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# AN EMPIRICAL STUDY OF ENTREPRENEURSHIP EDUCATION PROGRAM IN NIGERIAN PUBLIC UNIVERSITIES

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## ABSTRACT

*This paper assesses the effectiveness of entrepreneurship education program (EEP) in Nigerian public universities and evaluates the quality of EEP design, implementation, skills acquired and performance levels of recipients. This study is based on a sample of 705 respondents comprising 430 students, 130 graduates and 64 instructors of Nigerian public universities, 66 entrepreneurs and 15 policy makers through a mixed approach to assess the design, curriculum content, implementation and impact of EEP. Data were gathered through surveys and interviews and were analysed using weighted average index and regression analysis. The findings show that more than 75% of the respondents attested EEP curricula are moderately designed, instructors possess in-depth knowledge and accumulated experience to facilitate acquisition of entrepreneurial skills and attitudes. Over 90% of student recipients acknowledged EEP increased their entrepreneurial competencies and triggers intention for entrepreneurial career. The program promotes necessity entrepreneurship, 5% of the students operate micro-businesses and 42% of graduates had established businesses. More could be achieved if a supportive ecosystem to nurture entrepreneurial intention, review current curriculum content and other external factors that influence entrepreneurship are addressed. This paper has practical implications for policy makers and educationalist and provides insights into the design of an effective EEP in the context of emerging economies. This study makes a valuable contribution to the understanding of the factors contributing to effectiveness of EEP in an emerging economy.*

**Keywords:** Entrepreneurship Education Program, Graduate Unemployment, Entrepreneurial Skills, Public Universities, Business Start-Ups, Curriculum Content, Nigeria

## INTRODUCTION

Nigeria, located on the western coast of Africa along the Gulf of Guinea with a total area of 923,768 km<sup>2</sup> is endowed with abundant natural resources such as crude oil, forest land and natural water. The country's population is the highest in Africa, one of the top 10 in the world and stands at over 200 million (Worldometer, 2020). Such high and fast growing (2.58%) population (Sanusi et al., 2017; Worldometer, 2020) needs more employment creation and job opportunities. Given her abundant natural resources; Nigeria ought to be the hallmark for

entrepreneurial development and a pacesetter for entrepreneurial activities in Africa. However, Nigerian economy level is a factor-driven economy and recorded only 21% new business creation rate (GEM 2013). This means the levels of development and entrepreneurship is relatively low, attributed to the fact that young graduates may lack appropriate entrepreneurial thinking, skills, prior experience, mindset, network of contacts and drives to detect opportunities (Egbule, 2015; Onuma, 2016). This has been traced to the university curricula of the pre- and post-independence educational system which were not adapted to the needs and aspirations of the students (Ibrahim, 2015). The curricula produced graduates with preference for career in civil service (Onuma, 2016; Oyebola et al., 2015). Even now, most curricula have not been fully restructured, universities continued to produce graduates who look for employment in public sector and existing businesses (Uzoegwu & Egbe, 2014). The situation worsened with the sudden increase in university enrolments in the 1990s until now which also resulted in increase in graduation rate. According to the International Organisation for Migration (IOM), the liberalization of the educational sector increased graduates' turnouts with no corresponding increase in job creation opportunities (IOM, 2014). Studies have shown that only 20% of over 1.9 million graduates who join the labor market annually are absorbed, the remaining 80% accumulate and roam around major cities searching for non-existing jobs because they lack entrepreneurial vision and thinking, and are less likely to perceive start-ups as potential career option (Achor et al., 2020; Onuma, 2016; Sajuyigbe et al., 2016).

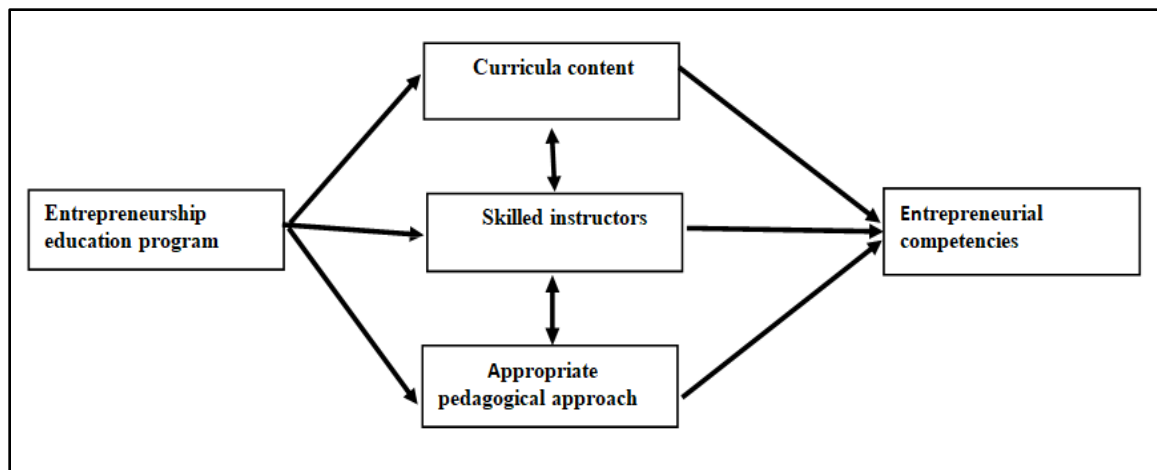
Most graduates lack the conviction and entrepreneurial thinking to perceive business opportunities and practice entrepreneurship or even secure employment five years after graduation (Kolade & Anosike, 2016; Oyebola et al., 2015). This high unemployment level signifies low entrepreneurial activities, which should have spurred up increased entrepreneurial thinking and behavior as well as influence graduates' propensity towards entrepreneurship but the reverse is the case (Kolade & Anosike, 2016). One therefore wonders whether providing entrepreneurship education programs (EEPs) alone does enhance entrepreneurship. This worrisome situation raised a concern over the quality and effectiveness of EEP in Nigerian public universities in instilling entrepreneurial mindset and facilitating the development of passion for entrepreneurship (Adigun, 2016; Agbonlahor, 2016; Amadi & Amakodi, 2019). Nigeria embraced EEP as an urgent empowerment strategy and a creative learning process designed to imbue the skillset to enhance competitive advantage among students to successfully transit to the business world by identifying market opportunities, gather resources, create and manage ventures (NUC, 2007, 2011; Amadi & Amakodi, 2019; Nwambam et al., 2018). EEP could alleviate the high graduate unemployment through business creation stability, strategically accelerate and reposition the Nigerian economy (Jones et al., 2018). An effective EEP promotes entrepreneurial thinking and innovative orientation beyond venture creation to include excellent performance after creating ventures (Sharma, 2015; Storen, 2014). Other EEP potential benefits like creativity, agility and innovation are critical in dealing with the global uncertainties during start-ups activities (Bliemel, 2014; Byun et al., 2018). Recognizing these benefits, Nigerian government, mandated EEP as compulsory in all Nigerian universities, to transform students' mindsets and thinking towards being innovative, entrepreneurship-driven and to perceive entrepreneurship education (EE) as attractive career option (NUC, 2007; Kuckertz, 2013; Sanusi et al., 2017). However, the effectiveness of these programs remains unsubstantiated. Hence, the aim of the present study is to assess the effectiveness of EEP in Nigerian universities on the basis of stakeholders' perspectives. Dominant studies on EEP assessment, especially in Nigeria, focus on students'

attitudes and intentionality, perceived feasibility, orientation, motivation, students' characteristics, pedagogy and challenges (Amadi & Amakodi, 2019; Nwambam et al., 2018; Babatunde & Durowaiye, 2014; Oyebola et al., 2015). Studies on EEP effectiveness in Nigerian public universities are scarce. To date, there is little or no evidence of a comprehensive EEP study of national prominence. This is the first study of its kind in Nigeria which covers three geo-political zones to address this gap. The low entrepreneurial activities and high rate of graduates' unemployment signposts that EEP may not have yielded expected results. Previous studies reported mixed findings on EEP effectiveness (Amadi & Amakodi, 2019; Byun et al., 2018; Yatu et al., 2018). Hence, it was imperative that more research on EEP design, implementation and assessment is needed (Byun et al., 2018; Warhuus et al., 2018).

This study is unique as it uses broad perspective to assess EEP. A past EEP assessment study in Nigerian public universities was conducted in one geo-political zone and relied only on students and instructors' perceptions. However, the current study was conducted across three geo-political zones and includes a survey of policy makers, entrepreneurs and graduates, in addition to students and instructors, to provide comprehensive insights into the program design, manpower availability, delivery and its effectiveness. Results provide policy makers with data that encompasses different stakeholders' perspectives that should help strengthen decision-making regarding EEP in Nigeria with a view to making it efficient and inclusive. The current study addresses the question: To what extent do the design and adequacy of EEP curricula-content induce acquisition of entrepreneurial skills as well as enhance entrepreneurship among EEP recipients? The remainder of this paper provides background on entrepreneurship and its assessment, describes the research methodologies, followed by the presentation of results and makes some important conclusions and practical recommendations.

## REVIEW OF RELEVANT LITERATURE AND CONCEPTUAL FRAMEWORK

Robinson & Shumr (2014) associate entrepreneurship with starting a business and creating values. Mwasaiwaba (2010) suggested a shift from viewing entrepreneurship as a start-up concept to an attitudinal behavior changing perspectives, Mueller & Anderson (2014); Teerijoki & Murdock (2014) concur to this and observe that entrepreneurial mindsets and attributes appear to have evolved alongside venture creation and have the potential to increase access to EE. The role of effective EEPs in creating more and better entrepreneurs has been recognized. An effective EEP is conceptualized as a function of appropriate curricula content, specialized skilled instructors, appropriate pedagogical approach and enhanced ecosystem. Curricula content reflect specific EE objectives and these aligned with students' diverse needs (Pittaway & Edward, 2012; Duval-Couetil, 2013; Maritz & Brown, 2013). Specialized instructors with accumulated knowledge of practice are EEPs' key drivers. Instructors steer the learning process through a mixture of conventional and action-oriented learning approaches (Bilemel, 2014; Duval-Couetil, 2013; Shih & Huang, 2017).



**FIGURE 1**  
**CONCEPTUAL FRAMEWORK FOR ENTREPRENEURSHIP EDUCATION PROGRAM**

To transform students into successful entrepreneurs, Morris et al., (2013) suggests a need for a stronger emphasis on students' active participation and experiential learning approach. The quality of these components and their levels of interactions determine EEP effectiveness and students' entrepreneurial thinking, knowledge and skills. The conceptual framework for the current study is shown in Figure 1.

EEP is the launch pad for entrepreneurial thinking, behaviors and job creation that has attracted significant government support globally (Efobi & Orkoh, 2018; Jones et al., 2018). The multiple interests shown in these programs make it appropriate that the programs be constantly assessed. EEP assessment has remain the lens through which scholars described EEPs' learning outcomes and EEP objectives remain the ultimate yardstick to evaluate its success (Gafar et al., 2014). Class attendance, in-class-assignments, business plans and reports, and examinations have remained common assessment approach (Lackeus, 2014). However, Pittaway & Edwards (2012) faulted the approach and suggest EEPs should best be assessed according to program types and objectives. Pittaway et al., (2008) sued for a more innovative assessment practice and suggested that self, peer and stakeholders' assessments are more practical and real. EEP objectives include awareness, attitude, knowledge and skill acquired intention for entrepreneurial career and venture creation (Byun et al., 2018; Kamovich & Foss, 2017). Attainment of these objectives determines EEP effectiveness, achievable shortly after program or through practice in the long-term (Henry, 2013; Jones et al., 2017; Sharma, 2015). Consistent with Byun et al., (2018), the present study defines EEP effectiveness as the attainment of EE learning outcomes. Assessment is two-fold; program assessment and recipients' (i.e., students and graduates) skills and knowledge as well as its applicability to benefit the individual and society.

The goal of most programs is to enhance entrepreneurial thinking and mindset, avert graduate unemployment and boost job creation. In Ghana for instance, about 20% of graduates who have completed EEPs have strong entrepreneurial attitudes, intentions and have started their ventures (Gyamfi, 2014) and in Egypt the start-up rate is 17% (Sheta, 2012). In South Africa, one graduate in every 52 university graduates (1:52) turn into entrepreneurs (Magaisa et al., 2018) while in Malaysia, 1.9% of EEP graduates become self-employed (Nasrudin and Othman,

2012). In the US, EEP graduates are three times more likely to start-up new ventures than graduates from other programs (Karabulut, 2014; Kuckertz, 2013); about 8% of Babson College graduates upon completion of EEPs started their own businesses (Welsh & Dragusin, 2011). In the UK, the Centre for Entrepreneurs (CFE), reported that 0.7% and 1.2% of EEP graduates start their businesses six months and three years, respectively, after graduation (CFE, 2017). Globally, about 10-20% graduates enrolled in EEPs is engaged in start-up activities (Jones et al., 2012). This aside, some studies also have strong negative evidence against EEPs effectiveness, but more studies make strong claims on positive EE impacts (Oosterbeek et al., 2010; Martin, et al., 2013).

## METHODOLOGY

Nigeria is the study context; the current research was conducted in five federal universities located in three geo-political zones in southern part of Nigeria namely: South-East, South-South and South-West, considering the security situation in Nigeria. Commercial activities in these zones are reasonably well functioning due to the presence of crude oil and other natural resources. These commercial activities are the hallmarks and pacesetters for entrepreneurial activities and development. Nigerian Universities are stratified into federal, state and private universities. According to the National Universities Commission, there are 179 universities; 43 federal, 52 state and 79 private universities. Federal universities herein referred to as Nigerian public universities were chosen because they are better equipped and funded, less expensive, admit the largest student population and offer more academic programs than other universities.

A mixed approach comprising qualitative and quantitative research methods were used to collect data, the qualitative component provided insights into EEP design and implementation. Analysis of the qualitative component provided the basis to design the survey instruments as well as enhance a deeper interpretation of its results (Ezemenari et al., 1999). These multiple data converge and capture the perceptions of policy makers, entrepreneurs, instructors, graduates, and students regarding EEP design, implementation, manpower and assessments in Nigerian public universities. This approach enhances methodological triangulation, data credibility, offsets bias as well as enriches the quality of the findings (Chang & Rieple, 2013; Ezemenari et al., 1999; Kerrigan, 2014). The present study employed multilevel assessments approach; entrepreneurs' perceptions were used to confirm graduates self-assessed skill performance levels, while, instructors' perceptions validated student's self-perceived skills and performance levels. This approach provided a more balanced assessment of recipients' skill performance levels by experts.

A purposive sampling technique was employed to select six universities out of seventeen public universities located within the three geo-political zones noted earlier. One university out of the six was used to pilot-test the survey instruments, the remaining five were used for the study; their names are coded in this study because the authorities of the universities did not give authorization to disclose their identities. Participants for qualitative component were purposively selected (Punch, 2013), based on their familiarity with and experience in EEPs, and their willingness to offer reliable information on the program (Hoepfl, 1997; Marshall, 1996). Purposive sampling was adopted because of cost implications and time constraints for the study (Nieuwenhuizen et al., 2016). Only students who had registered for the semester at the time of collecting data were eligible to participate in the study. A total of 193 participants were interviewed; 50 instructors, 30 entrepreneurs, 43 graduates and 70 students. In the survey component, the systematic sampling technique was employed to select the students. All EE



instructors in the sampled universities were selected for the study because their population was small. Policy makers, entrepreneurs and graduates were purposively sampled. Respondents in both the interviews and survey are shown in Table 1. A total of 821 questionnaires were sent, 705 were returned and all were usable (86% respondent rate).

|                                   | Policy makers | Entrepreneurs | Instructors | Graduates | Students | Total |
|-----------------------------------|---------------|---------------|-------------|-----------|----------|-------|
| <b>Participants interviewed</b>   | -             | 30            | 50          | 43        | 70       | 193   |
| <b>Questionnaire survey</b>       |               |               |             |           |          |       |
| Number of questionnaires          | 16            | 85            | 80          | 140       | 500      | 821   |
| Number of questionnaires returned | 15            | 66            | 64          | 130       | 430      | 705   |
| Response rate                     | 94%           | 78%           | 80%         | 93%       | 86%      | 86%   |

The students were final year at the undergraduate level from Business Administration and Engineering faculties who enrolled in EEP courses in their second and third year, respectively, and passed the EE examinations. Instructors were those who had taught or are currently teaching EE courses for the past five years. The entrepreneurs were those who had been involved in delivery of EEP or related activities like guest speakers, students' placement or graduates' employment.

Participation in such activities placed them in a position to assess the program, graduates' skill and performance levels. Graduates were those who completed the compulsory EEP and drawn from the two faculties in the selected universities and graduated between 2012- 2016. Mechanical, civil engineering, management and accounting departments were the four departments selected from the two faculties. Graduates and students of these faculties were chosen because of being confronted with immediate career decision, enormous employment opportunities and the high demand for their skills in the informal or private sector.

A multi-round Delphi technique, made up of 15-member experts working group (5 EE instructors and 10 entrepreneurs) was used to identify 10 core skills EEP recipients are expected to acquire. The expert group also identifies basic activities and duties entrepreneurs perform at start-up to be identifying opportunities, gathering resources to create and managing a new business. The skills expected of EE recipients and the tasks entrepreneurs perform at start-ups were grouped into three: opportunity identification, business creation and business management based on the objectives of the program. Specifically, opportunity identification skills included: analytical scanning, ICT skills and creativity; business creation skills involved: financial literacy and risks absorption, legal awareness, networking; and, business management skills encompassed management, planning, marketing and negotiation, accounting literacy, communication and persuasive skills.

The tasks entrepreneurs performed were: (a) opportunity identification: environmental scanning, idea generation, opportunities identification and evaluation; think and act creatively; (b) business creation: gather resource, business registration, build and manage relationships; (c) business management: plan, organize and coordinate tasks, take decisions, build team and manage people, identify market needs, negotiate and conduct sales, interpret simple accounting/book keeping entries, and communicate fluently. These skill-sets and activities were

used to design the interview questions that measured program design, manpower availability, delivery approach, skills acquired as well as recipients' ability to apply these skills. The interviews were conducted during official hours at the sampled universities, in the graduates and entrepreneurs' business premises or place of employment and lasted 20-30 minutes. The interviews were audiotaped with the consent of the participants and transcribed verbatim and shared with them for authentication. Then content analysis was performed, this process ensures dependability of data.

Survey instruments titled “*Nigerian University Entrepreneurship Education Assessment Questionnaire*” were developed for each respondent' group, as a follow up for the qualitative data in collaboration with the instructors and entrepreneurs from the expert working group and some selected graduates and students. Their inputs were incorporated to modify some questions, the process produced well-formulated instruments for the survey and set boundary for collection of relevant information. The policy makers were identified as major stakeholders in the course of analyzing the interview responses. They were not accessible to be interviewed but took part in the survey. The policy makers comprise the Directors and Deputy Directors of the units in-charge of EEP under the National Universities Commission, and, the Tertiary Education Matters Units of the Federal Ministry of Education. The Directors and Deputy Directors of Entrepreneurship Study Centers in each university were included among policy makers because of their strategic position in managing the program. The survey instruments had seven sections; Section A addressed respondents' demographic information. Section B focused on curriculum-content and program objectives; Section C assessed program facilities; Section D gauged program personnel; Section E measured program funding; Section F determined delivery model; Section G evaluated recipients' knowledge/skills and their performance levels. Prior to the data collection, the questionnaires were pilot-tested to ascertain their reliability using a sample of EE instructors, graduates and students from one of the reputable universities among the sampled universities within the three zones. Based on the outcome, the instruments were edited to improve clarity and meaning. The researcher in the company of two research assistants administered the instruments to the respondents. The collected data were analyzed using weighted average index (WAI) to compare the differences among different groups of respondents. Furthermore, for exploratory purposes, regression analysis was performed using instructors' only in order to identify which factor contributed to entrepreneurial skillset from their perspective. The instructors, besides being knowledgeable in curriculum matters, are engaged in its design, delivery and assessment, also, are closer to the students, hence can provide reliable information about the program and students.

## RESULTS

First, the respondents' profile for 15 policy makers, 66 entrepreneurs and 64 instructors are summarized in Table 2. A total of 73% of policy makers were male versus 27% females, 60% had PhD as highest academic qualification, 27% had work experience of 21-30 years and 13% had industry experience ranging between 11 and 20 years. Also, 13% were business owners in agro- business and processing; and 13% in merchandising and general services. Out of the 66 entrepreneurs involved in the study, 64% were male, 5% are PhD holders, 8% have been in business for 21-30 years.

| Description                      | Policy makers N=15 |    | Entrepreneurs N=66 |    | Instructors N=64 |    |
|----------------------------------|--------------------|----|--------------------|----|------------------|----|
|                                  | Number             | %  | Number             | %  | Number           | %  |
| Gender: Male                     | 11                 | 73 | 42                 | 64 | 36               | 56 |
| Female                           | 4                  | 27 | 24                 | 36 | 28               | 44 |
| Qualifications: PhD              | 9                  | 60 | 3                  | 5  | 54               | 84 |
| MSc                              | 6                  | 40 | 21                 | 32 | 10               | 16 |
| BSc/HND                          | -                  | -  | 32                 | 49 | -                | -  |
| Diploma                          | -                  | -  | 4                  | 14 | -                | -  |
| Work Experience: 1-10 years      | 3                  | 20 | 41                 | 62 | 27               | 42 |
| 11-20 years                      | 8                  | 53 | 20                 | 30 | 31               | 48 |
| 21-30 years                      | 4                  | 27 | 5                  | 8  | 6                | 10 |
| Industry Experience: Nil         | 10                 | 67 | -                  | -  | 24               | 38 |
| 1-10 years                       | 3                  | 17 | 41                 | 62 | 28               | 44 |
| 11-20 years                      | 2                  | 13 | 20                 | 30 | 10               | 16 |
| 21-30 years                      | -                  | -  | 5                  | 8  | 1                | 2  |
| Business Sector:                 |                    |    |                    |    |                  |    |
| Law firm                         | -                  | -  | 2                  | 3  | -                | -  |
| Agro-business & Processing       | 2                  | 13 | 15                 | 23 | 6                | 26 |
| Fast food & Eatery               | -                  | -  | 6                  | 9  | -                | -  |
| Construction                     | -                  | -  | 8                  | 12 | -                | -  |
| Merchandising & general services | 2                  | 13 | 12                 | 19 | 9                | 39 |
| Fashion Design & Boutique        | -                  | -  | 11                 | 17 | -                | -  |
| ICT accessories & Electronic     | -                  | -  | 5                  | 8  | 1                | 4  |
| Consultancy                      | -                  | -  | 6                  | 9  | 7                | 30 |

Their major businesses were in agro-business and processing 23%, followed by merchandising and general services 19%, fashion design and boutique 17%, construction 12%. For the instructors, 56% were male, 84% had PhD, and 10% had worked between 21-30 years.

Additionally, 44% had industry experience of 11-20 years while 39% owned merchandising and general services businesses, followed by consultancy (30%), agro-business and processing (26%).

Second, for the graduates' respondents (Table 3), 55% were male, 51% were within the age bracket of 26-30 years and 52% had business background. A total of 42% of the graduates are self-employed, 22% are in construction related business (bricks making & selling, selling of building materials & welding), 22% in consultancy, followed by boutique and fashion design (16%). Third, for the students (n=430), 57% were male, 73% were within age limit of 18-25 years, 52% had engineering background while 5% own micro businesses.

| Description       | Graduates N=130 |    | Students N=430 |     |
|-------------------|-----------------|----|----------------|-----|
|                   | Number          | %  | Number         | %   |
| Gender: Male      | 71              | 55 | 247            | 57  |
| Females           | 59              | 45 | 183            | 43  |
| Age: 18-25        | 25              | 19 | 312            | 73  |
| 26-30             | 66              | 51 | 117            | 27  |
| 31& above         | 39              | 30 | 1              | 0.3 |
| Faculty: Business | 71              | 52 | 205            | 48  |
| Engineering       | 59              | 48 | 225            | 52  |



|                                 |    |    |    |      |
|---------------------------------|----|----|----|------|
| Job status: Employees           | 33 | 26 | -  | -    |
| Unemployed                      | 42 | 32 | -  | -    |
| Self-employed                   | 55 | 42 | 21 | 5    |
| Areas of investment:            |    |    |    |      |
| Merchandising & General service | 5  | 9  | 14 |      |
| ICT & Phone accessories         | 8  | 15 | 1  | 3.3  |
| Catering & event centre         | 6  | 11 | -  | 0.2  |
| Construction related businesses | 12 | 22 | -  | -    |
| Consultancy                     | 12 | 22 | -  | -    |
| Boutique & fashion design       | 9  | 16 | 6  | -1.4 |
| Agro-business & processing      | 3  | 4  | -  | -    |

Over 75% of participants interviewed attested that the two-semester EEP is designed moderately in terms of quality and content coverage. They observed that one of the universities mount EEP at zero-credit unit due to its relevance to students' personal development. Participants suggested the curricula be revised and that a new EEP be domiciled in each faculty. Also, findings revealed that more than 90% recipients acknowledged EE impacted on them positively. Despite complaints by few students of overcrowded classes, recipients were excited and rated the program as rewarding having increased their awareness, attitudes, entrepreneurial skills and knowledge which indirectly triggers their passion for self-employment. This result is corroborated by the weighted average index (WAI). The WAI regarding knowledge and awareness creation for all respondents are rated similarly among the policy makers (0.75), instructors (0.72), graduates (0.71), entrepreneurs (0.67) and students (0.64). Suggesting that respondent's perceived content for creation of entrepreneurial awareness, acquisition of skills and knowledge as very well-articulated (Table 4).

WAI for contents to identify opportunity, create and manage businesses are similar for entrepreneurs, instructors, graduates and students except for policy makers whose WAI is significantly higher. This suggests that entrepreneurs, instructors, graduates and students perceived curricula-contents to enhance entrepreneurial processes as moderately well-articulated. While, policy makers' WAI on contents enhancing opportunity identification and business creation rank the highest at 0.83 and 0.82, respectively, content on businesses management ranked 0.78. This implies that in their view, content to facilitate skills to identify opportunity is excellently well-articulated and contents to develop managerial skills is very well-articulated. Apart from policy makers who developed the program, the overall perception of other stakeholders shows EEP is moderately crafted.

| <b>Table 4</b>   |                       |        |                       |        |                     |        |                    |        |                   |        |
|--|-----------------------|--------|-----------------------|--------|---------------------|--------|--------------------|--------|-------------------|--------|
| <b>SUMMARY OF WEIGHTED AVERAGE INDEX ON STAKEHOLDERS' PERCEPTIONS OF EEP DESIGN &amp; CONTENTS</b> |                       |        |                       |        |                     |        |                    |        |                   |        |
| Variables  | Policy makers<br>N=15 |        | Entrepreneurs<br>N=66 |        | Instructors<br>N=64 |        | Graduates<br>N=130 |        | Students<br>N=430 |        |
| Opportunity Identification   | WAI                   | Rating | WAI                   | Rating | WAI                 | Rating | WAI                | Rating | WAI               | Rating |
| Average  | 0.83                  | EWA    | 0.58                  | MWA    | 0.58                | MWA    | 0.60               | MWA    | 0.59              | MWA    |
| Business Creation  |                       |        |                       |        |                     |        |                    |        |                   |        |
| Average  | 0.82                  | EWA    | 0.58                  | MWA    | 0.53                | MWA    | 0.53               | MWA    | 0.55              | MWA    |
| Business Management  |                       |        |                       |        |                     |        |                    |        |                   |        |
| Average  | 0.78                  | VWA    | 0.59                  | MWA    | 0.46                | MWA    | 0.51               | MWA    | 0.49              | MWA    |
| Knowledge and Awareness  |                       |        |                       |        |                     |        |                    |        |                   |        |
| Average  | 0.75                  | VWA    | 0.67                  | VWA    | 0.72                | VWA    | 0.71               | VWA    | 0.64              | VWA    |
| Overall Average (Summation)  | 0.79                  | VWA    | 0.60                  | MWA    | 0.57                | MWA    | 0.58               | MWA    | 0.56              | MWA    |

*NWA: Not well-articulated; SWA: Slightly well-articulated; MWA: Moderately well-articulated; VWA: Very well-articulated; EWA: Excellently well-articulated.*

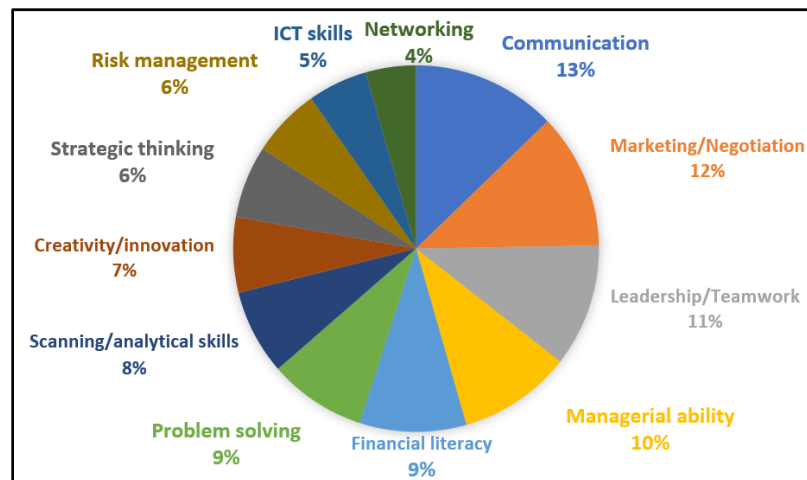
Over 70% of participants interviewed acknowledged universities have skilled instructors who possess in-depth knowledge and better understanding of entrepreneurship, prior experience and used structured and unstructured approaches to facilitate EE learning. The WAI for policy makers (0.84) and instructors (0.86) also collaborated this, which suggest that instructors are extremely knowledgeable about entrepreneurship (Table 5). Furthermore, the WAI of entrepreneurs (0.76), graduates (0.66), and students (0.70) are within the same range in terms of their rating. This finding indicates that Nigerian public universities have skillful instructors with the appropriate competencies to facilitate teaching-learning of entrepreneurship.

**Table 5**  
**SUMMARY OF WEIGHTED AVERAGE INDEX ON INSTRUCTORS' COURSE KNOWLEDGE AND DELIVERY**

| Variables              | Policy makers<br>N=15 |        | Instructors N=64 |        | Entrepreneurs<br>N=66 |        | Graduates N=130 |        | Students N=430 |        |
|------------------------|-----------------------|--------|------------------|--------|-----------------------|--------|-----------------|--------|----------------|--------|
|                        | WAI                   | Rating | WAI              | Rating | WAI                   | Rating | WAI             | Rating | WAI            | Rating |
| Course knowledge       | 0.84                  | EKA    | 0.86             | EKA    | 0.76                  | VKA    | 0.66            | VKA    | 0.70           | VKA    |
| Instructional delivery |                       |        |                  |        |                       |        |                 |        |                |        |
| Average                | 0.79                  | VKA    | 0.75             | VKA    | 0.61                  | VKA    | 0.61            | VKA    | 0.56           | MKA    |
| Course assessment      |                       |        |                  |        |                       |        |                 |        |                |        |
| Average                | 0.78                  | VKA    | 0.62             | VKA    | 0.60                  | MKA    | 0.53            | MKA    | 0.50           | MKA    |
| Overall average        | 0.80                  | VKA    | 0.74             | VKA    | 0.65                  | VKA    | 0.60            | MKA    | 0.59           | MKA    |

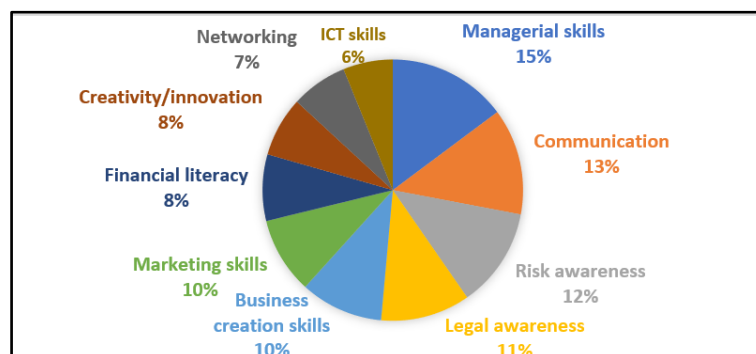
*NKA: Not knowledgeable; SKA: Slightly knowledgeable; MKA: Moderately knowledgeable; VKA: Very knowledgeable; EKA: Extremely knowledgeable*

Regarding EE delivery, the WAI of policy makers (0.79), entrepreneurs (0.75) are relatively similar, followed by instructors (0.61) and graduates (0.61), while the students' WAI was relatively lower (0.56). This shows instructors used varied approaches in transforming students' entrepreneurial knowledge as well as moderately assess students' entrepreneurial activities within and outside the classroom. The finding also reveals that recipients have acquired entrepreneurial skills due to their participation in the program. Figures 2 & 3 show different skillset recipients had acquired. These skills are required at different stages of entrepreneurial endeavors and they enhance the successes of entrepreneurs in creating values for the society.



**FIGURE 2**  
**ENTREPRENEURIAL SKILLS ACQUIRED BY STUDENTS**

The results further reveal that recipient having acquired entrepreneurial knowledge are triggered to perform entrepreneurial activities, for instance, 5% of the students have micro-businesses and 24% intend to start new businesses within five years after graduation, while, 63% preferred paid employment. A total of 42% of the graduates have established some forms of businesses and 26% are employed. However, graduates identified impediments confronting the program and their inability to create venture to include: inadequate working capital, poor infrastructural facilities, competition from rivals, lack of prior practical experience, students’ attitudes, lack of collaboration with alumni and specialized advisory services. Also, the overall WAI rating for graduate skill performance levels by entrepreneurs (0.49) and graduates (0.55) themselves are within the same range. This suggests that graduates moderately perform entrepreneurial activities (Table 6). But the overall WAI of the instructors (0.60) and students (0.63) differ to some extent. Instructors perceived students possess moderate (limited) entrepreneurial knowledge and can moderately perform entrepreneurial processes. But students rated their ability to identify opportunity as being moderate while the ability to create and manage ventures is rated high.



**FIGURE 3**  
**ENTREPRENEURIAL SKILLS ACQUIRED BY GRADUATES**

| Variables             | Entrepreneurs<br>N=66 |        | Graduates N=130 |        | Instructors N=64 |        | Students=430 |        |
|-----------------------|-----------------------|--------|-----------------|--------|------------------|--------|--------------|--------|
|                       | WAI                   | Rating | WAI             | Rating | WAI              | Rating | WAI          | Rating |
| Identify opportunity  | 0.48                  | MSP    | 0.57            | MSP    | 0.6              | MSP    | 0.55         | MSP    |
| Create Businesses     |                       |        |                 |        |                  |        |              |        |
| Average               | 0.49                  | MSP    | 0.56            | MSP    | 0.55             | MSP    | 0.63         | HSP    |
| Manage businesses     |                       |        |                 |        |                  |        |              |        |
| Average               | 0.51                  | MSP    | 0.54            | MSP    | 0.61             | HSP    | 0.68         | HSP    |
| Awareness & knowledge |                       |        |                 |        |                  |        |              |        |
| Average               | 0.49                  | MSP    | 0.56            | MP     | 0.62             | HSP    | 0.68         | HSP    |
| Overall average       | 0.49                  | MSP    | 0.56            | MSP    | 0.6              | MSP    | 0.64         | HSP    |

*PP: Poor skill performance; FP: Fair skill performance; MP: Moderate skill performance; HP: High skill performance; EP: Excellent skill performance*

As noted earlier, for exploratory purposes multiple regressions were undertaken for the sample of instructors. The multiple regression results (Tables 7 & 8) indicate that instructors' course knowledge is a significant factor that impact students' entrepreneurial knowledge, skills and awareness of entrepreneurship ( $\beta=0.792$ ,  $p<0.001$ ), followed by business creation content ( $\beta=-0.378$ ,  $p<0.05$ ) and business management content in the curriculum ( $\beta=0.413$ ,  $p<0.06$ ).

| Model | R                  | R Square | Adjusted R Square | Standard Error of the Estimate | Change Statistics |          |     |     |              | Durbin-Watson |
|-------|--------------------|----------|-------------------|--------------------------------|-------------------|----------|-----|-----|--------------|---------------|
|       |                    |          |                   |                                | R Square Change   | F Change | df1 | df2 | Sig F Change |               |
| 1     | 0.844 <sup>a</sup> | 0.712    | 0.676             | 0.46583                        | 0.712             | 19.743   | 7   | 56  | 0.000        | 1.943         |

<sup>a</sup> Predictors (constant). Business management, Instructional delivery, Course facilitation, Course assessment, Business creation, Opportunity identification <sup>b</sup> Dependent Variable skill performance mean

This means that from instructors' perspective, instructors' course knowledge has the most impact on students' entrepreneurial skills. That is instructors' accumulated knowledge of entrepreneurship enhances good teaching, choice of pedagogical approach and students' assessment. However, this study found that instructors who reported higher scores on business creation content are more likely to perceive skill performance among the students to be lower, which is counterintuitive. A possible explanation may be related to the expectations that instructors have for students. Those who rated content to be higher in business creation may also hold higher expectations for the students in terms of skills acquisition and hence, tend to rate skill acquisition lower when there is a mismatch in their expectations and the perceived level of skills of their students.

**Table 8**  
**MULTIPLE REGRESSION ANALYSIS**

| Model                      | Unstandardized Coefficients |           | Standardized Coefficient | t      | Sig.  | Collinearity Statistics |       |
|----------------------------|-----------------------------|-----------|--------------------------|--------|-------|-------------------------|-------|
|                            | B                           | Std Error | Beta                     |        |       | Tolerance               | VIF   |
| 1 (Constant)               | -1.804                      | 0.751     |                          | -2.401 | 0.020 |                         |       |
| Course knowledge           | 1.192                       | 0.124     | 0.792                    | 9.629  | 0.000 | 0.761                   | 1.314 |
| Instructionary delivery    | 0.009                       | 0.080     | 0.009                    | -.112  | 0.911 | 0.849                   | 1.178 |
| Course assessment          | 0.091                       | 0.092     | 0.086                    | -.982  | 0.330 | 0.664                   | 1.506 |
| Course facilitation        | 0.069                       | 0.057     | 0.104                    | 1.207  | 0.232 | 0.691                   | 1.447 |
| Opportunity Identification | 0.036                       | 0.159     | 0.043                    | 0.228  | 0.820 | 0.144                   | 6.936 |
| Business creation          | -0.316                      | 0.138     | -.378                    | -2.285 | 0.026 | 0.188                   | 5.311 |
| Business management        | 0.321                       | 0.168     | 0.413                    | 1.910  | 0,061 | 0.110                   | 9.090 |

<sup>a</sup> Dependent Variable: Skill Performance

## DISCUSSION

Major EEP stakeholders' perception was used to evaluate the extent the quality of EEP design and adequacy of curricula-content influence EEP recipients' skills acquisition process and performance levels. The qualitative results revealed that majority of participants: entrepreneurs, instructors, graduates and students; perceived EEP design is attractive in terms of quality, load of content and scope. Common comments mostly repeated among participants are: *"the quality of the program is adequate"*, *"the program is properly designed and content painfully crafted"*, *"content and activities are sufficient to attain the program objectives"*, *"the program is timely and content are rich to change the mindset of serious-minded students"*. The curricula define the content and are the decisive factor that influence the knowledge and skills the students will acquire and its applicability. Content covers entrepreneurship awareness, pre-venture creation process and management of small businesses. These areas equip students with the cognitive strategies to identify viable economic opportunities, gather resources, create and manage businesses. The belief is that once students acquire and master these strategies on how to create ventures, there is a higher likelihood to start their own businesses and the chances of them succeeding in business are high. This seems feasible because the program incorporates theoretical and practical components which expose students to entrepreneurship theories and practical activities. Content also promotes student-centered learning, inspires and expose them to practical entrepreneurial activities and interactions with entrepreneurs. Such exposures facilitate development of attitude and personality traits, like innovativeness, self-direction, perseverance and persuasiveness. These traits are recognized as the hallmark for and paint the unique pictures of successful entrepreneurship. Furthermore, the design provides a window where instructors can incorporate local aspirations and challenges within the university environment. This makes the scope of content broader, compressed and impactful perhaps impossible of being effectively delivered within the time frame for the program. Considering other curricula and extra-curricular activities that equally demands students' attention and time. This perhaps might be the reason one sampled university mounts the program at zero credit units and this does not impact on students' GPA. The implication of such overcrowded content is that quality delivery may be compromised in attempt to cover content within the time frame for the program. This finding corroborates with the studies on EEP assessment conducted by Oriazowanlan (2013) and Oyebola et al., (2015). This result contradicts studies conducted earlier by Fayomi & Fields (2016) and Nwambam et al., (2018), who found that EEP curricula-content in Nigerian public



universities are inadequate and deficient to facilitate development of entrepreneurial skills and knowledge. The authors used only survey and conducted their studies in one geo-political zone of Nigeria. Their respondents were students and instructors, the present study overcame these limitations by using mixed approach. The present study cut across three geo-political zones while respondents were expanded to include policy makers, entrepreneurs and graduates, in addition to students and instructors. The finding from the present study provides strong evidence which suggest EEP content is broad in scope, can create entrepreneurial awareness and enable recipients develop entrepreneurial knowledge and skills. Furthermore, respondents suggested periodic review of curricula and design, and the introduction of new EEP to be domiciled in every faculty. This might promote professionalism and facilitate identification of opportunity-driven businesses.

Instructors in both qualitative and quantitative results were perceived as critical success factor that drives EE delivery. They are skillful and possess in-depth course knowledge (in terms of EE objectives, content, delivery and assessments methods) to effectively provide students with a rich variety of learning experiences to make them entrepreneurial in their thinking. The regression analysis provides further evidence of a link between instructors' course knowledge and students entrepreneurial skills and performance levels. This finding contradicts studies conducted by Agwu et al., (2017); Amadi & Amakodi (2019) and Nwambam et al., (2018). Their studies found that Nigerian public universities lacked knowledgeable and experienced instructors to facilitate EE delivery and, hence, instructors relied predominantly on theoretical instructions, which studies have criticized, it does not facilitate development of entrepreneurial skills. The findings of the present study provide evidence which suggest EEP instructors in Nigerian public universities possess diverse background knowledge and a wide range of skillset. Instructors are drawn across the entire university; the majority has doctorates, accumulated knowledge of practice and used varied pedagogical approaches. These qualities are the bases for instructors' confidence to properly interpret, organize and sequence curriculum activities, as well as proper instructional planning and delivery strategies. Instructors' knowledge specialty also enables them apply appropriate motivational techniques, create interactive and conducive learning environment. The results corroborate with attributes possessed by EE instructors in the studies by Kabongo & McCaskey (2011); Yusoff & Lame (2015), and, Lucky & Yusoff (2017) to effectively facilitate delivery. Instructors are competent in academic technology and varied delivery approach to encourage students' active participation in the learning process. They make learning more practical and student-oriented using video clips, guest speakers, entrepreneurship club activities, business visits and interactions with entrepreneurs. These approaches influence students' mindset and perception; they constitute the building blocks to develop entrepreneurial skills as well as expose students to real entrepreneurship situations and laid the foundation for trusted relationships. They also enable students gain confidence and provide avenue to interact and receive direct constructive suggestions from entrepreneurs. It further laid foundation for a decision to pursue entrepreneurial career and subsequent active values creation in their later life, notwithstanding complains that EEP classes were over-crowded and seem to discourage active participation in class attendance and activities.

Recipients acknowledged during interviews that EEP is relevant and have impacted on them by increasing their awareness, attitudes, entrepreneurial skills and knowledge as well as preference for self-employment. EEP provide a broader range of skills for students to be successful in their quest for self-employment. Skills like managerial, communication, marketing,

risks and legal awareness were prominently listed by graduates as skills acquired. While innovation, creativity, networking and ICT skills were the least mentioned skills. These skillsets are all important and none is dominating over others, though in practice it is possible to out-source ICT skills, but innovation, creativity and networking skills are crucial to identify opportunity and create ventures and hence cannot be out-sourced.

Going by the number of self-employed graduates, it seems acquiring entrepreneurial skills are just the beginning of the entrepreneurial process and a step in becoming an entrepreneur. Such skills alone may not facilitate venture creation but providing enabling ecosystems which reflects students support services may fast-track nurturing of business ideas to make venture creation and management feasible. Similarly, from the interview responses networking, ICT skills, risks management, strategic thinking, creativity and innovative skills were among the least mentioned skills students had acquired. This has negatively impacted students' skill performance considering their relevance in venture creation and might account for why recipients' skill performance is rated moderate. This has serious implication for practice and may have contributed to the high graduate unemployment. Though it does not follow that enrollment in EEPs may always lead to entrepreneurial behaviors, some recipients are excited and acknowledged the program is impactful. For instance, 5% of students sample are engaged in micro-businesses and 24% intends to practice entrepreneurship after graduation, 63% indicated preference for employment to perfect their skills, acquire sufficient finance, gain experience and develop a stable social relationship. This suggests a greater likelihood of future business ownership. Communication skills were prominently mentioned by students and communication is needed in every aspect of business endeavor: Sharing ideas, business concept or marketing of products. This was followed by leadership and management, scanning and analytical skills. Besides these skills, unanimously, entrepreneurs and instructors agreed recipients had acquired valuable personality traits of successful entrepreneurs such as perseverance, initiative, risk-tolerance, independence, need for achievement, self-confidence, creativity and efficacy, networking and orientation towards learning. Peltier & Scovotti (2010), and Harbi & Anderson (2010), identified, these traits are critical in venture creation, innovation, employment and societal growth. Also, 42% of the graduates are self-employed and 26% are employees. This suggests that participation in EEPs result in acquisition of entrepreneurial competencies at the knowledge and skill levels, which triggered intentions to engage in entrepreneurial thinking and behavior. This result supports the studies by Sajuyigbe et al., (2016); and Dakung et al., (2017) on EEP effectiveness.

The 42% start-up rate recorded by graduates could be judged to be highly successful as compared to EEPs in other developing countries like Ghana with 20% (Gyamfi, 2014), Egypt 17% (Sheta 2012) start-up rate, South Africa with a ratio of 1:52 (Magaisa et al., 2018) and Malaysia with less than 2% graduate start-up (Nasrudin & Othman, 2012) as well as the global start-up rate of 10-20% (Jones et al., 2012). Nigerian EEP from its objectives is concerned with awareness and empowering recipients with cognitive strategies for entrepreneurial behavior, it seems recipients' businesses tend not to follow an innovative strategy. Recipients are pushed out of necessity rather than perceived opportunities to establish businesses, due to absence of reliable social welfare package, lucrative jobs or employment opportunities. This manifest in a greater pull of necessity- driven entrepreneurship, suggesting that short-term EEPs are a step to promoting necessity entrepreneurs. Perhaps, a supportive ecosystem setting that reflect student support services could most likely enable recipients pursue opportunity-driven entrepreneurship,

develop managerial skills and boost preference for innovative ventures rather than establishing small non-innovative businesses that may hardly create jobs or generate wealth for the owners. This possibly may be why instructors and entrepreneurs rated recipients as moderate in their skill performance levels. The recipients as freshers from the university have less focused cognitive framework for business, they lack prior knowledge and experience, confidence, resources and social relations. This suggests recipients need further training through mentorship to gain experience and hone their skills to pursue opportunity-driven businesses.

Approximately 80% of recipients are excited about the program and rated it academically beneficial, this implies the program will create a positive future for young graduates. The program has changed recipients' perceptions, mindsets, thinking and triggered their passion for self-employment. However, some impediments external to the program were identified why most graduates are unable to practice entrepreneurship: rigid registration requirements and processes, high cost of doing business, inability to generate ideas, and lack of practical experience and reliable network. This suggests that the Nigerian context is weak to develop vibrant entrepreneurial activities. This notwithstanding, the program as in some other contexts is impactful and has laid the foundation for a brighter business career for most of the recipients.

## CONCLUSIONS AND RECOMMENDATIONS

This study concludes that EEP in Nigerian public universities, to a greater extent, is effective, the program is moderately crafted in terms of quality and content. Instructors possess required potentials to teach and the program has increased awareness of and attitude to entrepreneurship, facilitated acquisition of entrepreneurial competencies and ignite passion for entrepreneurship. The study revealed that though recipients at the basic level can moderately perform entrepreneurial activities, acquisition of entrepreneurial skills does not seem to automatically translate adequately into short-term business achievements due to some external factors that are outside the control of the recipients. Short-term EEPs promotes emergence of necessity entrepreneurs among graduates. The study presents value for policymakers by noting that initial entrepreneurial attempts are characterized by mistakes and failures, this could be averted if recipients are exposed to further training and a healthy ecosystem setting to encourage them develop specific practical experience relevant to their desired businesses. Stakeholders believe universities in partnership with their alumnus can facilitate this, by revising EEP curricula and providing effective high-quality student support and advisory services. Such services should provide low-cost space; introduce recipients to investors, mentors, workshops and trainings, low-cost business services and strategies to build social relations. This can help build the cognitive strategies that laid the foundation for the establishment of the individuals, create jobs and subsequently contribute to boost economic development.

This study has some limitations leaving the door open for further scholarly enquiry. First, the study was conducted only in federal universities using only two faculties, incorporating states and private universities may make findings more generalizable to all universities in Nigeria. Second, stakeholders may have over or underestimated recipients' skills and performance levels, further quantitative studies are required to ascertain their actual skills and performance levels. Third, a multi-round Delphi technique, made up of 15-member expert group was used to identify the duties performed by entrepreneurs and skills which EEP recipients are expected to acquire. To the extent of the panel specialty and experiences they drew the set of entrepreneurial skills and duties which guide our discussions; however, they might likely not have identified other set

of skills and duties which are critical for entrepreneurial processes in advanced contexts. Further studies are required in this direction. Based on the challenges identified, the following recommendations are advanced to improve and make EEP more inclusive in Nigerian universities.

1. The National Universities Commission (NUC) in collaboration with key stakeholders should periodically review EE curricula-content to reflect venture creation activities and current societal needs. Also, to make EEP more student-centred, each faculty in the university should design and domicile EE courses tailored to the diverse needs of students in their domain. Students who aspire for self-employment should tie their final undergraduate project-writing to the course and develop a business plan within the context of the course under joint tutelage of an entrepreneur and EE instructors. This will facilitate and reduce the gestation of starting a new business upon graduation.
2. The NUC and universities should constantly sponsor instructors to update their knowledge of entrepreneurship through conferences internationally and locally, to get abreast with new trends in the field and acquire more skills to hone their pedagogical approaches. Also, entrepreneurship study centers should increase the pool of instructors and assign them manageable class-size to reduce overcrowded classes; this will improve students' commitment and teaching-learning effectiveness.
3. The NUC should encourage universities to set up 'students support service' unit in their entrepreneurship study centers for specialized advisory services to perspective recipients and instructors. The units should provide advisory services, workspace, guide student business initiatives and ensure likelihood of survival of businesses initiated by recipients and staff. This will help set the pace for their entrepreneurial development in the early years of their career. Also, involving successful alumnus in the activities of these units can create a pool of alumnus entrepreneurs who might turn out to be ideal breeding ground for entrepreneurial career development and a research link with universities.
4. Government should provide enabling environment and minimizing business registration requirements in order to reduce cost of doing business for young graduates.

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