (Laukkanen, 2000). Thus, it allows people to acquire the multiple skills and talent required for the development of entrepreneurial ventures (Neck and Greene, 2011). Opponents of entrepreneurship education proposition argue that entrepreneurs must possess some special inborn attributes which promote entrepreneurship activities (Cope, 2005). Besides, entrepreneurial behaviours may be necessity driven. For example, most entrepreneurial activities in Sub-Saharan Africa are undertaken by individuals without entrepreneurial education and/or a lot of formal education. The necessity-driven nature of entrepreneurship in Africa is as a result of high unemployment rates (Aryeetey, 2001; Baah-Boateng, 2015; Zakaria *et al.*, 2014), low salaries (Evans and Leighon, 1989), marginalisation (Acheampong, 2013; Dana, 1997), and harsh economic environment. This consequently makes most Africans with little formal education or no entrepreneurship education to find creative and innovative means of meeting their basic needs of survival by engaging in self-employment behaviours.

While the above criticisms are true to some extent, there is a general agreement that entrepreneurship education can lead to EI. Potential entrepreneurs are able to learn by modelling good business practices and behaviours (Gartner, 1985). According to the European Commission (2012), "entrepreneurship education in higher education improves students' basic competence in entrepreneurship reinforces students' EI" (p. 7). Empirically, studies demonstrate that entrepreneurship education can influence the development of EI (Adekiya and Ibrahim, 2016; Ali, 2013; Krueger, 2009; Lee and Wong, 2004; Linán and Chen, 2009; Müller, 2011; Pedrini *et al.*, 2017). Using data from 602 Iranians, Ali (2013) concluded that the "completion of one entrepreneurship course increases the likelihood of having EI by 1.3 times" (p. 868). Kütüta *et al.* (2014) also showed that students who participated in entrepreneurship education in 17 European countries develop intentions to engage in entrepreneurship. In Nigeria, Adekiya and Ibrahim (2016) demonstrated that entrepreneurship education impact significantly on EI among final year students. Prior to this, Gerba's (2012) study involving Ethiopian students revealed that students who participated in entrepreneurial training develop higher intention to engage in entrepreneurship. Recently, Pedrini *et al.* (2017) used the "E4impact MBA" programme at the Catholic Institute of Business and Technology in Accra (Ghana) as a case study, and indicated that entrepreneurial education significantly increases students' EI. While these findings suggest positive impacts of entrepreneurship education on EI, entrepreneurship education research in Africa compared to other regions in the world (Nabi *et al.*, 2017; Naude and Havenga, 2005) is relatively limited and needs more empirical evidence to deepen the insights of and expand stakeholders' understanding in order for the implementation of necessary policy and practical interventions. Consequently, we hypothesised that:

H1. Entrepreneurial education will have a significant positive effect on EI.

Self-efficacy is the belief that a person has sufficient ability and capability to excel in what he or she decides or wants to achieve (Bandura, 1997). Baron (2004) describes self-efficacy as

a “belief in one’s ability to muster and implement necessary resources, skills, and competencies to attain levels of achievement” (p. 4). Thus, self-efficacy can be described as the confidence and belief one has in his ability and capacity to perform a designated activity successfully. There are opposing views on how self-efficacy is developed. One school of thought believed self-efficacy is an innate and inborn feature of the entrepreneur that cannot be learned or developed through education (Cope, 2005) while the other argued that education can develop and enhance one’s self-efficacy (UNCTAD, 2010). Acquired gradually via education, self-efficacy significantly increases the level and content of personal aspirations, goals and decisions of people (Bandura *et al.*, 2001). In their systematic review of entrepreneurship education research covering 1995 to 2006, Dickson *et al.* (2008) found that entrepreneurship training has a positive impact on an individual’s perception of their ability to start a new venture. Recently, Rauch and Hulsink (2015) also demonstrated that entrepreneurship education increases students’ perceived behavioural control. Prior to this, Zhao *et al.* (2005) found a significant relationship between formal learning and ESE. Thus, entrepreneurship education can play critical roles in the development of students’ ESE. Hence, we hypothesised that:

H2. Entrepreneurship education will have a significant positive effect on ESE.

Self-efficacy has also been linked to entrepreneurship. It is considered as a major determining factor of EI (Ali, 2013; Boyd and Vozikis, 1994; Krueger, 2003; Miranda *et al.*, 2017). ESE is an important motivational attribute of the entrepreneurial process as individuals accept the terms of the ambiguity surrounding the business situation which needs effort, persistence and planning (Bandura, 1997). Krueger and Dickson (1994) postulate that “high levels of self-efficacy are associated with strategic risk taking” (p. 94). People who have high self-efficacy tend to exhibit higher intrinsic interests in entrepreneurial behaviours and activities. Aside, “an entrepreneur who is high in self-efficacy is likely to exert more effort for a greater length of time, persist through setbacks, and develop better plans and strategies for the task” (Shane *et al.*, 2003, p. 267), thereby paving way for them to succeed in their chosen venture. It further implies that an efficacy judgment enhances the likelihood that people’s intention will subsequently be translated into actions (McGee *et al.*, 2009). Moreover, some recent studies (Ali, 2013; Miranda *et al.*, 2017; Sesen, 2013; Setiawan, 2014) supported the significant roles of ESE in the development of EI among people. Thus:

H3. ESE will have a significant positive effect on EI.

It is obvious from the preceding discussions that entrepreneurship education plays critical roles in the development of students’ ESE and EI. Similarly, ESE can influence the development of EI. Conceptually therefore, ESE can provide mechanisms for entrepreneurship education to affect EI. Indeed, some studies in China (Chen and He, 2011) and USA (Kassean *et al.*, 2015; Zhao *et al.*, 2005) revealed that ESE can mediate the relationship between entrepreneurship and EI. In a related study involving students at a major British university, Piperopoulos and Dimov (2015) revealed that self-efficacy affected the relationship between entrepreneurship education and EI, such that higher self-efficacy is associated with lower EI in the theoretically oriented courses, and higher EI in the practically oriented courses. They explained that “self-efficacy beliefs are activated in different ways depending on the nature of the course in terms of its context and pedagogical focus” (p. 12). However, these findings may be limited and also insufficient due to differences in contexts and cultural practices in EI (Bae *et al.*, 2014; Kuada, 2015). The nature of entrepreneurship and entrepreneurial environments in Africa is quite different from others. As earlier indicated, in Africa, entrepreneurship is more necessity-driven due to factors such as unemployment, low salaries, marginalisation, and the need to meet basic needs of survival in harsh economic environments. Moreover, Okpara (2011) observed that although there are large numbers of

business ventures in Africa, most of them are unable to remain in operations beyond two years of incorporation. Prior to this, Abor and Biekpe (2006), and Abor and Quartey (2010) found that in Sub-Saharan Africa and Ghana in particular, creating and sustaining start-up businesses are challenging due to numerous obstacles one has to overcome. While these hostile conditions exist in every context, they are more prevalent and severe in developing economies like African countries. This requires strong psychological mechanisms like ESE for entrepreneurship education courses in African universities to be translated into EI among students. In line with this, George *et al.* (2016) argued that Africa offers great potential as a context for business and management research, and more empirical and conceptual work is warranted to address the challenges within them. Similarly, recent systematic reviews (Dickson *et al.*, 2008; Nabi *et al.*, 2017) suggested the need for more entrepreneurship education studies in under-researched regions like Africa. Thus, although few studies are available on the topic in mainly developed economies' context, African-based research is needed. Based on the literature reviewed so far, we are yet to find a study that examines the mediating role of ESE in the relationship between entrepreneurship education and EI in Sub-Saharan Africa. Consequently, we predict that:

H4. ESE will mediate the relationship between entrepreneurial education and EI.

The hypotheses are summarised and presented in the conceptual model below. The model proposed that entrepreneurship education can increase EI (*H1*), and ESE (*H2*). Also, ESE can have a significant positive effect on EI (*H3*), as well as mediate the relationship between entrepreneurship education and EI (*H4*). The study controlled for gender (Karimi *et al.*, 2014; Harris and Gibson, 2008), family background in entrepreneurship (Andersson and Hammarstedt, 2011; Lindquist *et al.*, 2012), age (Gerba, 2012) and educational major or concentration (Maresch *et al.*, 2016) as they can impact on EI (Figure 1).

Methodology

Sample and data collection

The study used Ghana as a context to sheds light on the supportive roles of entrepreneurship education and ESE in the development of EI in Sub-Saharan Africa as it is

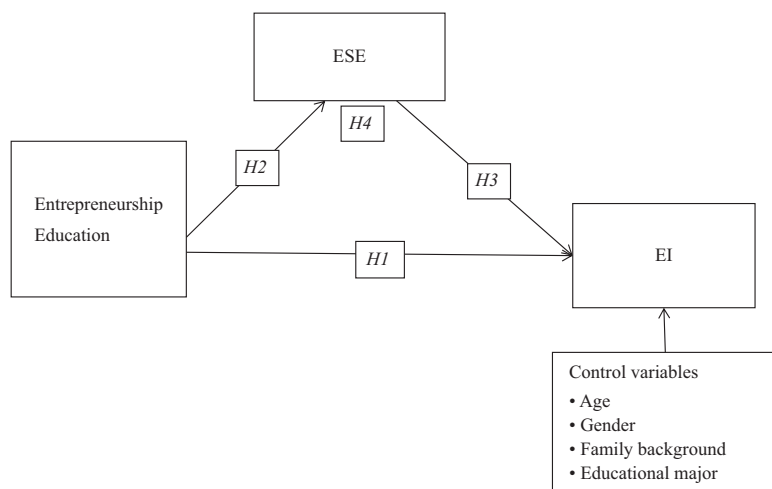


Figure 1.
Conceptual model of
entrepreneurship
education, intention
and self-efficacy

Source: Authors' own conceptual framework

representative of the broader context of the investigation. Primary data were collected from final year (Level 400) undergraduate students who completed a compulsory course in entrepreneurship. The expectation is that the entrepreneurial course can make them create their own jobs and even become employers of people. Indeed, Harris *et al.* (2007) revealed that students who complete one course in entrepreneurship and small business management exhibit more entrepreneurial behaviours. Similarly, Foley and Griffith (1998) argued that education helps to better prepare potential entrepreneurs to achieve their dreams. Hence, the use of students in entrepreneurial studies is common (e.g. Adekiya and Ibrahim, 2016; Kütüta *et al.*, 2014; Pedrini *et al.*, 2017). The study used students over people who completed the entrepreneurship course and are actual entrepreneurs because a systematic review of research methods in entrepreneurship education research (Lorz *et al.*, 2013) revealed that if a study is carried out several months or years after people benefited from the entrepreneurship course, their level of “entrepreneurial intentions, or the vocational choice will then have been influenced by a variety of factors and cannot be traced back to the intervention” (pp. 139-140). We limited our samples to one university due to the wide discrepancies in the entrepreneurship syllabi among Universities (Jones and Matlay, 2011). Moreover, in the meta-analytical review conducted by Bae *et al.* (2014), it emerged that for individual who already had EI before undergoing entrepreneurship education, the effect of entrepreneurship education on EI was non-significant, hence, the choice of university students and not entrepreneurs, as the latter already have EI.

The total number of final year students at the university was 3,546. According to Krejcie and Morgan (1970), a population of 3,500 and 4,000 require a minimum sample size of 346 and 351 respectively. However, we sampled 400 students using stratified and simple random sampling techniques. Due to incomplete questionnaires, 357 usable questionnaires were used. This represented a response rate of 89.25 per cent. A similar sample size was used in previous studies (Adekiya and Ibrahim, 2016; Gerba, 2012; Laviolette *et al.*, 2012). The stratified sampling was used in dividing the target population into the main business-related faculties: faculty of management, and faculty of accounting and finance. Students pursuing elective courses related to entrepreneurship specifically entrepreneurship and innovation management, and management of small business and enterprises courses were excluded from the study's sample, as they might already have developed EI, and like to obtain knowledge in furtherance of their motivation (Lorz *et al.*, 2013). We then employed simple random sampling method to select the students from each stratum. The use of these sampling methods was helpful in reducing errors of omission or biases in the selection process. The demographic analyses indicated that 224 (62.75 per cent) male and 133 (37.25 per cent) female students participated in the study. Most (96.36 per cent) were early or young adults (16–35 years), while few (3.64 per cent) were old adults (36–60 years – referring to the combination of middle-aged adults and older adults). 188 (52.66 per cent) of the respondents had a background in Accounting and Finance, and 169 (47.34 per cent) in Management. Finally, 286 (80.11 per cent) had family background in entrepreneurship, but 71 (19.89 per cent) did not.

Measures

EI: we measured EI by adapting the Linán and Chen's (2009) “Entrepreneurship Behavioural Intention” scale. Originally, the scale was measured on seven-point Likert Scale. In this study it was measured on five-point Likert scale, where 5 = strongly agree to 1 = strongly disagree. The measurement items for EI are shown in Table I.

ESE: we adapted Linán and Chen's (2009) self-efficacy scale. Four of the five items assessed general self-efficacy, with one measuring controllability. The original scale was measured on seven-point Likert scale, where 1 (total disagreement) to 7 (total agreement). However, in this study, the questions were measured on five-point Likert scale, 5, where 5 = strongly agree to

1 = strongly disagree. The adaption of the above scales (EI and ESE) was based on the reasoning that the study's participants are relatively less familiar with surveys, and could be confused by using two different response scales. Hence, the decision to use the same response scale is to make it easier for the respondents to understand and to also facilitate the data analysis. The adapted scales showed an acceptable level of reliability (George and Mallery, 2003; Kline, 2000). The measurement items for ESE are shown in Table II below.

Entrepreneurship education: we developed 12 questions to measure entrepreneurial education based on the literature (Lorz, 2011) and content of the course. The course is called "Entrepreneurship Development" and its pedagogy is theoretically oriented in nature (see Piperopoulos and Dimov, 2015). It is a three-credit hour and a semester long course that is taught in the second semester of the third year (that is level 300) of all bachelor degree programmes being offered in the university. It is a mandatory course for all the students irrespective of their academic concentration. The scale measured a range of themes such as start-up basics, creativity and the generation of business ideas, entrepreneurial finance, business plan, entrepreneurial responsibility and business modelling. The scale was assessed on five-point Likert where 1 (strongly disagree) to 5 (strongly agree). A pilot study of the scales was conducted using thirty students, who were not part of the final sample for the analyses. Furthermore, an exploratory factor analysis was performed, and using varimax rotation method, results retained 10 out of 12 items on two factors. The first factor is named "Opportunity recognition" ($\alpha = 0.77$) and the second is called "Entrepreneurship knowledge acquisition" ($\alpha = 0.80$). The entrepreneurship education scale also demonstrated an acceptable level of reliability (George and Mallery, 2003; Kline, 2000). The items used to measure entrepreneurship education are shown in Table III below.

Control variables: age, gender, family backgrounds in entrepreneurship, and educational concentration were measured as dummy variables. Age was coded 1 if 16–35 years (young adult) and 0 if 36–60 years (old adult). Gender was coded 1 if male and 0 if female. Family background in entrepreneurship was coded 1 if yes and 0 if no. Academic major or concentration was coded 1 if management and 0 if accounting and finance.

Table I.
Measurement
items of EI

Construct items ($\alpha = 0.73$)	Mean	SD	Factor loadings
EI4: I am determined to create a firm in the future	4.449	0.712	0.731
E3: I will make every effort to start and run my own firm	4.099	0.591	0.715
E2: My professional goal is becoming an entrepreneur	4.089	0.944	0.694
EI: I am ready to do anything to be an entrepreneur	4.235	0.875	0.691
E5: I have very seriously thought of starting a firm	4.241	0.863	0.633

Notes: Kaiser-Meyer-Olkin (KMO) Sampling Adequacy test = 0.764; Bartlett's test of Sphericity = 330.153, $p < 0.001$; extraction method = principal component analysis

Table II.
Measurement items
for ESE

ESE construct items ($\alpha = 0.67$)	Mean	SD	Factor loading
SE5: I know how to develop an entrepreneurial project	3.466	1.017	0.732
SE4: I know the necessary practical details to start a firm	3.459	1.010	0.720
SE3: I can control the creation process of a new firm	3.699	0.897	0.681
SE1: To start a firm and keep it working would be easy for me	3.576	1.005	0.602
SE2: I am prepared to start a viable firm	3.757	0.938	0.539

Notes: Kaiser-Meyer-Olkin (KMO) Sampling Adequacy test = 0.764; Bartlett's test of Sphericity = 330.153, $p < 0.001$; Extraction Method = Principal Component Analysis

Construct Items of Entrepreneurial Education				Mean	SD	Factor 1 Loadings	Factor 2 Loadings	Entrepreneurial education
<i>Opportunity recognition ($\alpha = 0.77$)</i>								
EE3: Through the Entrepreneurship course, I learn methods to generate basic business ideas				4.253	0.755	0.821		501
EE2: Entrepreneurship education enables me to recognise alternative career options				4.204	0.715	0.760		
EE4: The entrepreneurial course enhances my ability to better perceive business opportunities in my environments				4.209	0.797	0.713		
EE5: The entrepreneurship course has empowered me to solve economic and social problems in my environments for a fee				3.984	0.856	0.526		
<i>Entrepreneurship knowledge acquisition ($\alpha = 0.80$)</i>								
EE10: The entrepreneurship course enables me to identify the characteristics of successful entrepreneurs (e.g. risk taking, proactivity, innovativeness etc.)				4.259	0.782		0.749	Table III. Exploratory factor analysis of entrepreneurial education scale
EE12: Entrepreneurial education gives me a feeling of independence				4.233	0.741		0.734	
EE11: Entrepreneurial education increases my awareness of the different forms of businesses that I can set-up (i.e. Sole proprietorship, partnership, etc.)				4.337	0.687		0.716	
EE8: I have acquired the skills, knowledge and competencies needed to establish, develop and manage a new business from the entrepreneurship course				4.104	0.808		0.651	
EE9: Entrepreneurial trainings increase my awareness of the duties and rights of entrepreneurs and their commitment to their stakeholders				4.116	0.770		0.585	
EE6: The entrepreneurship course has enhanced my understanding of the different sources I can obtain funding to start a new business				4.098	0.791		0.512	
Notes: Kaiser-Meyer-Olkin (KMO) Sampling Adequacy test = 0.893; Bartlett's test of Sphericity = 1126.762, $p < 0.001$; Extraction method = principal component analysis								

Data analysis

The data were mainly analysed using descriptive statistics, correlation and linear multiple regression. The main hypotheses (both direct and indirect effects) were tested using linear multiple regression analysis. SPSS version 22.0 was used to facilitate the data analyses.

Results and findings

Preliminary analyses

The normality of the data was investigated. On the basis of skewness and kurtosis criteria of absolute values less or greater than 1.96 or -1.96 , $p < 0.05$; 2.58 or -2.58 , $p < 0.01$, and 3.29 or -3.29 , $p < 0.001$ (Field, 2009), the results generally indicate that all the variables are normally distributed. Also, Harman one-factor test investigation (Podsakoff *et al.*, 2003) reveals that four factors accounted for 51.82 per cent of the variance in the variables. The highest variance explained by a single factor was 20.848 per cent, which is less than 50 per cent. Hence, there were no significant issues with a common method bias in the data.

Descriptive, Pearson correlation and multicollinearity

Table IV presents the descriptive statistics and the correlation between the study variables. From the results, EI is a significantly and positively associated with ESE ($r = 0.41$, $p < 0.01$), opportunity recognition ($r = 0.48$, $p < 0.01$), and entrepreneurship knowledge acquisition ($r = 0.39$, $p < 0.01$). ESE also has significant positive relationship with opportunity recognition ($r = 0.31$, $p < 0.01$), and entrepreneurship knowledge acquisition ($r = 0.37$, $p < 0.01$). Overall, the

Table IV.
Descriptive statistics
and pearson
correlation

correlations do not raise issues with multicollinearity. The correlation between opportunity recognition and entrepreneurship knowledge acquisition ($r=0.63$, $p<0.01$) suggest no significant existence of multicollinearity. Besides, we use variance inflation factor for further investigation of multicollinearity in all the regression models, and are less than 10, thereby indicating absence of multicollinearity.

Hypotheses testing

The following presents the statistical results of the main research hypotheses. Four hypotheses are tested. The first hypothesis determines whether entrepreneurship education has a significant positive effect on EI. Opportunity recognition and entrepreneurship knowledge acquisition are used as the measures of entrepreneurship education. In Model 3 and Model 4 of Table V, we tested the effect of opportunity recognition on EI. The control variables (gender, age, family background in entrepreneurship, and educational major) are entered in Model 3, and opportunity recognition is added in Model 4. The results in Model 4 of the Table indicated that opportunity recognition has a significant positive effect on EI ($\beta=0.48$, $p<0.001$). Similarly, results in Model 4 of Table VI showed that entrepreneurship knowledge acquisition positively and significantly predicted EI ($\beta=0.39$, $p<0.001$). These results provide empirical evidence in support of hypothesis (H1) that entrepreneurship

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. EI	4.22	0.55	1.00							
2. ESE	3.59	0.64	0.41**	1.00						
3. Opportunity recognition	4.16	0.60	0.48**	0.31**	1.00					
4. Knowledge acquisition	4.19	0.54	0.39**	0.37**	0.63**	1.00				
5. Gender	0.63	0.48	-0.09	-0.18**	0.05	-0.02	1.00			
6. Family Background	0.80	0.40	-0.02	0.10	-0.02	0.02	-0.001	1.00		
7. Age	0.96	0.19	-0.001	0.07	-0.03	0.05	-0.09	-0.06	1.00	
8. Educational Major	0.47	0.50	-0.01	0.02	-0.04	-0.01	0.00	0.01	0.01	1.00

Note: **Correlation is significant at 1 per cent (0.01)

Table V.
Regression analysis
of opportunity
recognition,
ESE and EI

	Entrepreneurial self-efficacy			Entrepreneurial intention (EI)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.19** (3.57)	0.17** (3.44)	0.09 (1.72)	0.07 (1.44)	0.02 (0.39)	0.09 (1.72)
Family	0.11* (2.05)	0.11* (2.29)	-0.02 (-0.44)	-0.01 (-0.27)	-0.05 (-1.03)	-0.02 (-0.44)
Age	0.09 (1.72)	0.10 (1.96)	0.01 (0.10)	0.02 (0.37)	-0.01 (-0.25)	0.01 (0.10)
Educational major	0.02 (0.36)	0.03 (0.60)	-0.01 (-0.26)	0.003 (0.08)	-0.01 (-0.12)	-0.01 (-0.26)
Opportunity recognition		0.30*** (6.12)		0.48*** (10.26)	0.39*** (8.35)	
ESE					0.29*** (6.12)	0.42*** (8.38)
R ²	0.05	0.14	0.01	0.24	0.31	0.17
Adj. R ²	0.04	0.13	-	0.23	0.30	0.16
Change R ²	0.05***	0.09***	0.01	0.23***	0.07***	0.17***
F-test	4.67***	11.60***	0.81	21.88**	26.36***	14.81***

Notes: Standardised regression coefficients are reported in the regression model, *t*-values are in parenthesis.
*, **, ***Significant at 5 (0.05) per cent, 1 (0.01), 0.1 (0.001) per cent, respectively

Table VI.
Regression analysis of
entrepreneurship
knowledge
acquisitions,
ESE and EI

	Entrepreneurial self-efficacy (ESE)		Entrepreneurial intention (EI)		
	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	0.19** (3.57)	0.19*** (3.99)	0.09 (1.72)	0.10* (2.03)	0.04 (0.83)
Family	0.11* (2.05)	0.10* (2.05)	-0.02 (-0.44)	-0.03 (-0.64)	-0.06 (-1.33)
Age	0.09 (1.72)	0.07 (1.51)	0.01 (0.10)	-0.01 (-0.26)	-0.04 (-0.75)
Educational major	0.02 (0.36)	0.02 (0.45)	-0.01 (-0.26)	-0.01 (-0.22)	-0.02 (-0.37)
Knowledge acquisition		0.36*** (7.54)		0.39*** (8.05)	0.28*** (5.59)
ESE					0.31*** (6.02)
R^2	0.05	0.18	0.01	0.16	0.24
Adj. R^2	0.04	0.17	—	0.15	0.23
Change R^2	0.05***	0.13***	0.01	0.15***	0.08***
F -test	4.67***	15.71***	0.81	13.73**	18.61***

Notes: Standardised regression coefficients are reported in the regression model. **,***Significant at 5 (0.05), 1 (0.01), 0.1 (0.001) per cent, respectively

education (opportunity recognition and entrepreneurship knowledge acquisition) can have a positive effect on EI.

Also, in Table V (Model 2), opportunity recognition has a significant positive effect on ESE ($\beta = 0.30$, $p < 0.001$). Similarly, in Table VI (Model 2), entrepreneurship knowledge acquisition significantly and positively predicted ESE ($\beta = 0.36$, $p < 0.001$). This means that entrepreneurship education (entrepreneurship opportunity recognition and knowledge acquisition) significantly increases ESE. Hence, $H2$ which states that $H2$: entrepreneurship education will positively and significantly predict ESE is supported empirically. Moreover, the results in Model 6 of Table V showed that ESE has a significant positive effect on EI ($\beta = 0.42$, $p < 0.001$). Hence, $H3$ is confirmed.

Finally, $H4$ examines the mediating effect of ESE in the relationship between entrepreneurship education (opportunity recognition and entrepreneurship knowledge acquisition) and EI. The causal effect method by Baron and Kenny (1986) is employed to test for the mediation. In addition, Sobel (1982) test is computed using the unstandardised regression coefficients and their respective standard errors to test the significance of the indirect (mediated) effects. Two mediation results are presented separately for the two measures of entrepreneurship education. First, we tested whether ESE will mediate the relationship between opportunity recognition and EI. The results in Model 2 of Table V indicate that opportunity recognition significantly predicts ESE ($\beta = 0.30$, $p < 0.001$). This provided support for the first condition that the independent variable should have a significant effect on the mediator. In Model 4 of Table V, entrepreneurship education significantly predicts EI ($\beta = 0.48$, $p < 0.001$), thereby satisfying the second condition which states that the independent variable should significantly predict the dependent variable. And in Model 5 of Table V, both opportunity recognition ($\beta = 0.39$, $p < 0.001$) and ESE ($\beta = 0.29$, $p < 0.001$) significantly predict EI, satisfying the third condition that the mediator variable should predict the dependent variable. However, opportunity recognition predicted EI by 0.09 less when ESE (mediator) is controlled. The results therefore indicate that ESE partially mediated the relationship between opportunity recognition as a measure of entrepreneurship education and EI. Sobel test further indicated that the mediating effect ($ab = 0.082$; $Z = 4.321 > 1.96$) is significant at the 5 per cent level of significance. Second, we tested whether ESE will mediate the relationship between entrepreneurship knowledge acquisition and EI. Results in Model 2 of Table VI show that entrepreneurship knowledge acquisition significantly predicts ESE ($\beta = 0.36$, $p < 0.001$). This provided support for the first condition. In Model 4 of Table VI, entrepreneurship knowledge acquisition significantly predict EI ($\beta = 0.39$, $p < 0.001$), hence, the second condition is fulfilled. Finally, in Model 5 of

Table VI, both entrepreneurship knowledge acquisition ($\beta = 0.28$, $p < 0.001$) and ESE ($\beta = 0.31$, $p < 0.001$) significantly predict EI, thereby satisfying the third condition of mediation. However, entrepreneurship knowledge acquisition predicted EI by 0.11 less when ESE (mediator) is controlled. The results therefore indicate that ESE partially mediated the relationship between entrepreneurship knowledge acquisition as a measure of entrepreneurship education and EI. Also, the Sobel test showed that the mediating effect ($ab = 0.115$; $Z = 4.714 > 1.96$) is significant at the 5 per cent level of significance. These results provide empirical evidence in support of hypothesis two that ESE can mediate the relationship between entrepreneurship education and EI.

Discussion of findings

Although there is extant literature (Lorz, 2011; Müller, 2011; Zhang *et al.*, 2014) on entrepreneurship education, evidence and greater understanding of how it affects EI are still not enough in the African, and it is not clear if this relationship holds in Africa too. Hence, this study examines the mediating role of ESE on entrepreneurial education and EI. The empirical results provide support for the hypothesis (*H1*) that entrepreneurial education significantly and positively predicts EI. Specifically, it shows that acquisition of general entrepreneurship knowledge and development of opportunity recognition skills via entrepreneurship education increases one's EI. This means that the more entrepreneurship education programmes expose students to general knowledge in entrepreneurship and develop their capability to recognise opportunities in their environments, the higher the tendency for them to develop intentions to engage in entrepreneurial behaviours. This finding is consistent with some studies (Gerba, 2012; Küttima *et al.*, 2014; Pedrini *et al.*, 2017) that found that participation in entrepreneurship education increases the desire and intention of people to engage in entrepreneurship. It is also consistent with Dickson *et al.*'s (2008) assertion that the "ability to recognise venture opportunities will be positively linked to the subsequent creation of ventures" (p. 249). A possible explanation for these results may be that through entrepreneurial education, people can acquire the multiple skills and talent required for the development of entrepreneurial ventures (Neck and Greene, 2011). It could also mean that the acquisition of entrepreneurship knowledge and skills in opportunity recognition by students through entrepreneurship education serve as an important resource for them to achieve entrepreneurial outcomes, hence their positive posture towards entrepreneurial behaviours. It could further imply that acquisition of knowledge in entrepreneurship enable potential entrepreneurs to recognise the opportunities that may impact on their EI (Shane, 2000). This therefore confirms the assertion that entrepreneurial education facilitates the development of original entrepreneurial opportunities and creative business ideas (Song *et al.*, 2017). Moreover, since entrepreneurs in Africa have low knowledge of various alternative funding sources (Abor and Biekpe, 2006) an entrepreneurship education that develop African students' knowledge adequately of various funding opportunities can motivate their entrepreneurship intention.

The study also hypothesised that entrepreneurship education will have a significant positive effect on ESE. The empirical evidence confirmed this hypothesis. This result is similar to findings of previous studies (McGee *et al.*, 2009; Dickson *et al.*, 2008; Rauch and Hulsink, 2015). This finding means that when students are trained in general knowledge in entrepreneurship and their skills for recognising profitable opportunities effectively developed, confidence in their ability to succeed in the entrepreneurial area will be high likewise their content with personal aspirations of becoming entrepreneurs. It further suggests entrepreneurship education can be regarded as a critical resource that can be used to promote entrepreneurial behaviours and activities by helping potential entrepreneurs overcome fear of failure through the development positive ESE. Similarly, findings revealed that ESE can enhance the development of EI (*H3*). This result is consistent with previous

findings (e.g. Krueger, 2003; Miranda *et al.*, 2017). This result means that Ghanaian students with strong self-efficacy are “likely to exert more effort for a greater length of time, persist through setbacks, and develop better plans and strategies for the task” (Shane *et al.*, 2003, p. 267), thereby encouraging the pursuit of entrepreneurial behaviours in spite of the various hindering factors and hostile nature of the Ghanaian socioeconomic environments for start-up and general entrepreneurial development (see Abor and Quartey, 2010).

The study further predicts that ESE can mediate the relationship entrepreneurship education and EI. This is confirmed by the empirical results, which means that entrepreneurship education increases students’ ESE (Krueger, 2003; Urban, 2015), which in turn increases their intention to engage in entrepreneurial activities (Miranda *et al.*, 2017). Thus, ESE serves as an important mechanism that leverages entrepreneurship education on EI. This finding is similar to prior studies (Chen and He, 2011; Kassean *et al.*, 2015; Zhao *et al.*, 2005) that showed that ESE mediated the relationship between entrepreneurship education and EI. A possible reason for this finding may be that entrepreneurship education helps in developing favourable attitudes of ESE among students by creating a sense of awareness and confidence in their abilities in entrepreneurial tasks and consequently influencing their EI (Pihie and Bagheri, 2010), as people who have high ESE tend to exhibit higher intrinsic interests in entrepreneurial activities (UNCTAD, 2010). Thus, when students’ confidence in their capacity for entrepreneurship is built by affecting their self-efficacious beliefs via entrepreneurship education by enhancing their knowledge in venture creation and recognition of profitable opportunities, it can enhance their EI (Zhao *et al.*, 2005). Moreover, as earlier indicated, entrepreneurship involves taking risks and managing severe difficulties (Krueger, 2003). In Ghana, creating and sustaining start-up businesses are challenging due to numerous obstacles one has to overcome (Abor and Biekpe, 2006; Abor and Quartey, 2010). Perceptions of these challenges in the entrepreneurial arena in Ghana have the potential to hinder the effectiveness of entrepreneurship education on EI among students. However, high ESE acquired through entrepreneurship education can enhance motivation, energy and confidence in their ability to surmount socio-cultural, economic and political challenges in the entrepreneurial arena. Thus, ESE is a central mechanism that can convert entrepreneurial education into EI through its intrinsic motivation (Krueger, 2009; Miranda *et al.*, 2017; Shane *et al.*, 2003) that inspires people to succeed in spite of obstacles they may face.

Implications, limitations and future research

This study showed that entrepreneurship education increases EI among students in Sub-Saharan Africa. It also demonstrated that ESE is a major mechanism for entrepreneurial education to influence EI. The findings of our study confirmed the positive relationships between entrepreneurship and EI (e.g. Krueger, 2009; Küttima *et al.*, 2014; Müller, 2011), and entrepreneurship education and ESE (e.g. Dickson *et al.*, 2008; Rauch and Hulsink, 2015), ESE and EI (Boyd and Vozikis, 1994; Krueger, 2003; Miranda *et al.*, 2017), and the mediating effect of ESE in the relationship between entrepreneurship education and EI (Kassean *et al.*, 2015; Zhao *et al.*, 2005) found in few other studies elsewhere. However, unlike in other areas of the world (see Piperopoulos and Dimov, 2015); the theoretical-oriented course examined in this present study seems to enhance participants’ EI. This could mean that the theoretical course did not just equip students with adequate knowledge in business creation and skills in opportunity recognition, but also promote their interest in entrepreneurship. Moreover, due to the necessity-driven nature of entrepreneurship in Africa, students are more likely to translate lessons learnt in the theoretical course to enable them survive in the harsh economic environments they find themselves. To further make sense of these findings, one should consider that, in Ghana, access to credit facilities to finance entrepreneurial activities remains one of the biggest challenges facing existing and potential entrepreneurs (see Abor and Biekpe, 2006; Abor and Quartey, 2010). Participants, who

acquired theoretical knowledge on alternative funding sources, can become more aware of the importance of various funding sources aside commercial banks and allied financial institutions. They may now regard the importance of their social networks in terms of fundraising and consequently secure funds through crowdfunding to finance self-employment initiatives to help them meet their basic necessities. This indicates that theoretical course promotes EI in Ghana and the broader context of this investigation. Thus, the claim by Piperopoulos and Dimov (2015) that the theoretical-oriented entrepreneurship course prevents while practical or experiential entrepreneurship course promote the development of entrepreneurship is limited in its generalisation to Ghana as, the theoretical-oriented course we investigated promotes the development of EI among students in Ghana.

These findings have several practical and policy implications for Sub-Saharan African countries. First, findings suggest the need for entrepreneurship education to focus adequately on developing students' knowledge in venture creation since acquisition of entrepreneurship knowledge can motivate entrepreneurial behaviours by facilitating the development of original and creative business ideas (Song *et al.*, 2017). Relatedly, start-ups are generally motivated by certain opportunities in the environments. Hence, building the capacity and skills of students in identifying entrepreneurship opportunities should be strongly emphasised in entrepreneurship education programmes in universities in Sub-Saharan Africa since it has the potential to influence students' intention in venture creation. Moreover, entrepreneurship trainings in our universities should expose students to activities and practices that can raise their ESE level for self-employment. Activities and practices such as role modelling and "business plan practice during education [...] may help increase students' self-efficacy as such actions would contribute to the creation of an effective education environment" (Sesen, 2013, p. 634). Finally, the findings urge policy makers and stakeholders in the education sector in Africa to formulate policy guidelines for the design and teaching of entrepreneurship education programmes by ensuring that contents, pedagogies and delivery styles facilitate acquisition of adequate knowledge in start-up creation and management and development of skills for identifying business opportunities while enhancing students' ESE by instilling confidence in their capability to become successful entrepreneurs.

The following may serve as limitations to the findings. First, the use of cross-sectional data may hinder effective inference of causal relationship between the variables. Second, the use of a new scale for entrepreneurship education is a potential limitation to the findings. However, both new and the adapted scales showed acceptable level of reliability. Aside, it relies solely on quantitative research methods. To address these limitations, we suggest that further studies should employ longitudinal design. Qualitative research methods such as interviews and focus group discussions may be used to provide more insights on the nature of the relationship between the variables in future studies. Further studies should also test the new EE scale to enhance its general applicability.

Conclusion

Given the rising rates of unemployment in Sub-Saharan Africa and its attendant economic and social problems, stakeholders are embracing the concept of entrepreneurship education as a major conduit in shaping the quality of human capital for full employment. Consequently, we examined whether entrepreneurship education can affect EI while accounting for the mediating role of ESE. The study concludes that entrepreneurial education positively affects EI, indicating that when students are exposed to entrepreneurship education with the aim of equipping them with entrepreneurial knowledge and opportunity recognition skills, they can develop greater intention to engage in entrepreneurship. It further concludes that ESE is a major mechanism that converts entrepreneurial education into EI, and consequently calls for more emphasis on using entrepreneurship education as a tool to instil confidence in students' ability to become successful business owners.

References

- Abor, J. and Biekpe, N. (2006), "Small business financing initiatives in Ghana", *Problems and Perspectives in Management*, Vol. 4 No. 3, pp. 69-77.
- Abor, J. and Quartey, P. (2010), "Issues in SME development in Ghana and South Africa", *International Research Journal of Finance and Economics*, Vol. 39 No. 6, pp. 215-228.
- Acheampong, G. (2013), "Fortress Ghana? Exploring marginality and enterprising behaviour among migrants in Kumasi Zongos", *Journal for Economic and Sustainable Development*, Vol. 4 No. 3, pp. 108-118.
- Adekiya, A.A. and Ibrahim, F. (2016), "Entrepreneurship intention among students. the antecedent role of culture and entrepreneurship training and development", *The International Journal of Management Education*, Vol. 14, pp. 116-132.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.
- Ali, D.F. (2013), "The process of impact of entrepreneurship education and training on entrepreneurship perception and intention: Study of educational system of Iran", *Education + Training*, Vol. 55 Nos 8/9, pp. 868-885.
- Andersson, L. and Hammarstedt, M. (2011), "Transmission of self-employment across immigrant generations: the importance of ethnic background and gender", *Review of Economics of the Household*, Vol. 9 No. 4, pp. 555-577.
- Anlesinya, A., Eshun, P. and Bonuedi, A.F. (2015), "Entrepreneurial orientation dimensions and profitability nexus: evidence from micro enterprises in the retail sector in a developing country", *International Journal of Small Business and Entrepreneurship Research*, Vol. 3 No. 7, pp. 79-87.
- Aryeetey, E. (2001), "Human capital development for socioeconomic transformation: Ghana in the 21st century", paper presented at ISSER Millennium Seminar Series, ISSER, University of Ghana, Accra.
- Baah-Boateng, W. (2015), "Unemployment in Ghana: a cross sectional analysis from demand and supply perspectives", *African Journal of Economic and Management Studies*, Vol. 6 No. 4, pp. 402-415.
- Bae, T.J., Qian, S., Miao, C. and Fiet, J.C. (2014), "The relationship between entrepreneurship education and entrepreneurial intentions: a meta-analytic review", *Entrepreneurship Theory and Practice*, Vol. 38 No. 2, pp. 217-254.
- Bandura, A. (1997), *Self-Efficacy: The Exercise of Control*, Freeman, New York, NY.
- Bandura, A., Barbaranelli, C., Caprara, G. and Pastorelli, C. (2001), "Self-efficacy beliefs as shapers of children's aspirations and career trajectories", *Child Development*, Vol. 72 No. 1, pp. 187-206.
- Baron, R.A. (2004), "The cognitive perspective: a valuable tool for answering entrepreneurship's basic 'why' questions", *Journal of Business Venturing*, Vol. 19 No. 3, pp. 221-239.
- Baron, R.M. and Kenny, D.A. (1986), "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality & Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.
- Bechard, J.P. and Gregoire, D. (2005), "Entrepreneurship education research revisited: the case of higher education", *Academy of Management Learning and Education*, Vol. 4 No. 1, pp. 22-43.
- Boyd, N.G. and Vozikis, G. (1994), "The influence of self-efficacy on the development of entrepreneurial intentions and actions", *Entrepreneurship Theory and Practice*, Vol. 18 No. 4, pp. 63-90.
- Buame, S.K. (1996), *Entrepreneurship: A Contextual Perspective, Discourses and Praxis of Entrepreneurial Activities within the Institutional Context of Ghana*, Lund University Press, Lund.
- Chamlee-Wright, E. (1997), *The Cultural Foundation of Economic Development: Urban Female Entrepreneurship in Ghana*, Routledge, London.
- Chen, Y. and He, Y. (2011), "The impact of strong ties on entrepreneurial intention: an empirical study based on the mediating role of self-efficacy", *Journal of Chinese Entrepreneurship*, Vol. 3 No. 2, pp. 147-158.

- Cope, J. (2005), "Toward a dynamic learning perspective of entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 29 No. 4, pp. 373-397.
- Dana, L.P. (1997), "Voluntarily socialist culture and small business in the Kingdom of Lesotho", *Journal of Small Business Management*, Vol. 35 No. 4, pp. 83-87.
- DeTienne, D.R. and Chandler, G. (2004), "Opportunity identification and its role in the entrepreneurial classroom: a pedagogical approach and empirical test", *Academy of Management Learning & Education*, Vol. 3 No. 3, pp. 242-257.
- Dickson, P.H., Solomon, G.T. and Weaver, K.M. (2008), "Entrepreneurial selection and success: does education matter?", *Journal of Small Business and Enterprise Development*, Vol. 15 No. 2, pp. 239-258.
- do Paço, A., Ferreira, J.M., Raposo, M., Rodrigues, R.G. and Dinis, A. (2015), "Entrepreneurial intentions: Is education enough?", *International Entrepreneurship and Management Journal*, Vol. 11 No. 1, pp. 57-75.
- Drnovsek, M., Wincent, J. and Cardon, M.S. (2010), "Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 16 No. 4, pp. 329-348.
- Edelman, L.F., Manolova, T.S. and Brush, C.G. (2008), "Entrepreneurship education: correspondence between practices of nascent entrepreneurs and textbook prescriptions for success", *Academy of Management Learning and Education*, Vol. 7 No. 1, pp. 56-70.
- European Commission (2012), *Effects and Impact of Entrepreneurship Programmes in Higher Education*, European Commission, Brussels.
- Evans, D.S. and Leighton, L.S. (1989), "Some empirical aspects of entrepreneurship", *The American Economic Review*, Vol. 79, No. 3, pp. 519-535.
- Field, A. (2009), *Discovering Statistics using SPSS*, SAGE publications Ltd, London.
- Foley, A. and Griffith, B. (1998), "Education, training and the promotion of high quality entrepreneurs in the Republic of Ireland", in Scott, M.G., Rosa, P. and Klandt, H. (Eds), *Educating Entrepreneurs for Wealth Creation*, Ashgate, Aldershot, pp. 80-93.
- Gartner, W. (1985), "A conceptual framework for describing the phenomenon of new venture creation", *Academy of Management Review*, Vol. 10 No. 4, pp. 696-706.
- George, D. and Mallery, P. (2003), *SPSS for Windows Step by Step: A Simple Guide and Reference. 11.0 Update*, Allyn & Bacon, Boston, MA.
- George, G., Corbishley, C., Khayesi, J.N.O., Haas, M.R. and Tihanyi, L. (2016), "From the editors: bringing Africa in – promising directions for management research", *Academy of Management Journal*, Vol. 59 No. 2, pp. 377-393.
- Gerba, D.T. (2012), "Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia", *African Journal of Economic and Management Studies*, Vol. 3 No. 2, pp. 258-277.
- Harris, M. and Gibson, S.G. (2008), "Examining the entrepreneurial attitudes of US business students", *Education + Training*, Vol. 50 No. 7, pp. 568-581.
- Harris, M., Gibson, S. and Taylor, S. (2007), "Examining the impact of small business institute participation on entrepreneurial attitudes", *Journal of Small Business Strategy*, Vol. 18 No. 2, pp. 57-75.
- Harrison, R.T. and Leitch, C.M. (2005), "Entrepreneurial learning: researching the interface between learning and the entrepreneurial context", *Entrepreneurship Theory and Practice*, Vol. 29 No. 4, pp. 351-371.
- Iakovleva, T., Kolvereid, L. and Stephan, U. (2011), "Entrepreneurial intentions in developing and developed countries", *Education and Training*, Vol. 53 No. 5, pp. 353-370.
- Jones, C. and Matlay, H. (2011), "Understanding the heterogeneity of entrepreneurship education: going beyond Gartner", *Education + Training*, Vol. 53 Nos 8/9, pp. 692-703.
- Karimi, S., Biemans, J.A., Lans, T., Chizari, M. and Mulder, M. (2014), "Effects of role models and gender on students' entrepreneurial intentions", *European Journal of Training and Development*, Vol. 38 No. 8, pp. 694-727.

- Kassean, H., Vanevenhoven, J., Liguori, E. and Winkel, D.E. (2015), "Entrepreneurship education: a need for reflection, real-world experience and action", *International Journal of Entrepreneurial Behavior & Research*, Vol. 21 No. 5, pp. 690-708.
- Kline, P. (2000), *The Handbook of Psychological Testing*, Routledge, London.
- Krejcie, R.V. and Morgan, D.W. (1970), "Determining sample size for research activities", *Educational and Psychological Measurement*, Vol. 30, pp. 607-610.
- Krueger, N.F. (2003), "The cognitive psychology of entrepreneurship", in Acs, Z. and Audretsch, D.B. (Eds), *Handbook of Entrepreneurial Research*, Kluwer Law International, London, pp. 105-140.
- Krueger, N.F. (2009), "Entrepreneurial intentions are dead: long live entrepreneurial intentions", in Carsrud, A.L. and Brännback, M. (Eds), *Understanding the Entrepreneurial Mind – Opening the Black Box*, Springer, Dordrecht, pp. 51-73.
- Krueger, N.F. and Brazeal, D. (1994), "Entrepreneurial potential and potential entrepreneurs", *Entrepreneurship Theory and Practice*, Vol. 18 No. 1, pp. 5-21.
- Krueger, N.F. and Dickson, P.R. (1994), "How believing in ourselves increases risk taking: perceived self-efficacy and opportunity recognition", *Decision Sciences*, Vol. 25 No. 3, pp. 385-400.
- Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000), "Competing models of entrepreneurial intentions", *Journal of Business Venturing*, Vol. 15 Nos 5/6, pp. 411-432.
- Kuada, J. (2015), "Entrepreneurship in Africa – a classificatory framework and a research agenda", *African Journal of Economic and Management Studies*, Vol. 6 No. 2, pp. 148-163.
- Küttima, M., Kallastea, M., Venesaara, U. and Kiis, A. (2014), "Entrepreneurship education at university level and students' entrepreneurial intentions", *Procedia – Social and Behavioral Sciences*, Vol. 110, pp. 658-668.
- Laukkanen, M. (2000), "Exploring alternative approaches in high-level entrepreneurship education: creating micromechanisms for endogenous regional growth", *Entrepreneurship and Regional Development*, Vol. 12 No. 1, pp. 25-47.
- Laviolette, E.M., Lefebvre, M.R. and Brunel, O. (2012), "The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention", *International Journal of Entrepreneurial Behavior & Research*, Vol. 18 No. 6, pp. 720-742.
- Lee, S.H. and Wong, P.K. (2004), "An exploratory study of technopreneurial intentions: a career anchor perspective", *Journal of Business Venturing*, Vol. 19 No. 1, pp. 7-28.
- Linán, F. and Chen, Y.W. (2009), "Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions", *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 593-617.
- Lindquist, M.J., Sol, J. and Van Praag, M. (2012), "Why do entrepreneurial parents have entrepreneurial children?", discussion paper No. 6740, IZA, Bonn.
- Locke, E.A. (2000), *The Prime Movers: Traits of Great Wealth Creators*, AMACOM, New York, NY.
- Lorz, M. (2011), "The impact of entrepreneurship education on entrepreneurial intention", unpublished Doctorate thesis, The University of St Gallen, available at: [http://verdi.unisg.ch/www/edis.nsf/SysLkpByIdentifier/3966/\\$FILE/dis3966.pdf](http://verdi.unisg.ch/www/edis.nsf/SysLkpByIdentifier/3966/$FILE/dis3966.pdf) (accessed 5 August 2016).
- Lorz, M., Müller, S. and Volery, T. (2011), "Entrepreneurship education: a meta-analysis of impact studies and applied methodologies", conference paper, FGF G-Forum, Zurich.
- Lorz, M., Müller, S. and Volery, T. (2013), "Entrepreneurship education: a systematic review of the methods in impact studies", *Journal of Enterprising Culture*, Vol. 21 No. 2, pp. 123-151.
- McGee, J.E., Peterson, M. and Mueller, S.L. (2009), "Entrepreneurial self-efficacy: refining the measure", *Entrepreneurship Theory and Practice*, Vol. 33 No. 4, pp. 965-988.
- Maresch, D., Harms, R., Kailer, N. and Wimmer-wurm, B. (2016), "The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs", *Technological Forecasting & Social Change*, Vol. 104, pp. 172-179.

- Martin, B.C., McNally, J.J. and Kay, M.J. (2012), "Examining the formation of human capital in entrepreneurship: a meta-analysis of entrepreneurship education outcomes", *Journal of Business Venturing*, Vol. 28 No. 4, pp. 546-563.
- Mayhew, M.J., Simonoff, J.F., Baumol, W.J., Wiesenfeld, B.M. and Klein, M.W. (2012), "Exploring innovative entrepreneurship and its ties to higher educational experiences", *Research in Higher Education*, Vol. 53, pp. 831-859.
- Miranda, F.J., Chamorro-Mera, A. and Rubio, S. (2017), "Academic entrepreneurship in Spanish universities: an analysis of the determinants of entrepreneurial intention", *European Research on Management and Business Economics*, Vol. 23 No. 2, pp. 113-122.
- Müller, S. (2011), "Increasing entrepreneurial intention: effective entrepreneurship course characteristics", *International Journal of Entrepreneurship and Small Business*, Vol. 13 No. 1, pp. 55-74.
- Mundy, K. and Verger, A. (2015), "The world bank and the global governance of education in a changing world order", *International Journal of Educational Development*, Vol. 40, pp. 9-18.
- Nabi, G., Liñan, F., Fayolle, A., Krueger, E.L. and Walmsley, A. (2017), "The impact of entrepreneurship education in higher education: a systematic review and research agenda", *Academy of Management Learning & Education*, Vol. 16 No. 2, pp. 277-299.
- Naude, W.A. and Havenga, J.J.D. (2005), "An overview of African entrepreneurship and small business research", *Journal of Small Business Entrepreneurship*, Vol. 18 No. 1, pp. 101-119.
- Neck, H. and Greene, P. (2011), "Entrepreneurship education: known worlds and new frontiers", *Journal of Small Business Management*, Vol. 49 No. 1, pp. 55-70.
- Okpara, J.O. (2011), "Factors constraining the growth and survival of SMEs in Nigeria: implications for poverty alleviation", *Management Research Review*, Vol. 34 No. 2, pp. 156-171.
- Olawale, F. and Garwe, D. (2010), "Obstacles to the growth of new SMEs in South Africa: a principal component analysis approach", *African Journal of Business Management*, Vol. 4 No. 5, pp. 729-738.
- Oosterbeek, H., van Praag, M.C. and IJsselstein, A. (2010), "The impact entrepreneurship education on entrepreneurship skills and motivation", *European Economic Review*, Vol. 54, pp. 442-454.
- Pedrini, M., Langella, V. and Molteni, M. (2017), "Do entrepreneurial education programs impact the antecedents of entrepreneurial intention? An analysis of an entrepreneurship MBA in Ghana", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 11 No. 3, pp. 373-392.
- Pihie, Z.A.L. and Bagheri, A. (2010), "Entrepreneurial attitude and entrepreneurial efficacy of technical secondary school students", *Journal of Vocational Education & Training*, Vol. 62 No. 3, pp. 351-366.
- Piperopoulos, P. and Dimov, D. (2015), "Burst bubbles or build stream? Entrepreneurship education, entrepreneurship self-efficacy and entrepreneurial intention", *Journal of Small Business Management*, Vol. 53 No. 4, pp. 970-985.
- Podsakoff, P., MacKenzie, S., Lee, J. and Podsakoff, N. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Rauch, A. and Hulsink, W. (2015), "Putting entrepreneurship education where the intention to act lies: an investigation into the impact of entrepreneurship education on entrepreneurial behavior", *Academy of Management Learning & Education*, Vol. 14 No. 2, pp. 187-204.
- Robson, P.J.A. and Obeng, B.A. (2008), "The barriers to growth in Ghana", *Small Business Economics*, Vol. 30 No. 4, pp. 385-403.
- Sesen, H. (2013), "Personality or environment? A comprehensive study on the entrepreneurial intentions of university students", *Education+Training*, Vol. 55 No. 7, pp. 624-640.
- Setiawan, J.L. (2014), "Examining entrepreneurial self-efficacy among students", *Procedia – Social and Behavioral Sciences*, Vol. 115, pp. 235-242.
- Shane, S. (2000), "Prior knowledge and the discovery of entrepreneurial opportunities", *Organisational Science*, Vol. 11 No. 4, pp. 448-469.
- Shane, S., Locke, E.A. and Collins, C.J. (2003), "Entrepreneurial motivation", *Human Resource Management Review*, Vol. 13 No. 2, pp. 257-279.

- Smith, A., Collins, L. and Hannon, P. (2006), "Embedding new entrepreneurship programmes in UK higher education institutions: challenges and considerations", *Education & Training*, Vol. 48 Nos 8/9, pp. 555-567.
- Sobel, M.E. (1982), "Asymptotic confidence intervals for indirect effects in structural equations models", in Leinhardt, S. (Ed.), *Sociological Methodology*, Jossey-Bass, San Francisco, CA, pp. 290-312.
- Song, G., Min, S., Lee, S. and Seo, Y. (2017), "The effects of network reliance on opportunity recognition: a moderated mediation model of knowledge acquisition and entrepreneurial orientation", *Technological Forecasting & Social Change*, Vol. 117, pp. 98-107.
- Soutitaris, V., Zerbinati, S. and Al-Laham, A. (2007), "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources", *Journal of Business Venturing*, Vol. 22 No. 4, pp. 566-591.
- UNCTAD (2010), "Entrepreneurship education, innovation and capacity-building in developing countries: note by the UNCTAD secretariat", UNCTAD Secretariat, Geneva, available at: http://unctad.org/en/docs/ciimem1d9_en.pdf (accessed 5 August 2016).
- Urban, B. (2015), "Evaluation of social enterprise outcomes and self-efficacy", *International Journal of Social Economics*, Vol. 42 No. 2, pp. 163-178.
- Zakaria, H., Adam, H. and Abujaja, A.M. (2014), "Assessment of agricultural students of university for development studies intention to take up self-employment in agribusiness", *International Journal of Information Technology and Business Management*, Vol. 21 No. 1, pp. 53-67.
- Zhang, Y., Duysters, G. and Cloodt, M. (2014), "The role of entrepreneurship education as a predictor of university students entrepreneurial intention", *International Entrepreneurship and Management Journal*, Vol. 10 No. 3, pp. 623-641.
- Zhao, H., Seibert, S.E. and Hills, G.E. (2005), "The mediating role of self-efficacy in the development of entrepreneurial intentions", *Journal of Applied Psychology*, Vol. 90 No. 2, pp. 1265-1272.

About the authors

Albert Puni is Associate Professor in Corporate Governance and Leadership, Dean of Faculty of Management at the University of Professional Studies, Accra, and an Associate Member of the Institute of Chartered Secretaries and Administrators (ICSA), UK. He has vast experience in corporate governance and acts as an Advisor and Consultant on governance issues at the board level. His research interests include leadership, corporate governance, and entrepreneurship, and have authored several articles in internationally journals. Prior to joining Academia, he worked in various executive level positions in both the public and private sector in Ghana and the UK.

Alex Anlesinya (MPhil, BBA, CA II) is PhD Researcher at the University of Ghana Business School, a Training Facilitator at the GIMPA Centre for Management Development, and an Adjunct Supervisor/External Examiner at the Ghana Technology University College/Coventry University – UK. He has published in ranked journals like *Journal of Global Responsibility*, *Development and Learning in Organisations: An International Journal*, with many others under review. Alex presented his research in reputable conferences and has won many awards. He has reviewed for the Academy of Management, and Academy of International Business Annual Meetings. He researches at the intersection of strategy, CSR/sustainability and management. Alex Anlesinya is the corresponding author and can be contacted at: alexanlesinya@gmail.com

Patience Dzigbordi Akosua Korsorku is Master of Business Administration (MBA) student in Accounting and Finance at the School of Graduate Studies of University of Professional Studies, Accra (UPSA). She holds Bachelor of Science Degree in Accounting, and currently serves as a Secretary at the Faculty of Management at the same University. Her research interests include corporate finance, entrepreneurial finance, entrepreneurship, and accounting.

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com