

INFORMATION AND COMMUNICATION TECHNOLOGY AND UNIVERSITY EDUCATIONAL GOALS ACHIEVEMENT IN NIGERIA: AN EDUCATIONAL MANAGEMENT APPRAISAL

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Abstract

This descriptive survey determines how Information and Communication technology (ICT) has so far, if at all, enhanced management performance and traditional university functions. The significance is to draw stakeholders' attention to areas for improvement. Two Research Questions and two Hypotheses were posed, Literature Review and Document Analysis were used. Questionnaire that was Validated and tested to be very reliable was the instrument administered. The 21 federal conventional universities was the population while six from the geopolitical zones constituted the sample. The elicited data were analyzed using percentages and frequencies for the research questions, while chi-square and t-test at 5% significance were used to test the hypotheses. The findings showed that ICT has enhanced management and traditional university functions. The study concludes that ICT is very vital for the effective and efficient management of university educational goals achievement in Nigerian. Therefore it recommends adequate provision of ICT facilities by stakeholders and continuous training of staff for efficiency.

All over the world education is generally regarded as the best means for development and advancement. In Nigeria, it is accepted as an instrument "par excellence" for effecting national development. Particularly the Federal Government has specified three levels of education namely the primary, the secondary

and the tertiary with their goals and objectives clearly stated in the National Policy on Education. Of these three levels, the tertiary is the highest because it is from that level, that the teachers and workers of the other two obtain their highest certificates, diplomas and degrees. One main instruments by which the goals and objectives of education are achieved is through information and communication. In fact, the dynamic nature of information and communication as well as the global need for association and technology demand special approach in the education system. In all these, the effective and efficient achievement of educational goals would require the prudent management of the university educational system which is the highest in the tertiary level of education. The focus of this paper therefore is to appraise the educational management functions of the use of information and communication technology in the Nigerian universities.

Purpose of the Study

- (1) To determine how information and communication technology (ICT) has so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria.
- (2) To find out how information and communication technology has so far enhanced the performance of the traditional university education functions for university educational goals achievement in Nigeria.

Research Questions

1. How has information and communication technology so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria?
2. How has information and communication technology so far enhanced the performance of the traditional university education functions for university educational goals achievement in Nigeria?

Hypotheses

1. There is no significant difference in the opinion between member of Nigerian university staff who agreed that information and communication technology has so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria and those who did not.
2. There is no significant difference between the mean scores of Nigerian University teaching members of staff as regards how information and communication technology has so far enhanced the performance of the traditional university education functions for university educational goals achievement in Nigeria and those of the non teaching members of staff.

Review of Related Literature

Management is one of the most difficult activities of mankind because it has to do with the effective and efficient performance of functions and utilization of human and material resources available for the achievement of predetermined goals and objectives [Appleby (1980), Koontz and Weihrich (1989), Nwachukwu (2009), Gabarro (1992)]. Such

management functions include planning, organizing, staffing, directing, communicating, financing, budgeting, monitoring and evaluating etc. These functions are very demanding and embracing when it has to do with education particularly university education [Ebong and Agabi (2004), Obi (2003) and Ige (2002)].

The Federal Republic of Nigerian (2004) and Rivers State Government (1970, 1982) specifically stated that University Education has its own goals and traditional functions. According to Fafunwa (1971), Aliu (2001) and Ajienska (2012) these traditional university functions include teaching and learning, research and Development, knowledge and information dissemination, community and consultancy services, and staff Development and welfare. Although ICT has many definitions, explanations and applications [the common wealth of nations (1991), Goyal (1991), Obanya (2002), Okoli (2007), Okebukola (2011), Tombori (2012) and Ewa (2012)], the challenges of ICT should be adequately handled, managed, evaluated or appraised so that the general educational and university goals would be effectively achieved. The above is also the view of ICT experts like Okwo (1996), Olurundare (2006), Nwankaudo, Ogugwofor and Nwankwo (2006) and Ojokheta (2011). In fact, other organizations and institutions including open university (1982), university of Ibadan (1985), common wealth of nations (1991) and the offices of Educational Technology (2000) are of the view and support that ICT is very vital in the various fields of education and require continuous updating with the dynamic nature of global events.

Methodology

The research design chosen for this study is the descriptive survey research design. The reason being that all the required information were already available in the system and did not need any further experiment for extraction. The 21 federally funded conventional universities

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constituted the target population while 6 constituted the chosen sample. These 6 were randomly selected from the geopolitical zones namely North – East, North – West, North – central, South – East, South – West and South – South. Even number of 50 teaching and non-teaching members of staff were randomly selected from each of the sampled population. Constructed questionnaire that was validated by experts in research instruments and later tested for reliability was the instrument of this study. Related Literature Review, documents analysis and interviewed schedules were also used. Within two weeks, 600 copies were administered and 588 or 98% were returned. Percentages and frequencies were used to answer the research questions while chi-squared and students t-test statistics were adopted to test the hypotheses at 5% alpha level of confidence.

Presentation and Analysis of Data

Research Question 1: How has information and communication technology so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria?

Table 1: How ICT has enhanced Educational Management Functions for goals achievement in Nigerian Universities

Staff	Enhanced		Not enhanced		Total	
	F	%	F	%	F	%
Teaching	154	53	136	47	290	49
Non Teaching	167	56	131	44	298	51
Total	321	55	267	45	588	100

Table 1 supplies information on how ICT has so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria. It specifically shows that only 154 or 53% of the teaching staff and 167 or 56% of the

non teaching staff accept that ICT has so far enhanced the performance of education management functions for university educational goals achievement in Nigerian while 136 or 47% and 131 or 44% of the teaching and the non teaching staff respectively did not accept. On the whole, 55% or 321 of the total staff sampled are of the view that ICT has enhanced the performance of educational management for university goals achievement in Nigerian while 45% are not.

Research Question 2: How has information and communication technology so far enhanced the performance of the traditional university education functions for university educational goals achievement in Nigeria?

Table 2: How ICT has Enhanced Traditional University Education Functions For Goals Achievement

Traditional University Functions	Teaching %	Non Teaching %
1. Teaching and learning	76	57
2. Research and Development	81	75
3. Knowledge and Information Dissemination	60	49
4. Community and Consultancy Services	43	38
5. Staff Development and welfare	39	26

Table 2 shows how ICT has enhanced the traditional university functions for goals achievement. Specifically it shows that it is only the teaching, research and Development that scored above 50%, for both the teaching and the non teaching staff. While knowledge and Information Dissemination scored 60% for teaching, it scored 49% for the non teaching. The table also showed that items 4, community and consultancy services as well as item 5, Staff Development and Welfare scored below 50% in

both cases, meaning that ICT has not enhanced these traditional university educational functions for goals achievement in Nigerian.

Hypotheses 1: There is no significant difference in the opinion between member of Nigerian university staff who agreed that information and communication technology has so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria and those who did not.

Table 3: Chi-Square Data Analysis for Hypothesis 1

	Enhanced	Not enhanced	Total
Teaching staff	154 (158)	136 (132)	290
Non teaching staff	167 (163)	131 (135)	298
Total	321	267	588

$\alpha = 0.050$; $df = 1$; $\chi^2=0.44$ but 3.84 Critical; Hv: Accept

Table 3 shows the Chi-square data upon which the decision for hypothesis 1 is based. Specifically it shows that an alpha level of 0.050 with 1 degree of freedom, the chi-squared calculated value of 0.44 is less than the critical value of 3.84 hence the hypothesis is accepted. Therefore it is concluded that there is no significant difference in the opinion between member of Nigerian university staff who agreed that information and communication technology has so far enhanced the performance of educational management functions for university educational goals achievement in Nigeria and those who did not.

Hypothesis 2: There is no significant difference between the mean scores of Nigerian University teaching members of staff as regards how information and communication technology has so far enhanced the performance of the traditional university education functions for

university educational goals achievement in Nigeria and those of the non teaching members of staff.

Table 4: t-test Data Analysis for Hypothesis 2

Scores of Traditional Functions	Teaching Staff	Non Teaching Staff
Teaching & learning	76	57
Research & Development	81	75
Knowledge & information dissemination	60	49
Community service & consultancy	43	38
Staff Development & welfare	39	26
Total scores	299	245
Mean	60	49
Sum of squares Deviation & mean scores	1427	1390
Degree of freedom		8
Alpha level of significance		0.050
t computed		0.463
t critical		
Hypothesis Decision	2	1.860
		Accept

Table 4 shows that with 8 degree of freedom at 0.050 alpha level of significance the t value of 0.463 computed is less than the critical value of 1.860. Hence the hypothesis is accepted. Therefore it is concluded that there is no significant difference between the mean scores of Nigerian University teaching members of staff as regards how information and communication technology has so far enhanced the performance of the traditional university education functions for university educational goals achievement in Nigeria and those of the non teaching members of staff.

Discussion of Findings

Unarguably there is a general belief that ICT has enhanced the performance of Educational management functions for goals achievement in Nigerian universities. This has been supported not only by this study but also by the various literature reviewed and cited therein. However, the low frequency in the affirmative coupled with the very low percentages is a cause for concern. On the other hand, the study revealed that it is only in the areas of teaching with Research and Development that both the teaching and the non teaching members of staff sampled are in agreement that ICT has enhanced. This supports the various lamentations of the different categories of staff [Anikpo (2011), Gbadamosi (2006) and Ige (2002)] and other professionals and stakeholders [Ajayi (1981), Eke (1998) in the university system of Education and the general education industry. The other traditional university functional areas that the study scores below average include staff Development and welfare, community services and consultancy as well as knowledge and information dissemination. Finally, the fact that the study revealed the acceptance of the two postulated hypotheses is indicative of the concerns and cooperative resolve of the human resources in the university system in Nigeria. The implication of this is that both the students and the staff are of view that ICT in the main instrument that will enhance individual and collective performance for university goals achievement in Nigerian. Throughout the study, the related literature reviewed support and point to the fact that improvement is very necessary in the area of ICT, not only in terms of the provision of infrastructure and facilities but also in human capital development on the part of the staff as well as on the part of the students.

Conclusion

The effective and efficient performance of educational management functions is very vital for the achievement of university educational goals of any nation. Being up-to-date in ICT utilization as well as adequate provision and maintenance of ICT facilities will enhance the achievement of university educational goals as spelt out in the National Policy on Education.

Recommendations

1. All the members of staff, especially the senior ones should be trained and retrained continuously in ICT so as to enhance their performance for university educational achievement.
2. All lecturers should be made to undergo ICT seminars, workshop and conferences on latest developments so as to update their application in their teaching and curriculum delivery to students.
3. No new members of staff should be employed without a thorough knowledge of information and telecommunication technology so as to ensure uninterrupted provision of services due to lack of knowledge, skills and specialization.
4. The various stakeholders should be sensitized to provide universities with the required infrastructural and instructional ICT facilities to enhance effective and efficient goals achievement through service delivery.
5. All the human capital resources of universities particularly the students should be trained to be security and maintenance conscious especially during the use of facilities and equipments including the computers.
6. The rate of electricity provisions and supply needs to be improved upon by both the government and management of universities so as to prolong the life span of equipment and ICT facilities.

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