

Research and Effective Service Delivery in Nigeria Higher Education

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Abstract

The study investigated the influence of research in transforming higher education for effective service delivery in Nigeria. Five research questions and five hypotheses guided the study. The study adopted descriptive survey design. The population of the study consisted over 30 higher institutions in the Niger Delta States with about 1800 faculties. The proportionate stratified random sampling technique was used to draw 15 higher institutions, 210 faculties and 10 lecturers were selected from each faculty bringing the sample size to 2100 lecturers. The instrument titled “Influence of Research in Transforming Higher Institutions for Effective Service Delivery (IRESD)” was designed using the modified four point Likert scale and validated by experts in educational research, measurement and evaluation. The reliability coefficient of .82 was obtained using Split-half statistical technique. Data were analyzed using mean and standard deviation to answer the research questions while Chi-square was used to test the hypotheses at 5% probability level. The results showed that research studies could be used to transform higher institutions for effective service delivery based on adequate funding, quality of products, new discoveries, providing solutions to educational problems and regular academic staff promotions. Adequate funding of higher institutions for more research studies is recommended.

Keywords: Research, Higher Education, Transforming and Effective Service Delivery.

INTRODUCTION

In this paper, the researchers focus on using research studies to achieve higher education transformation in Nigeria. Our emphases are on the relevance of research studies as some of the vital sources for transforming higher institutions and to instill learners higher education drive for innovation and attainment of goals. Higher education in Nigeria is seen as a place where learner’s mind is further trained with the aim of improving the quality of human life. In line with the above, Okafore (2014) sees “higher education as possesses higher capacity to train the human mind to make dormant and latent resources active and bring some utilitarian values to an otherwise neglected apparatus of development”. To the author, higher education is expected to prepare the World of work that encompasses effective teaching, learning and research.

Education constitutes the core of human development; therefore, a modern and vibrant education system entails wide range of research activities that would ensure functional education of the highest possible standard at all levels of education. To achieve this include: effective teaching, learning and researching. It is a vital tool for transformation and key to sustainable development of an individual, nation and the world at large. Consequently, one major apparatus that could enhance the development and transformation of higher education is research. From the foregoing, Ojo (2006) ascertained that research is a complex process of specialization that transforms individuals into social being and equipped them with the necessary tools to participate fully in the dynamics of life.

Thus, Higher Education is an aspect of learning that brings the learner into specialized area of skills acquisition that will make he/she has the means to earn a living (Talib, 2002). This means that higher education in Nigeria helps to equip students' with the requisite skills, knowledge and translate ideas into acceptable and reliable working tools. Therefore, this can clearly bring about poverty alleviation, self-reliance and innovation which is a prelude to self-sufficiency and employment generation among others. These could only be achieved through the use of effective researches in higher institutions. Therefore, research as a change catalyst brings about various inventions in the world of advanced nations.

In their contributions, Ayeni, Isah, Erwat and Ileuma (2009) figured research as a new way of doing things that can impact on lives and transform all levels of education. It is a process involving discovery, which shows creativity and ability to provide solutions to society needs. By application, research help tremendously to create newness and freshness in teaching and learning. School facilities in the perspectives of books, journals, audio-visual, excursions, field trips and so on, update knowledge, skills, experience and promote effective learning and teaching in higher institutions.

In the light of the above, nothing is as good as change in the right direction. Therefore, when new discoveries are made, new areas of ideas, facts and knowledge are made known; greater amount of necessary works should be unfolded. These could enhance transformation of higher education and effective service delivery.

In opening the new academic channels in higher institutions, research has the driven force to bring about new skills, through variety of teaching and learning styles in higher institutions. In the same vein, research strengthens the existing body of knowledge, thus supporting and encouraging educational transformation. Still contributing, Okegbukola (2008) in his study submitted that research services always ginger up new field of knowledge and academic excellency in university education. Hence, stimulate and invigorate intellectual academic improvement that could bring positive changes in the university education.

Based on the above, the researchers are of the view that effective research could produces very good and high caliber of lecturers that can as well attract quality products, increase resources and enrich teaching and learning that cannot be contested. Thus, these could trigger off positive transformation of higher education in Nigeria. Therefore, making research more accessible to the general population has been reflected in action Research, which has demonstrated a common effort (results mented) among constituents of higher education communities. This implies that research is an indispensable ingredient in making the necessary changes needed in higher education sector if given the desire attention.

Consequently, if research does inform teaching and more specially have positive impact upon the quality of teaching, then this may be used as an argument why research could be used to make the necessary changes in higher institutions. In line with the above, Brew (2003) in his

study maintained that quality teaching is a function of quality research. In addition, the author anchored that there is a relationship between teaching and research. The implication of the foregoing is that through good quality research, higher institutions in Nigeria could be transformed. This assertion is at variance with the finding of Webster (1984) who submitted that research is not a pre-requisite of teaching quality rather teaching is dispensable of research. Furthermore, the author argued that in teaching and research the relationship is emphasized to safeguard the vested interest of those involved in researches.

In contradiction, the study of Best and Kahn (2007) showed that research is a pre-requisite for quality teaching that can enhance qualitative education and transformation agenda rocking the door post of higher institutions in Nigeria. This result disagrees with the findings of Webster (1984). Thus, the researchers concluded that teaching and research are not opposed to each other; rather they are complementary for effective service delivery in higher institutions. Continuing, Nworgu (2006) stated that researches stimulate new areas of interest in higher institutions. Thus, encouraging the systematic and objective search for new knowledge of study and the application of this knowledge to solve the problem of transformation of higher institutions, the author anchored.

To Asuk and Nko-tariah (2017), research is one of the most reliable ways of ascertaining that predictions, decisions and new directions are correctly made. In line with the authors, Ali (2006), such predictions can be more reliably obtained through the use of empirical data (research) than the use of common sense, people's opinions, personal experiences, miracle, dreams etc. Interestingly, research is an investigation tailored towards the discovery of some essential facts, truth and knowledge by a careful study. In continuation, the study of Brew (2003) focused on strengthening the research teaching method in tertiary institutions to make the needed changes in the educational system. In addition, Burke and Rau (2010) in their contributions toward positive changes in tertiary institutions proposed the pursuit of research inspired teaching to enhance desirable changes in tertiary institutions. Conclusively, the authors maintained that research inspired teaching is the only driven force that could bring the required changes in tertiary institutions in Nigeria.

Based on the foregoing, the researchers viewed research as a structural enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable in all field of human endeavour. In his contributions, Osuala (2005) stated that research is the most important tool for advancing knowledge, promoting progress and enable man to relate more effectively to his environment. Agreeing with Osuala (2005), Creswell (2012) in his submission, emphasizes that research add to our knowledge as educators to strive for continual improvement towards addressing the problems, issues and searching for potential solutions. Furthermore, the author stressed that through research, we can proffer solutions to the existing problems. In this way, research is like brick layers who build a wall bricks by bricks and continually adding the bricks and in the process creating stronger and stronger structure that will stand the taste of time in providing solutions to the needs of the society. Therefore, among the major needs of the society are food, shelter, health and quality education to enhance effective research service delivery. Interestingly, effective research will add to the positive indices of transforming higher institutions and society for a better tomorrow. In this wise, Nigeria as one of the developing countries in the world have some challenges including education occasioned by bad governance and wrong educational policies among others.

Consequently, all these had been causing ruin in the quality and standard of education vis-à-vis their products. Hence, call from various quarters for the way forward.

Statement of the Problem

Over the years, various attempts were made in transforming the deterioration state of Nigeria educational system. This has led to the introduction of some educational reforms such as the 6-5-4-system and the 6-3-3-4 system among others.

However, the introduction of these reforms do not transform the higher education in Nigeria as expected due to unstable educational policies, corruption, regular strike actions, poor focusing on research studies, government insensibility to educational problems and perhaps more. These show that there are many challenges militating against the lecturers in discharging their civic responsibilities and in transforming higher institutions for effective service delivery. Consequently, the researchers are poised to investigate the transformation of higher institutions through the use of research with a view to proffering some solutions to the problem under investigation.

Purpose of the study

This study is undertaken:

- To investigate the influence of research in transforming higher institutions based on adequate finding;
- To investigate the influence of research in transforming higher institutions based on quality of school products;
- To investigate the influence of research in transforming higher institutions based on new discovery/ advancement of knowledge;
- To investigate the influence of research in transforming higher institutions based on providing solutions to educational problems;
- To investigate the influence of research in transforming higher institutions based on regular academic staff promotions.

Significance of the Study

This study would be significant in the following ways:

- It would direct the attention of educational planners to the proper use of research in higher institutions.
- The result of the findings, and recommendations would improve the transformation of higher institutions in the Nigeria Delta region.
- The recommendations would also ensure that more attention is directed to research studies as means of improving higher institutions in the Niger Delta region.
- It would add up to the store house of knowledge for reference purposes.

Scope of the Study

The study is focused on the transformation agenda of higher institutions using the research instruments. Specifically, the study is limited to funding quality of products, new

discovery/advancement of knowledge, providing solutions to educational problems and regular staff promotions in the higher institutions among others in Niger Delta region.

Research Questions

- To what extent do researches influence the transformation of higher institutions based on funding?
- To what extent do researches influence the transformation of higher institutions based on quality of school products?
- To what extent do researches influence the transformation of higher institutions based on new discovery/ advancement of knowledge?
- To what extent do researches influence the transformation of higher institutions based on providing solutions to educational problems?
- To what extent do researches influence the transformation of higher institutions based on regular academic staff promotions?

Hypotheses

The following null hypotheses are formulated to guide the study and are testable at 5% probability level:

- The influence of researches in transforming higher institutions are not significantly dependent on adequate funding.
- The influence of researches in transforming higher institutions are not significantly dependent on the quality of school products.
- The influence of researches in transforming higher institutions are not significantly dependent on new discovery/ advancement of knowledge.
- The influence of researches in transforming higher institutions are not significantly dependent on providing solutions to educational problems.
- The influence of researches in transforming higher institutions are not significantly dependent on regular academic staff promotions.

METHODS

The study adopted descriptive survey design, this design helped the researchers to determine the influence of research in transforming higher institutions in the Niger Delta region. The population of the study consists of over 30 higher institutions with about 1800 faculties in the region. The proportionate stratified random sampling technique was used to draw 15 higher institutions and 210 faculties.

Finally, 10 lecturers from each of the faculty were selected from the higher institutions under investigations bringing the sample size of the study to 2100 lecturers.

Instruments for Data Collection

The instruments used for this study is a 24-item rating scale designed for participants (i.e. lecturers) in the various facilities in the higher institutions. The rating scale was designed on a 4-

points modified Likert scale with strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The rating scale was designed in two parts. Part 1 is, on bio data while part II focused on the influence of researches in transforming higher institutions.

Validation of the Instrument

The experts in research, measurement and evaluation and content specialists vetted the face and content validities of the instrument. Suggestions and comments made were incorporated in the final draft of the instrument, hence, the instrument is considered valid.

Reliability of the Instrument

The Split-half statistical technique was used in testing the reliability of the instrument. 600 lecturers who are not part of the target population were randomly selected for test of reliability of the rating scale. The lecturers were divide into two halves and their scores on the rated attributes were correlated using Pearson Product Moment Correction (PPMC) and to obtained a correlation coefficient of .82 indicating that the instrument is reliable.

Administration of the Instrument

The instrument was administered to the respondents (lecturers) after short briefing, and the respondents seriously responded to items on the rating scale. The period for data collection lasted for one week. After which the instruments were retrieved back from the respondents. Therefore, the responses of lecturers generated data for the study.

Method of Data Analysis

Data were analyzed using mean (\bar{x}) and standard deviation (SD) to answer the research questions while chi-square (χ^2) was used to test the hypotheses at 5% probability level.

RESULTS

The results of the study were presented based on the research questions answered and hypotheses tested at 5% probability level.

Research Question One

To what extent do researches influence the transformation of higher institutions based on adequate funding?

Table 1: Showing the influence of statistical mean (\bar{x}) and standard deviation (SD) of researches in transforming higher institutions based on adequate funding

Faculties	Lecturers' Responses on the Rating Scale			
	Agreed		Disagreed	
	Mean (\bar{x})	SD	Mean (\bar{x})	SD
Education	4.20	1.51	2.15	0.83
Social Sciences	3.84	1.81	2.00	0.77
Sciences	3.25	1.47	1.70	0.66
Humanities	3.90	1.03	1.86	0.72
Engineering	4.40	1.79	2.12	0.82
Total	19.59	8.61	9.83	3.80

Criterion mean = 2.50 and grand mean = 2.94

Table 1 shows the mean (\bar{x}) scores for the following faculties: education agreed mean score 4.20 with standard deviation (SD) 1.51 while the disagreed mean score was 2.15 and the corresponding standard deviation was 0.83.

In the social sciences, the agreed mean score was 3.84 with standard deviation 1.81 while the disagreed mean score was 2.00 and standard deviation 0.77. The agreed mean score for the sciences was 3.25 and standard deviation 1.47, the disagreed mean score was 1.70 and standard deviation of 0.66. In Humanities and engineering, the agreed mean scores were 3.90 and 4.40 respectively while their standard deviations were 1.03, 1.79 and the disagreed mean scores were 1.86, 2.12 with their corresponding standard deviations of 0.72 and 0.82 respectively.

Research Question Two

To what extent do researches influence the transformation of higher institutions based on the quality of school products?

Table 2: Showing the influence of statistical mean (\bar{x}) and standard deviation (SD) of researches in transforming higher institutions based on quality of school products

Faculties	Lecturers' Responses on the Rating Scale			
	Agreed		Disagreed	
	Mean (\bar{x})	SD	Mean (\bar{x})	SD
Education	3.46	1.34	1.38	0.53
Social sciences	4.24	1.44	2.13	0.82
Sciences	3.60	1.64	1.74	0.67
Humanities	3.88	1.18	2.09	0.81
Engineering	3.40	1.73	1.86	0.72
TOTAL	18.58	9.33	9.20	3.55

Criterion mean = 2.50 and grand mean = 6.67

In table 2, it was observed that the mean scores for the agreed respondents in the 5 faculties were 3.46, 4.24, 3.60, 3.88, 3.40 and the associated standard deviations were 1.34, 1.44, 1.64, 1.18 and 1.73 respectively. The disagreed mean scores were 1.38, 2.13, 1.74, 2.09 and 1.86 while the corresponding standard deviations were 0.53, 0.82, 0.67, 0.81 and 0.72.

Research Question Three

To what extent do researches influence the transformation of higher institutions based on the new discovery/advancement of knowledge?

Table 3: Showing the influence of statistical mean (\bar{x}) and standard deviation (SD) of researches in transforming higher institutions based on the new discovery/advancement of knowledge

Faculties	Lecturers' Responses on the Rating Scale			
	Agreed		Disagreed	
	Mean (\bar{x})	SD	Mean (\bar{x})	SD
Education	4.01	2.16	1.94	0.75
Social sciences	2.90	1.43	1.82	0.70
Sciences	4.28	2.28	2.18	0.84
Humanities	3.40	1.64	2.20	0.85
Engineering	4.25	2.24	1.64	0.63
TOTAL	18.84	10.75	9.78	3.77

Criterion mean = 2.50 and grand mean = 8.05.

Table 3 results revealed that in the 5 faculties the agreed mean scores were: 4.01, 2.90, 4.28, 3.40, 4.25, with standard deviations of 2.16, 1.43, 2.28, 1.64 and 2.24. On the disagreed items, the mean scores were 1.94, 1.82, 2.18, 2.20, 1.64 with the corresponding standard deviations of 0.75, 0.70, 0.84, 0.85 and 0.63.

Research Question Four

To what extent do researches influence the transformation of higher institutions based on providing solutions to educational problems?

Table 4: Showing the influence of statistical mean (\bar{x}) and standard deviation (SD) of researches in transforming higher institutions based on providing solutions to educational problems

Faculties	Lecturers' Responses on the Rating Scale			
	Agreed		Disagreed	
	Mean (\bar{x})	SD	Mean (\bar{x})	SD
Education	4.10	1.52	2.10	0.81
Social sciences	3.88	1.11	2.00	0.77
Sciences	4.30	1.79	1.64	0.63
Humanities	3.20	1.66	1.25	0.48
Engineering	3.70	1.22	1.78	0.69
TOTAL	19.18	7.30	8.77	3.38

Criterion mean=2.50 and grand mean=7.61

The results in table 4 shows the responses on the agreed mean scores as: 4.10, 3.88, 4.30, 3.20, 3.70 and the associated standard deviations were 1.11, 2.79, 1.66 and 1.22 while the disagreed mean scores were 1.10, 2.00, 1.64, 1.25, 1.78 and their corresponding standard deviations 0.81, 0.77, 0.63, 0.48 and 0.69 in the 5 facilities.

Research Question Five

To what extent do researches influence the transformation of higher institutions based on regular academic staff promotions?

Table 5: Showing the influence of statistical mean (\bar{x}) and standard deviation (SD) of researches in transforming higher institutions based on regular academic staff promotions

Faculties	Lecturers' Responses on the Rating Scale			
	Agreed		Disagreed	
	Mean (\bar{x})	SD	Mean (\bar{x})	SD
Education	3.75	1.35	2.19	0.88
Social sciences	4.12	1.81	1.48	0.57
Sciences	3.80	1.42	2.15	0.88
Humanities	3.20	1.64	1.54	0.59
Engineering	4.20	2.16	2.10	0.81
TOTAL	19.07	8.38	9.46	3.73

Criterion mean = 2.50 and grand mean=8.30

The results on table 5 showed that the agreed mean scores were 3.75, 4.12, 3.80, 3.20, 4.20 with the associated standard deviations of 1.35, 1.81, 1.42, 1.64 and 2.16 while the disagreed mean scores were 2.19, 1.48, 2.15, 1.54, 2.10 with the corresponding standard deviation of 0.88, 0.57, 0.88, 0.59 and 0.81 in the 5 faculties.

Hypothesis One

The influence of researches in transforming higher institutions are not significantly dependent on adequate funding.

Table 6: Showing the chi-square (χ^2) statistical analysis on the influence of researches in transforming higher institutions

Faculties	Number of Responses On The Rating Scale				
	SA	A	DA	SD	Total
Education	220(221.10)	180(180)	80(81)	60(57.90)	540
Social Sciences	190(196.60)	170(160)	70(72)	50(51.40)	480
Sciences	140(147.43)	120(120)	55(54)	45(38.57)	360
Humanities	200(173)	140(140)	50(63)	30(45)	420
Engineering	110(122.86)	90(100)	60(45)	40(32.14)	300
Total	860	700	315	225	2.100

$$\chi_{12,0.05}^2 = \chi_{critical}^2 = 21.03$$

$$df = (R-1)(c-1)$$

$$df = (5-1)(4-1) = (4)(3) = 12.$$

From table 6, it was observed that χ^2 calculated value was 21.971 while χ^2 critical value for 12 degree of freedom (df) was 21.03 at 5% probability level.

Then, the χ^2 calculated value of 21.971 was greater than the χ^2 critical value of 21.03. Thus, the null hypothesis was rejected and the alternate hypothesis was accepted, indicating that adequate funding of research studies could transform higher institutions.

Hypothesis Two

The influence of researches in transforming higher institutions is not significantly dependent on the quality of school products.

Table 7: Showing the chi-square χ^2 statistical analysis on the influence of researches in transforming higher institutions based on quality of school products

Faculties	Number of Responses On The Rating Scale				Total
	SA	A	DA	SD	
Education	140 (134.38)	100(121.75)	40(43.72)	60(40.15)	340
Social Sciences	130 (142.27)	120(128.92)	60(46.29)	50(42.52)	360
Sciences	180(177.86)	160(161.14)	70(57.86)	40(53.14)	450
Humanities	200 (205.52)	172(186.21)	80(66.86)	68(61.41)	520
Engineering	180(169.95)	200(153.98)	20(55.29)	30(50.78)	430
Total	830	752	270	248	2,100

$$\chi_{12,0.05}^2 = \chi^2 \text{ critical} = 21.03$$

In table 7, the χ^2 calculated value of 77.035 was greater than the χ^2 critical value of 21.03 for 12 df at 5% probability level. Hence, the null hypothesis was rejected and the alternate hypothesis was accepted. This implies that good quality of school products could definitely transformed higher institutions for effective service delivery.

Hypothesis Three

The influence of researches in transforming higher institutions are not significantly dependent on the new discoveries/ advancement of knowledge.

Table 8: Showing the chi-square (χ^2) statistical analysis on the influence of researches in transforming higher institutions.

Faculties	Number of Responses On The Rating Scale				Total
	SA	A	DA	SD	
Education	180(203.74)	190(155.62)	40(44.64)	20(26.00)	430
Social Sciences	220(210.85)	180(161.05)	30(46.20)	15(26.90)	445
Sciences	200(189.53)	144.(76)	38(41.52)	22(24.19)	400
Humanities	215(220.32)	150(168.29)	60(48.27)	40(28.12)	465
Engineering	180(170.57)	100(130.29)	50(37.37)	30(21.77)	360
Total	995	760	218	127	2,100

$$\chi_{12,0.05}^2 = \chi^2 \text{ critical} = 21.03$$

The results in table 8 shows that the χ^2 calculated value of 51.958 was greater than the χ^2 critical value of 21.03 with 12 df at 5% probability level. Thus, the null hypothesis was rejected

and the alternate hypothesis accepted. The foregoing shows that new discoveries / advancement of knowledge could bring the needed transformation in the higher institutions.

Hypothesis four

The influence of researches in transforming higher institutions are not significantly dependent in providing solutions to educational problems.

Table 9: Showing the chi-square χ^2 statistical analysis on the influence of research in transforming higher institutions based on providing solutions to educational problems

Faculties	Number of Responses On The Rating Scale				Total
	SA	A	DA	SD	
Education	200(186.19)	160(179.62)	60(54.76)	40(39.43)	460
Social Sciences	230(202.38)	200(195.24)	40(59.52)	30(42.86)	500
Sciences	100(129.52)	14(124.95)	50(38.10)	30(27.43)	320
Humanities	200(178.10)	170(171.81)	40(52.38)	20(37.71)	440
Engineering	120(153.81)	150(148.36)	60(45.24)	50(32.57)	380
Total	850	820	250	180	2,100

$$\chi_{12,0.05}^2 = \chi^2_{\text{critical}} = 21.03$$

Table 9 results revealed that the χ^2 calculated value of 61.766 was greater than the χ^2_{critical} value of 21.03 with 12 df at 5% probability. Hence the null hypothesis was rejected and the alternate hypothesis was accepted. It is an indication that researches could transform higher institutions by providing solutions to educational problems.

Hypothesis Five

The influence of researches in transforming higher institutions are not significantly dependent on the staff promotions.

Table 10: Showing the Chi-square χ^2 statistical analysis on the influence of researches in transforming higher institutions based on regular staff productions

Faculties	Lecture Number of Responses On The Items Rating Scale				Total
	SA	A	DA	SD	
Education	190(167)	150(166)	50(49)	30 (38)	420
Social Sciences	200(182.90)	160(181.81)	60(53.67)	40 (41.62)	460
Sciences	120(143.14)	140(142.29)	70(42)	30(32.57)	360
Humanities	190(186.88)	200(185.76)	30(54.83)	50(42.52)	470
Engineering	135(155)	180(154.14)	35(45.50)	40(35.29)	390
Total	835	830	245	190	2,100

$$\chi_{12,0.05}^2 = \chi^2_{\text{critical}} = 21.03$$

A critical look at table 10 showed that the χ^2 calculated value of 57.763 was greater than the χ^2_{critical} value of 21.03 for 12 df at 5% probability level. Hence, the null hypothesis was rejected and the alternate hypothesis was accepted. Therefore, researches can significantly transformed higher institutions based on regular academic staff promotions.

DISCUSSION OF RESULTS

In table 1, the results show that the means scores of the agreed respondents were 4.20, 3.84, 3.25, 3.90, 4.30 and 7.22 in the 5 faculties and were greater than the mean scores of the disagreed respondents of 2.15, 2.00, 1.70, 1.86 and 2.12 respectively. Therefore, comparing these mean scores with the criterion mean score of 2.50, it was observed that the 5 agreed mean scores in the 5 faculties were greater than the criterion mean score of 2.50. This indicates that researches influence the transformation of higher institutions for effective service delivery.

Again in table 2, it was observed that the agreed mean scores in the 5 faculties were 3.46, 4.24, 3.60, 3.88 and 3.40 while the disagreed mean scores were 1.38, 2.13, 1.74, 2.09 and 1.86 respectively. Consequently, the agreed mean scores in all the faculties were greater than the criterion mean score of 2.50, indicating that researches influence the transformation of higher institutions for effective service delivery.

The results in table 3 revealed that the agreed mean score responses were 4.01, 2.90, 4.28, 3.40 and 4.25 in the 5 faculties and were all greater than the criterion mean score of 2.50. While the disagreed means scores of 1.94, 1.82, 2.18, 2.20 and 1.64 were less than the criterions mean score of 2.50. Hence the implication of the foregoing was that the influence of research in transforming higher institutions was significant. Thus, researches are veritable instrument that can transform higher institutions for effective service delivery.

Looking at the results on table 4, it was observed that the agreed mean scores were 4.01, 3.88, 4.30, 3.20 and 3.70 in the 5 faculties and they are all greater than the criterion mean score of 2.50. Similarly on the same table 4, the disagreed mean scores of 2.10, 2.00, 1.64, 1.25 and 1.78 were all less than the criterion mean score of 2.50. Therefore, the implication of the foregoing was that researches are antidote that can accelerate the needed transformation of higher institutions for quality and effective service delivery.

On research question 5 (table 5), the followings were observed: the agreed mean scores responses were 3.75, 4.12, 3.80, 3.20 and 4.20 while the disagreed mean scores responses were 2.19, 1.48, 2.15, 1.54 and 2.10 respectively. Comparing these mean scores with the criterion mean score of 2.50, it shows that the agreed mean scores were greater than the criterion mean score of 2.50. Indicating that for higher institutions to have quality and effective services delivery research is the yard stick. This is because extensive researches discover new facts that could lead to the transformation of higher institutions. Therefore, the results of the finding in tables 1,2,3,4 and 5 were in agreement with the works of Osuala (2005), Kahn (2007) and Adeyanju (2009) who in their independent studies found that staff promotions are essential elements for quality and effective researches. Summary, in their analyses, they maintained that proper, adequate and regular funding of researches among others will improve teaching and learning and consequently increase good quality products that can metamorphose for effective service delivery in the educational system. In view of the above, the researchers added that quality and effective researches are complementary to the transformation of higher institutions in achieving results orientated goals.

In hypothesis one (table 6), the $\chi^2_{12,0.05} = \chi^2_{\text{critical}} 21.03$, showing that the influence of researches in transforming higher institutions were significant. The implication of the foregoing was that researches have the ability to transform higher institutions for effective service delivery. Consequently, the result of this study is in agreement with that of Ayo and Adebiyi (2008) and Mary and Moses (2013) respectively. In their submissions, Ayo and Adebiyi (2008) reintegrated that poor funding did not only affect teaching, learning and research but the entire educational

sector while that of Mary and Moses (2013) anchored that lack of adequate funding of tertiary institutions has drastically affected effective researches in tertiary institutions among others. Therefore, the results of the present study are in support of their findings.

Hypothesis two in table 7, the χ^2 calculated value of 77.035 was greater than χ^2 critical value of 21.03, hence the null hypothesis was rejected and the alternate hypothesis was accepted. It is an indication that researches contributed immensely to the quality of school products and effective service delivery in transforming high institutions.

Consequently, the results of the study is in conformity with findings of Osuala (2005) who submitted that good quality research increases knowledge explorer and promote good academic performances. In line with the above Ojo (2006) in his study found that good quality researches improve high efficiency of lecturers in their service delivery. Therefore, the researchers attest that these could transfer higher institutions in Nigeria.

The results of hypothesis three in table 8 showed that the χ^2 calculated value of 51.958 was greater than the χ^2 critical value of 21.03 for 12 df at 5% probability level. Therefore, the null hypothesis was rejected and the alternate hypothesis was accepted. This implies that the influence of researches in transforming higher institutions for effective service delivery was significant. The finding of this study is in line with the finding of Okegbukola (2008) who submitted that regular researches update lectures knowledge and improve their academic excellence. Again, the present study supported the findings of Ayeni, Isah, Erwart and Ileuma (2009) who found, that research enhances new discover and advancement of knowledge.

Consequently, well-tailored researches could transform higher institutions because insights from these studies could begin new discoveries and advancement of knowledge to achieve effective service delivery.

From table 9, hypothesis four, the results obtained show that χ^2 - calculated value of 61.766 was greater than the χ^2 critical value of 21.03 for 12 df and 5% probability level. Based on this result, the null hypothesis was rejected and the alternate hypothesis was accepted. The foregoing showed that researches do not only provide solutions to educational problems but also veritable tools that could be used in transforming higher institutions for effective and quality services delivery. Hence, result of the study agreed with that of Schapper and Mayson (2007) who in their study advocated the use of professional model (research) as an approach for providing solutions to the society and educational problems. Continuing, the authors anchored that research as frontiers of knowledge are capable of making the needed changes in tertiary institutions. Thus, the result of the present study supported the findings of Schapper and Mayson (2007). Therefore, researches can help in transforming higher institutions for effective and quality service delivery given the necessary conditions, the researchers submitted.

Finally, hypothesis 5 (Table 10) shows that χ^2 calculated value of 57.763 was greater than χ^2 critical value of 21.03, hence the null hypothesis was rejected and the alternate hypothesis was accepted. Thus, researches could contribute positively towards the transformation of higher institutions for effective service delivery. Again, the findings of this study agreed with that of Mayson and Schapper (2007) who in their study submitted that lecturers' growth in tertiary institutions are based on good quality researches. Stressing further, the authors added that regular promotions in tertiary institutions stimulate hard work and increase quality of products. To this end, promotions could be seen as baits for encouraging lecturers for higher academic excellence that are capable in transforming higher institution for effective service delivery.

Implications for evaluation

Evaluation is the systematic process of passing value judgment on the worth, effectiveness, utility, appropriateness or adequacy of a thing, event, object or programme (Asuru, 2015). This means that evaluation quantitatively describes the worth of a thing based on measurement data. It seeks to determine the congruence between results and objectives based on certain criteria. The evaluation model here is attainment model which will provide guidance for evaluators on the implementation of research objectives for effective transformation of higher institutions in Nigeria. To achieve these, the needs arise for the establishment and classification of research objectives, the involvement of evaluators to determine the relevant research objectives and collation of data for useful decision alternatives. The outcomes therefore could be compared with the stated objectives to see the extent the objectives had been achieved.

Therefore, the evaluation implication is to add the necessary tools to effective researches in order to achieve the set goals. These require the involvement of evaluators for periodical assessment and monitoring of the implementation of research objectives in line with the stated goals so as to achieve effective transformation of higher institutions for effective service delivery. Consequently, the evaluation findings may lead to the identification of lapses which could be re-modified or a decision to abort the further development of research objectives so that resources are not wasted on the implementation of research objectives that ultimately has little chance of being effective.

CONCLUSION

Based on the findings of this study, the following conclusions were drawn:

- That the transformation of higher institutions using researches are significant based on adequate funding
- That the influence of researches in transforming higher institutions are significant based on the quality of school products.
- That the influence of researches in transforming higher institution are dependent on new discoveries/ advancement of knowledge.
- That the influence of researches in transforming higher institutions are significant based on providing solutions to the educational problems.
- That the influence of researches in transforming higher institutions are significant based on regular academic staff promotions.

RECOMMENDATIONS

Based on the result of the findings, the following recommendations are made:

- To provide adequate research funding in higher institutions by government, non-governmental organizations and the general public to enable higher institutions to achieve effective service delivery.
- Lecturers should be encouraged to embark on extensive researches into renewable energy sources and knowledge explorer for effective service delivery.

- Regular promotions should be encouraged in higher institutions to enhance effective service delivery.
- The Federal ministry of education as a matter of urgency to enforce the immediate take off of responsive research curriculum and implementation at all level of higher institutions.

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