

ADOPTION OF INNOVATIVE STRATEGIES FOR STRENGTHENING OFFICE TECHNOLOGY AND MANAGEMENT PROGRAMME IN POLYTECHNICS FOR MEETING EMPLOYABILITY SKILLS NEEDS IN NORTH EAST NIGERIA

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Abstract

The need to reduce the high rate of unemployment among OTM graduates necessitated this study. The study focused on strategies adopted by OTM departments in polytechnics in North East, Nigeria to strengthen their programme to meet students' employability skills needed for changing world of work. Two research questions and two null hypotheses guided the study. The study adopted survey research design. The population of the study was 628 OTM lecturers in 12 public (Federal and State) polytechnics in North East, Nigeria. Simple random sampling technique was used to select 246 OTM lecturers for the study. Self-developed questionnaire with 17 items which was face validated using the opinions of three experts two came from the field of Business Education and one expert from Measurement and Evaluation Unit in the Department of Education Foundation, both in the Faculty of Education, Gombe State university was used for data collection. The reliability of the instrument was determined using pilot testing and data calculated using Cronbach Alpha formula yielded correlation values of .78 and .88 for clusters B1 to B2 respectively with an overall index of 0.83 obtained. Mean, standard deviation and t-test were used for data analysis. Findings showed that OTM departments in polytechnics in North East, Nigeria to a low extent collaborate with industries as well as adopted innovative funding strategies to strengthen OTM programme to meet students' employability skills needed for changing world of work. Ownership of institution was not a significant factor in their mean responses on the extent OTM-industry collaboration, and innovative funding strategies are adopted to strengthen OTM programme to meet students' employability skills needed for changing world of work. Based on the findings of the study, the researcher concluded that; OTM department-industry collaboration as well as innovative funding strategies are not adequately adopted by OTM departments to enhance students' employability skills. It was recommended among others that; management of OTM programmes in polytechnics in North East, Nigeria should improve their collaboration/synergy with industries to help in the provision of modern teaching facilities/equipment. This will help to improve the quality of training offered to students to enable them acquire employability skills needed for changing world of work.

Keywords: Office Technology and Management (OTM), Employability Skills, Work Innovative Strategies

Introduction

Polytechnic education is often regarded as the cornerstone of every nation's growth since it serves as the foundation for skills acquisition by youths to contribute to national development. Polytechnic education is significant in Nigeria because it provides trained youths needed for the country's technological and scientific progress. Polytechnic education is one of the post-secondary educations available after high school. The National Board for Technical Education (NBTE, 2012) defined polytechnic education as a two-tier programme of study comprising of a National Diploma (ND) and a Higher National Diploma (HND), with one year of Industrial Experience (IT) as a prerequisite for enrollment into the HND programme.

According to the NBTE, the primary purpose of polytechnic education is to provide students with the technical skills required for careers in diverse fields. Office technology and Management (OTM) is one of the programmes provided by Nigerian polytechnics.

Due to the emergence of computerization in the educational sector, NBTE introduced the Office Technology and Management (OTM) programme in Nigerian Polytechnics in November 2004 to replace the Secretarial Studies curriculum (NBTE, 2012). The need for the evaluation arose from OTM graduates' inability to adapt to workplaces that were fast changing. Thanks to skills they had previously learned throughout their studies. OTM is an educational programme that

prepares students for employment or self-employment (Ojo and Akhademe, 2016). The primary goal of the OTM programme is to provide students with specialized skills needed to take positions as managers, secretaries, and administrative assistants in enterprises (NBTE, 2012). Courses are taught at the National Diploma (ND) level to help students complete the OTM programme requirements for polytechnic education include; Introduction to Computer, Information and Communication Technology, Computer Application and Packages, Career Development, Desktop Publishing, Modern Office Technology, Peoples' Communication Skills, Webpage Design, and Entrepreneurship Practical. At the Higher National Diploma (HND) level, courses such as Professional Career Development, ICT Office Application I, Social Psychology, Nigerian Labour Law, Human Capital Management, Database Management System, Oral Communication Skills, Elements of Human Resources Management, and Advanced Desktop Publishing among others are taught. Others are Information System, Professional Ethics and Social Responsibilities, Entrepreneurship, and Advanced Webpage Design (NBTE, 2012).

Students are expected to graduate from these courses with the skills to find employment or to become self-employed. Employability skills are necessary to improve a worker's productivity and across all occupations. According to Patel and Patel (2020), employability skills are sets of attributes, skills, and knowledge that all labour market participants should possess to ensure effectiveness at work both to the benefit of themselves, employers, and the larger economy. Employability skills are the foundation for graduates to successfully secure employment and develop careers (Abdullah, Muhammad and Nasir, 2019). Employability skills include; communication, teamwork, problem-solving, initiative and enterprise, planning and organizing, and self-management skills among others (Krishnaraj and Selvanayagi, 2015).

Today's workplace is more complex and fluid, and newer methods of working are now in greater demand. As a result, OTM programme is mandated to constantly equip students with skills to thrive in the 21st century (Oyinloye, Asonibare and Oluwalola, 2021). To flourish in modern offices, students upon graduation must possess employability skills. Therefore, it is the OTM programme's responsibility to strengthen its delivery to make it better and more productive. Strengthening the OTM programme requires deliberate action methods; it is not a random endeavour. According to Asiyai and Okoro (2019), OTM programme

can be strengthened through improved and diversified funding, monitoring and adoption of best practice. Similarly, effective industry-OTM programme linkages, training and re-training of OTM lecturers, provision of adequate Modern ICT facilities, and effective monitored Student Industrial Work Experience Scheme (SIWES) can be used to strengthen OTM programme (Anyaneh and Ochuba, 2019).

When an OTM and an industry work together to exchange resources—which might include money donations, volunteer time from industry experts, donated equipment, internship opportunities, and virtually anything the industries can contribute to the programme—it is known as an OTM programme-industry connection. Through the industry-OTM programme linkage it is necessary to close the skills gap between what the society needs and what it already has (Nungse, Ugwoke, Ogbuanya, and Shetima, 2020). The OTM programme's success depends on the industry's and the schools' successful cooperation. OTM programme directors in Nigerian polytechnics should regularly review market, and industry and match them with appropriate OTM planning and implementation.

Similarly, the Nigerian government has not been able to meet up with the standard recommended (26% of GDP) globally for allocation to education by UNESCO. The drastic drop in financial allocation to education has short changed the OTM programme. The attainment of excellent, efficient and quality OTM programme requires alternative funding (Obidile, 2018). Contending, Asiegbu and Onyali (2019) stated that funds allocated to tertiary institutions are not sufficient to cater for the educational needs at all levels as a result of rapid educational expansion. The fact remains that the needs and demands in the education system are endless but the funds to satisfy them are scarce. Funds are needed for payment of staff, building and maintenance of school facilities such as libraries, classrooms, laboratories and conveniences, improvement of staff quality and welfare, and enhancement of curriculum delivery among other pressing needs since Government alone cannot meet all these needs administrators of institutions should look inward for additional sources of income. These alternative sources of funding for OTM programme include: *donations and gifts from parents, and students*, research grants and donor support in the form of alumni foundations. Other innovative funding strategies are contribution of 'damage' products by industries and manufacturing companies, establishment of Project Development Unit (PDU) by OTM departments in

polytechnics, alumni endowment funds to OTM, raising funds from Parents Teachers Association (PTA), technical education endowment fund by financial institutions, payment of damage fees by trainees OTM department (Oshionebo, Ben and Ashang, 2013). However, it is sad that many OTM departments in polytechnics in Nigerian especially North East have not been creative enough to engineer other ways of fund creation for quality programme delivery (National University Commission (NUC, 2016).

OTM department in Polytechnics in North East, Nigeria could differ on strategies for strengthening OTM programme to meet employability skill needs of changing world of work as a result of ownership of institution. Federal owned polytechnics could be strengthening their OTM programme by adopting more effective strategies when compared to state owned ones probably due to differences in funding. However, the need to equip students with employability skills requires OTM programme to be strengthened in polytechnics. Based on this background, this study determined the adoption of innovative strategies for strengthening OTM programme to meet employability skills needed for changing world of work.

Statement of the Problem

The curriculum of polytechnic OTM programme is geared towards equipping students with requisite employability skills on graduation. Similarly, students seek admission in OTM programme in polytechnics in Nigeria with the hope that skills acquired will enhance their chances of securing employment or become self-employed upon graduation. Admittedly, OTM students on graduation do suffer labour market discriminations in Nigeria. In view of this, OTM curriculum seems to be inadequate and has very little capacity to develop students' employability skills for job opportunities in various fields of endeavour. Additionally, high unemployment rates among OTM graduates have led employers and OTM students to question the kind of skills they possess.

As unemployment among Nigerian OTM graduates continues to escalate, the need to strengthen OTM programme to meet employability skills need have been emphasized by stakeholders. Strengthening OTM programme requires adoption of effective strategies. However, there are numerous strategies available to OTM departments in polytechnic to leverage on such as collaboration with industries, curriculum re-organization, and effective monitoring of OTM programme among others. However, it remains unclear whether OTM

departments in polytechnics in Nigeria especially in North East leverage on these strategies to strengthen their programme. This knowledge is essential to guide informed decisions by relevant authorities. In specific terms, the study determined the extent (1) OTM programme-industry collaboration is adopted to strengthen students' employability skills needed for changing world of work (2) innovative funding strategies adopted to strengthen students' employability skills needs for changing world of work.

Research Questions

The following research questions guided the study;

1. To what extent does OTM programme-industry collaboration adopted to strengthen students' employability skills needed for changing world of work?
2. To what extent do innovative funding strategies adopted to strengthen students' employability skills needed for changing world of work

Null Hypotheses

The following null hypotheses were tested at 0.05 level of significance;

1. There is no significant difference in the mean ratings of respondents on the extent OTM programme-industry collaboration is adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution (Federal/State).
2. Respondents in North East Polytechnics do not differ significantly in their mean ratings on the extent innovative funding strategies are adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution (Federal/State).

Method

The study adopted descriptive survey research design. It was carried out in North East, Nigeria. The population of the study consisted of 628 OTM lecturers in 12 public polytechnics in North East, Nigeria (405 OTM lecturers in six federal polytechnics and 223 OTM lecturers in six state polytechnics). The sample size of 246 OTM lecturers was selected using simple random sampling technique. Instrument for data collection was a self-developed questionnaire titled "Strategies for Strengthening OTM Programme to Meet Students' Employability Skills Needs (SSOTMP-MSESN)". The questionnaire consisted of two Part 1 and 2. Part 1

contained item on demographic information of the respondents such as ownership of institution while Part 2 has two sections A and B in respect to the two research questions. Items on Part 2 are structured on five-point rating scale of Very high Extent (VHE), High Extent (HE), Moderate Extent (ME), Low Extent (LE) and Very Low Extent (VLE). Face validity of the instrument was ascertained using three experts, two from the field of OTM and one expert from Measurement and Evaluation. The reliability of the instrument was carried out using pilot-testing method and data collected were calculated using Cronbach Alpha formula to determine the internal consistency of the instrument, and correlation values of 0.78 and 0.88 were obtained for clusters B1 to B2 respectively with an overall index of 0.83 obtained. The researcher with the help of four research assistants adequately briefed administered the instrument to the respondents in their offices. Out of

246 copies of questionnaire distributed, 238 copies were correctly filled and returned given a 0.97 percent return rate. Statistical mean and standard deviation were used to answer the researcher questions and determined the homogeneity of respondents' views while t-test was used to test the null hypotheses at 0.05 level of significance. A hypothesis was rejected where the p - value is less than the significant value. Otherwise, the null hypothesis was accepted. The data analysis was carried out using statistical package for Social Sciences (SPSS) version 23.0.

Results

Research Question 1: To what extent does OTM programme-industry collaboration adopted to strengthen students' employability skills needed for changing world of work?

Table 1: Respondents' Mean Ratings and Standard Deviation on the Extent OTM Programme-Industry Collaboration is Adopted to Strengthen Students' Employability Skills Needed for Changing World of Work

S/N OTMprogramme-Industry Partnership	X	SD	Remarks
1. My department receive financial assistance from industries	3.34	.81	Moderate Extent
2. Industries provide scholarship opportunities to my students	1.48	.72	Very Low Extent
3. Industries sponsor lecturers in my department to workshops and seminars to update their skills	1.37	.65	Very Low Extent
4. Industries provide funds to my department to acquire modern equipment and facilities for effective teaching and learning	2.43	.67	Low Extent
5. Industries grant my students special SIWES consideration	1.89	.78	Low Extent
6. Industries donate power generators and solar electricity to my department to improve power supply	2.49	.71	Low Extent
7. Industries allow my students to visits their organization to acquire real work experience	2.13	.91	Low Extent
8. Industries have built classroom blocks for my department	2.40	.69	Low Extent
9. Industries collaborate with my department on research and development projects	1.65	.83	Low Extent
Cluster mean	2.13		Low Extent

Data in Table 1 shows that item 1 is rated moderate extent with mean of 3.34, items 4, 5, 6, 7, 8 and 9 are rated low extent with mean ranging from 1.65 to 2.49 while the remaining two items are rated very low extent. The cluster mean of 2.13 shows that on the whole, OTM departments in North East polytechnics to a low extent collaborates with industries to strengthen students' employability skills needed for changing world

of work. The standard deviation for all the items is within the same range meaning that the respondents are not wide apart in their mean ratings.

Research Question 2: To what extent do innovative funding strategies adopted to strengthen students' employability skills needed for changing world of work?

Table 2: Respondents' Mean Ratings and Standard Deviation on the Extent Innovative Funding Strategies are Adopted to Strengthen Students' Employability Skills Needed for Changing World of Work

S/N	Innovative Funding Strategies	\bar{X}	SD	Remarks
10.	My department receives financial <i>donations from parents</i> , to support OTM programme	2.41	.51	Low Extent
11.	My department receives research grants and donor support in the form of alumni foundations	2.59	.65	Moderate Extent
12.	My department have established Project Development Unit (PDU) to raise funds for its programme	3.21	.58	Moderate Extent
13.	My department has received alumni endowment funds to support the programme	2.24	.70	Low Extent
14.	My department raise funds through payment of damage fees by OTM students	1.30	.72	Very Low Extent
15.	My department has a bookshop that generate funds for the department	2.14	.66	Low Extent
16.	My department provide research consultancy services to raise funds	2.24	.61	Low Extent
17.	My department operates photocopying and printing business that generate funds to the department	2.56	.82	Moderate Extent
Cluster mean		2.34		Low Extent

Data in Table 2 show that items 11, 12 and 17 are rated moderate extent with mean score of 2.56 to 3.21, items 10, 13, 15 and 16 are rated low extent with mean ranging from 2.14 to 2.41 while the remaining one item is rated very low extent. The cluster mean score of 2.34 shows that on the whole, OTM departments in North East Polytechnics is to a low extent adopted innovative funding strategies to strengthen students' employability skills needed for changing world of work.

Table 3: Summary of T-test comparison of the Mean Ratings of Respondents on the Adoption of OTM Programme-Industry Collaboration to Strengthen Students' Employability Skills Needed for Changing World of Work Based on Ownership of Institution

Ownership of Institution	N	\bar{X}	SD	df	T-value	P-value	Decision
Federal	156	2.16	.48	236	2.01	.13	Not Significant
State	82		.63				
		1.91					

Data in Table 3 reveal that t-value of 2.01 with 236 degree of freedom has p-value of .13 which is greater than the criterion value of .05 ($P\text{-value} = .13 > .05$). This means that there is no significant difference in the mean ratings of respondents on the extent OTM programme-industry collaboration is adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution. Therefore, the null hypothesis is accepted.

The standard deviation for all the items is within the same range meaning that the respondents are not wide apart in their mean ratings.

Null Hypothesis 1: There is no significant difference in the mean ratings of respondents on the extent OTM programme-industry collaboration is adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution (Federal/State).

Null Hypothesis 2: Respondents in Nigerian North East Polytechnics do not differ significantly in their mean ratings on the extent innovative funding strategies are adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution (Federal/State).

Table 4: Summary of T-test comparison of the Mean Ratings of Respondents on the Adoption of Innovative Funding Strategies to Strengthen Students' Employability Skills Needed for Changing World of Work Based on Ownership of Institution

Ownership of Institution	N	\bar{X}	SD	df	T-value	P-value	Decision
Federal	156	2.21	.68	236	1.00	1.18	Not Significant
State	82	2.00	.75				

Data in Table 4 show that t-value of 1.00 with 236 degree of freedom has p-value of 1.18 which is greater than the criterion value of .05 (P-value = 1.18 >.05). This means that respondents in Nigerian North East Polytechnics do not differ significantly in their mean ratings on the extent innovative funding strategies are adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution. Therefore, the null hypothesis is accepted.

Discussion

Findings of the study disclosed that OTM departments in North East polytechnics to a low extent collaborates with industries to strengthen students' employability skills needed for changing world of work. This could be attributed to lack of understanding or awareness of the benefits OTM programme can derive from industry linkage. The findings of the study agree with the earlier position of Emeasoba (2017) that partnership between business education (OTM inclusive) and industries can help to strengthen the programme and improve training of students in employability skills acquisition. In agreement, Nzokurum and Agala (2019) noted that effective synergy between business education and industries strengthen the delivery of the programme in tertiary institutions in Nigeria. Nungse, Ugwoke, Ogbuanya, and Shetima (2020) regretted that industry-OTM programme though a strategy to close the skills gap is not leveraged by OTM departments to enhance their quality assurance. Findings of the study also revealed there is no significant difference in the mean ratings of respondents on the extent OTM programme-industry collaboration is adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution. This implies that OTM departments in both federal and state polytechnics in the area of the study do not adequately collaborate with industries to strengthen their programme.

Findings of the study further revealed that OTM departments in North East Polytechnics is to a low extent adopted innovative funding strategies to strengthen students' employability skills needed for

changing world of work. This finding collaborates with the observations of Oshionebo, Ben and Ashang (2013) and NUC (2016) that many polytechnics in Nigerian have not been creative enough to engineer other ways of fund creation for quality programme delivery. It was also revealed that respondents in Nigerian North East Polytechnics did not differ significantly in their mean ratings on the extent innovative funding strategies are adopted to strengthen students' employability skills needed for changing world of work based on ownership of institution. By implication, OTM departments in federal and state polytechnics in North East, Nigeria depends heavily on government for funding their programmes.

Conclusion

Based on the findings of this study, the researcher concludes that OTM-industry collaboration as well as innovative funding strategies is not adequately adopted by OTM departments in North East, Nigerian polytechnics to strengthen the employability skills of students for changing world of work.

Recommendations

Based on the findings of the study, the researcher makes the following recommendations;

1. Management of OTM programme in polytechnics in North East, Nigeria should improve their collaboration/synergy with industries to help in the provision of modern teaching facilities/equipment. This will help to improve the quality of training offered to students to enable them acquire employability skills needed for changing world of work.
2. Management of OTM programmes in polytechnics in North East, Nigeria should adopt more innovative funding strategies to generate extra funds to support the delivery of OTM programme. This will help in the acquisition of modern instructional technologies needed for effective training of students on employability skills needed for changing world of work.

3. Heads of Departments of OTM programme in polytechnics in North East, Nigeria should be provided with capacity building programmes to update their skills on external funds generating

strategies. This will help them to effectively articulate fundraising plans and effectively implement them.

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