EXPLORING INNOVATION CAPACITY AND SKILLS DEVELOPMENT IN SUB-SAHARA AFRICA'S HIGHER EDUCATION

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ABSTRACT

The global stress created by the corona virus pandemic has compelled universities to serve as centres of innovation. Based on narratives of emerging issues, the necessity for educational institutions to produce high-quality graduates is becoming increasingly paramount in national and international policy. The desire to increase the level of enrolment in tertiary education sector often dislodges the quest for the production of well-equipped graduates. Although there are accomplishments with regards to students' access to higher education in many Sub-Saharan African nations, the same cannot be said of the quality of graduates produced. How can the distortion in the tertiary education system be addressed? This study intends to furnish regulatory authorities with convincing grounds on how graduates learn the fundamental abilities required to secure sustainable employment. As a contribution in filling this gap, this study explored the dynamics of skills acquisition among undergraduate students in two selected rural universities in South Africa and Nigeria. Using a quantitative approach, empirical analysis showed that quality of the graduates is mostly determined by quality of input. Based on the findings, a model of innovation and skills development centre for tertiary institutions in Sub-Saharan Africa has been designed and recommended.

Keywords: Innovation, Skills Development, Experiential Learning, Rural University.

INTRODUCTION

Tertiary education is widely acknowledged to be a pre-requisite for the development of human capital of any society, as a result, governments are progressively recognizing that the whole system of education should mirror the current socioeconomic demands of the global digital economy which increasingly calls for a more skilled and dynamic manpower. Universities must redefine themselves as innovation hubs, particularly in Africa, where the community relies on skills and economic growth to address the key five concerns of unemployment, poverty, inequality, education, and low skill levels. (Meyer & Norman, 2020). The 2030 Agenda for Sustainable Development emphasize the need to empower university students and meet their needs in all ramifications (Cieslik & Simpson, 2013). Engaging students in productive ventures is central to the successful implementation of the transformative agenda in Africa.

In recent times, the efficiency of entrepreneurship and enterprise education takes hold rapidly around the world. Entrepreneurship programmes springs up in Africa, the USA, East Asia and Eastern Europe, as well as Latin America and Western Europe in secondary and higher education programmes. Universities are increasingly attempting to transform patents into hubs of technology and entrepreneurship. Education and training for entrepreneurship is being drawn up,

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refined and discussed (Niyonkuru, 2005). This implies that the universities across the world are in transition. The traditional idea of the university as a vehicle of knowledge transfer does not address the current societal challenges, this notion, therefore, draws the attention of scholars and policymakers to the concept of 'entrepreneurial university' whose mandate is to stimulate entrepreneurial thinking and actions in societies.

It is remarkable that at the university level, the essence of teaching entrepreneurship is to graduate with accomplished skills and competencies to think innovatively, discover possibilities and translate ideas into value. These skills can be defined in one word as "*entrepreneurial*," allowing individuals to take advantage of opportunities and ideas turning them into values for themselves and others (Tiemensma & Rasmussen, 2019). The production of entrepreneurial graduates is the reason for the expansion of entrepreneurship education in higher education institutions. However, despite the worldwide proliferation of entrepreneurship education programmes, there has not been much agreement on their objectives, target audience, curriculum, teaching methods and assessment practices (Mwasalwiba, 2010). Meanwhile, many of the universities especially on the African continent struggle with funding, subject to the nature of universities organizational structure. It follows that the capacity of some universities to address societal issues could be limited by financial constraints.

Critically analyzed, the recent global youth unemployment projection indicates that young graduates in sub-Saharan Africa are three times more likely to be unemployed than experienced adults. This is partly due to the fact that their lack of basic skills counts against them when applying for entry-level employment and there are also significant social obstacles that discourage young people from joining the labour market. Around the world, one-fifth of young people are currently in NEET status "*non in employment, education and training*." (International Labour Organization, 2020). This means that they do not earn income from work or improve their education and skills. Obviously, they are not achieving their full potential. In order to salvage this situation, a growing number of researchers have focused on the expansion of entrepreneurship education; however, little research has been conducted on the specific reasons for skills shortage among African youths.

Based on the foregoing, one of the South African Department of Higher Education and Training (DHET) goals is to accelerate the pace at which the critical skills required for socioeconomic progress are provided, this laudable stride is key to address South Africa's socioeconomic needs, the National Qualifications Framework (NQF) also prioritized skills advancement over conventional theory. However, the impact of this aforementioned initiative is not yet known.

LITERATURE REVIEW

An Overview of Skills Development Issues in Sub-Sahara Africa

South Africa and Nigeria are two of the prominent nations on the continent of Africa. The resources and manpower in South Africa, Botswana, Nigeria, Kenya, Egypt, Mali and Angola could transform the space remarkably if exploited fully. Increasingly, the global economy demands that graduates enter the workforce not only with their degrees but also with a set of transferrable, entrepreneurial skills and attributes that can help them excel in almost any productive ventures. This includes the ability to take initiative and think innovatively, to demonstrate creativity in problem-solving and to communicate effectively (Onuma, 2016). This

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implies that academic qualification coupled with a set of core skills are required for graduates to excel in the ever-changing labour market.

Critically analysed, the 2019 Global Entrepreneurship Monitor (GEM) reports that none of the African countries ranked among the first twenty five in terms of employability skills sub-index, as shown on table 1 below, it features nations from Asia, North America, South America and Europe. The report further highlights the inadequacy of skills development drive in Sub-Saharan Africa (Bosma & Kelley, 2019). Therefore, this GEM report underlined the need to enhance the quality of education and training in Africa's higher education institutions.

Table 1
SKILLS SUB-INDEX RANKING FOR THE FIRST 25 COUNTRIES, 2019*

Countries	Rank
Denmark	90.14
United States	89.67
Switzerland	85.63
Canada	83.77
United Kingdom	82.63
Australia	80.08
Ireland	79.13
Sweden	77.05
Netherlands	74.45
Iceland	71.04
Germany	68.21
Belgium	67.43
France	66.78
Austria	65.09
Luxembourg	65.04
Hong Kong	64.66
Finland	64.59
Israel	62.58
Japan	61.43
Norway	60.73
Singapore	58.14
Taiwan	58.02
Slovenia	57.64
Puerto Rico	56.01
Chile	53.33

Source: Global Entrepreneurship Monitor (2019)

Nigeria is the eighth largest oil exporter globally and Africa's second largest economy. Over the past three decades, the deep socio-economic crises which have brought social inequality, poverty and underdevelopment, have brought Nigeria and South Africa back on track at various times. In Nigeria, socio-economic instability and currency depreciation were the by-products of the economic crisis of 2014, as well as a greater need for youth social protection. The abolition of apartheid in 1994 left a legacy of social injustices in the South African context such as: unequal distribution of economic resources, racial inequalities, spatial inequality and a wider gap between the rich and the poor. The establishment in 1994 of a democratic waiver led to a higher standard of living and to better social justice conditions. Suffice to state that skills

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development of the youths is a central component of social justice aimed at addressing the historical injustices of apartheid and colonialism.

From demographic indicators to political system structuring, South Africa and Nigeria are in a number of respects unique. But there are commonalities between the two countries such as high youth unemployment, youth transition problems and inequality levels. South Africa has a unitary system of government, while Nigeria works with a federal system. Such state differences have some implications for how data can be viewed and interpreted (Lolwana, 2015). This implies that in both countries, the battle around pursuing social harmony *via* human capabilities development continues to intensify, while the capability approach brings skills development discourse to the forefront.

There is no common solution to the problem of unemployment and skills shortage around the world, consequently, the most dominant writings in the field of youth unemployment and skills development are informed by the experiences of scholars in the developed world. What typically happens in the emerging economies is that concepts that have come from western nations eventually inform the political discourse. The result is that the frameworks used tend to be either empirical or conceptual in Western literature. Developing countries are more likely to adopt conceptual and richer-country models and policy models, which are often difficult, even in rich nations, but which are not particularly effective in poor countries (Lolwana, 2015). Therefore, situational differences make it imperative that each society and institution deliberately design the ecosystem that best suits its needs and its conditions, as customized routes to being an entrepreneur (Nwokolo, 2015).

Notably, the continent is home to some of the most prestigious educational institutions as well as pockets of excellence. As a result, the context has become more complex. Because of a lack of government funding, the system is being put to the test. There are prestigious universities in Kenya, for example, and such institutions can be found across the continent; however, in recent times, the student-to-lecturer ratio has risen to as many as 64, coupled with a significant increase in student population, putting such institutions under severe strain; as a result, transmission-based pedagogy and rote learning have become commonplace (McCowan, 2016).

In Nigeria, high levels of unemployment lead to the development of educational policies that provide the knowledge, skills and attitudes needed to be entrepreneurs rather than job-seekers. As an instrument of emancipation of people and societal development, the Federal Republic of Nigeria has stressed that the acquisition of appropriate abilities is a precondition for national progress (Lawal, 2013). However, in spite of the magnitude of funds policymakers invest in entrepreneurship education and training in Nigerian universities, skills levels still remain relatively low among graduates emanating from the system; this situation engenders higher levels of unemployment and poverty among the Nigerian youths. The implication of the foregoing is that encouraging the youths to pursue higher education is not enough, university curricula should be able to stimulate students develop the skills required to face the challenges of current dispensation.

Similarly, South African youths are just as vulnerable as their peers in other developing nations. One major challenge facing the continents' youth workforce is skills shortage which creates barriers of entry into various sectors. The issue of youth employment and skills development is a key component of social justice to overcome apartheid and colonialism's historic injustices. Efforts of government, academia, private organisations and other stakeholders are urgently required to address this situation. Therefore, the researcher aims at exploring the possible factors that influence university students' entrepreneurial skills acquisition, it

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specifically aims at identifying factors enhancing and inhibiting their skill development. In the context of this study, rural-based universities are described as institutions strategically established in underdeveloped environments of a nation with the hope of bringing sustainable development to such areas.

Redefining Academic Innovations

Conceptually, the Universities in Sub-Saharan Africa can be consolidated as a system of innovation that compels universities to play a significant role as business hubs, linking government bodies, businesses, students, entrepreneurs, scientists and other stakeholders. However, it is crucial to expose students to business activities in educational systems at all levels as the goal of targeted audiences in the universities and neighbouring communities (Volkmann, & Tokarski, 2009). As a matter of necessity, higher education institutions in Africa as in other continents of the world should lead the way in skills development. If the required skills are not inculcated in students at the undergraduate level, it will be quite difficult to do so after graduation.

Accordingly, achieving these objectives requires an understanding of the needs, aspirations, interests, challenges and potentials of African youths. Based on the foregoing, it is logical to presume that skills-shortage is partly responsible for high levels of unemployment in many African countries, where young people lack the appropriate competencies to respond to the demands of employers and it is also notable that many educated young people lack entrepreneurial skills to facilitate self-employment. As a matter of necessity, the perpetual production of dynamic graduates has become imperative for higher education institutions. Increasingly, the global economy demands that graduates enter the workforce not only with their degrees but also with a set of transferrable skills and attributes that can help them excel in almost any productive venture. This includes the ability to take initiative and think innovatively, to demonstrate creativity in problem-solving and to communicate effectively (Onuma, 2016). This implies that academic qualification coupled with a set of core skills are required for graduates to excel in the ever-changing labour market.

Critically assessed, Sub Sahara nations such as Ghana, Nigeria, Kenya, and South Africa have various levels of varied levels of access to higher education and diverse socioeconomic situations, but they are all confronted by common and recurring challenge; the quality of graduates produced is under threat. Growing youth populations, coupled with rising youth unemployment in many African countries necessitate innovative attributes among graduates. As a result, governments, scholars and development aid agencies around the globe are convinced that the development of skills-enhancing projects in different communities is central to improved quality of life (Bell & Stevenson, 2015). It is, therefore, logical to presume that societies that have more individuals with enterprising skills are better placed to progress economically compared to those with lesser numbers. Based on the foregoing, the calls for the investment in young people's knowledge and skills are ever-increasing.

While Africa largely relies on transferred technology, it faces several challenges and threats posed to effectively utilize these technologies. The most common among the challenges African nations face is the absorption of transferred technology (Danquah, 2018). Better analysis and implementation of policies, upgrading of business skills and the creation of technology carrying firms are some of the key areas where African nations are lagging in innovation transfer.

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According to Shambare (2013a), at Johannesburg University. Several faculties' courses have been established with adequate infusion of entrepreneurship education for the purpose of instilling core skills into the psyche of undergraduates. The programmes contain lecturers' skills development plans. In another study carried out in Western Cape University, Sebuwufu and Ludwick (2012) evaluate an intensive one-year programme called 'Innovative Entrepreneurship Stream' which supports student teams in acquiring the qualifications necessary to start campus micro-enterprises.

In terms of innovation, Covenant University has been adjudged as an entrepreneurship education pacesetter in Nigeria. The university has a practical approach to the development of entrepreneurial talent (Adeiza, 2019). First the majority of their faculties are entrepreneurs. Most of them are consultants, their knowledge and abilities are in such way that flow of income emanate from the utilisation of such skills. They understand how to start, manage and scale a business. They understand how to identify problems, come up with solutions, raise funds and manage people. This implies that Covenant University leads the way in skills development of students in Nigerian university sector. However, other universities have been making concerted efforts to also make a difference in terms of assisting students to acquire the necessary skills in the face of challenging factors. The findings of (Adeiza, 2019) could be summarized as follows:

- Covenant University does not necessarily teach entrepreneurship, entrepreneurship in the institution is inspired by people who travel along the same road.
- Students launch out of the classroom to try out real-life enterprises and projects.
- Covenant University builds on its robust network of successful alumni to inspire regular speakers and to mentor her students.
- Achievement of the objectives of true entrepreneurship training is made possible at Covenant University due to the experiential nature of the programme in the institution.
- Project method as a strategy helps undergraduates acquire their entrepreneurial skills by applying knowledge in solving problems that are of little interest to their educators.
- Role Play strategy is also common in Nigerian universities entrepreneurial training, it involves students in activities that will help them cultivate core skills required for day to day running of ventures.
- Internship Training for undergraduates involves working with schools and industry for real-life working experience. The effective implementation of internships as a strategy for empowering graduates involves proper planning, timely posting, organization, correct implementation, monitoring and efficient supervision.
- Covenant University leads the way in skills development of students in Nigeria. However, other institutions of higher learning have been making concerted efforts to also make a difference in terms of assisting students to acquire the necessary skills without any significant results.
- In Ghanaian universities, lecturers were not keen to inculcate the required skills in their students, possibly due to the fact that promoting entrepreneurship outcome among students was not part of their major objectives.
- At Harare, Zimbabwe Science Park, university-based ventures are being operated successfully against all odds. The ventures came out of research and development and became fully commercialized.
- The center has been a strategic center aimed at developing science, technology and engineering. A curriculum supported by technology education centre such that businesses and industries can develop competencies that can be adapted in all degree programmes.
- Critically assessed, the entrepreneurship education in Ghanaian Zimbabwean universities lacks the basic components required to up-skill and inspires students to become entrepreneurial.

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A Theoretical Consideration for Effective Skills Acquisition Drive

The experiential learning theory was built upon the earlier work of the duo of John Dewey and Kurt Levin by David A. Kolb, an American educational theorist. Learning process brings about knowledge creation through gradual and systematic transformation of experience. Experiential learning theory is a four-stage cyclical theory that combines concrete experience, perception, cognition and behaviour. It emphasizes translation of concepts into practical tasks. (Kolb et al., 2014).

This is the initial stage where the learning experience is acquired through activities or participation in a learning environment. Learners gain skills when they are participate in learning activities. At the core of experiential learning is action. It goes beyond abstract concepts, learning-by-doing involves a direct encounter with the phenomenon being studied. It utilizes actual experience with the phenomenon to validate a theory or concept.

The learning process is deemed incomplete if the learning experience cannot be replicated by the students after the learning process. The level at which students will focus on what they have been taught or experienced during the learning process is the reflective stage. Experiential theory substantially strengthens right perspectives on the desired quality and nature of the entrepreneurial education and training that matches students' needs and aspirations. It further promotes participation of students in skills development and supports teamwork, brainstorming and cooperation to encourage the development of skills (Blenkinsop & Beeman 2012). Teambuilding is therefore a key arsenal for entrepreneurial experience. The students collectively learn, share and agree on common interests during their interactions during the process of acquisition of skills. This theoretical framework supports the systematic acquisition of entrepreneurial skills through experience and practice. Furthermore, the framework has the potentials to facilitate a systematic analysis of data.

METHODOLOGY

This paper is drawn from a study which was conducted within two rural universities in South Africa and Nigeria. The institutions were purposively selected due to increase in the level of students' enrolment therein, decline in the pass rate and abysmally low skills levels among undergraduates. In a bid to obtain primary data, two hundred and fifty six undergraduates were drawn from South African university while two hundred and eighty eight undergraduates were selected from the South African university, these participants were engaged in completing a semi-structured questionnaires. The participants were selected with the use of systematic sampling technique and they were encouraged to express their views and experiences about the central theme of skills development constraints in their respective institutions and self-perceived skills levels. The participant's consent were carefully sought before engaging them in questionnaire administration and they were at liberty to remain anonymous, in addition, an ethical clearance certificate was obtained from the selected South African university, however, such ethical approval is not a pre-requisite in the selected Nigerian university. This study is also enriched with archived evidence obtainable from peer reviewed articles on skills development strategies in Sub-Saharan Africa higher education sector. The triangulation of data was constructive in analysing the data using thematic method of data analysis.

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FINDINGS

There is a universal agreement that graduates of this century require unique set of skills compared to those of previous century. Hence, the skills measures that were examined in the context of this study include innovative thoughts, leadership skills, creativity, communication skills, goal setting, negotiation, financial discipline, selling, networking and budgeting skills. The responses are presented below.

Entrepreneurial Skills Possessed by the Respondents

The result, as presented in Table 2 indicates that sixty percent of the student respondents in South African university were satisfactory in communication skills (SA, 60.2%) but their ratings fall below average in all the remaining skills measures such as; innovative thoughts (10.5%), leadership skills (SA, 20.7%), creativity (SA, 18.8%), goal setting (SA, 22.6%), negotiation (SA, 5.1%), budgeting (SA, 12.9%), financial discipline (SA, 20.7%), selling (SA, 31.3%) and networking skills (SA, 5.1%).

Further breakdown of the results of the analysis revealed that student respondents in Nigerian rural university measured above average in selling (NG, 52.1%) and communication skills (NG, 67.0%), however, they demonstrated measures such as; innovative thoughts (NG, 12.2%), leadership skills (NG, 20.1%), creativity (NG, 22.2%), goal setting (SA, 10.8%), negotiation (SA, 8.7%), budgeting (SA, 5.9%), financial discipline (SA, 21.9%) and networking skills (SA, 6.3%). Based on the foregoing, it can be deduced that students at the two universities have received little or no practical training to become successful entrepreneurs.

Consequently, students' responses to open-ended questions also suggest that the respondents have theoretical knowledge, however, they lack the basic skills required to apply the knowledge. The above-mentioned finding concurs with Groening et al. (2016), who submit that a large proportion of recipients of entrepreneurship education are not adequately equipped with entrepreneurial skills, while the majority indicated that they need assistance with practical knowledge on how to start a business. These individuals have theoretical knowledge but could not apply this knowledge. Consequently, the above-mentioned finding is further corroborated by Abdu (2014), who avers that majority of the skills acquisition centres in Nigeria are operating below capacity. Thus, in spite of the efforts of individuals, faith-based organisations and the federal government in establishing skills acquisition centres, it is regrettable that skills level is still low and unemployment is still rife in Nigeria.

Table 2
PERCEIVED ENTREPRENEURIAL SKILLS LEVELS OF UNIVERSITY STUDENTS

Entrepreneurial skills	Nations	Good	Average	Poor	Total
Innovative thoughts	SA Percentage (%)	27 (10.5%)	161 (62.9%)	68 (26.6%)	256 (100%)
	NG Percentage (%)	35 (12.2%)	198 (68.8%)	55 (19.1%)	288 (100.0%)

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Leadership	SA Percentage (%)	53 (20.7%)	157 (61.3%)	46 (18.0%)	256 (100%)
	NG Percentage (%)	58 (20.1%)	196 (68.1%)	34 (11.8%)	288 (100.0%)
Creativity	SA Percentage (%)	48 (18.8%)	151 (59.0%)	57 (22.3%)	256 (100%)
	NG Percentage (%)	64 (22.2%)	171 (59.4%)	53 (18.4%)	288 (100.0%)
Communication	SA Percentage (%)	154 (60.2%)	50 (19.5%)	52 (20.3%)	256 (100%)
	NG Percentage (%)	193 (67.0%)	47 (16.3%)	48 (16.7%)	288 (100.0%)
Goal setting	SA Percentage (%)	58 (22.6%)	142 (55.5%)	56 (21.9%)	256 (100%)
	NG Percentage (%)	31 (10.8%)	195 (67.7%)	62 (21.5%)	288 (100.0%)
Negotiation	SA Percentage (%)	13 (5.1%)	179 (69.9%)	64 (25.0%)	256 (100%)
	NG Percentage (%)	25 (8.7%)	186 (64.6%)	77 (26.7%)	288 (100.0%)
Budgeting	SA Percentage (%)	33 (12.9%)	79 (30.9%)	144 (56.3%)	256 (100%)
	NG Percentage (%)	17 (5.9%)	193 (67.0%)	78 (27.1%)	288 (100.0%)
Financial discipline	SA Percentage (%)	53 (20.7%)	157 (61.3%)	46 (18.0%)	256 (100%)
	NG Percentage (%)	63 (21.9%)	172 (59.7%)	53 (18.4%)	288 (100.0%)
Selling	SA Percentage (%)	80 (31.3%)	103 (40.2%)	73 (28.5%)	256 (100%)
	NG Percentage (%)	150 (52.1%)	73 (25.3%)	65 (22.6%)	288 (100.0%)
Networking	SA Percentage (%)	13 (5.1%)	167 (65.2%)	76 (29.7%)	256 (100%)
	NG Percentage (%)	18 (6.3%)	181 (62.8%)	89 (30.9%)	288 (100.0%)

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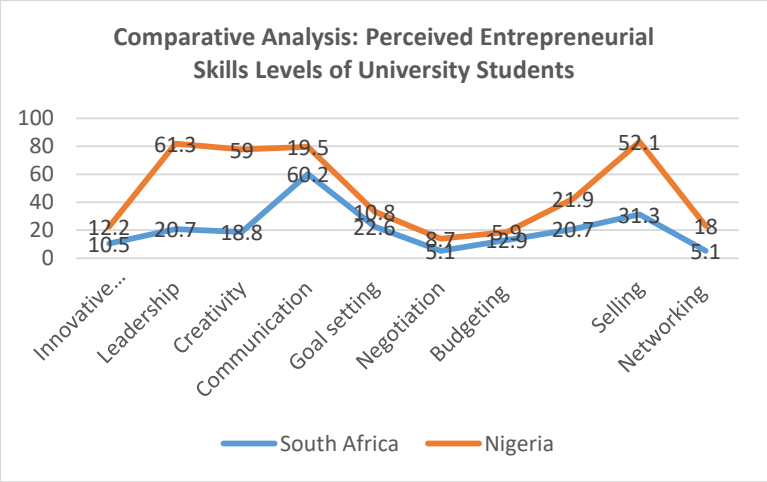

FIGURE 1
PERCEIVED ENTREPRENEURIAL SKILLS LEVELS OF UNIVERSITY STUDENTS

In order to derive a deeper understanding the responses presented in the table above, a correlation analysis was also carried out to establish what statistical relationship exists between entrepreneurship education and entrepreneurial skills of undergraduates (viz., innovative thoughts, leadership skills, creativity, communication skills, goal setting, negotiation, budgeting, financial discipline, selling and networking skills) Figure 1.

The outcome reveals that inter-correlation exists between entrepreneurship education and the other skills measures. The data shows the absolute value near to 0.5 is considered positive correlation. The results showed that only communication skills had a considerable correlation with entrepreneurship education (r=0.712) in the selected South Africa university. It follows that every increase in the level of entrepreneurship education scores would lead to a higher rate of increase in the level of students' communication skills. Thus, the low correlations by other variables means that an increase in the level of entrepreneurship education scores may not necessarily lead to increase in the entrepreneurial skills of university students in the selected South African university. Comparatively, it could be inferred from the foregoing that Nigerian respondents demonstrate a slightly higher level of entrepreneurial skills more that their South African counterparts.

The analysis further reveals that inter-correlation exists between students' entrepreneurship education and the other skills measures in the Nigerian context. The data shows the absolute value near to 0.5 is considered positive correlation. This suggests that only two of the elements of students' entrepreneurial skills measures have significant relationships with entrepreneurship education, the values are as follows: communication skills (NG: r-=0.691, $p<0.05$) and selling skills (NG: r=0.620, $p<0.05$). It follows that every increase in the level of entrepreneurship education scores would lead to a higher rate of increase in the level of students' communication and selling skills. Thus, the low correlations by other variables mean that an increase in the level of entrepreneurship education scores may not necessarily lead to increase in the entrepreneurial skills of university students in the selected Nigerian university.

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Table 3
COMPARATIVE ANALYSIS OF THE RESPONSES FROM THE TWO COUNTRIES ON STUDENTS' ENTREPRENEURIAL SKILLS

S/N	Statement	Country	N	Mean Rank	Sum of Ranks	Test Statistics	P-value
1.	Innovative thoughts	SA	256	273.10	69913.50	36710.50	0.917
		NG	288	271.97	78326.50		
		Total	544				
2.	Leadership	SA	256	274.06	70159.00	36465.00	0.802
		NG	288	271.11	78081.00		
		Total	544				
3.	Creativity	SA	256	272.04	69643.00	36747.00	0.942
		NG	288	272.91	78597.00		
		Total	544				
4.	Communication	SA	256	272.50	69760.00	36864.00	1.000
		NG	288	272.50	78480.00		
		Total	544				
5.	Goal setting	SA	256	271.37	69470.00	36574.50	0.847
		NG	288	273.51	78770.00		
		Total	544				
6.	Negotiation	SA	256	294.73	80331.50	6292.50	**0.050****
		NG	288	270.52	77908.50		
		Total	544				
7.	Budgeting	SA	256	274.46	70261.00	36363.00	0.737
		NG	288	270.76	77979.00		
		Total	544				
8.	Financial discipline	SA	256	271.61	69532.50	36636.50	0.887
		NG	288	273.29	78707.50		
		Total	544				
9.	Selling skills	SA	256	293.49	80013.00	6611.00	**0.048****
		NG	288	271.62	78227.00		
		Total	544				
10.	Networking	SA	256	273.33	69971.50	36652.50	0.891
		NG	288	271.77	78268.50		
		Total	544				

From the Table 3 above, the P-value for most the statements in the Table are less than the significance level (0.05) which implies that submission from the two countries on the statements are similar. Hence, it can be concluded that respondents' level of entrepreneurial skills from the two countries are statistically similar. However, because the P-value of the ninth item is higher than 0.05, it means that there is significant difference in the responses of students to item 9. This implies that respondents from the Nigerian university were significantly better off their South African counterparts in selling skills.

Summary of Qualitative Findings on Factors Affecting Entrepreneurial Skills among the University Students

This section focuses on the open-ended questions to elicit the views of the respondents on constraints to entrepreneurial skills development and what can be done to enhance enterprising

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skills amongst students in the selected universities. The common responses were summarized while irrelevant responses were sieved out.

Table 4
CONSTRAINTS TO ENTREPRENEURIAL SKILLS DEVELOPMENT AMONG THE STUDENTS

Statement: What makes it difficult for you to acquire key employability skills in this University?		
Responses	**SA (n=256)**	**NG (n=288)**
	n(%)	**n(%)**
Lack of support	124 (48.4%)	155 (53.8%)
Inadequate funding	51 (19.9%)	89 (30.9%)
Inadequate provision for practical work	122 (47.7%)	12 (4.2%)
Insufficient personnel	14 (5.5%)	6 (2.1%)
Lack of motivation	185 (72.3%)	166 (57.6%)
Language barrier	4 (1.6%)	2 (0.7%)
Scarcity of entrepreneurial networks on campus	69 (27.0%)	8 (2.8%)
Poor administration of training	137 (53.5%)	158 (54.9%)
Poor curriculum	126 (49.2%)	32 (11.1%)
Poor infrastructural facilities for effective learning	105 (41.0%)	127 (44.1%)
Weak link between university and industry	114 (44.5%)	164 (56.9%)
Poor university management in terms of commitment	87 (33.9%)	11 (3.8%)
Skills acquisition centers are yet to be established	73 (28.5%)	15 (5.2%)
Weak entrepreneurship culture	64 (25.0%)	26 (9.0%)

Table 4 presents respondents' view on challenges limiting entrepreneurial skills acquisition amongst students in the two selected universities under study. The most fundamental constraint to skills acquisition perceived by respondents in both countries is the lack of motivation (SA 72.3%) and (NG 57.6%). In addition, other prominent constraints experienced by the respondents in the two selected universities were; dearth of support (SA, 48.4%, NG 53.8%), weak link between university and industry (SA, 44.5%, NG 56.9%), lack of motivation (SA, 72.3%, NG 57.6%), poor administration of training (SA, 53.5%, NG 54.9%), and poor infrastructural facilities (SA, 41.0%, NG 44.1%).

Two significant challenges that are related to South African university only are inadequate provision for practical work (SA, 47.7%), and poor curriculum (SA, 49.2%). In addition, scarcity of students' entrepreneurial network (SA, 27.0%), poor university management (SA, 33.9%), absence of skills acquisition centres (SA, 28.5%) and weak entrepreneurial culture (SA, 25.0%) were identified as less significant challenges inherent in the South African

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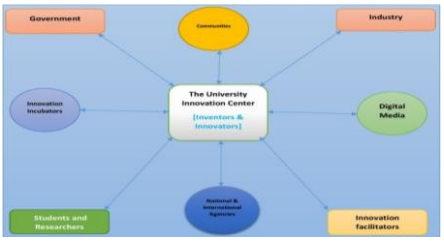
university under study. The least significant challenges identified on the part of Nigerian university were; inadequate funding (NG, 30.9%) and weak entrepreneurship culture (NG, 9.0%).

The Nigerian aspect of the findings correlates with the works of Hussein et al. (2021), who aver that socioeconomic constraints such as inadequate funds and physical infrastructure significantly impede the entrepreneurial development of individuals. Offorma et al. (2012), also have a similar view that inadequate facilities and equipment for teaching practical-related courses was the reason why entrepreneurship education has not been able to record a significant impact in Nigeria industrialization drive and reduction of youth unemployment.The South African part of the findings supports the findings of Shambare (2013b); Echezona (2015), who assert that inappropriate syllabi, lack of entrepreneurial supports, weak entrepreneurial culture, students' lack of exposure, lack of entrepreneurial networks, ineffective training, and scarcity of incubators are major constraining factors influencing entrepreneurial training in South African universities. This implies that any effort to foster skills acquisition in the two selected universities would require the establishment of functional skills development centers and adequate provision for practical work among others. Based on findings, this paper proposes a campus innovation and skills development center as follows:

The Proposed Innovation and Skills Development Center

The goal of a campus innovation and skills development center, as presented in this paper, is to encourage students to be more entrepreneurial in their lives. The document calls for a center featuring undergraduate and graduate programs, as well as life-changing activities including workshops, grooming, speed dates, startup competitions, and field trips. A network of interconnections between numerous participants will serve as the focal point. A hub where social and technological ideas are generated, transformed into real values, tested and commercialized before being transferred into the macro-regional ecosystem. Brainstorming sessions between students, faculty staff and innovation facilitator will be a commonplace. The hub might alternatively be considered as a collection point for pre-existing concepts that can be tweaked to create new ones. This arrangement allows students to gain hands-on experience with innovation while still in school. The concept of this innovation hub is based on the idea that every tertiary institution in Sub-Sahara Africa requires an innovation center in order to withstand the pressures of the fourth industrial revolution Figure 2.



Source: Author

FIGURE 2
THE PROPOSED CAMPUS INNOVATION AND SKILLS DEVELOPMENT CENTER

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Rather than delivering a paper-based education, as proposed by Pretorius et al. (2005) in South Africa, this model focuses on grooming students to develop a creative and innovative mindset. Functional education is necessary to instill the skills, norms, mindset, and competencies expected of a responsible citizen of a country (Jones, 2018). The following active engagement will be necessary to ensure the planned center's effectiveness:

- University as the key player
- Government
- Business
- Non-governmental organizations
- Regional agencies
- National agencies
- International agencies
- Private sector
- Community

The following activities will be included in the proposed innovation hub's support structure:

- A general coordinator
- Vision of the center
- Setting standards and procedures for the hub's operations
- Defining participants and establishing horizontal connections among them
- Innovation awareness publicity
- Invitation to SMEs, innovators and inventors to submit proposals
- Selection of promising proposals/rejection of non-viable concepts
- Implementation of concepts

CONCLUSION

This paper focuses on the skills development challenges faced by university students in Sub-Saharan Africa's higher education system. The article demonstrates that, despite massive government efforts to ensure that tertiary students receive high-quality education and training; many undergraduates nevertheless confront severe hurdles. The difficulties span the entire spectrum of skill development susceptibilities. The distortion jeopardizes the delivery of sound instruction in tertiary institutions of learning, as well as the employability of the graduates produced.

On the basis of the reported challenges, the following interventions are recommended.

- Innovation and design thinking workshops needs to be held on a regular basis in the university in order to instill innovation culture in students.
- Conventional approaches to teaching have not satisfied the students' needs. Some changes in teaching methods could be made. One of the best ways to address social needs is through a curriculum focused on entrepreneurship.
- The proposed 'Campus Innovation and Skills Development Center' needs regular assessment in order to identify what to be added or precluded to enhance its efficacy'.
- To take advantage of the digital literacy and deep learning capabilities that are necessary today, institutions should embrace technology by building strong online and mobile learning capabilities in response to the Fourth Industrial Revolution.
- Entrepreneurship programs need to concentrate on emphasizing group integration. Lecturers and teachers in entrepreneurship education may be trained in innovative methodologies that will allow them to effectively equip learners with entrepreneurial abilities.

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- Entrepreneurship training programs should draw on the current societal challenges.
- Educators and practitioners involved in entrepreneurship development programs need to create multiple learning opportunities for student entrepreneurs.
- To start their own projects, students need to be equipped with the requisite abilities. It helps students to use the knowledge learned in other modules and integrate it with the practical skills acquired in entrepreneurship programs by learning these skills at university level.
- Student entrepreneurs need to join campus-based student organizations that encourage entrepreneurship.
- In building networks, students are encouraged to be willing to establish good working relationships with all stakeholders.
- A change in the ways of thinking of university students is required; undergraduates ought to learn about the failures and accomplishments of companies from entrepreneurs.
- University students can practically learn through experiential projects, apprenticeship training system and internships.

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