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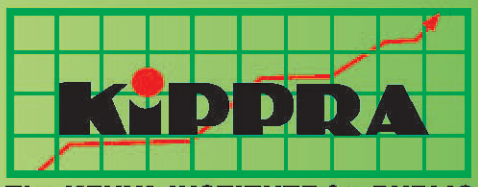

The KENYA INSTITUTE for PUBLIC POLICY RESEARCH and ANALYSIS

The Influence of Pedagogy on Self Efficacy of University Students in Kenya Across Gender

Isaac Muiruri Gachanja

DP/265/2021

THE KENYA INSTITUTE FOR PUBLIC
POLICY RESEARCH AND ANALYSIS
(KIPPRA)

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Isaac Muiruri Gachanja

Kenya Institute for Public Policy
Research and Analysis

KIPPRA Discussion Paper No. 265
2021

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Published 2021
© Kenya Institute for Public Policy Research and Analysis
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PO Box 56445-00200 Nairobi, Kenya
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email: admin@kippra.or.ke
website: http://www.kippra.org

ISBN 978 9966 817 77 8

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Abstract

The early stages of developing entrepreneurs are important in shaping their attitudes, beliefs, perceptions, confidence and capacity. However, these stages are gender-sensitive due to the social-cultural, contextual and economic factors. The purpose of this study was therefore to conduct a comparative analysis of gender difference in the influence of Entrepreneurship Education Pedagogy (EEP) on self-efficacy of university students in Kenya. The study was anchored on social learning theory and role congruity theory. The research design applied in the study was cross-sectional. The target population was the fourth year entrepreneurship university students in Nairobi and Kiambu counties. Purposive sampling was used. Primary data was collected using a questionnaire. The type of data collected was quantitative and qualitative, which was analyzed through frequencies and linear regressions. The findings provided evidence that project-based learning does not have significant influence of Entrepreneurial Self-Efficacy (ESE) of university students in Kenya. It was also found that the Leaning Context had more moderating effect on the ESE of female students than males. It is recommended that there is need to refocus on project-based learning approach for improved ESE of graduates. The Leaning Context should also be improved by providing the required facilities such as incubation hubs. There is need for policy intervention in redesigning the entrepreneurship curriculum to competence-based.

Abbreviations and Acronyms

BL	Blended Learning
EE	Entrepreneurship Education
EEP	Entrepreneurship Education Pedagogy
EL	Experiential Learning
EO	Entrepreneurial Orientations
ESE	Entrepreneurship Self-Efficacy
GEM	Global Entrepreneurship Monitor
LC	Learning Context
PBL	Project-Based Learning
TBL	Team-Based Learning
VIF	Variance Inflation Factor

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1. Introduction

The participation of both genders in economic activities is well captured in the Sustainable Development Goal No. 5, which focuses on eliminating structural barriers for equality. The optimal involvement of both genders in entrepreneurship provides a more broad-based economic growth and sustainable development. This can be achieved by enhancing Entrepreneurship Self-Efficacy (ESE) across gender. The ESE can be raised by promoting a more gender integrative approach in entrepreneurship through educational interventions. Early stages of entrepreneurship are gender sensitive due to social-cultural and economic factors (Micozzi and Lucarelli, 2016). It is therefore imperative to devise timely interventions for the holistic development of a nation. However, there are gender differences in terms of entrepreneurship perception, ability and performance, which necessitate more investigation.

The global perspective of gender in entrepreneurship is heterogeneous. The analysis of Global Entrepreneurship Monitor (GEM) across the years reveals a marked difference in gender entrepreneurship in various parts of the world, with Netherlands, Thailand, Singapore, Luxembourg, Denmark, Kazakhstan and Austria indicating an almost equal involvement in entrepreneurship between gender while male entrepreneurs are more than female in Italy, United Kingdom, Iran and India (Micozzi and Lucarelli, 2016).

The African context of gender entrepreneurship is, however, faced with a multitude of challenges, though it has a great opportunity. The hostility and barriers of entrepreneurship activities especially in Sub-Saharan Africa are more prevalent than other parts of the world (Puni, Anlesinya and Korsorku, 2018). This scenario has women at a more disadvantaged level than men. Furthermore, a large number of female in this region are pushed into this position because of marginalization, survival needs, high unemployment and low salary (Puni et al., 2018). This leads to necessity entrepreneurship, which is characterized with low returns and contributes little to economic development. The continent ought to shift from necessity to sustainable entrepreneurship where citizens are pulled to recognize and seize opportunities by setting up innovative ventures that add value to the society.

The scenario in the region is not different from what is happening in Kenya. Gender entrepreneurship gaps exist, with female-owned businesses being relatively smaller due to low business performance, access to credit and different firm's characteristics such as competitiveness, levels of risk taking, fear and confidence levels (Agyire-Teettey, Ackah and Asuman, 2018). This inhibits their contribution to economic development. Nevertheless, there has been a significant reduction of

barriers affecting female entrepreneurs, although interventions are still required in policy, regulations and business development support. Male entrepreneurship also needs to be enhanced for greater improved performance and innovation.

It is therefore evident that there are several factors that contribute to gender disparity in entrepreneurship, such as structural, social-cultural, political and economic factors. Biano et al. (2017) contend that the barriers that inhibit optimal participation of both gender in entrepreneurship include differences in resources availability, social exclusion, gender prejudice, stereotypes, and personality identity.

There also exists complexity in diversity across gender in entrepreneurship, which needs to be demystified, but there are few studies in this area. Whereas similarities in gender entrepreneurship exist, differences are also prevalent. There have been mixed findings on gender entrepreneurship which require a closer examination (Yukongdi and Lopa, 2017). There are also little efforts in finding out how the ESE can be raised across gender.

The purpose of this paper is therefore to investigate the influence of moderating role of Learning Context (LC) between Entrepreneurship Education Pedagogy (EEP) and ESE of university students in Kenya across the gender. The findings will go a long way in informing policy makers, educators and institutions of higher learning on interventions that can promote the ESE of each gender for their optimal participation in economic activities. The study hypothesis is that LC has no significant moderating effect between EEP and ESE.

1.1 Gender Difference in Entrepreneurship

Entrepreneurship across gender varies in several ways. The classical view on entrepreneurship is traditionally anchored on male stereotype. Masculinity is characterized with dominance and success seeking, which are associated with entrepreneurial traits such as proactivity and risk-taking while feminism is characterized with tenderness and affection, which is associated with flexibility and adaptability (Perez-Quintan et al., 2017). Risk taking and proactivity are key antecedents of entrepreneurial orientation.

Gender socialization affects the perception of entrepreneurship. Female youth are more influenced by their immediate significant persons and seek reassurance from the immediate internal environment to form a belief about entrepreneurship while their male counterparts are influenced by the external environment through observation, leading to some level of independence and autonomy (Kickul et al., 2008). Young females without entrepreneurial background and appropriate

mentors are therefore likely to face an uphill task in setting up enterprises than their male counterparts.

The other difference is in opportunity identification, which is associated with their social networks. Most women are pushed into entrepreneurship out of necessity while men are pulled by opportunities (Micozzi and Lucarelli, 2016). This put female entrepreneurs at a disadvantaged point given that necessity entrepreneurs are normally involved in micro-enterprises for survival and is characterized by low or no value addition and innovation. Moreover, gender influences the fear of failure, which is a greater inhibitor of utilizing opportunities (Micozzi and Lucarelli, 2016). Females, therefore, tend to miss out on entrepreneurial opportunities due to low-risk tolerance, which could otherwise lead to a breakthrough in addressing the needs of the society while male entrepreneurs are likely to take risks, assemble the required resources and seize up the opportunities.

The motive of engaging in entrepreneurship among gender is also different. Women entrepreneurs are more concerned about the need for achievement and self-actualization while men are focused on wealth maximization (O'connor et al., 2006; Majid, 2012). The zeal of wealth maximization may motivate men to take up challenges that could bring about successful enterprises. Men appreciate challenges while women value financial security (Haus et al., 2013). Financial security is likely to bring complacency in business, which can easily be wiped off by the turbulence brought about by the ever-changing business environment.

There is also a difference between gender characteristics and entrepreneurial orientation. Zeffane (2015) found that the major disparity between genders in entrepreneurship is low-risk appetite and less trusting in the female, which lowers their likelihood of starting up new business. The other disparity in terms of characteristics is that men have a higher need for power, which is associated with high autonomy while women tend to seek friendship (Meyer, Tegtmeier and Pakura, 2017). Autonomy empowers men to explore more opportunities and take greater risks, which are associated with higher returns. Gender gaps in entrepreneurship therefore exist and are in most cases in favour of men. Furthermore, females are constrained by Entrepreneurship Education (EE) social prejudices and financial handicaps (Nguyen, Frederick and Nguyen, 2014). Entrepreneurship Education is, therefore, a strong pillar to optimize entrepreneurial activities across the gender but the delivery approach matters. Entrepreneurship across the gender can be enhanced by the provision of the relevant education using the right approaches.

1.2 Entrepreneurship Education Pedagogy

Entrepreneurship Education Pedagogy (EEP) is the training methods and approaches used in disseminating knowledge and skills that inculcate entrepreneurial traits and attitude. It breaks the barriers of engaging in entrepreneurship across gender (Smith, Sardeshmukh and Combs, 2016). It should, therefore, empower and liberate both genders to overcome the inherent difficulties experienced in engaging in entrepreneurship. It also provides skills that increase the flexibility of graduates, which help them deal with unpredictability in different contexts (Wheadon and Duval-Couetil, 2017). The training approach adopted in teaching entrepreneurship should enhance the development of ESE.

The effectiveness of the training approach and cognitive styles varies across gender. Female students are more influenced by role models to plunge into entrepreneurship, while the male is influenced by their ability to develop new artifacts (Kickul et al., 2008). Dabic et al. (2012) found that females appreciate appropriate tutoring and mentoring as the most effective pedagogy in EE. Exposure to role models has a significant influence on ESE because they arouse favourable emotional experience (Laviolette et al., 2012). It was also found that women role models influence the emergence of sustainable female entrepreneurs (Outsios and Farooq, 2017). It is therefore imperative to vary the teaching approach across gender. Furthermore, the learning process across gender is different. The recognition levels of skills and knowledge required for entrepreneurial activities are higher in male than female (Alves et al., 2017). It is therefore important to integrate non-traditional teaching approach such as Experiential Learning (EL) to accommodate diverse methods in EE.

Experiential Learning is a holistic learning and content delivery method that combines different learning approaches. Kipka (2012) posit that EL is a holistic interdisciplinary learning methodology that encompasses psychology, education and management. Djonke-Moore and Joseph (2016) posit that EL is a learning experience, which occurs through problem-solving, collaboration and critical thinking, leading to the creation of new knowledge. The approach therefore entails different teaching methodology, which can be applied to the specific need of each gender. This paper focused on Team-Based Learning (TBL), Project-Based Learning (PBL), and Blended Learning (BL), which constitute EL.

Team-Based Learning was measured through collaboration levels between students and lecturers, group work activities, peer review mechanism, playing games related to entrepreneurship and cooperation levels between the students and lecturers. Project-Based Learning was measured through discovery learning, practical problem solving, creation of authentic task, creation of business plans and project presentation. Blended Learning was measured through different

training approaches, use of technology, interaction system among the students and lecturers, level of student's engagement and use of live events in the learning process. These approaches challenge, engage and stretch the cognitive ability of the learner. However, the approach is faced with several challenges.

It is difficult to contextualize the approach in contemporary times. The approach faces resistance from instructors and learners, lack of the right technology systems, lack of lecturers' awareness about the training method, suitable only for small class sizes, time-consuming, difficulty in scaling it up, and its assessment is a daunting task (Kolb and Kolb, 2008). Nevertheless, the challenges can be overcome through stakeholders participation, requisite investment and incorporating a wide range of learning activities. The challenges can also be dealt with by addressing the Learning Context (LC). Moody (2012) found that the prevailing contextual factors are important in supporting EL. The LC was therefore treated as a moderating variable in this study. The LC was measured through the level of student-centred learning environment, inclusion of contemporary issues in the learning content, invitation of guest speakers to talk with students, availability of incubators and conducive learning facilities.

1.3 Disparity in Entrepreneurship Self-Efficacy between Genders

Entrepreneurship Self-Efficacy (ESE) is the process of developing skills, traits, attitudes, knowledge, and confidence for engaging in entrepreneurship. The ESE level across gender varies, and thus calls for different training approaches. The ESE of a young male is influenced by the skills obtained through practical work experience (Kickul et al., 2008). Moreover, participation in a company work programme influences the rate of men to start new ventures than it does to women (Johansen, 2013). This pinpoints to the need of promoting attachment programmes to foster ESE of male while at the same time looking for ways of developing the competency of female to engage in entrepreneurship.

There is also a difference in traits orientations. Women portray a misfit of entrepreneurship traits such as low risk-taking and less aggressive as opposed to men (Haus et al., 2013). This supposedly puts women at a disadvantaged position in aligning their traits with those of entrepreneurship. However, Bernardino, Santos and Ribeiro (2018) found no major differences in gender entrepreneurial traits apart from agreeableness, which is higher in female than male. These contradictory findings require further scrutiny. The assertion is in tandem with Teoh and Chong (2014) that brought out the need to explore gender gaps in entrepreneurship.

The attitude of entrepreneurship between genders also varies. Micozzi and Lucarelli (2016) found that gender played a key role in shaping the attitude towards entrepreneurship, which consequently determines the level of ESE. Nevertheless, different scholars have mixed findings in this area. Dabic et al. (2012) found that there is a difference between gender in terms of perceived desirability and feasibility in the sense that the female gender is reluctant to engage in entrepreneurship, even when they are supported by their families. This differs from other work conducted later. Arshad et al. (2016) found that the perceived ESE of men is greatly influenced by their attitudes towards entrepreneurship while that of women is influenced by their perceived social norms. This implies that the ESE of women is social-culturally contextualized while ESE in men is internally developed. It, therefore, means that women have to put more efforts to overcome the complex barriers bedeviling them. However, the validity of this assertion needs to be ascertained.

The other difference between the two genders in terms of ESE is levels of confidence. Women have lower confidence levels to start new enterprises, and have a greater fear of failure than men (Koellinger, Minnititti and Shade, 2013). Furthermore, the assessment of a personal capability to start engaging in entrepreneurship is lower in women than men (Micozzi and Lucarelli, 2016) yet self-confidence is one of the traits of entrepreneurship (Miranda et al., 2017). Lack of belief in their capacity lowers the chances of initiating and succeeding in entrepreneurial activity. On the other end, men are more confident, leading to more vigour in their entrepreneurial pursuits while females seek social acceptance (Meyer et al., 2017). The disparity in confidence levels between the genders brings a marked difference in their ESE.

High levels of ESE are crucial in raising the entrepreneurial intentions of graduates. Higher ESE at tender age increases the possibility of venturing into entrepreneurship (Teoh and Chong, 2014). It also increases the chances of graduates becoming successful entrepreneurs (Miranda et al., 2017). However, low confidence in female makes them have lower ESE than men (Teoh and Chong, 2014). Dempsey and Jennings (2014), Lucarelli and Brighetti (2015) also found that female is less efficacious than male. Male students have greater ESE than female (Puni et al., 2018). Intervention measures are therefore required to raise female ESE.

Women entrepreneurial capacity is therefore thwarted by low ESE. This implies that they are under-utilized in economic development due to low efficacy levels and other factors such as discrimination, cultural barriers, inequality, weak social networks, and institutional frameworks such as regulatory, normative and cultural (Henry et al., 2017). Consequently, women are also less likely to innovate

in scientific and high technology sectors (Alves et al., 2017). However, Kazumi and Kawai (2017) found that increased ESE has the capacity to transform and utilize the untapped potential women for greater economic development, but found no influence of formal institutional support on ESE. The situation can be addressed by providing the right EE appropriately universities play a key role in this end.

1.4 The role of Universities in Fostering Entrepreneurship Self-Efficacy

Universities are crucial pillars in promoting ESE. They can support ESE by a provision of relevant education in the right way, nurturing the culture of concept development and offering of business development services (Teoh and Chong, 2014). Yukongdi and Lopa (2017) found that university support has a significant influence on ESE and the environment provided by these institutions shapes the perception of students about entrepreneurship, but there are a few programmes designed to increase ESE across all faculties. Universities also have the capability to break down the obstacles encountered in developing ESE (Puni et al., 2018). One of the ways of doing this is by providing the necessary facilities, proving the right atmosphere for learning and coming up with innovative approaches to delivering Entrepreneurship Education (EE).

1.5 The Relationship Between Entrepreneurship Education Pedagogy and Entrepreneurship Self-Efficacy

Several scholars have demonstrated the association between EE and ESE. Higher human capital emanating from formal education and ESE are positively associated with higher chances of creating businesses (Gonzalez-Alvarez and Solis-Rodiguez, 2011). The right education has the ability to eliminate the hindrances of ESE. The socialization process of the female, for example, creates barriers to their entrepreneurial capacity, which can be overcome through education Sullivan and Meek (2012). This implies that EE is a powerful tool in addressing the barriers to entrepreneurship.

The competencies required for entrepreneurial capacity can also be developed through EE. Cheraghi and Shott (2015) found that EE is crucial in developing the requisite competencies for starting a business and gender gaps on ESE reduce as female continue with training. The competencies are built by instilling the requisite skills and knowledge. Formal education has the ability to provide the required knowledge and skill sets to inspire the ambitions of graduates to become nascent entrepreneurs and avoid the common pitfalls made by most business

owners (Micozzi and Lucarelli, 2016). The competencies developed increase the confidence to engage in entrepreneurship.

High confidence levels provide the courage to overcome the ambiguities and risks involved in setting up new enterprises, developing new products and creating new markets. Entrepreneurship Education develops the confidence of students to engage in entrepreneurship by converting the inputs of EE into practical and viable new ventures, thus a significant influence of EE on ESE exists (Puni et al., 2018). The competencies and confidence developed increases the ESE, which enhances the right judgment in taking appropriate actions.

2. Theoretical Underpinnings

This study was anchored on Bandura (1986) social learning theory and Eagly and Karau (2002) role congruity theory. The role congruity theory postulates that there is a mismatch between gender characteristics and successful entrepreneurs. The antecedents of Entrepreneurial Orientations (EO), which include aggressiveness, high need for achievement, dominance, independence, challenge acceptance and high risk taking are associated with men (Ahl, 2006; Gupta et al., 2009) while female is associated with risk avoidance and financial security (Orobia, Sserwanga and Rooks, 2011). The theory stipulates that engaging in entrepreneurship is associated with masculinity, where the male is linked with high ESE and female portrays a misfit of entrepreneurial behaviour and traits because of socio-cultural barriers, lower self-confidence and they underrate their skills and abilities (Haus, et al., 2013). However, Gelard and Saleh (2010) are of the opinion that EE can increase the motivation of becoming an entrepreneur, which leads to the scrutiny of the social learning theory.

The social learning theory focuses on the processes of developing self-efficacy. The theory postulates that the available information set is related with the individual capacity to develop competence leading to efficaciousness through enactive mastery (prior experience), vicarious experience (learning through observation), physiological arousal (physiological state) and verbal persuasion (feedback on one's ability) (Dempsey and Jennings, 2014). This implies that EE can provide the requisite input for shaping ESE, hence the appropriateness of the theory.

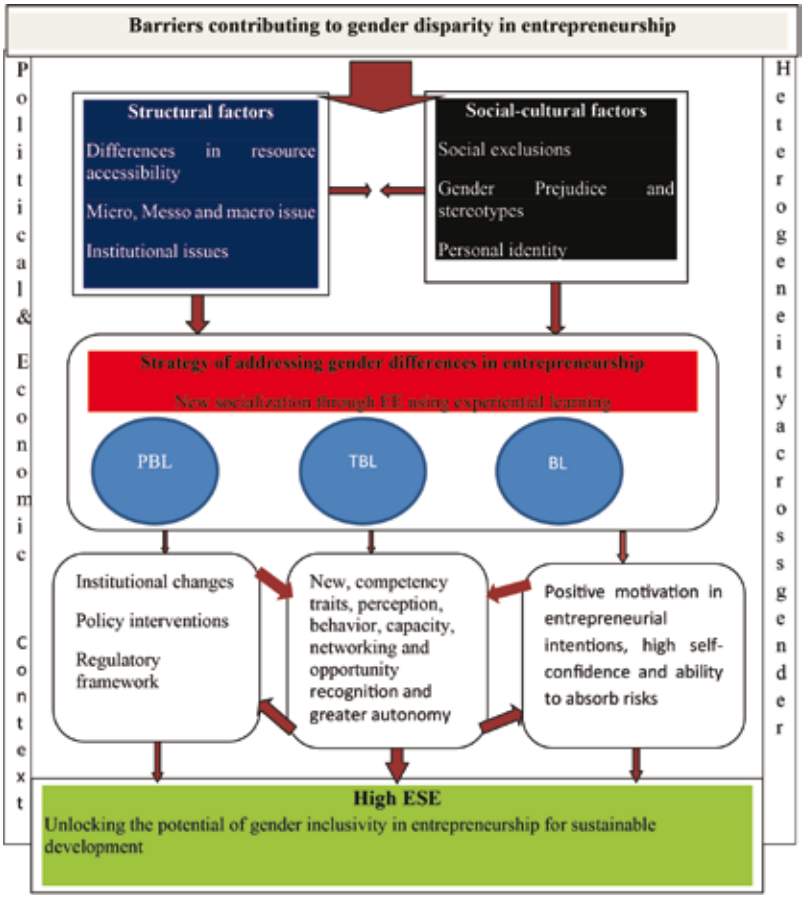
The theory further explains the role of social actors in changing behaviour, which entails the exploration of outcomes from information input before engaging in an activity to eliminate uncertainty and thus portray the interaction between cognitive, behavioural and environmental influences (Lu et al., 2018). The theory thus underscores the importance of EEP in providing the cognitive ability that influences entrepreneurial behaviour, which is likely to be affected by environmental factors. The cognitive ability can be developed by a provision of the right EE, which forms the input using the appropriate EEP. The environmental influences, in this case, are viewed as the contextual factors that moderate EEP and ESE. The desired behavioural change is the development of competence and confidence to engage in entrepreneurial activity, which is referred to as ESE.

The theories lead to the development of a theoretical model. The model is a modification of Biano, Lombe and Bolis (2017) model on gender equality in entrepreneurship. The model starts with factors contributing to gender disparity in entrepreneurship, which includes structural and socio-cultural elements. The structural factors include the differences in resource accessibility micro, messo

and macro matters and institutional issues. The socio-cultural factors include social exclusions, gender prejudices and stereotypes and personal identity. The barriers form a background that is a grey area, which the researchers addressed.

The paper attempts to address the barriers by providing new socialization to bring about a new paradigm shift through EE using Experiential Learning (EL). The pedagogy entails non-traditional training approach, which includes Project Based Learning (PBL), Team-Based Learning (TBL) and Blended Learning (BL), which constitute Experiential Learning moderated by the existing environment and leads to new behaviour which results in ESE. High ESE results in unlocking the potential of gender inclusivity in entrepreneurship for sustainable development as illustrated in Figure 1.

Figure 1: Model of unleashing gender potential for greater participation in sustainable development



Source; Biano et al. (2017)

The model captures the key variables in the study, which led to the conceptualization. The learning context can be examined by looking at the learning environment, which is influenced by political and economic factors.

2.1 The Moderating Effect of Learning Context

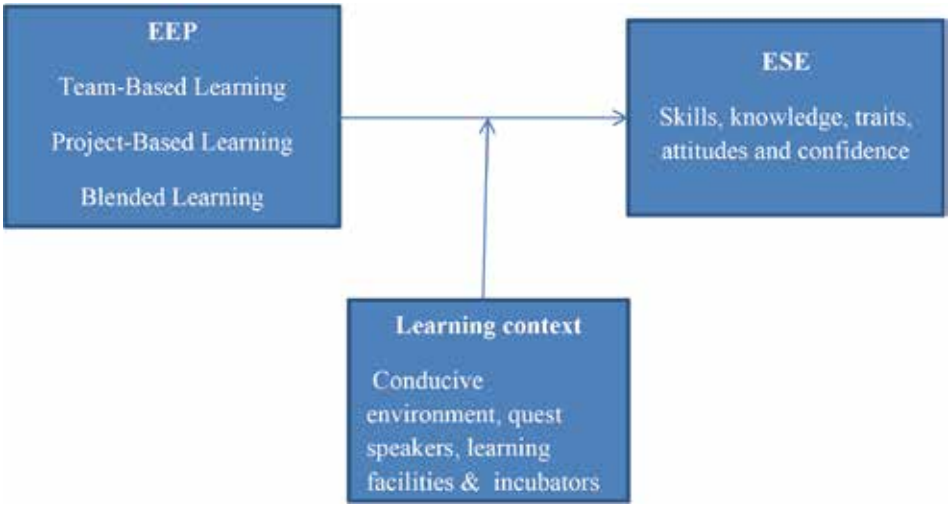
A learning environment that possesses the right contextual factors can foster ESE. Shane and Venkataraman (2000) suggested that environmental dynamism forms a context in which entrepreneurial opportunities can arise. The environmental dynamism can be captured by the prevailing Learning Context (LC). Previous studies have looked at the economic, political, and social-cultural factors that are likely to make individuals more successful at starting new ventures (Pittaway and Cope, 2009). These factors influence the setting up of a conducive student-centred environment, learning facilities and enabling resources such as incubators.

A conducive learning environment encourages interrogation of contemporary issues and invitation of guest speakers to articulate and demystify the dynamic issues affecting entrepreneurship, thus fostering ESE. The LC can therefore inspire interest and confidence to engage in entrepreneurship. Marjoribanks (2003) found that LC has a significant moderating effect on self-efficacy. This study sought to find out the moderating effect of LC between EEP and ESE. The relationship between EEP, LC and ESE were illustrated in the conceptual framework.

2.2 Conceptual Framework

The model leads to the development of a conceptual framework. The intervention measures proposed in this study, which are EEP, form the independent variable. The variable is comprised of PBL, TBL and BL. The prevailing learning environment such as political, economic and heterogeneous factors form the learning context, which is used as a moderating variable. These variables are measured through learner-centred environment, learning facilities, contemporary issues, incubators and guest speakers. The dependable variable is ESE, which is measured by skills, knowledge, traits, attitudes and confidence as conceptualized in Figure 2.

Figure 2: Conceptual framework



Independent variable moderating variable dependent variable

Source: Author (2021)

The conceptual framework shows the association of the EEP, LC and ESE and their antecedents from which the parameters for measuring each of the variables are derived.

3. Methodology

A cross-sectional design was used because it provided for data collection from male and female students across universities in the country within the same time frame. The design also allowed for the comparison of gender disparity in ESE for respondents who were subjected to similar EEP and within the same environment.

The targeted population was undergraduate students specializing in entrepreneurship at their final year of study in all universities in Nairobi and Kiambu counties. Nairobi and Kiambu counties were selected because at the time of the study, all universities offering entrepreneurship programmes had a campus or main campus in the two counties. The campuses are a replica of what happens in main campuses and vice versa, and thus there was adequate representation of other campuses in the other counties. There were five universities that fitted in this category with a total of 147 students. The 5 universities were Kenya Methodist, Strathmore, United States International, Pan African, Jomo Kenyatta University of Agriculture and Technology. Systematic sampling was done to enable a proportionate representation of respondents across gender in different universities. The Yamane (1967) formula was used to select 107 respondents. The formula is appropriate because it gives a sufficient sample size that is an adequate representation of the entire population.

The sample was chosen from a register of student's admission numbers for the target population. A list of students that fitted the study was generated from the register, arranged in ascending order and then serialized. Admission numbers are normally given randomly by first come first registered and there are no chances of bias in their allocation. Sampling interval was then determined by dividing the total population in a class by the sample size and the resultant integer rounded off to the nearest whole because the serial number in the list of admission numbers can only be a whole number. A table of serial numbers based on sampling interval classification was drawn and random numbers were picked from the classification, which formed the list of respondents.

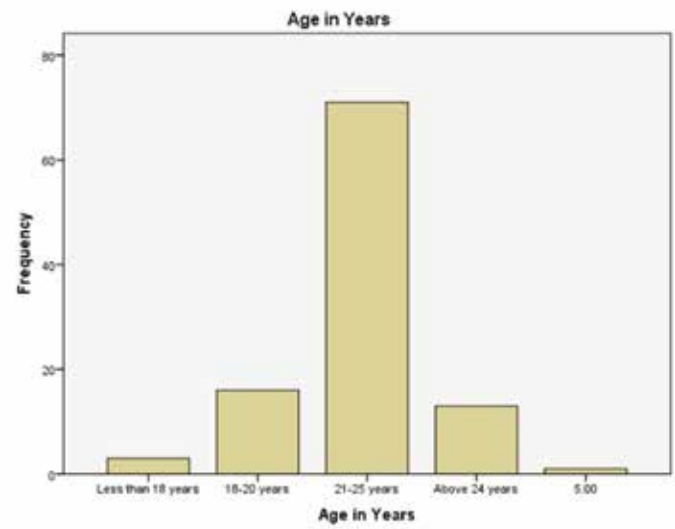
Primary data, both qualitative and quantitative, was gathered to show the association between EEP, LC and ESE. The variables were measured in a continuous data set. A semi-structured questionnaire was used. Content validity was used where the measure of EEP, LC and ESE were derived from their constructs as per the literature reviewed. The reliability was tested through the internal consistency approach. The Cronbach's alpha coefficient of TBL was 0.73, PBL 0.81, BL 0.847 and LC 0.774, which are all above the recommended threshold of 0.7 (Alegre, Lapiedra and Chiva, 2006). Data was analyzed using a comparison of means, correlation, linear and hieratical multiple regression techniques. This is

because the techniques are suitable in analyzing the association between variables and allows for examination of moderating effect. Consent was sought from the National Commission for Science, Technology and Innovation, universities' administrators involved and respondents before the administration of research instruments.

4. Results and Discussions

The questionnaires administered were 107, out of which 104 were returned representing 97 per cent return rate. The majority respondent's age group was between 21 and 25 years, which constituted 71 out of 104 respondents, representing 68.3 per cent.

Figure 3: Age of the respondents

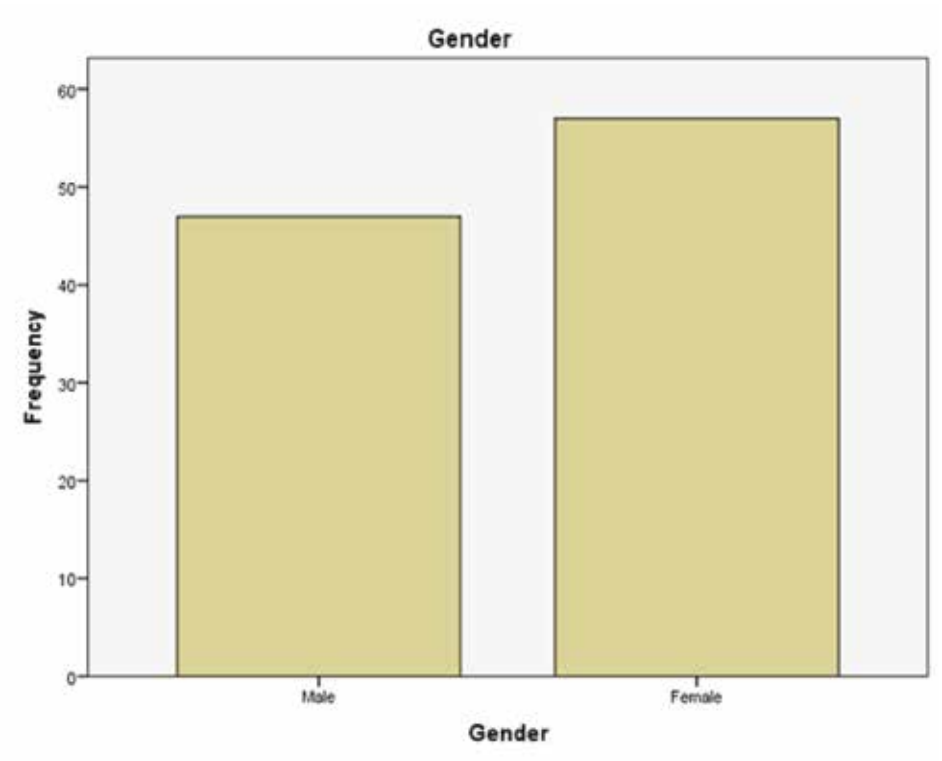


Source: Authors (2021)

Majority of respondents' age is of young adults and if they are equipped with the right knowledge of entrepreneurship, their ESE is likely to be influenced positively. Micozzi and Lucarelli (2016) found that early stage of life is crucial in addressing the barriers faced by entrepreneurs especially in regard to gender. Entrepreneurship education at this age is therefore a timely intervention.

The composition of gender was 47 male and 57 female respondents. This shows that females had a stronger interest in acquiring entrepreneurship knowledge than their male counterparts, which is likely to enhance their confidence and capabilities.

Figure 4: Gender composition for the respondents



Source: Authors (2021)

The results indicate that more female had enrolled in EEP than male. The high enrolment levels for female are in tandem with bridging the gap between gender disparities in entrepreneurship, as other previous studies had indicated. Kickul et al (2008) found that EEP yield more benefits on female than male, which is also consistent with Bernardino et al. (2018) who found that female benefit more from EEP in shaping their ESE and thus the high enrolment is crucial in unlocking their entrepreneurial potential.

The experience of respondents in entrepreneurship was low. Majority of the respondents, which constituted 68 out of 104 representing 65.4 per cent had less than one year experience in entrepreneurship. It implies that majority of students have insignificant experience in entrepreneurial activities. Dempsey and Jennings (2014) found that lower experience is related to low ESE.

The dependent variable for the study was Entrepreneurship Self-Efficacy (ESE). The parameters for measuring ESE in this study were entrepreneurial skills, knowledge, traits, attitude and competence. The majority respondents, which

were 84 representing 80.8 per cent affirmed that the EEP had provided a range of entrepreneurial skills. There were 85 respondents representing 81.7 per cent who confirmed that EEP had led to construction of new knowledge. Seventy four (74) respondents representing 71.2 per cent asserted that entrepreneurial traits were developed in the learning process. Shaping attitude towards entrepreneurship in EE had the highest respondents of 86 representing 82.7 per cent while competency to start entrepreneurial venture had the lowest respondents of 77 representing 74 per cent. The majority respondents also agreed that EE had provided them with skills (75.9%), knowledge (77.9%), traits (65.4%), attitude (81.7%) and competence (64.5%).

The antecedents of Entrepreneurship Education Pedagogy (EEP) in this study were Team-Based Learning (TBL), Project-Based Learning (PBL) and Blended Learning (BL). Team-based learning was measured in terms of collaboration among students and lecturers, group work activities, peer review exercises, playing games related to entrepreneurship and cooperation between the students and lecturers.

The majority respondents, which were 88 representing 84.6 per cent, affirmed that collaboration took place. Group work activities were confirmed to have taken place by 89 respondents, which represent 85.6 per cent. Peer review mechanism also took place with 72 respondents representing 69.2 per cent assertion rate, while 82 respondents representing 78.8 per cent confirmed that there was cooperation between the students and lecturers. However, 64 respondents representing 61.5 per cent stated that playing games related to entrepreneurship did not take place as shown in Appendix I.

Majority respondents which were 81 representing 77.9 per cent agreed that there was adequacy of collaboration among students and lecturers, 90 respondents representing 86.5 agreed that cooperation between teachers and lecturers provided motivation in the learning process and 86 respondents representing 86.5 per cent agreed that group work activities were effective in the learning process. However, 55 respondents representing 52.9 per cent disagreed that peer review exercises enriched the learning process and 64 respondents representing 61.5 per cent also disagreed that playing games related to entrepreneurship was an appropriate learning strategy.

The parameters of PBL were discovery, problem solving, authentic task, generation of business plans and presentation of project work. Majority respondents, which were 76 representing 73.1 per cent, confirmed that discovery learning took place in the course of study with similar response affirming that practical problem solving also took place in the learning process. Learner's involvement in creation of business plans had the highest respondents of 95 representing 91.3 per cent while

84 respondents representing 80.8 per cent confirmed that projects created by the learners were presented in class or other forums or events. Creation of authentic tasks in the learning process was confirmed by 68 respondents representing 65.4 per cent.

The majority respondents, which were 63 representing 86.5 per cent, agreed that discovery learning was an effective way of acquiring new knowledge, 79 respondents representing 75.9 per cent agreed that problem solving helped in construction of mental models leading to creativity, 95 respondents representing 91.3 per cent were in agreement that generation of business plans was an effective way to articulate creativity and innovation and 86 respondents representing 82.7 per cent were also in agreement that presentation of project work helped in developing a range of competencies. However, 57 respondents representing 54.8 per cent were in disagreement that authentic task led to development of robust artefacts.

The other antecedent of EEP was Blended Learning (BL), whose parameters were different training approaches, integration of technology, flexibility in student and lecturer interaction, depth of reflection on the content and live events. The majority respondents which were 72 representing 69.2 per cent confirmed that different training approaches were used, 59 respondents representing 56.7 per cent affirmed that integration of technology was used and 82 respondents representing 78.8 per cent asserted that there was flexibility in student and lecturer interaction. Student's engagement in the learning process was confirmed by the highest respondents of 85 representing 81.7 per cent while 60 respondents representing 57.7 per cent affirmed that live events took place in the learning process.

The majority respondents, which were 75 representing 72.1 per cent, were in agreement that different training approaches increased depth of reflection on the content, 61 respondents representing 66 per cent agreed that various training approaches created flexibility in student and lecturer interaction. The respondents (69), representing 66.4 per cent agreed that integration of technology in learning provided the global perspective, 68 respondents representing 65.3 per cent agreed that different training approaches enriched the learning process and 62 respondents representing 59.6 per cent agreed that live events lead to development of new knowledge.

The moderating variable for the study was the Learning Context (LC). The parameters for measuring for LC were student-centred learning environment, contemporary issues, guest speakers, availability of incubators and adequate learning facilities. Majority of the respondents, which were 76 representing 73.1 per cent affirmed that there was a conducive student-centred learning environment. The majority respondents, which were 81 representing 77.9 per cent

confirmed that contemporary issues featured in the content of EE. However, the respondents were indifferent that guest speakers were invited to talk to them, with 50 per cent asserting their presence and 50 per cent stating otherwise. Majority respondents which were 81 representing 77.9 per cent affirmed that resources such as incubators were not available in the learning process. However, 78 respondents representing 75.0 per cent confirmed that learning facilities were available in the learning process.

The majority respondents which were 72 representing 69.2 per cent agreed that a conducive student-centred learning environment was created, 77 respondents representing 74 per cent agreed that contemporary issues were well addressed and 69 respondents representing 66.4 per cent also agreed that adequate learning facilities were available. However, majority respondents which were 71 representing 76.9 per cent disagreed that incubators facilitated production of prototypes and 57 respondents representing 54.8 per cent also disagreed that suitable guest speakers with entrepreneurial experiences were invited to talk with students.

The first inferential statistics analysis was linear regression of each of the observed variable of the latent variable EEP, which included Blended Learning (BL), Team-Based Learning (TBL) and (PBL) with ESE without the moderating variable of LC. This enabled the determination of the statistically significant observation, contribution of each of the observed variables and multicollinearity as indicated in Table 1.

Table 1: Linear regression between blended learning, team-based learning, and ESE

Model		Unstandardized Coefficients		Standardized Coefficients	t.	Sig.	Collinearity Statistics	
1		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	26.259	9.624	0.227	2.729	0.008		
	BL	1.096	1.096	0.493	2.047	0.043	0.425	2.352
	TBL	2.253	0.535	0.507	4.444	0.000	0.425	2.351
	PBL	-0.068	0.048	-0.105	-1.416	0.160	0.954	1.048

The P values for BL and TBL were below 0.05, meaning that they had statistically significant influence on ESE, but PBL did not since the value of 0.16 was more than 0.05. The standardized coefficients of BL, TBL and PBL were 0.227, 0.493 and -0.105, respectively. It implies BL and TBL made major contribution to ESE at 22.7 per cent and 49.3 per cent, respectively, but PBL did not.

The VIF values are all above one, which is less than the cut-off point of 10 and falls between 1 and 5, implying a moderate multicollinearity that does not require

corrective action. The tolerance values were also greater than the required threshold of 0.10, indicating the absence of multicollinearity. It therefore means that BL, TBL and PBL are not linearly predictable, thus their statistical significance is not undermined.

Linear regression for both gender was then carried out while controlling for age and experience, but without the moderating variable of LC. Age and experience were used to control for confounding variables. The model summary 1 indicates an R^2 value of 0.016 and model summary 2 indicate an R^2 value of 0.464 as indicated in Table 2,

Table 2: Model summary indicating the control variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.128a	0.016	-0.003	16.77908	0.016	0.839	2	101	0.435
2	0.681b	0.464	0.448	12.44546	0.448	83.584	1	100	0.000

The R^2 value of 0.016 is equivalent to 1.6 per cent. It implies that the control variable of both age and experience accounted for only 1.6 per cent of any variability in predicting the ESE. However, the R^2 value of 0.464 indicates that EEP accounted for 46.4 per cent of variability in ESE.

The R^2 change value for model 1 does not differ with the R^2 value. However, the R^2 change value for model 2 indicates that the predictor variable (EEP) explained 44.8 per cent of outcome (ESE), even after age and experience had been controlled.

The analysis of variance was also carried out to find out the level of significance in the relation between EEP and ESE. The significant value in model 1, which consisted of the control variable of age and experience was 0.435 while that of model 2, which comprised of the control variable and EEP was 0.000 as indicated in Table 3.

Table 3: Analysis of Variance between EEP and ESE

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	472.253	2	236.127	0.839	0.435[b]
	Residual	28,435.285	101	281.537		
	Total	28,907.538	103			
2	Regression	13,418.601	3	4,472.867	28.878	0.000[c]
	Residual	15,488.937	100	154.889		
	Total	28,907.538	103			

The significant value of 0.000 is less than 0.005, meaning that EEP is statistically significant in determining ESE. However, the significant value of age and experience is 0.435, which is greater than 0.005, hence not statistically significant in determining ESE.

Standardized coefficients were also used to determine the contribution of EEP on ESE. The model 1 indicates a standardized coefficient of 0.91 for age and 0.068 for experience while model 2 indicates a standardized coefficient of 0.682 as indicated in Table 4.

Table 4: Standardized coefficient models including control variables

Model	Unstandardized Coefficients			Standardized Coefficient	t	Sig	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero Order	Partial	Part	Tolerance	VIF
1	(Constant)	69.313	7.748		8.946	0.000					
	Age in Years	2.316	2.617	0.091	0.885	0.378	0.110	0.088	0.087	0.923	1.084
	Experience in practicing entrepreneurship	1.803	2.720	0.068	0.663	0.509	0.093	0.066	0.065	0.923	1.084
2	(Constant)	14.519	8.303		1.749	.083					
	Age in Years	3.127	1.943	0.123	1.609	0.111	0.110	0.159	0.118	0.921	1.086
	Experience in practicing entrepreneurship	-1.800	2.056	-0.068	-0.876	0.383	0.093	-0.087	-0.064	0.889	1.125
	EEP	3.117	0.341	0.682	9.142	0.000	0.670	0.675	0.669	0.963	1.038

The second model indicates the largest value of 0.682. It means that EEP had strong contribution in explaining the outcome of ESE, but age and experience had least contribution to ESE.

It was therefore observed that the R^2 value, R^2 change and analysis of variance and standardized coefficient all indicate that EEP was statistically significant in determining ESE and strong contribution in explaining the outcome of ESE, while age and experience did not.

The comparison between gender was then analyzed using linear regression to establish whether there is any difference of ESE development between gender.

The different components of EEP were regressed against the ESE and the P values were all less than 0.05, implying that TBL, PBL and BL had significant influence on ESE.

The values of R square were also compared between male and female among the components of EEP as indicated in Table 5.

Table 5: Comparison of R-square between components of EEP and ESE across gender

	Gender	Team Based Learning	Project Based Learning	Blended Learning
1	Male	30.7%	32.6%	33.7%
2	Female	33.5%	20.3%	19.4%

Team-Based Learning in females contributed more to their ESE at 33.5 per cent as compared to 30.7 per cent in males. This means that TBL had higher impact on females in developing their ESE than on males. However, PBL and BL had higher values in males than females. This means that PBL and BL contributed more to the development of ESE in males than females.

The next step was conducting tests to find out the relationship of EEP and ESE levels developed in males and females separately. Linear regression for male produced a P value of 0.014 in Table 6.

Table 6: The linear regression of EEP and ESE for male

Model		Unstandardized Coefficients		Standardized Coefficients	t.	Sig.
1		B	Std. Error	Beta		
	(Constant)	31.807	16.831	16.831	1.890	0.066
	EEP	0.336	0.131	0.365		0.014
					2.572	

The results indicated that EEP has a significant influence on ESE for the male, since the P value is less than 0.05. This implies that EEP has a positive influence on ESE for men. The estimation equation for the linear regression for male can therefore be expressed as: ESEM = $\beta_0 + \beta_1$ EEP where ESEM is the Entrepreneurial Self Efficacy for Male, β_1= 0.336, which is the coefficient of EEP. The equation after the substitution of $\beta_1$will therefore be; ESEM = β_0 + 0.336EEP. This means that ESE for males is expected to increase by 0.336 when EEP improves by a unitary point holding the LC constant.

The extent of contribution of EEP on ESE for males was also established by observation of the value of R-square. The value of R-square for male on EEP and ESE was 0.133 as indicated in Table 7.

Table 7. The value of R-square of EEP on ESE for male

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
	Gender =Male (Selected)			
	0.365[a]	0.133	0.113	14.69390

This implies that EEP contributes to 13.3 per cent of ESE in male. The relationship between EEP and ESE for females was different from that of males. The P value for females was 0.113, as indicated in Table 8.

Table 8. The linear regression of EEP and ESE for female

Model		Unstandardized Coefficients	Standardized Coefficients		t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.353	17.572		3.036	.004
	EEP	.208	.129	.212	1.611	.113

The results show that EEP has no significant influence on ESE for female students because the P value was more than 0.05. This is contrary to the findings of Kickul, et al (2008) and Bernardino et al (2018) who found that EE yields more benefits on females than males in shaping their ESE. This implies that EE alone does not necessarily lead to an increase in ESE.

The estimation equation for the linear regression for females between EEP and ESE can therefore be expressed as: $ESEF=\beta_0 +\beta_1 EEP$; where ESEF is the Entrepreneurial Self Efficacy for Female, $\beta_1=0.208$, which is the coefficient of EEP. The equation after the substitution of β_1 will therefore be $ESEF=\beta_0 + 0.208EEP$. This means that ESE for females is expected to increase by 0.208 when EEP improves by a unitary value, without considering the LC. This implies that the EEP applied in universities has a lower impact on females than men.

The extent of contribution of EEP on ESE for females was also established by use of the value of R-square. The value of R-square for female on EEP and ESE was 0.045 as indicated in Table 9.

Table 9: The value of R-square of EEP on ESE for males

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	Gender = Female (Selected)			
1	0.212[a]	0.045	0.028	17.10033

This implies that EEP contributes to 4.5 per cent of ESE for females as opposed to 13.3 per cent for males. This means that the EEP applied in teaching entrepreneurship is more effective on males than females.

The contribution of LC on ESE for males was also established by observation of the value of R-square. The value of R-square for male on LC and ESE was 0.339 as indicated in Table 10.

Table 10: The R-square value of the relationship between LC and ESE for males

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	Gender = Male (Selected)			
1	.582[a]	.339	.324	12.83385

This implies that LC contributes to 33.9 per cent of ESE in males.

The contribution of LC on ESE for females was also established by observation of the value of R-square. The value of R-square for males on LC and ESE was 0.344 as indicated in Table 11.

Table 11: The R-square value of the relationship between LC and ESE for males

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	Gender=Female (Selected)			
1	0.587[a]	0.344	0.332	14.16941

This implies that LC contributes to 34.4 per cent of ESE for females as opposed to 33.9 per cent for males. This means that the LC contributes more to ESE of females than men.

The other step involved the introduction of LC as the moderating variable across the gender. The value of EEP was multiplied by the value of LC and the resultant value regressed with ESE to find out the influence of moderating variable. The introduction of LC resulted in a positive relation in both genders. The P value of the relationship between EEP, LC, and ESE was zero for both males and females as indicated in Table 12 and 13.

Table 12: Association between EEP, LC and ESE for males

Model		Unstandard-ized Coeffi-cients	Standardized Coefficients	t	Sig.		
	B		Std. Error	Beta			
1	(Constant)		38.334	6.978		5.494	0.000
	EEPLC		0.014	0.003	0.636	5.402	0.000

It implies that the combination of EEP and LC is statistically significant in predicting ESE. The results confirm a positive moderation of LC on EEP and ESE for male respondents. The estimation model for male when including LC is ESE=β_0+ β_1 LC + 0.14EEPLC+ while without LC is ESEM = β_0 + 0.336EEP. The coefficient of EEPLC falls from 0.336 to 0.14 with the introduction of LC. It means that the ESE of the male is developed through EEP, regardless of the LC. This is contrary to their female counterparts.

The P value in the case of females changes from 0.113 in Table 3 to zero with the introduction of LC in Table 13.

Table 13: Association between EEP, LC and ESE for females

Model		Unstandardized Coefficients	Standardized Coefficients		t.	Sig
		B	Std. Error	Beta		
1	(Constant)	51.627	7.062	0.510	7.311	0.000
	EEPLC	0.10	0.002		4.398	0.000

The results imply that the ESE of females is greatly influenced by LC than males. The coefficient value of EELC was 0.10, implying that ESEF is expected to increase by 0.10 when EEPLC improves by one unit. This means that LC has a significant moderating effect between EEP and ESE in females.

The other step was to determine the interaction effects of EEP and LC on ESE across gender. The R-square value of the interaction of EEP and LC on ESE for male was 0.88 as indicated in Table 14.

Table 14" The interaction effect of EEP and LC on ESE for males

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
	Gender = Male (Selected)			
1	0.296a	0.088	0.067	15.07583

This implies that the interaction effect of EEP and LC contributes to 8.8 per cent of ESE in males. It therefore means that the combined effect of EEP and LC has a marginal contribution of ESE on males.

The R-square value of the interaction of EEP and LC on ESE for females was 0.188 as indicated in Table 14.

Table 15: The interaction effect of EEP and LC on ESE for females

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	Gender =Female (Selected)			
1	.434a	.188	.173	15.76837

This implies that the interaction effect of EEP and LC contributes to 18.8 per cent of ESE in females as opposed to 8.8 per cent of ESE in males. This means that the combined effect of EEP and LC has greater contribution of ESE on females than males. It therefore means that LC has a more moderating effect of between EEP and ESE on females than males, meaning that development of ESE in females is more contextual than in males.

Multicollinearity among and between items was tested through a linear regression analysis by regressing each item of the study against each other. The items whose Variance Inflation Factor (VIF) were more than 10 were deleted, since that is the recommended upper limit (Creswell, 2014). The test is important in authenticating the findings.

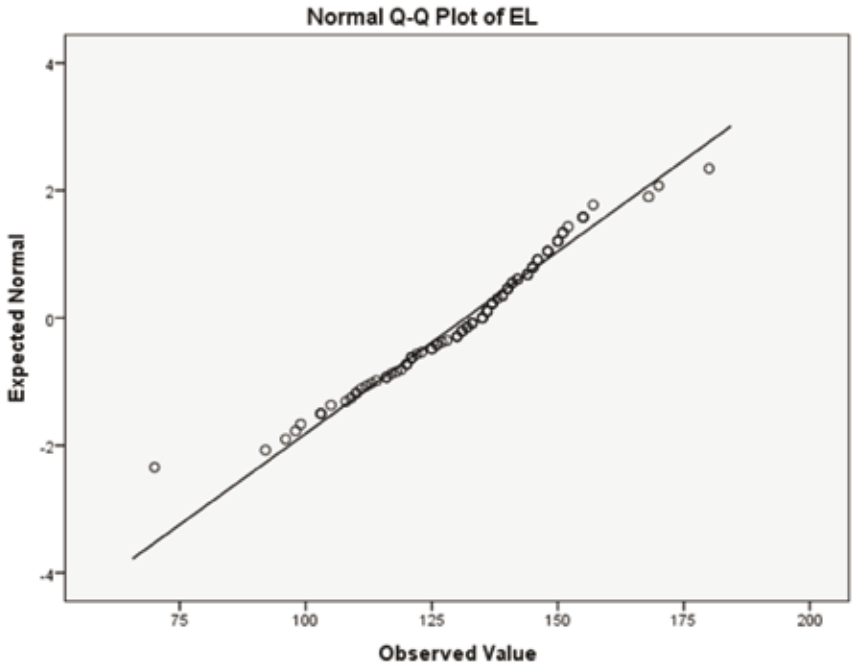
Table 16: Multicollinearity test

Model		Beta In	Collinearity Statistics	
			VIF	Minimum Tolerance
1	EEP	0.296b	1.031	0.898
	LC	0.085b	1.013	0.914
2	LC	-0.001c	1.107	0.887

The VIF values are above one, which is less than the cut-off point of 10 and falls between 1 and 5, implying a moderate multicollinearity that does not require corrective action. The tolerance values were 0.898, 0.914 and 0.887, which are greater than the required threshold of 0.10, indicating the absence of multicollinearity. It therefore means that EEP and LC are not linearly predictable, thus their statistical significance is not undermined.

The normality test of data for both EEP and ESE was done by the normal Q-Q plot of EL. It was noted that the observations were hugging along a straight line as indicated in Figure 5.

Figure 5: Normality test



The majority of the responses fall on a straight line apart from a few outliers. This implies that there was no significant difference between the responses across the firms sampled and hence the normality of data is confirmed. It therefore means that the data collected was homogeneous across the respondents.

The findings indicate that universities have a great role to play in creating an enabling environment for nurturing ESE. Universities are key players in supporting the development of ESE for both genders by the provision of learner-centred environment, appropriate and adequate learning facilities, incubators, the interaction with contemporary issues in the learning process, and initiation of guest speakers who can mentor students. The findings are consistent with those of Teoh and Chong (2014), who found that universities play an important role in nurturing high levels of ESE among students. Yukongdi and Lopa (2017) also found that university support has a significant influence on ESE and the environment provided by these institutions shapes the perception of students about entrepreneurship, but noted that there are few programmes designed to increase ESE across all faculties. The findings are also in tandem with those of Puni et al. (2018), who found that universities have the capability to break down the obstacles encountered in developing student's ESE. The impact of barriers was

articulated by Bernardino et al (2018), who found that unfavourable prevailing environment widens the gender gap in terms of ESE. Universities are therefore crucial in providing the necessary facilities, the right atmosphere for learning, business development services and coming up with innovative approaches of delivering EE.

The other measure of LC was guest speakers. The results indicated that 50 per cent of the respondents interacted with invited guests. An analysis for variance was done between guest speakers and ESE between the two genders. The P value for females was 0.017 and that of males was 0.557. The findings indicate that guest speakers with abilities to mentor play a great role in nurturing the ESE of females. The findings concur with those of Kickul et al. (2008), who found that female students are more influenced by role models to plunge into entrepreneurship while males are influenced by their ability to develop new artefacts. The guest speakers act as a role model who seem to impact more on females than males, but only half of the respondents were exposed to the potential role models, thus a need to focus on this area.

The findings are also consistent with Dabic et al. (2012), who found that mentoring positively influences the ESE of females. Exposure to role models also has a significant influence on ESE because they trigger favourable emotional experiences (Laviolette, Lefebvre and Brunel, 2012). This means that the interaction created between guest speakers who become role models increases the confidence of females to engage in entrepreneurship, thus influencing their ESE. Furthermore, the impact of women entrepreneurs is powerful in influencing the ESE of sustainable female entrepreneurs (Outsios and Farooq, 2017). Female students without appropriate mentors are therefore likely to face an uphill task in setting up enterprises than their male counterparts.

5. Summary and Recommendations

The findings indicate that some aspects of the EEP adopted in universities in Kenya does not support the development of ESE. It has been found that the TBL and BL contributes to the development of ESE in both genders, but PBL is not fully embraced and does not improve their ESE. It was also found that the Learning Context favour females in terms of the development of their ESE to a great extent, which was not the case with males. This perpetuates the gender disparity in terms of entrepreneurial capacity, which hinders the realization of the Sustainable Development Goal No. 5, which focuses on eliminating structural barriers for equality.

Universities should therefore focus on enriching TBL and BL by promoting collaboration levels between students and lecturers, group work activities, peer review mechanism, playing games related to entrepreneurship and cooperation levels between students and lecturers to improve the ESE of graduates. There should also be a concerted effort in redesigning the entrepreneurship curriculum to support PBL. This should be done by engaging learners in complex activities that require multiple stages, an extended duration that focuses on work-related competencies.

The curriculum in the universities should also be redesigned to accommodate a more inclusive EL, which encompasses all aspects of TBL, PBL and BL. This will enrich the EEP and allow for the introduction of more innovative pedagogies rather than focusing on traditional approaches only for greater development of ESE. High ESE would lead to efficiency in the utilization of Youth Enterprise Fund, Women and Uwezo Funds by creating more new sustainable entrepreneurial ventures to earn a living for the youth and create more job opportunities while at the same time fostering the economic participation of each gender.

It is also recommended that universities should address gender disparity in terms of ESE by providing the appropriate LC. Universities can improve the LC by providing more learner-centred environment, learning facilities, incubators and inviting guest speakers to navigate and demystify the contemporary issues that could otherwise be a barrier in engaging in entrepreneurial activities. Male guest speakers who are successful entrepreneurs should be invited to share their experiences because they are important in navigating and demystifying inherent fears and inadequacies in developing ESE. This will provide an opportunity for sharing business simulation, experiences and role modelling, hence the development of ESE in males, which is likely to lead to an appreciation for entrepreneurship. The guest speakers would also provide a key role in complimenting the lecturers and providing mentorship role. Universities should also strengthen linkages with industry players for greater

collaboration in research and development, commercialization of novel products, networking and student mentorship.

The female students should be accorded the right social platforms to interact and network with established female entrepreneurs to develop their entrepreneurial efficacy. This is important because it connects them to mentors at an early stage to boost their entrepreneurial intentions. Early intervention is appropriate to build the confidence and capacity required before they engage in entrepreneurial activities. It is therefore concluded that universities provide a crucial opportunity to foster the ESE of both gender, but more interventions on females are required because they are greatly influenced by the learning context. The learning context aligns their mindset to agility, risk tolerance and adaptability, which contribute to ESE.

The policy implications are that universities should redesign their entrepreneurship programmes to competence-based curriculum to improve the ESE of graduates across the gender divide. The policy makers in the education sector should also consider the gender disparities in terms of unique training approaches. The disparities should inform the redesigning and development of entrepreneurship curriculum, programmes and strategies.

The universities should also strengthen their industry collaborations and strategic partnership to assist in the funding of setting up and improving learning facilities that promote ESE, such as incubation hubs and business centres. Improved learning facilities will allow for problem-based learning where learners can develop prototypes to solve societal issues that can be commercialized. The incubation hubs and business centres are crucial in the commercialization of creativity and innovation of the students across gender.

5.1 Limitations and Areas of Further Research

The limitations of the study are that it utilized cross-sectional design, which is likely to be hampered by casual relationships between EEP and ESE. Future studies should adopt longitudinal design to conduct tracer studies on whether higher ESE indeed leads to engaging in entrepreneurial activities and whether the rate of venturing into entrepreneurship varies across gender.

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Appendix I: Presence of entrepreneurship education pedagogy and learning context in sampled universities

Case Processing Summary			
		N	Marginal Percentage
Efficacy	Skills	20	19.2
	Knowledge	22	21.2
	Trait	21	20.2
	Confidence	20	19.2
	Attitude	21	20.2
Collaboration among students and lecturers in the learning process	Yes	88	84.6
	No	16	15.4
Group work activities in learning process	Yes	89	85.6
	No	15	14.4
Peer review took place in the learning process	Yes	72	69.2
	No	32	30.8
Student involved in playing entrepreneurship related games	Yes	40	38.5
	No	64	61.5
Cooperation between teachers and lecturers in learning process	yes	82	78.8
	No	22	21.2
Practical problem solving took place in the learning process	yes	76	73.1
	No	28	26.9
Discovery learning took place in the course of study	Yes	76	73.1
	No	28	26.9
Authentic task was created in the learning process	Yes	68	65.4
	No	36	34.6
Learners involved in creation of business plans	Yes	95	91.3
	No	9	8.7
Project created by the learners were presented in class or other forums or events	Yes	84	80.8
	No	20	19.2
Different training approaches used in the course of study	Yes	72	69.2
	No	32	30.8
Various technologies used in the learning process	Yes	59	56.7
	No	45	43.3
There was interaction system among the students and lecturers	Yes	82	78.8
	No	22	21.2
Students engaged in the learning process	Yes	85	81.7
	No	19	18.3
Live events used in the learning process	Yes	60	57.7
	No	44	42.3
Student-centered learning environment was created in the course of the study	Yes	76	73.1
	No	28	26.9
Contemporary issues featured in the content of entrepreneurship	Yes	81	77.9
	No	23	22.1
Guest speakers were invited to talk with students	Yes	52	50.0
	No	52	50.0
Resources such as incubators were available in the learning process	Yes	23	22.1
	No	81	77.9
Learning facilities were available in the learning process	Yes	78	75.0
	No	26	25.0
Valid		104	100.0
Missing		0	
Total		104	
Subpopulation		91[a]	

ISBN 978 9966 817 77 8

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