

# MANAGING ENTREPRENEURSHIP EDUCATION IN PUBLIC UNIVERSITIES IN SOUTH-SOUTH, NIGERIA FOR THE ATTAINMENT OF SUSTAINABLE DEVELOPMENT GOALS

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## ABSTRACT

*This study examined managing Entrepreneurship Education (EE) in public universities in south-south, Nigeria for the attainment of sustainable development goals (SDGs). The study adopted descriptive survey research design and was guided by two research questions and two hypotheses. A sample of 973 was drawn using stratified random sampling from all the 9,735 lecturers in the 14 public universities in south-south, Nigeria. A survey questionnaire was used to collect primary data. The 20-item instrument used was validated and tested yielding a reliability index of 0.80 using the Cronbach Alpha method. Mean, standard deviation and mean set were used to analyse the research questions and z-test at 0.05 level of significance was used to test the hypotheses. The findings showed that skill acquisition; redesigning EE curriculum in line with developmental needs and training/retraining of EE lecturers were needed in order to manage entrepreneurship education for attaining SDG. The challenges included lack of adequate teaching facilities; inadequate mentoring; and poor funding. The study recommended adequate teaching*

*facilities; infrastructures and adequate funding in all public universities in south-south, Nigeria in order to attain the SDGs.*

**Key Words:** Sustainable Development Goals, Entrepreneurship Education, Management, University and Educational Institutions

## INTRODUCTION

Sustainable Development Goals (SDGs) were set in 2015 to replace the earlier Millennium Development Goals (MDGs) set in 2000. The setting of the goals was a recognition of, and indeed, an admission by the world community of the need to address the level of abject poverty, inequality, climate change, environmental degradation, peace and justice in the world. Sustainable development was to be addressed through environmental, economic and social dimensions.

Sustainable Development Goals (SDGs) are now the new set of universal goals, targets and indicators. They consist of 17 goals and 169 targets. The goals and targets are expected to influence and guide the agenda and policies, whether political, economic, social, environmental and or technological policies of governments of member nations. The intention is to transform the world by 2030. The United Nations 17 Sustainable Development Goals are as follows (Adesoji, 2015):

- Goal 1: End poverty in all its forms everywhere.
- Goals 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goals 3: Ensure healthy lives and promote well-being for all at all ages.
- Goals 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goals 5: Achieve gender equality and empower all women and girls.
- Goals 6: Ensure availability and sustainable management of water and sanitation for all.
- Goals 7: Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goals 8: Promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all.

- Goals 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goals 10: Reduce inequality within and among countries.
- Goals 11: Make cities and human settlements inclusive, safe, resilient and sustainable.
- Goals 12: Ensure sustainable consumption and production patterns
- Goals 13: Take urgent action to combat climate change and its impact.
- Goals 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- Goals 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
- Goals 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- Goals 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

These goals are directed towards improving the welfare of human beings the world over. As a citadel of learning, functional academic and educational institutions have a key role to play if these goals are to be attained. Entrepreneurship Education (EE), in particular, as a part of the programmes offered by educational institutions, especially at the university level, could be pivotal in achieving these targets, goals and objectives. Entrepreneurial education is intended to enhance the entrepreneurial ability of students so that they can start their own businesses and become self-employed when they graduate from their studies irrespective of their study disciplines. The target of entrepreneurship education is to drastically reduce graduate unemployment, reduce hunger, achieve food security and improve nutrition and sustainable agriculture primarily through graduates becoming job and wealth creators post-graduation rather than job seekers hunting for non-existent jobs in the job market. This, if achieved will improve the standard of living of people, enhance healthy lives and promote well-being for all. In fact, United Nations (2016: 3, 21, 23) General Assembly Resolution 73/225 on entrepreneurship for sustainable development acknowledges the benefits that accrue from entrepreneurship

identifying how entrepreneurship meets its Economic, Social and Environmental dimensions as well as its SDGs 4 and 8. By extension therefore, the proper management of EE in universities would contribute significantly to the achievement of SDGs 1,2,3,5,8 and 10. And since all the goals and objectives of the SDGs are intricately linked in one form or another, the achievement of Goals 1,2,3,5,8 and 10 would also impact positively to the achievement of all the other SDGs.

According to Ogundele, Akingbade and Akinlabi (2012), entrepreneurship education is a purposeful intervention by an educator in the life of the learner to impact entrepreneurship qualities and skills to enable the learner to survive in the world of business. Akinboye, (2005) also stated that entrepreneurial education is a kind of education that attempts to inject values of creativity, innovation, entrepreneurship, emotional character, needed skills, competence, knowledge, attitude and heart. Ezeani (2012) posited entrepreneurship education as teaching students, learners and would-be businessmen, the essential skills required to build viable enterprises equipping the trainees with skills needed for taking responsibility and developing initiatives of prospective trainees. Entrepreneurship education also creates the willingness and ability in a person to seek out investment opportunities in the society and be able to establish and run an enterprise successfully based on the identified opportunities (Fashiola, 2006). Tor Ojeifo (2012: 1), "Entrepreneurship education in Nigeria amongst other things seeks to provide students in tertiary institutions with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of ventures".

Entrepreneurship education empowers people with skills in different areas of human endeavour and encourages them to start-up their own business enterprises in their areas of interest. Entrepreneurship education ought to lead to creativity and an innovative approach to business thereby leading to grater productivity. Entrepreneurship education, if well managed has the potential therefore of creating employment opportunities, jobs and wealth as well as improving supply of goods and services, raising per capita income, enhancing revenue generation, increasing research and development activities as well as economic growth and development (Akpan-Atata, 2014). It should enhance the welfare of the recipients, the entire nation and even has the capacity of levelling the playing field between developed and developing counties. There is no doubt therefore that the proper and adequate management of entrepreneurship education will aid the attainment of the sustainable development goals.

Entrepreneurship education, especially at the university level, is a veritable tool for achieving sustainable development. It has enormous benefits if properly implemented and managed. If the appropriate and necessary measures are employed to pursue this laudable programme, many graduates from Nigerian universities would transform from job seekers to job and wealth creators; from food consumers to food producers; from importers of goods and services to major exporters of goods and services. The standard of living will go up and the poverty rate will reduce. These are good indices towards the attainment of the sustainable development goals.

It is contentious whether the current practice of the management of entrepreneurship education in universities is either proper or adequate to enhance the attainment of sustainable development goals in Nigeria. The big question which is also now the motivation for this study is, how can we manage entrepreneurship education in universities in south-south Nigeria for the attainment of sustainable development goals? This problem formed the focus of this study.

The aim of this study is to investigate how to manage entrepreneurship education in public universities in south-south, Nigeria for the attainment of sustainable development goals. Specifically, the study targeted:

1. Examining ways to manage entrepreneurship education in public universities in south-south Nigeria for the attainment of sustainable development goals.
2. Determining the challenges of managing entrepreneurship education in public universities in south-south Nigeria for the attainment of sustainable development goals.

This study provided answers to the following research questions:

1. In what ways can we manage entrepreneurship education in public universities in south-south Nigeria for the attainment of sustainable development goals?
2. What are the challenges of managing entrepreneurship education in public universities in south-south Nigeria for the attainment of sustainable development goals?

The following hypotheses were tested at 0.05 level of significance:

Ho1: There is no significant difference between the mean scores of male and female lecturers of public universities in south-south Nigeria on ways we can manage entrepreneurship education in south-south Nigeria for the attainment of sustainable development goals.

Ho2: There is no significant difference between the mean scores of male and female lecturers in public universities in south-south Nigeria on the challenges of managing entrepreneurship education for the attainment of sustainable development goals.

## LITERATURE REVIEW

### Theoretical Review

The concepts of Entrepreneurship and EE have been around for centuries and as such there is a plethora of literature on them. Several studies have, for example, linked entrepreneurship to economic growth and development (Poi, 2020) while others have linked EE to the acquisition of entrepreneurial skills necessary for the success of entrepreneurship (Poi, 2020). However, SDGs only came into being in 2015 and necessarily therefore have fewer literature on them. Nevertheless, there have been several studies, for example, (Filser *et al*, 2019; Rashid, 2019) linking Entrepreneurship and EE with Sustainable Development (SD) which have direct links with SDGs.

This literature review examines the acquisition of EE as development of an entrepreneurial mindset that could bring about a change into a creative personality that brings about change in society leading to economic growth and development. This, in essence, is Hagen's (1962, 2002) theory of entrepreneurship leading to economic growth and, by inference, the attainment of the SDGs. This a key driver for some persons to acquire entrepreneurial skillset through EE and hence gaining the necessary attributes to become an entrepreneur. This approach is therefore viewed through the lenses of the withdrawal of status respect theory of entrepreneurship to the extent that it creates entrepreneurs that create wealth and jobs to alleviate poverty.

Mwasalwiba (2010) found that there has been a shift from a start-up view to an attitude-changing perspective in entrepreneurship education implying therefore that entrepreneurship education can be hinged on mindset development which

in itself involves a change in personality. Also, in reviewing Vago (1999), Oluwuo and Nwabueze (2016) asserted that change from traditional to modern society will not come about without a change in personality. Human beings develop their ideas within a framework of contrast between traditional and modern societies, indicating that each of these societies is a product of different types of personality. According to Vago (1999), traditional societies are characterized by fixed status and the personalities in such societies are authoritarian, uncreative and non-innovative. They see the world as an arbitrary place rather than one that is subject to analysis and control. The modern society is a product of what Vago (1999) called innovational personality. This personality is characterized by attributes such as creativity, curiosity and openness to experience. A person with this type of personality persistently looks for new solutions and does not take generally accepted evaluations for granted. Such a person sees the world as having a logical and coherent order that can be understood and explained.

This theory is considered relevant to this study because entrepreneurship education is designed to change the mindset narrative that graduates instinctively look for white-collar jobs for survival in life. EE is designed to bring a change in the personality of people from the traditional uncreative, non-innovative and dependent life style to a modern creative, innovative, curious and independent life style. This is what Vago (1999) referred to as innovational personalities. Innovational personalities are entrepreneurs, adventurous people who are exploring new opportunities and solutions to issues facing human beings. If this change of attitude or behaviour is successfully achieved, it will enhance the welfare of human beings by reducing the rate of unemployment, enhance human productivity and standard of living, reduce poverty rate and inequalities among countries that form the bases of the sustainable development goals.

### Conceptual Review

Conceptually, the efficient management of entrepreneurship education has many benefits for society as a whole since it could lead to the emergence of entrepreneurs that would establish businesses that would create jobs and wealth to relieve poverty. For example, Nzekwe (2012) posited that entrepreneurship education improves commercial activities and organizational process; improves the quality and quantity of goods and services in the market; introduces new and better methods of producing goods and services at cheaper rate; creates good job opportunities; trains manpower and develops them; provides infrastructural



facilities; improves technology of the society; opens new markets for goods; produces goods and services; provides revenue among others. These benefits of entrepreneurship education will serve as empowerment to many people and alleviate them from their poor state to become successful business men and women. Entrepreneurship education is important and necessary for Nigeria because it will greatly reduce crime through effective engagement of youths and eliminating hunger and poverty which are part of SDGs.

The effective management of EE could directly lead to the emergence of small business enterprises thereby reinforcing the need for EE to be geared towards the development of entrepreneurship with no gender disparity as this will form the major route to overcome the unemployment/poverty prevailing currently in society. It will improve gender equality in our society. Entrepreneurship education has succeeded in many developed societies and so can also work in Nigeria. It has helped them to reduce their poverty level, improve gender equality, achieved better income distribution and good standard of living. In Nigeria, with the right political will, planning and adequate funding, the programme will serve as a good means of achieving SDGs.

For the programme to be relevant in achieving the SDGs the National Universities Commission (NUC) in collaboration with National Board, for Technical Education (NBTE) and other relevant agencies should work together with all other stakeholders to practically design new entrepreneurship education curriculum. Okeke and Okorie (2014) suggested the following as means of managing EE for better results: (1) Providing a strategic framework which will include the vision of entrepreneurship education; (2) Reviewing and redesigning entrepreneurship education curriculum in line with developmental needs; (3) Implementing the programmes and providing technical assistance to entrepreneurship education graduates who want to go into some businesses; (4) Assessing and evaluating the success of the programme; (5) And subsequently improve on the programme for sustainability.

As the way forward for effective management of EE in Nigeria, Agommouh (2014) made four suggestions. Firstly, youths should be given opportunities to gain experiences by linking them to mentors, get access to information and be given opportunity to grow. With adequate knowledge, skills, information and attitudes, youths would perform well in business and build up business capacities for advancement and higher business development. Secondly, there is also the



need for government to create a business-friendly environment by reducing taxes and levies on small and medium enterprises as a way of encouraging their survival and growth. Thirdly, government needs to develop entrepreneur internship programme by matching students with locally successful entrepreneurs with clearly established education programmes. And fourthly, vocational and technical students should be given enough incentives which will motivate them to establish their businesses after school.

Management of EE must be adequately planned in order to successfully reactivate graduate employability, facilitate social mobility, job creation and self-reliance by entrenching, entrepreneurial skills and behaviours in the individuals. Entrenching entrepreneurial skills and behaviours in the students according to Akpomi and Ikpesa (2020) involves the utilization of various approaches such as: (1) interactive learner-centred pedagogies, (2) use of multidisciplinary programmes and projects, case studies, games, simulations, business plan competitions etc., (3) extensive use of visuals, digital tools and multimedia, (4) learning by doing/hands on, (5) experimental learning/laboratories (trial & error), (6) projects, internships with start-ups, (7) mentoring and coaching, and (8) interactions with entrepreneurs.

There is no empirical evidence thus far that the above approaches are being adopted in the management of entrepreneurship education programme in the universities in south-south, Nigeria. The entrepreneurship education courses are taught just like any other course without detailed practical activities, internship and mentoring activities. Digital and multimedia facilities for visual learning activities are inadequate and any pedagogical approach used by lecturers appears very inappropriate for the programme. These issues mitigate against the realization of the objectives of entrepreneurship education and therefore the attainment of SDGs through EE. Several factors challenge the management of entrepreneurship education in universities for the attainment of sustainable development goals. According to Akpomi and Ikpesu (2020), some of the issues confronting entrepreneurship education in universities in Nigeria include: (1) Funding - This serves as the biggest challenge facing the implementation of entrepreneurship education in public universities in Nigeria; (2) Production of instruction manuals and teachers' guide; (3) Institutionalization of knowledge exchange mechanism among universities and stakeholders, (4) Readiness of universities to change their tradition to be entrepreneurial; (5) Willingness of industries to partner with universities in R & D; (6) Frequent change of

leadership; (7) Weak town and gown relationship in many universities; (8) Lack of novel entrepreneurial pedagogical approaches to teaching.

Irrespective of these challenges, commitment and sustained approaches to foster entrepreneurial activities should be maintained in the following ways (Akpan-Atata, 2014):

1. Revamping technical, vocational and entrepreneurship education and making optimal use of Information Communication Technology (ICT). In doing so, these programmes should be declared compulsory at all levels of education in Nigeria.
2. Adoption of Asian tigers' approach in terms of policy regulations and funding of technical/vocational and entrepreneurship education and linking such programmes with entrepreneurs.
3. Carefully planned, well, supervised and monitored industrial training activities should be instituted to ensure that the expectations of the students, their school and that of the industrial sector are met.
4. Acquisition, retention and ability to use basic scientific and technical knowledge should be encouraged at all levels of education.
5. There should be aggressive teachers training and capacity building/staff development programmes for better development of entrepreneurs and entrepreneurship education.

## METHODOLOGY

This study used descriptive survey research design. The population consisted of all the 9,735 academic staff (5,841 males and 3,894 females) in the 14 public universities in south-south, Nigeria (source: academic planning offices of the universities, 2018 report) with a sample size of 973 (583 males and 390 females) using stratified random sampling technique. A survey questionnaire titled: "Managing Entrepreneurship Education in Universities for the Attainment of Sustainable Development Goals Questionnaire (MEEUASDGsQ)" was used for data collection. The instrument had 20 items and was validated and tested for reliability yielding an index of 0.80 using the Cronbach Alpha method. The responses were captured using the four-point Likert rating scale and analysed with mean, standard deviation and mean set while the hypotheses were tested with z-test at 0.05 level of significance.

## DATA ANALYSIS AND RESULTS

Research Question One: In what ways can we manage entrepreneurship

education in public universities in south-south, Nigeria for the attainment of sustainable development goals?

Table 1: Mean scores, standard deviation and mean set analysis of the response of male and female lecturers in public universities in south-south, Nigeria on the ways we can manage entrepreneurship education for the attainment of sustainable development goals

S/N	Ways we can manage EE for the attainment of sustainable development goals.	Male N=583		Female N=390		Mean Set	Decision
		$\bar{X}_1$	$SD_1$	$\bar{X}_2$	$SD_2$		
1	Ensuring that every student in the university completes EE course/skill acquisition programmes	3.01	0.62	3.02	0.61	3.02	Agree
2	Ensuring that EE curriculum is redesigned and implemented according to our developmental needs/business opportunities available in various disciplines/fields of study	3.05	0.58	3.04	0.58	3.05	Agree
3	Providing adequate financial encouragement to university graduates to start and grow their own business enterprises.	3.02	0.61	3.04	0.57	3.03	Agree
4	Providing adequate technical assistance to university graduate who want to start and grow their own businesses.	3.04	0.60	3.02	0.62	3.03	Agree
5	Ensuring adequate provision of teaching facilities especially digital/ multimedia facilities for EE programme in the universities.	3.07	0.56	3.05	0.55	3.06	Agree
6	Training/retraining of EE lecturers on the use of relevant teaching facilities and pedagogical approaches.	3.11	0.51	3.09	0.53	3.10	Agree
7	Establishment of entrepreneurial projects/commercial ventures by every faculty and allowing students to work and acquire practical knowledge there.	3.10	0.52	3.07	0.54	3.09	Agree
8	Connecting students to entrepreneurs for internship, mentoring and coaching.	3.09	0.53	3.05	0.56	3.07	Agree
9	Assessing and evaluating the success of EE programme from time to time.	3.07	0.54	3.03	0.59	3.05	Agree
10	Government should encourage the management of EE in the universities by providing adequate infrastructures needed for entrepreneurial growth and development in our society.	3.05	0.57	3.03	0.59	3.04	Agree
11	Entrepreneurship education/skills acquisition programmes should be made optional to students in the university.	2.06	0.65	1.94	0.66	2.00	Disagree
12	Application of diverse means to enhance entrepreneurial behaviours and mindsets among the students.	3.01	0.62	2.88	0.64	2.95	Agree
	Average mean and standard deviation.	2.97	0.58	2.94	0.59	2.96	

Source: Survey Result

Table 1 shows that all the items except item 11 have weighted mean scores that are greater than the criterion mean of 2.50. They were accepted as ways we can manage EE in public universities in south-south Nigeria for the attainment of the SDGs. Item 11 had weighted mean set score of 2.00 which is below the criterion mean of 2.50. It was therefore rejected as a way of managing EE in public universities in south-south Nigeria for the attainment of SDGs. The average weighted mean scores of 2.97 and 2.94 for male and female lecturers respectively are above the criterion mean thus indicating that the lecturers shared a common opinion of the ways we can manage EE, in public universities in south-south Nigeria for the attainment of SDGs.

In summary therefore, the ways that we can manage EE in public universities in south-south Nigeria for the attainment of SDGs involve: ensuring that students in public universities in south-south Nigeria successfully complete the EE courses/skill acquisition programmes; ensuring that EE curriculum is redesigned and implemented according to our developmental needs and business opportunities available in various disciplines and fields of study; providing adequate financial encouragement to university graduates to start and grow their own business enterprises; providing adequate technical assistance to university graduates who want to start and grow their own businesses, ensuring adequate provision of teaching facilities especially digital/multimedia facilities; training/retraining of EE lecturers on the use of relevant teaching facilities/pedagogical approaches; establishment of entrepreneurial projects/commercial ventures by every faculty and allowing students to work and acquire practical knowledge there; connecting students to entrepreneurs for internship, mentoring and coaching; assessing and evaluating the success of EE programme from time to time; ensuring adequate provision of infrastructure needed for entrepreneurial growth and development in our society by the government; and applying diverse means to enhance entrepreneurial behaviour and mindsets among the students.

Research Question Two: What are the challenges of managing entrepreneurial education in public universities in south-south, Nigeria for the attainment of sustainable development goals?

Table 2: Mean scores, standard deviation and mean set analysis of the response of male and female lecturers on the challenges of managing entrepreneurship education in public universities in south-south, Nigeria for the attainment of sustainable development goals?

S/N	Challenges of managing EE in public universities for the attainment of sustainable development goals in south-south, Nigeria.	Male N=583		Female N=390		Mean Set	Decision
		$\bar{X}_1$	$SD_1$	$\bar{X}_2$	$SD_2$		
1	Lack of adequate teaching facilities especially digital tools/multimedia facilities.	3.24	0.57	3.16	0.59	3.20	Agree
2	Inadequately trained/retrained lecturers used in reaching EE in universities	3.33	0.52	3.31	0.54	3.32	Agree
3	Corrupt practices/mismanagement of funds for EE programme in universities	3.16	0.58	3.18	0.61	3.17	Agree
4	Inadequate technical support/monitoring to young entrepreneurs	3.08	0.60	3.10	0.62	3.09	Agree
5	Inadequate funding of EE programme in universities in south-south, Nigeria.	3.38	0.49	3.34	0.52	3.36	Agree
6	Inadequately planned, implemented and monitored EE programme in universities in south-south, Nigeria.	3.34	0.57	3.36	0.50	3.35	Agree
7	Unfriendly business environment/policy frameworks.	3.28	0.55	3.26	0.58	3.27	Agree
8	Inadequate collaboration between universities and other corporate organizations especially manufacturers.	3.32	0.52	3.30	0.53	3.31	Agree
	Average mean and standard deviation.	3.27	0.55	3.25	0.56	3.26	

Source: Survey Result

Table 2 shows that all the items (1-8) had weighted mean scores greater than the criterion mean of 2.50. They were therefore accepted as the challenges of managing EE in public universities in south-south, Nigeria for the attainment of sustainable development goals. The average weighted mean scores of 3.27 and 3.25 for male and female lecturers respectively were higher than the criterion mean of 2.50 indicating that both respondents shared similar opinion on the challenges of managing EE in public universities in south-south, Nigeria for the attainment of sustainable development goals.



Therefore, the challenges of managing EE in public universities in south-south, Nigeria for the attainment of SDGs include: lack of adequate teaching facilities; inadequately trained/retrained lecturers used in teaching EE; corrupt practices/mismanagement of funds for EE programmes; inadequate technical support/mentoring; inadequate funding of EE programmes; inadequately planning, implementation and monitoring of EE programmes; unfriendly business environment/policy frameworks; and inadequate collaboration between public universities in south-south Nigeria and other corporate organizations especially manufacturers.

### Test of Hypotheses

$H_{01}$ : There is no significant difference between the mean scores of male and female lecturers in public universities in south-south, Nigeria on ways we can manage EE for the attainment of SDGs in south-south Nigeria.

Table 3: z-test of difference between the mean scores of male and female lecturers in public universities in south-south, Nigeria on ways we can manage EE for the attainment of SDGs

Gender	N	$\bar{X}$	STD	Df	z-CAL	z-crit	Sign Level	Decision
Male lecturers	583	2.97	0.58	971	0.78	±1.96	0.05	$H_{01}$ , accepted
Female lecturers	390	2.94	0.59					

Source: Survey Result

Table 3 shows a summary of the mean, standard deviation and z-test analysis of the average mean scores of male and female lecturers in public universities in south-south, Nigeria on the ways we can manage EE for the attainment of SDGs. The z-test calculated which was used in testing the hypothesis was 0.78 while the critical z-value was 1.96 at 971 degree of freedom using 0.05 Alpha level. As the z-calculated value was less than the z-critical value, the null hypothesis was accepted that there is no significant difference between the average mean scores of male and female lecturers in public universities in south-south, Nigeria on the ways we can manage EE for the attainment of SDGs.

$H_{02}$ : There is no significant difference between the mean scores of male and

female lecturers in public universities in south-south, Nigeria on the challenges of managing EE for the attainment of SDGs.

Table 4: z-test of difference between the mean scores of male and female lecturers in public universities in south-south, Nigeria on the challenges of managing EE for the attainment of SDGs.

Gender	N	$\bar{X}$	STD	Df	z-CAL	z-crit	Sign Level	Decision
Male lecturers	583	3.27	0.55	971	0.55	+1.96	0.05	Ho <sub>2</sub> , accepted
Female lecturers	390	3.25	0.56					

Source: Survey Result

Table 4 shows a summary of mean, standard deviation and z-test analysis of the average mean scores of male and female lecturers in public universities in south-south, Nigeria on the challenges of managing EE for the attainment of SDGs. The z-test calculated which was used in testing the hypothesis was 0.55 while the critical z-value was 1.96 at 971 degree of freedom using 0.05 Alpha level. The z-calculated value was lower than the z-critical value. Therefore, the null hypothesis of no significant difference between the average mean scores of male and female lecturers in public universities in south-south, Nigeria on the challenges of managing EE for the attainment of SDGs was accepted.

#### Discussion of Findings

The above findings show that achieving SDGs through EE is possible if appropriate measures are taken in the implementation of EE in public universities in south-south, Nigeria. The measures include: ensuring that students in the public universities in south-south Nigeria successfully completes EE courses and skill acquisition programmes; ensuring that EE curriculum is redesigned and implemented according to our developmental needs and business opportunities available in various disciplines; providing adequate financial encouragement to university graduates to start and grow their own business enterprises; providing adequate technical assistance to university graduates who want to start and grow their own businesses; ensuring adequate provision of teaching facilities especially digital/multimedia facilities; training/retraining of EE lecturers on the use of relevant teaching



facilities/pedagogical approaches; establishment of entrepreneurial projects/commercial ventures in faculties and allowing students to work and acquire practical knowledge there; connecting students to entrepreneurs for internship, mentoring and coaching; assessing and evaluating the success of EE programme from time to time; ensuring adequate provision of infrastructure needed for entrepreneurial growth and development in our society by government; and by applying diverse means to enhance entrepreneurial behaviours and mindsets among the students.

The successful completion of EE courses and skills acquisition programmes university student is considered to be very necessary as it equips them with relevant entrepreneurial skills and orientation for entrepreneurial activities. This will enhance commercial activities. As opined by Nzekwe (2012), it will improve the quality and quantity of goods and services in the market, create jobs and wealth to alleviate poverty which forms the main target of the SDGs. It is also necessary to redesign EE curriculum in terms of general and specific EE knowledge needed by various students in their specific areas of study. Students should be exposed to business opportunities in their fields of study and how they can start and grow such businesses. This will help to enlighten students on how they can become self-employed and self-reliant which are necessary measures of ending poverty, hunger, food insecurity and improving good nutrition and sustainable development. Okeke and Okorie (2014) also supported the view that EE curriculum should be redesigned to suit developmental needs to aid socio-economic development.

Adequate implementation of EE programmes in public universities in south-south, Nigeria is a basic foundation needed for the attainment of SDGs. However, effective implementation is very often dependent on the adequacy of EE funding. Funding the programme adequately could lead to adequate training/retraining of lecturers, adequate provision of instructional/infrastructural facilities and proper motivation of staff. This will enhance effective teaching and quality of knowledge received by the students. The findings by Akpomi and Ikpesu (2020) lend further support that interactive learner-centred pedagogies with extensive use of visuals, digital tools and multimedia should also be adopted. It is also important for various departments and faculties to set up entrepreneurial projects and commercial ventures. This will help them to adequately coach and mentor their students who should undertake internships in such places. It will also help them to connect their

students to entrepreneurs outside the university. This will properly equip the student with practical entrepreneurship experience they require in their respective fields.

In a similar vein, Akpan-Atata (2014) suggested that careful planning under proper supervision and monitoring of industrial training could align the expectations of students and their schools with those of the industrial sector. Government at various levels also have a critical role to play in ensuring the effective management of EE in public universities in south-south, Nigeria in the attainment of SDGs. In particular, governments need to provide an enabling environment such as provision of basic infrastructure, for example, good roads, electricity, portable, water, communication/ICT facilities and markets places. This will encourage business investments and entrepreneurial growth. They should provide adequate financial and technical support to university graduates who want to start and/or grow their own businesses. The attainment of SDGs through the implementation of EE calls for pro-active measures on the side of the universities, other relevant bodies and the government to ensure that greater percentage of university graduates are self-employed and employers of labour rather than job seekers.

This study also revealed the challenges of managing EE in public universities in south-south, Nigeria for the attainment of SDGs included: lack of adequate teaching facilities; inadequately trained/retrained lecturers; corruption/mismanagement of funds; inadequate technical support/mentoring; inadequate funding; poor planning, supervision and implementation of EE programmes; unfriendly business environment/policy frameworks; and inadequate collaboration between universities and other corporate organizations. These findings are supported by Akpomi and Ikpesu (2020), Okeke and Okorie (2014) and Akpan-Atata (2014) who in their respective studies explained that teaching facilities for effective implementation of EE in our universities are not adequately provided. This makes it difficult for students to be properly taught. It also makes it difficult for them to acquire the much-needed practical skills. This situation is worsened by the fact that many lecturers teaching EE are not properly trained for the role with some of them not possessing enough skills such as ICT skills which are essential in effective teaching of EE. This implies that universities will turn out half-baked EE graduates into the society.

Corruption and mismanagement pose major challenges to the appropriate use of

funds for EE programme in public universities in south-south, Nigeria for the attainment of SDGs. In fact, figuratively, corruption has become a cankerworm in public services in Nigeria as a whole where even the scanty public funds are often diverted to private accounts. Managers of public institutions often use this as an excuse for their poor performances and failures.

Furthermore, EE appears to be poorly planned and implemented in public universities in south-south Nigeria. It is usually taught as a general course in the general studies without any harmonisation between the students' departments and the general studies unit in terms of specific entrepreneurial skills and entrepreneurial opportunities available in their various individual courses of study. Technical support and mentoring are not adequately provided by the universities with support or involvement of corporate organizations. In effect, there is as yet no planned EE system which guarantees proper EE training and support for entrepreneurial practice in order to attain SDGs.

The harsh and unfriendly business environment adds its own challenges to the success of EE as a vehicle to attain the SDGs. There is a general lack of basic infrastructures such as electricity, good roads, ICT etc and fear of insecurity. All these and other factors act as barriers and hurdles for entrepreneurial practices in Nigeria. These issues should be properly addressed by university managements and governments at all levels in order to adequately equip students and create conducive environment for people to set up their own businesses after graduation from public universities in south-south Nigeria in order to attain the SDGs.

### CONCLUSION AND RECOMMENDATIONS

Entrepreneurship education is an essential programme that needs to be adequately planned, implemented and managed especially in the public universities in south-south Nigeria to assist in the attainment of the SDGs. This is because EE has the prospects of providing solutions to many of our developmental challenges. It will reduce insecurity and unemployment by enabling people to become self-reliant after graduation. It will reduce hunger and poverty levels as well as enhance income distribution and gender equality. EE should be adequately supported by government and all stakeholders in the education sector, particularly in public universities in south-south, Nigeria in order to make the programmes effective and assist in the attainment of SDGs.

The following recommendations were made in line with the findings of the study;

1. Adequate teaching facilities and infrastructure should be provided by the appropriate authorities for effective and efficient management of EE in public universities in south-south, Nigeria for the attainment of SDGs.
2. There should be adequate training/retraining of EE lecturers in all public universities in south-south, Nigeria.
3. There should be adequate collaboration between public universities in south-south, Nigeria and all other stakeholders in education for effective management of EE for the attainment of SDGs.
4. Funds for EE programme should be adequately managed and accounted for by management of public universities in south-south, Nigeria.

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