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RESOURCE FACTORS AND SKILLS SUPPLY TO LABOUR MARKETS IN PRIVATE UNIVERSITIES IN SOUTHWESTERN NIGERIA

By

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Abstract

The study investigated resource factors and skills supply to labour markets in private universities in southwestern Nigeria. Skills acquired by graduates are important to economic productivity and economic development. Despite its importance, different stakeholders have been complaining of inadequacy of these skills in university graduates especially among fresh graduates in Nigeria. The descriptive survey research design was adopted for the study. Multi stage sampling procedure was used. At the first stage, purposive sampling technique was used to select 10 private universities that have been in operation for minimum of ten years in Southwestern, Nigeria. At the second stage, simple random sampling technique was used to select 173 Heads of Departments in the sampled faculties. At the third stage, human resource managers in seven firms (Communication, Banking, Education, Health, Judiciary, Manufacturing/Construction and Agricultural) were sampled for the study. The instruments used were Questionnaire on Skills Supplied by Private Universities to Labour Market (= 0.89) and Questionnaire on Resource Factors and Skills Supply in Private Universities (r = 0.81). Statistical tools used were Frequency counts, Pearson product-moment correlation and Multiple regression at 0.05 level of significance. Private universities met the benchmark of National Universities Commissions but about 53.2% of their academic staff were either on part time / adjunct appointment or on sabbatical appointment. There were positive significant relationships between resource factors and skills supply (r=0.201 P<0.05). Resource factors jointly contributed to skills supply by private universities ($F_{(4,18)}$ = 176.07; Adj. R^2=0.64), accounting for 64.0% of its variance. Academic staff profile (β=0.55) and availability of ICT (β=0.35) relatively contributed to skills supply by private universities. It was recommended that management of private universities in southwestern Nigeria should increase the number of full-time academic staff and part time teaching staff should be discouraged so as to have more academic staff that will be fully on ground for the attention of students.

Keywords: Resource Factors, Skills Supply, Labour Market

Introduction

The problem of skills supply in Nigerian universities poses serious challenge to different stakeholders and especially to the employers in labour market. There have been constant complaints of not seeing the needed skills among fresh graduates who want to take up appointment in different establishments. Supply of skills to labour market is the sole responsibility of universities through proper training of students who will turn out to be graduates that will fill different vacancies in labour market. But there are anxieties by employers of labour over the skills possessed by graduates who work in different organisations and employers want their employees to be professionally competent in their chosen careers (Sodipo, 2014). Furthermore, Sodipo (2014) stated that every employer desires their employees to be well prepared with matching life supporting abilities to perform excellently at work and to possess such ability to: solve problems, think reflectively, engage in team-work, communicate effectively, have good personality, organize thing orderly, to possess integrity, self-discipline, self-esteem and leadership skills, rising in equality, technologies usage skills, and the ability to translate ideas to actions.

It is highly disheartening that the expectations of employers about the quality of graduates needed in different establishments are not found in them, they have to give further training to newly employed staff in order to meet up with the requirements from fresh graduates (Olasunkanmi & Ayeni 2020). According to Ige (2013), private universities came into existence in Nigeria as a result of many reasons: fall in the quality of university graduates, to create more access for students; constant strike in public universities, students' unrest and cultism in public universities, and limited and decaying infrastructural facilities in public universities.

One would expect that private universities in Nigeria cover up the gap identified in public universities and as well justify the reasons of their establishment, yet, there are lots of complaints that private universities are not up to the task, especially in the area of their products turning in to the labour market. Olasunkanmi & Ayeni (2020) stated that skills supplied by private universities do not meet up with the skills needed by employers of labour. This was measured in terms of supply of skills in private universities as a correlate of skills demanded by employers. Olasunkanmi & Ayeni (2020) submitted that, though the employers of labour were satisfied with the job performance of private university graduates in their various establishments, this was not without the additional training given to the newly recruited staff.

Skills supplied to labour markets is a function of many factors, most importantly, it is a function of resources used in training the products (graduates). The resource factors as considered in this study are: academic staff quality, availability of ICT facilities and accessibility of ICT facilities.

The academic staff strength in universities, being an essential factor that could determine the readiness of graduates for work and performance level of graduates on the job, seems not in conformity with NUC regulations. A close look at universities' academic staff strength in private universities in terms of quality and quantity shows that many of the universities today do not meet

up with the NUC stipulations on the strength of academic staff. Abiodun-Oyebanji (2012) and Okojie (2008) pointed out that the major problem confronting Nigerian universities system is staffing. The studies stated that many of Nigerian universities, especially private universities, did not meet up with the needed quality and quantity of teaching staff to handle teaching and research work.

Olorunsola and Arogundade (2012) asserted that teaching staff members are the major determinants of success in university systems. They stressed further that accomplishment of goals of any educational system or its failure relies on the academic staff. All educational institutions, to function properly, must have sufficient and suitable skilled manpower. Other resources such as equipment, technological facilities and physical facilities are to complement the efforts of teaching staff in the education industry. So, if there is deficiency in number, qualification and rank of academic staff in universities, it may lead to poor training of students and this could invariably affect the job performance of graduates in labour market. Abiodun-Oyebanji (2012) stated that if staffing of universities does not conform with NUC regulations, then, there could probably be excess workload on the staff. When there is excess workload on staff, teaching and training of students may be affected, leading to poor preparation of students. This could affect job performance in labour market after graduation.

Furthermore, Oyesiku (2010), revealed that universities and other higher institutions of learning are criticized for deterioration in the educational outputs, as a result of decline in numbers and quality of members of academic staff, teaching facilities, insufficient funding and neglect of government or private sectors' meaningful contributions to educational system and the curricula for teaching students. Oyesiku (2010) reported that there is a serious decrease in the value of graduates turned out to labour market due to the fallen standards of education.

Apart from the aforementioned, Information Communication and Technology also plays a vital role in learning, teaching and research process. Its usage widens the knowledge of both staff and students and exposes them to better ways of learning new things. Anyira (2011) submitted that the role of ICT in university education cannot be underestimated because it forms a very important part of disseminating information among members of staff and from staff to students. It plays definite role in the field of education to meet the needs of students, staff members and researchers in the area of communication, teaching, research and community service. However, it seems that the extent of accessibility and utilization of ICT in most of Nigerian Universities is very low. Among the problems facing accessibility and utilization of ICT facilities in Universities are poor power supply, low access speed and poor network providers. Nigeria is struggling with the problem of insufficiency in ICT infrastructure in many higher institutions of learning. If the accessibility and utilization of ICT to university staff and students is low, it may not adequately assist the staff in preparing students for job after schooling in order to meet up with the technological advancement in the world.

According to Philip, Oluwagbemi and Oluwaranti (2010), tertiary institutions in Nigeria lacked adequate ICT facilities. The study submitted that in most Nigerian universities, computers are insufficient for students to use and very few of these universities have internet facilities and enabling environment such as campus–wide network (CWN). They stated further that internet services are not available in many higher institutions, and where they are available, they are faced with one challenge or the other such as electricity to power the internet equipment. Bola and Ogunlade (2012) observed that many students in Nigeria universities do not have access to internet service which may lead to unfamiliarity of basic knowledge in the ICT which may affect the graduate labour job performance.

There is no much difference in the problem facing public universities and private universities in Nigeria, according to Adavbiele (2016), many of the ICT facilities in term of campus wide area networking, Very Small Aperture Terminal (VSAT) access to the internet and e-learning course deliveries are available in most of the private universities, but they are not accessible to students and staff due to continuous power outage. It was reported that not very many of the private higher institutions in the country are capable of meeting the ICT needs of their staff and students. Many private university lecturers and students have to depend on their personal internet facilities browsers like modems to be able to connect to the internet. It is against this background that the study examined resource factors in private universities and skills supply to labour market in Southwestern Nigeria.

Statement of the Problem

Skills acquired by graduates are important to economic productivity and economic development. Despite its importance, different stakeholders have been complaining of inadequacy of these skills in university graduates especially among fresh graduates in Nigeria. Different studies reported that poor acquisition of skills by fresh graduates, which is reflected in their performance in labour market, could be attributed to poor training received during their studies in the universities. The resource factors used in training them, such as quality of academic staff, availability and accessibility of facilities like information communication and technology, could determine the level of skills acquired. Extant studies paid much attention on skills-mismatch, employers' satisfaction and skills gap assessment among public university graduates with little efforts on resource factors as it affects supply of skills to labour market. Many of these studies identified the problem of skills supplied to insufficiency of learning facilities, bad attitude of government to education, overcrowded classrooms, poor funding, outdated curriculum, deterioration in quality of teaching staff with several recommendations to ameliorate the problem of skills supply by universities. But this study investigated the resource factors (academic staff profile, accessibility and availability of ICT facility) skills supply in private universities to labour market.

Purpose of the Study

Generally, the study investigated resource factors in private universities and skills supply to labour market in Southwestern Nigeria. Specifically, the study investigated:

i. extent to which skills are supplied by private universities to labour;
ii. level of compliance of academic staff profile in private universities with NUC benchmark;
iii. state of availability and accessibility of ICT facilities in private universities in Southwestern Nigeria;
iv. difference in skills supplied by private universities in Southwestern Nigeria;
v. joint and relative contributions of resource factors and skills supplied by private universities in Southwestern Nigeria.

Research Questions

The following research questions were raised to guide the study:

1. What is the level of compliance of academic staff profile of private universities with NUC benchmark?
2. What is the extent of availability of ICT facilities among private universities in Southwestern Nigeria?
3. What is the level of accessibility to ICT facilities among private universities in Southwestern Nigeria?

Hypotheses

The following hypotheses were formulated to guide the study:

H_{01}: There is no significant relationship between resource factors and skills supplied to labour market in Southwestern Nigeria.

H_{02}: Resource factors in private universities (academic staff profile of private universities, accessibility and availability of ICT facility) will not significantly contribute to skills supplied to labour market in Southwestern Nigeria.

H_{03}: There is no significant joint contribution between resource factors in private universities (academic staff profile of private universities, accessibility and availability of ICT facility) and skills supplied to labour market in Southwestern Nigeria.

METHODOLOGY

Research Design

Descriptive survey research design of *ex-post facto* type was adopted. This was considered appropriate because the study was a description of existing characteristics of the university and the labour market. Also, it enabled the researcher to use analytical methods to estimate the values of the variables and estimate the relationship between them.

Population of the Study

The population of the study consisted of all the Heads of Departments in private universities that have been in operation for minimum of ten years in Southwestern, Nigeria. The population of the study also covered the human resource managers (HRMs) of firms in the key sectors of Nigeria economy in the Southwestern Nigeria.

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Table 1: List of Accredited Private Universities that have been in Operation for Minimum of 10 Years in Southwestern Nigeria

S/N	Name of Private Universities	Year Established	Number of Faculty/ College	Head of Department
1	Babcock University, Ilisan Remo Ogun State	1999	8	36
2	Bowen University, Iwo, Osun State	2001	6	23
3	Covenant University, Ota, Ogun State	2002	4	23
4	Pan-African University, Lagos, Lagos State	2002	3	12
5	Redeemers University, Ede, Osun State	2005	6	19
6	Ajayi Crowther University, Oyo, Oyo State	2005	7	19
7	CETEP City University, Lagos, Lagos State	2005	4	19
8	Bell University of Technology, Ota, Ogun State	2005	5	33
9	Lead City University, Ibadan, Oyo State	2005	4	19
10	Crawford University, Igbesa, Ogun State	2005	5	19
11	Crescent University, Abeokuta, Ogun State	2005	5	17
12	Joseph Ayo Babalola University, Ikeji-Arakeji, Osun State	2006	7	36
13	Fountain University, Osogbo, Osun State	2007	4	13
14	Wesley University of Science and Technology, Ondo, Ondo State	2007	5	28
15	The Achievers University, Owo, Ondo State	2007	4	20
16	Caleb University, Km 15, Ikorodu-Itoikin Road, Imota, Lagos State	2008	3	26
	Total			**362**

Source: National Universities Commission

Sample and Sampling Techniques

Multi stage sampling procedure was adopted for the sampling. At the first stage, purposive sampling technique was used to select 60% of private universities that have been in operation for minimum of ten years in Southwestern, Nigeria. Purposive sampling technique was used because it is expected that such universities should have produced enough graduates working in different establishments. This gave a total number of 10 universities. At the second stage, simple random sampling technique was used to select 70% of the faculties in the sampled universities and all Heads of Departments in sampled faculties were chosen using total enumeration technique. At the third stage, seven firms in the key sectors of Nigeria economy were purposively sampled, because it is believed that these are the sectors that most of the private universities graduates could be located. These sectors are: Communication, Banking, Education, Health, Judiciary, Manufacturing/Construction and Agricultural.

Also, 25 employers from communication, 25 from Banking, 41 from Education, 30 from Health, 24 from Judiciary, 30 from Manufacturing/Construction and 25 from Agriculture were randomly sampled from private and public labour organisations in capital cities of the Southwestern states, making a total of 200 employers.

Table 2: List of Sampled Universities and Faculties

S/N	Name of Private Universities	Year Established	Faculties / Colleges	No. of Depts	Sampled Faculties (70%)
1	Babcock University, Ilisan Remo, Ogun State	2001	Administration Agriculture Arts and Humanities Arts Law / Legal Studies Medical/Pharm/Health Sciences Sciences Social Sciences	1 3 2 5 1 6 11 7	Administration Agriculture Arts Medical/Pharm/Health Sci. Sciences Social Sciences
2	Bowen University, Iwo, Osun State	2001	Health Sciences Agriculture Humanities Law Sciences and Science Education Social and Management Sciences	3 3 4 1 6 5	Agriculture Humanities Sciences & Sci. Education Social & Mgt. Sciences
3	Covenant University, Ota, Ogun State	2002	Business and Social Sciences Engineering Leadership Development Studies Science and Technology	6 5 4 8	Business and Social Sci. Engineering Science and Technology
4	Redeemers University, Ede, Osun State	2005	Administration Agriculture Arts Law Sciences Social Sciences	1 2 5 1 6 4	Agriculture Arts Sciences Social Sciences
5	Ajayi Crowther University, Oyo, Oyo State	2005	Education Arts and Humanities Engineering and Environmental Studies Law Natural Sciences Social Sciences Management Sciences	2 4 2 1 6 3 1	Arts and Humanities Engineer. & Envir. Studies Natural Sciences Law Social Sciences
6	Lead City University, Ibadan, Oyo State	2005	Law Arts and Education Social Sciences Sciences	1 7 5 6	Arts and Education Social Sciences Sciences
7	Crescent University, Abeokuta, Ogun State	2005	Bola Ajibola College of Law Natural and Applied Science Environmental Sciences Social and Management Sciences	2 4 3 6	Bola Ajibola College of Law Natural and Applied Sci.

			Information and Comm. Tech.	2	Environmental Sciences Information and Comm. Tech
8	Joseph Ayo Babalola University, Ikeji-Arakeji, Osun State	2006	Agricultural Sciences Environmental Sciences Humanities Natural Sciences Social Sciences Management Sciences Law	5 6 5 6 7 6 1	Agricultural Sciences Environmental Sciences Natural Sciences Social Sciences Management Sciences
9	Wesley Uni. of Science and Technology, Ondo, Ondo State.	2007	Pure and Applied Sciences Environmental Sciences and Mgt. Social and Management Science	11 7 8	Pure and Applied Sciences Social and Mgt. Science
10	Caleb Uni. Lagos, Lagos State	2008	Administration Agriculture Engineering/Technology/Environmental Sciences Social Sciences	1 5 4 14 4	Administration Agriculture Engineering/Tech/ Environ. Social Sciences
Total Sample					**178**

Research Instruments

Two sets of instruments were used in collecting data for the study. The first instrument, tilted "Questionnaire on Skills Supplied by Private Universities to Labour Market (QSSPULM)" a self-designed questionnaire comprises of three Sections for employers of labour in the capital cities of Southwestern States. The instrument was designed to find out the types of skills supplied by private universities to labour market. The second instrument, a self-designed questionnaire comprised two Sections, was designed for the heads of Departments of the private universities titled "Questionnaire on Resource Factors and Skills Supply in Private Universities (QRFSSPU)".

Validity of Research Instruments

Face, content and construct validity were adopted for the instruments. Face validity was obtained to test if the content appear to be suitable, content validity was obtained to test the representative of what the instruments were aim to measure while construct validity was measured to test the correctness of the concepts to be measured. The instruments were validated by subjecting the drafts to the experts in the field of Educational Management, Institute of Education, and Quality Assurance Unit of University of Ibadan. Various suggestions, advices and ideas were incorporated in the final draft before administration.

Reliability of Research Instrument

A field test was conducted to establish the reliability of the instruments. This was done by administering 10 copies of Questionnaire on Skills Supplied by Private Universities to Labour Market (QSSPULM) to employers of labour within Osogbo metropolis. Also, 10 copies of Questionnaire on Resource Factors and Skills Supply in Private Universities (QRFSSPU) were administered to 10 different heads of departments at Fountain University, Osogbo, Osun State, which is not part of the selected sample for the study. These were subjected to reliability analysis using Cronbach alpha statistics. Questionnaire on Skills Supplied by Private Universities to Labour Market (QSSPULM) yielded reliability coefficient of $r = 0.89$, Questionnaire on Resource Factors and Skills Supply in Private Universities (QRFSSPU) yielded reliability coefficient of $r = 0.81$ These coefficients of reliability show that the instruments were reliable.

Administration of Research Instruments

The instruments were administered personally by the researchers with the help of two (2) research assistants who were trained on the administration of the instruments. One hundred and ninety-five copies of QSSPULM were administered and one hundred and seventy-three were retrieved and found useful for the study (88.7%). Also, one hundred and seventy-eight copies of QRFSSPU were administered out of which one hundred and seventy-three (97.2%) were found useful for the study through data cleaning.

Method of Data Analysis

Data obtained from the field were analyzed using descriptive statistics such as frequency, percentage and mean scores to answer the research questions. Hypothesis 1 was tested with the

use Pearson Product Moment Correlation. Hypotheses 2 and 3 were tested with Multiple Regression Analysis. All analyses were carried out at 0.05 level of significance.

Results

Research Questions

RQ 1: What is the level of compliance of academic staff profile of private universities with NUC benchmark?

Table 3a: Level of Compliance of Academic Staff Profile of Private Universities with NUC Benchmark

Scale	Frequency	Percentage
Very High	24	13.9
High	51	29.5
Moderate	95	54.9
Low	3	1.7
Total	173	100.0
	Mean = 2.56	

Notes: *Mean responses ranges from 0 to 1.4 = Low; 1.5 to 2.4 = Moderate; 2.5 to 3.4 = High; 3.6 to 4.0 = Very High*

Table 3b: Nature of Appointment of Academic Staff of Private Universities

Categories of Staff	Frequency	Percentage
Full Time Appointment	81	46.8%
Part Time / Adjunct Appointment	55	31.8%
Sabbatical Appointment	37	21.4%
Total	**173**	**100**

Answers to research question 1 are presented in Tables 3a and 3b. The data show the level of compliance of academic staff profile of private universities in Southwestern Nigeria and the percentage of nature of appointment of academic staff in private universities in Southwestern Nigeria. It was revealed from Table 3a that 13.9% of the sampled universities indicated that the compliance level of academic staff profile in line with NUC benchmarks was very high, 29.5% pointed out that level of compliance was high, 54.9% of the sampled universities submitted that

level of compliance of academic staff profile in line with NUC benchmark was moderate, while 1.7% indicated that the level of compliance was low.

Also, Table 3b revealed that 46.8% of the lecturers in private universities were full time lecturers; 31.8% of them were part time / adjunct lecturers, while 21.4% were on sabbatical appointment.

In Table 3a, the mean is 2.56, this implies that the level of compliance of academic staff in private universities with NUC benchmark was high, which means many of the private universities complied with the NUC benchmark on the minimum standard of academic staff. But Table 3b revealed that below average (46.8%) of the academic staff in private universities were on full time appointment. This implies that most of the private universities met up with the minimum standard of academic staff but about 53.2% of their academic staff were either on part time / adjunct appointment or on sabbatical appointment.

RQ 2: What is the extent of availability of ICT facilities among private universities in Southwestern Nigeria?

Table 4: Extent of Availability of ICT Facility among Private Universities in Southwestern Nigeria

Items	Highly Available	Moderately Available	Slightly Available	Not Available	Mean	SD
Campus Area Network	70 (40.5)	79 (45.7)	15 (8.7)	9 (5.2)	3.21	0.811
Local Area Network	60 (34.7)	74 (42.8)	24 (13.9)	15 (8.7)	3.03	0.914
Wide Area Network	54 (31.2)	74 (42.8)	18 (10.4)	27 (15.6)	2.90	0.969
Cybercafe	88 (50.9)	60 (34.7)	16 (9.2)	9 (5.2)	3.31	0.846
Computer- based Test (CBT) Centre for students to write exams	70 (40.5)	46 (26.6)	27 (15.6)	30 (17.3)	2.92	0.875
Online/E-learning course delivery	40 (23.1)	27 (15.6)	64 (37.0)	42 (24.3)	2.38	0.965
Teleconferencing course delivery	18 (10.4)	30 (17.3)	37 (21.4)	88 (50.9)	1.87	0.649
E – library	122 (70.5)	42 (24.3)	6 (3.5)	3 (1.7)	3.64	0.638
Projectors for course delivery	87 (50.3)	57 (32.9)	23 (13.3)	6 (3.5)	3.30	0.830
Interactive white board	87 (50.3)	18 (10.4)	32 (18.5)	36 (20.8)	2.90	0.888
Email service for staff and students	134 (77.5)	30 (17.3)	9 (5.2)	– (0.0)	3.72	0.553
Weighted Mean (WM) = 3.02						

Decision Level (DL) = 2.5; WM > DL

Note: Figures in Parentheses are Percentages

Table 4 presents data on the extent of availability of ICT to staff and students of private universities in southwestern Nigeria. The findings showed the ICT facilities that were available in most of the private universities in Southwestern Nigeria were: Campus Area Network (mean = 3.21); Local Area Network (mean = 3.03); Wide Area Network (mean = 2.90); Cybercafe (mean = 3.31); Computer Based Test (CBT) Centre for students to write exam (mean = 2.92); E – library (mean = 3.64); Projectors for course delivery (mean = 3.30); Interactive white board (mean = 2.90), Email service for staff and students (mean =3.72). The data further show that the following ICT facilities were not available in most of the private universities in Southwestern Nigeria according to the data gathered: Online / E-learning course delivery (mean = 2.38); Teleconferencing course delivery (mean = 1.87). The average mean of the data is given as 3.10 which is greater than 2.50. This implies that the ICT facilities were moderately available in private universities in Southwestern Nigeria.

RQ 3: What is the level of accessibility of ICT facilities among private universities in Southwestern Nigeria?

Table 5: Level of Accessibility of ICT Facility among Private Universities in Southwestern Nigeria

Items	Highly Accessible	Moderately Accessible	Slightly Accessible	Not Accessible	Mean	SD
Campus Area Network	64 (37.0)	78 (45.1)	22 (12.7)	9 (5.2)	3.14	0.831
Local Area Network	60 (34.7)	70 (40.5)	31 (17.9)	12 (6.9)	3.03	0.898
Wide Area Network	51 (29.9)	67 (38.7)	31 (17.9)	24 (13.9)	2.84	0.998
Cybercafe	75 (343.4)	70 (40.5)	13 (7.5)	15 (8.7)	3.18	0.909
Computer Based Test (CBT) Centre for students to write exam	60 (34.7)	47 (27.2)	27 (15.6)	39 (22.5)	2.74	0.652
Online / E-learning course delivery	43 (24.9)	33 (19.1)	45 (26.0)	52 (30.1)	2.38	0.555
Teleconferencing course delivery	18 (10.4)	40 (23.1)	27 (15.6)	88 (50.9)	1.93	0.890
E – library	119 (68.8)	45 (26.0)	6 (3.5)	3 (1.7)	3.62	0.664
Projectors for course delivery	72 (41.6)	67 (38.8)	22 (12.7)	12 (6.9)	3.15	0.896
Interactive white board	84 (48.6)	24 (13.9)	23 (13.2)	42 (24.3)	2.87	0.872
Email service for staff and students	122 (70.5)	30 (17.3)	18 (10.4)	3 (1.7)	3.57	0.749

Weighted Mean (WM) = 2.95

Decision Level (DL) = 2.5; WM > DL

Note: Figures in Parentheses are Percentages

Extent of accessibility of ICT facilities in private universities in Southwestern Nigeria is presented in table 5. The result revealed that the following ICT facilities were accessible to staff and students in private universities: Campus Area Network (mean = 3.14); Local Area Network (mean = 3.03); Wide Area Network (mean = 2.84); Cybercafe (mean = 3.18); Computer Based Test (CBT) Centre for students to write exam (mean 2.63); E – library (mean = 3.62); Projectors for course delivery (mean = 3.15); Interactive white board (mean = 2.87); and Email service for staff and students (mean = 3.57). From the results in the Table 5, the respondents stated that the following ICT facilities were not accessible to staff and students of private universities, Online / E-learning course delivery (mean = 2.38) and Teleconferencing course delivery (mean = 1.93).

The weighted average mean of the data is given as 2.95 which is greater than 2.50, the acceptability level. The implication of this is that most of the ICT facilities available in private universities in Southwestern Nigeria were also moderately accessible to staff and students.

Hypotheses

H_{01}: There is no significant relationship between resource factors and skills supplied to labour market by private universities in southwestern Nigeria.

Table 6: Relationship between Resource Factors and Skills Supplied to Labour Market by Private Universities in Southwestern Nigeria

Variable	N	Mean	Std. Dev.	r	P value	Remarks
Resource Factors	173	17.3012	3.2201			
Skills Supplied	173	22.1301	5.4731	0.201	0.009	Significant

Table 6 presents result of hypothesis one formulated on relationship between resource factors and skills supplied by private universities to labour markets in Southwestern Nigeria. The results shows a significant relationship between resource factors and skills supplied by private universities ($r = 0.201$; $P < 0.05$). The hypothesis was therefore rejected at 0.05 level of significance. The implication of this is that resource factors used to train the graduates had significant relationship with skills supplied by private universities to labour market in Southwestern Nigeria. Mean value of resource factors was 17.3012 and mean value of skills supplied was 22.1301. This implies that though there was significant relationship between resource factors and skills supplied by private universities, skills found in labour markets was found to be on higher side. This could be as a result of additional training given by employers to private universities graduates in various

establishments. While the standard deviation values of the two variables are 3.2201 and 5.4831 respectively.

H_{02}: Resource factors in private universities (academic staff profile of private universities, accessibility and availability of ICT facility) will not significantly have relative contribution to skills supplied to labour market by private universities in Southwestern Nigeria.

Table 7: Relative Contribution of Resource Factors (Academic Staff Profile of Private Universities, Accessibility and Availability of ICT Facilities) to Skills Supplied to Labour Market by Private Universities in Southwestern Nigeria

Dependent Variable	Independent Variables	Unstandardized Coefficient		Stand. Coefficient	T	Sig.
		B	Std. Error	Beta Contribution		
Skills Demanded by Employers	(Constant)	21.259	2.074		10.249	0.000
	Academic Staff Profile	0.247	0.078	0.549	3.163	0.007
	Availability of ICT	0.404	0.101	0.352	3.998	0.241
	Accessibility of ICT	0.365	0.070	0.450	5.194	0.018

Table 7 reveals relative contribution of academic staff profile, availability and accessibility of ICT facilities to skills supplied by private universities, expressed as beta weights: academic staff profile ($\beta = 0.549$, $P < 0.05$), availability of ICT facility ($\beta = 0.352$, $P > 0.05$) and accessibility of ICT facility ($\beta = 0.450$, $P < 0.05$). Result from the table shows that two of the indicators of the independent variables in the model (academic staff profile and accessibility of ICT facilities) contribute significantly to skills supplied by private universities in southwestern Nigeria, while availability of ICT facilities was found to have no significant contribution to skills supplied by private university in Southwestern Nigeria.

H_{03}: There is no significant joint contribution between resource factors in private universities (academic staff profile of private universities, accessibility and availability of ICT facility) and skills supplied to labour markets by private universities in Southwestern Nigeria.

Table 8: Joint Contribution of Resource Factors (academic Staff Profile of Private Universities, Accessibility and Availability of ICT Facilities) and Skills Supplied to Labour Market by Private Universities in Southwestern Nigeria

Model	Sum of Squares	Df	Mean Square	F	Sig	Rmks
Regression	4770.390	3	1590.131			
Residual	2.655.234	169	9.031	176.067	0.004	Sig.
Total	7425.624	172				
R = 0.802						
R Square = 0.642						
Adjusted R Square = 0.639						
Std. Error of the Estimate = 0.859						

Table 8 presents the analysis of hypothesis three on joint contribution of resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities) and skills supplied to labour market by private universities in Southwestern Nigeria. The results show that there was significant joint contribution of resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities), and skills supplied to labour market by private universities in Southwestern Nigeria ($R = 0.802$; $R^2 = 0.64$; $F = 176.067$). This shows that all the variables of resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities) accounted for 64.0% of the variance in skills supplied to labour markets by private universities in Southwestern Nigeria. The remaining 36.0% might be captured by other exogenous variables that were not included in the study. Based on this, the joint contribution is shown to be significant ($F_{(4, 18)} = 176.067$; $P < 0.05$), therefore, the hypothesis was not accepted. This implies that resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities) have joint contribution to skills supplied by private universities to labour markets in Southwestern Nigeria.

Discussion of Findings

Level of Compliance of Academic Staff Profile of Private Universities with NUC Benchmark

Tables 3a and 3b present the level of compliance of academic staff profile of private universities in Southwestern Nigeria and the nature of appointment of academic staff in private universities in Southwestern Nigeria. It was revealed from Table 3a that 13.9% of the private universities indicated that the compliance level of academic staff profile which was in line with NUC

benchmarks was very high, 29.5% pointed out that level of compliance was high, 54.9% of the sampled universities submitted that the level of compliance of academic staff profile in line with NUC benchmarks was moderate, while 1.7% indicated that the level of compliance was low. The mean value of the table was given as 2.56 which implies that the aggregate compliance level of academic staff profile of private universities which was measured in terms of quality and quantity of academic staff is high.

In addition to this, Table 3b revealed that 46.8% of the lecturers in private universities were full time lecturers; 31.8% of them were part time/adjunct lecturers while 21.4% were on sabbatical appointment. This shows that 46.8% of academic staff of private universities were on full time appointments, while 53.2% of the academic staff of private universities in Southwestern were on either part time/adjunct or sabbatical appointments. The implication of this is that compliance level of many private universities with NUC benchmark is high, but about 53.2% of members of staff were either on part time/adjunct or sabbatical appointments. The finding negates the submission of Abiodun-Oyebanji (2012) who investigated human resource situation in Nigerian Universities, a case study of Ekiti State University, Ado-Ekiti and found that many universities did not conform with NUC regulation on staffing.

Not only that, findings on compliance level of academic staff in private universities was not in line with the findings of Ige (2013) who investigated the evolution of private universities in Nigeria: matters arising and the way forward concluded that most of the universities in Nigeria did not conform with the NUC regulations on staffing.

Extent of Availability of ICT Facility among Private Universities in Southwestern Nigeria

Extent to which ICT facility was made availability to staff and students of private universities in Southwestern Nigeria was investigated in research question 2. The finding revealed that the following ICT facilities were available in most of the private universities Campus Area Network (CAN), Local Area Network (LAN), Wide Area Network (WAN), cybercafe, Computer Based Test (CBT) Centre for students to write exam, E – library, Projectors for course delivery, Interactive white board, and E-mail service for staff and students. On the other hand, the finding revealed that the following ICT facilities were not available in most of the private universities in Southwestern Nigeria: Online / E-learning course delivery and teleconferencing course delivery.

The aggregate response of the finding revealed that ICT facilities were moderately available to staff and students of private universities in Southwestern Nigeria. This contradicts the findings of Egoeze, Akman and Palacios (2014) who evaluated the ICT infrastructure and application in Nigeria Universities and submitted that Nigeria universities are still low in provision of ICT facilities. Though the study of Egoeze et al (2014) on evaluation of ICT infrastructure and application in Nigeria Universities which revealed low provision of ICT facilities was conducted on public universities, but findings of this study revealed that ICT facilities were moderately available to staff and students of private universities in Southwestern Nigeria.

Also, the finding of this study on availability of ICT facilities to staff and students of private universities does not conform with the submission of Godwin and Johnson (2012) who carried out a study on labour market distortion and University graduate unemployment in Nigeria: issues and remedies, and concluded that ICT facilities are not available in Nigeria universities.

Level of Accessibility of ICT Facility among Private Universities in Southwestern Nigeria

The extent of accessibility of ICT facilities to staff and students of private universities in Southwestern Nigeria was presented in Table 5. The finding revealed that the following ICT facilities were accessible to staff and students of private universities: Campus Area Network (CAN), Local Area Network (LAN), Wide Area Network (WAN), Cybercafe, Computer Based Test (CBT) Centre for students to write exam, E – library, Projectors for course delivery, Interactive white board, E-mail service for staff and students. The finding on the other hand revealed that the following ICT facilities were not accessible to staff and students of private universities, Online / E-learning course delivery and Teleconferencing course delivery.

The weighted average mean of the table revealed that ICT facilities are moderately accessible to staff and students of private universities in southwestern Nigeria. It was also revealed that all the ICT facilities that are available to staff and students in most of the private universities are also accessible, but the level of availability of the ICT facilities (mean = 3.02) is greater than the level of accessibility (mean = 2.95).The finding on level of accessibility of ICT facilities to staff and students contradicts the submission of Egoeze, Akman and Palacios (2014) who investigated the evaluation of ICT infrastructure and application in Nigeria Universities and found out that Nigeria universities are low in utilization of ICT facilities. Also, the finding here negates the submission of Gambari and Chike-Okoli (2016) who investigated availability and utilization of information and communication technology (ICT) facilities in higher institutions in Niger state, Nigeria. It was concluded from their study that the level of utilization of ICT in higher institutions of Nigeria is low with reference to lack of network infrastructure, high cost of internet facilities, limited expertise and ICT skills level and lack of enabling environment.

Finding of the study corroborates the submission of Agim, Iroeze, Osuji and Obasi-Haco (2018) who investigated level of availability and utilization of information and communication technology facilities by students: A case study of Federal Polytechnic, Nekede, Owwerri, Imo State Nigeria and found out that ICTs are useful and accessible to students.

Relationship between Resource Factors and Skills Supplied to Labour Market by Private Universities in Southwestern Nigeria

Relative correlation of indicators of resource factors (academic staff profile, availability and accessibility of ICT facilities) to skills supplied by private university revealed that academic staff profile of private universities had the highest contribution to skills supplied to labour market, this is followed by accessibility of ICT facilities and availability of ICT facilities had the lowest contribution to skills supplied to labour market. Finding from the study further revealed that academic staff profile in private universities and accessibility of ICT facilities contributed to skills

supplied to labour market, while contribution of availability of ICT facilities to skills supplied to labour market was not significant.

Implication of the finding revealed that making ICT facilities available is not enough, but accessibility and utilization of such facilities by staff and students is more important. There are cases in many higher institutions where ICT facilities are provided for the use of university community, but to access and use them become challenges to the end users as a result of poor network infrastructure, problem of power supply, limited expertise of ICT skills and poor enabling environment.

Table 8 revealed joint correlation of resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities) and skills supplied to labour market by private universities in Southwestern Nigeria. The result shows joint contribution of resource factor indicators and skills supplied by private university to skills supplied to labour market. This implies that all the variables of resource factor indicators (academic staff profile of private universities, accessibility and availability of ICT facilities) accounted for 63.9% of the variance in skills supplied to labour market in Southwestern Nigeria. Based on this, joint contribution of resource factors have contribution to skills supplied by private universities to labour market. That is, personnel that train graduates in school, (quality and quantity of academic staff) and resources used to train them, such as availability and accessibility of ICT, all put together had significant joint contribution to skills supplied to labour market.

Conclusions

Based on the findings of the study, it was concluded that the level of compliance of academic staff in private universities with NUC benchmarks was high, but many of the academic staff in private universities in Southwestern Nigeria were on part time/adjunct or sabbatical appointments respectively.

It was also concluded that ICT facilities such as campus area network, local area network, wide area network, CBT, projectors for course delivery and so on were available to staff and students in private universities and as well were accessible to staff and students.

Finally, it was concluded that, among the resource factors indicators, academic staff profile of private universities contributed highest to skills supplied by private universities, followed by accessibility of ICT facilities and availability of ICT facilities had the lowest contribution to skills supplied to labour market. It was also concluded that taking all the resource factors together, the joint correlation with skills supplied to labour market by private universities was enhanced. If teachings in Nigerian universities are standard, it increases the quality of labour supply which has implication on the economy, businesses and individuals. It increases productivity, economic growth is enhanced, brings about new innovations, talents attraction and retention will also be enhanced in the labour.

Recommendations

The following recommendations were made:

It is recommended that there should be prompt feedback from employers of labour to the universities on the new trend of skills needed in labour market, so as to infuse such into academic curriculum of the universities.

Management of private universities in Southwestern Nigeria should increase the number of full time academic staff and part time teaching staff should be discouraged so as to have more academic staff that will be fully on ground for the attention of students.

Also, it is recommended that ICT facilities should be made available and accessible to staff and students. Availability is not enough, but accessibility and functionality of the facilities are more important.

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