

ENHANCING THE IMPACT OF INTERNET CONNECTION FACILITIES ADOPTION IN THE ADMINISTRATIVE EFFECTIVENESS OF STATE-OWNED TERTIARY INSTITUTION IN RIVERS STATE

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ABSTRACT

The study examined the relationship between internet connectivity facilities adoption and administrative effectiveness of state-owned tertiary institutions in Rivers State. The explanatory cross sectional survey research design was adopted for this study. The population of the study consists of three hundred and five (305) administrative staff (Heads of Departments and Administrative Officers) in the five (5) state owned tertiary institutions in Rivers State, Nigeria. The sample size of the study was one hundred and seventy-five (175) respondents. The sample size was obtained using the Krejcie and Morgan Sample Size Determination Table of 1970. Considering the disparity in their population distribution, Bowley's (1960) Population Proportionate Allocation Formula was adopted in determining the sample size for each of the tertiary institutions. The collection of primary data was done using a questionnaire designed by the researcher. Structured questionnaire was used as instrument for data collection after face-validation. Cronbach alpha was used to test the internal consistency of the instrument. Out of hundred and seventy-five (175) copies of the questionnaire administered, a total one hundred and forty-five (145) were retrieved. Arithmetic mean and standard deviation was used for univariate analysis while bivariate analysis was done using Spearman Rank Order Correction, while Partial Correlation was applied for the multivariate analysis. The findings revealed that there is a significant positive relationship between internet connection facilities adoption and measures of administrative effectiveness such as smooth workflow, information dissemination and target accomplishment. The study concluded that consequent usage of digital office infrastructure such as internet connectivity facilities brings about a corresponding improvement in administrative effectiveness of state-owned tertiary institutions in Rivers State in terms of smooth workflow, information dissemination and target accomplishment. State-owned tertiary institution who fails to adopt digital office infrastructure, might face risk of attaining poor administrative efficiency and effectiveness. The research therefore, recommended that management of state-owned tertiary institution could ensure they provide wifi to administrative staff to give way for effective task execution that will greatly drive the institution to better heights.

Keywords: *Internet Connectivity Facilities, Smooth Work flow, Information Dissemination, Target Accomplishment*

INTRODUCTION

One of the issues that necessitated this study is the apparent administrative sluggishness and poor coordination in some of the administrative systems in state owned tertiary institutions in Rivers State, Nigeria. In addition to slow administrative process and poorly coordinated work process, there appears to be an increase in incidents of missing documents, file losses, and late circulation of information in the administrative system. The administrative system seems to be very slow in sharing and attending to letters, memos, circulars, and other forms of information.

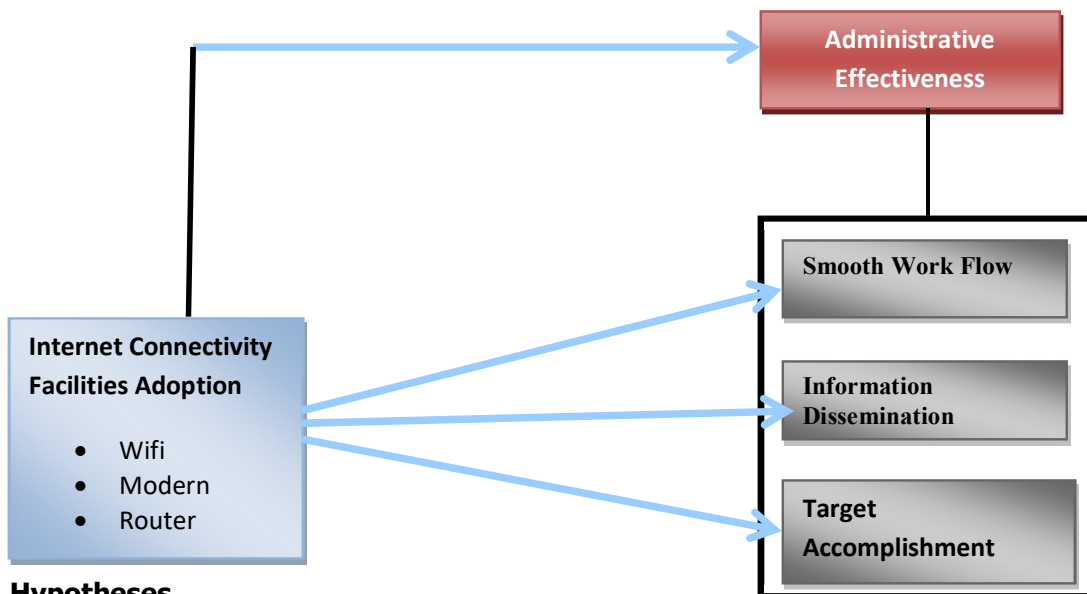
As pointed out by Clement (2018), one of the greatest problems of the success of Nigerian tertiary institutions is poor organizational communication which leads to ineffective administration. Across all the administrative levels, the creation and dissemination of information, decisions, and policies seem to be very poor. The feedback mechanism is often neglected and this brings about job confusions and slow decision making (Bharadwaj, 2000). The researcher has also observed a seemingly low level of interaction and collaboration across our tertiary institutions. This is concern

and capable of jeopardizing administrative efficiency and effectiveness.

The researcher has also observed that the adoption of digital office infrastructure still appears to be skeletal or new across tertiary institutions in the State. Only few administrative staff in most tertiary institutions are able to frequently use internet connection facilities, google drive and office social media in managing information contents. In absence of this system is capable of fraught with challenges such as file misplacement, and slow flow of information in the administrative system.

Another issue that necessitated this study is the fact that the relationship between digital office infrastructure adoption and administrative effectiveness seem not to have received adequate empirical research attention particularly in Rivers State. Although previous studies have examined how digital office infrastructure adoption interacts with administrative effectiveness (Nmehielle 2020; Confidence 2020; Timipre 2020 etc), there appears to be a dearth of empirical studies on how digital office infrastructure adoption such as internet connection facilities adoption, google drive adoption and office social media adoption interacts with administrative effectiveness particularly in state owned tertiary institutions in Rivers State. This missing link in literature, is the gap this study sought to fill.

Operational Conceptual Framework



Hypotheses

Based on the research objectives and questions posed above, the following null hypotheses were stated thus:

- Ho₁: There is no significant relationship between internet connection facilities adoption and administrative smooth workflow in state-owned tertiary institutions in Rivers State.
- Ho₂: There is no significant relationship between internet connection facilities adoption and administrative information dissemination in state-owned tertiary institutions in Rivers State.
- Ho₃: There is no significant relationship between internet connection facilities adoption and administrative target accomplishment in state-owned tertiary institutions in Rivers State.

Internet Connection Facilities Adoption and Administrative Effectiveness

- Ho₁: There is no significant relationship between internet connection facilities adoption and administrative smooth workflow in state-owned tertiary institutions in Rivers State.
- Ho₂: There is no significant relationship between internet connection facilities adoption and administrative information dissemination in state-owned tertiary institutions in Rivers State.
- Ho₃: There is no significant relationship between internet connection facilities adoption and administrative target accomplishment in state-owned tertiary institutions in Rivers State.

Diffusion of Innovation Theory

This was postulated by Roger in 1962, with the following assumptions:

- i) In a social system, there will always be a disparity in the level and time at which individuals within a given social system adopt new ideas, techniques, and technology.
- ii) Individuals and arms of institutions that adopt innovations early will naturally outperform late adopters and the laggards (Odu, 2017).

The implication of this theory is that for administrative process to be effective and efficient when there is ample adoption of digital office infrastructure such as internet connection facilities, google drive and office social media in the tertiary institution system, thus, administrative effectiveness would be enhanced through smooth workflow, information dissemination and target accomplishment among parties involved in the administrative process.

In the higher learning institutions, among others, heads of department and other forms of administrators are advised to adopt digital office infrastructures in their respective designations. The fact is that parties (message sender and receiver) who fail to communicate effectively and efficiently through the adoption of digitalized equipment are bound to face difficulties carrying out their tasks and responsibilities, permeating slow operations, high level inefficiency, and negative stress, while those who embrace and adapt emerging digitalized equipment enjoy speed, efficiency and high level effectiveness in administration (smooth workflow, information dissemination & target accomplishment), while enhancing their job performance. However, these theoretical assumptions have not been adequately tested and verified among tertiary institutions in Rivers State Nigeria, even at a time where application of office digitalization is metaphorically on the increase. There is need therefore, to empirically investigate how digital office infrastructure adoption interacts with administrative effectiveness within the context of state-owned tertiary institutions in Rivers State, Nigeria.

Internet Connection Facilities Adoption and Administrative Effectiveness

The internet is fast becoming the essential infrastructure in the digitalization of the 21st century. The costly and complex infrastructure that carries the traffic that makes digital services possible is hardly immune to similar headaches and impediments. In its own highly interconnected way, the internet can be as fragile as a bridge or roadway exposed to the elements. In connecting to internet, there are some resources used as facilitators. These facilities are called internet connection facilities. They range from wifi, mifi, single user modem, router, browser etc. Internet connection facilities adoption is an influential dimension of digital office infrastructure adoption which aimed at ensuring that administrative heads of state owned tertiary institution in Rivers State are acquainted in using its resources in relation to workplace, this will make their work smarter and promotes administrative effectiveness and efficiency.

In as much as these facilities are existing, it sadly enough, most of these heads of state owned tertiary institution in Rivers State still finds it difficult in ensuring that tasks are been accomplished on time, disseminating information when due and ensures smooth workflow as a result of inadequate adoption of digital office infrastructure. In this sense, Finklestein and Wong (2017) postulates that an interaction/ link that exist between the physical and digital worlds greatly enhances the employees morale in relation to workplace, because works will be done with ease and administrative officers will equally found it easy in ensuring information are properly circulated to places where they are needed, improving administrative effectiveness in terms of smooth workflow, information dissemination and target accomplishment. However, Pena-Lopez and Itu (2005) asserted that most administrators are naturally lazy and are allergic to changes due to the fear of unknown. Whereas, even if these resources or facilities are made available in the digital workplace, most of them socially in tertiary institution will still founds it very difficult in working effectively. Although, this could be predicted on the ground that their digital competency level is still very low,

this is not healthy for institution. These results to the reduction of the organizational goodwill, delay in service delivery, unorganized work system etc.

Administrative officers will best perform their respective jobs in tertiary institutions, if they are able to adopt digital office infrastructure such as internet connection facilities through usage of router, mifi, wifi and other form of information sharing means. This for sure will quickens their respective tasks, resulting to administrative effectiveness (smooth workflow, information dissemination & target attainment) within the confide of state owned tertiary institutions in Rivers State.

Research Design

The cross sectional explanatory survey research design was adopted for this study. This research design is deemed suitable and most appropriate for this study because of two reasons: (i) the study was conducted across different state-owned tertiary institutions in Rivers State at the same time which makes it a survey study; (ii) it involves the test of hypotheses which is explanatory in nature.

Research Population

The population of the study consists of three hundred and five (305) administrative staff (Heads of Departments and Administrative Officers) in the five (5) state owned tertiary institutions in Rivers State, Nigeria. Details of the population are provided in table 3.1 below:

Table 1: Population of the Study

S/N	State-Owned Tertiary institutions	HODs	Admin. Officers	Total
1.	Rivers State University	38	60	98
2.	Ignatius Ajuru University of Education	27	43	70
3.	Captain Elechi Amadi Polytechnic, Rumuola	15	30	45
4.	Ken Saro Wiwa Polytechnic, Bori	14	26	40
5.	Rivers State College of Health Science and Technology, Rumueme, Port Harcourt	20	32	52
Total		114	191	305

Source: Rivers State Civil Service Commission, 2021.

Sample/Sampling Techniques

The sample size of the study was one hundred and seventy-five (175) respondents. The sample size was obtained using the Krejcie and Morgan Sample Size Determination Table of 1970. Considering the disparity in their population distribution, Bowley's (1960) Population Proportionate Allocation Formula was adopted in determining the sample size for each of the tertiary institutions.

Instrumentation and Measurement

Structured questionnaire was used as instrument for data collection. The structured questionnaire will be developed by the researcher. The research instrument was called "Digital Office Infrastructure Adoption and Administrative Effectiveness" (DOIAAE). The instrument was made up of two sections. Section A was designed to elicit demographic data concerning the respondents. Section B contains the main questionnaire items designed to measure the variables under investigation. The instrument was designed in a four (4) point rating scale with the following response options: Very High Extent (VHE) = 4; High Extent (HE) = 3; Moderate Extent (ME) = 2 and Low Extent (LE) = 1.

Validity of Instrument

Validity of instrument has to do with the capacity of a research instrument to measure what it ought to measure. The work adopted the face and content validity. To achieve this, the questionnaire that will be used for this study was subjected to thorough scrutiny and adjustment by the supervisor and

two other experts in Office and Information Management. Their comments will be used to validate the questionnaire items.

Reliability of Instrument

The reliability of an instrument is an indication of the firmness and consistency with which the instrument measures the concept and helps to assess the goodness of the measure. Cronbach alpha via SPSS (Statistical Package for Social Sciences) was used to ascertain the reliability of the instrument. The Nunnally (1978) criterion of 0.70 was used to ascertain the reliability of the instrument. A coefficient below 0.70 was adjudged to indicate low reliability while coefficient above 0.90 was adjudged to indicate high and acceptable reliability.

Method of Data Analysis

Mean and standard deviation was used for the univariate analysis while the bivariate analysis was done using Spearman rank order correlation in SPSS Version 22.0. The multivariate analysis was done through Partial Correlation.

Results

Bivariate Analysis

Internet Connection Facilities Adoption and Administrative Effectiveness

Ho₁: There is no significant relationship between internet connection facilities adoption and administrative smooth workflow in state-owned tertiary institutions in Rivers State.

Ho₂: There is no significant relationship between internet connection facilities adoption and administrative information dissemination in state-owned tertiary institutions in Rivers State.

Ho₃: There is no significant relationship between internet connection facilities adoption and administrative target accomplishment in state-owned tertiary institutions in Rivers State.

Table 2: Correlations between Internet Connection Facilities Adoption and Administrative Effectiveness

		Internet Connection Facilities Adoption	Smooth Workflow	Information Dissemination	Target Accomplishment
Spearman's rho	Internet Connection Facilities Adoption	Correlation Coefficient	1.000	.888**	.491**
		Sig. (2-tailed)	.000	.000	.000
		N	145	145	145
	Smooth Workflow	Correlation Coefficient	.888**	1.000	.759**
		Sig. (2-tailed)	.000	.000	.000
		N	145	145	145
	Information Dissemination	Correlation Coefficient	.491**	.759**	1.000
		Sig. (2-tailed)	.000	.000	.000
		N	145	145	145
	Target Accomplishment	Correlation Coefficient	.659**	.509**	.887**
		Sig. (2-tailed)	.000	.000	.000
		N	145	145	145

** . Correlation is Significant at the 0.01 level (2-tailed).

Source: SPSS Output

Column two of table 2 above shows r value of 0.888 at a significant value of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating to internet connection facilities adoption and administrative smooth workflow. Since the significant level is less than the alpha level of 0.05, the null hypothesis (Ho₁) which states that there is no significant relationship between internet connection facilities adoption and administrative smooth workflow in state-owned tertiary

institutions in Rivers State was rejected and the alternate (H_{a1}) was accepted. This implies that there is a very high positive relationship between internet connection facilities adoption and administrative smooth workflow in state-owned tertiary institutions in Rivers State.

Column three of table 2 above shows r value of 0.491 at a significant level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating to internet connection facilities adoption and administrative information dissemination. Since the significant level is less than the alpha level of 0.05, the null hypothesis (H_{o2}) which states that there is no significant relationship between internet connection facilities adoption and administrative information dissemination in state-owned tertiary institutions in Rivers State was rejected and the alternate hypothesis (H_{a2}) was accepted. This implies that there is a moderate positive relationship between internet connection facilities adoption and administrative information dissemination in state-owned tertiary institutions in Rivers State.

Column four of table 2 above shows r value of 0.659 at a significant value of 0.00 which is greater than the chosen alpha level of 0.05 for the hypothesis relating to internet connection facilities adoption and administrative target accomplishment. Since the significant level is less than the alpha level of 0.05, the null hypothesis (H_{o3}) which states that there is no significant relationship between internet connection facilities adoption and administrative target accomplishment in state-owned tertiary institutions in Rivers State was rejected and the alternate hypothesis (H_{a3}) was accepted. This implies that there is a high positive relationship between internet connection facilities adoption and administrative target accomplishment in state-owned tertiary institutions in Rivers State.

These results showed that there is a significant positive relationship between internet connection facilities adoption and administrative effectiveness in state-owned tertiary institutions in Rivers State in terms of smooth workflow, information dissemination and target attainment.

Discussion of Findings

The findings of this study are discussed under the following headings:

Internet Connection Facilities Adoption and Administrative Effectiveness

The test of hypotheses one, two and three revealed that there is a significant positive relationship between internet connection facilities adoption and administrative effectiveness of state-owned tertiary institutions in Rivers State in terms of smooth workflow, information dissemination and target attainment. This implies that adoption/provision of internet connection facilities such as wifi, modem and router brings about a corresponding improvement in administrative effectiveness in terms of smooth workflow, information dissemination & target attainment. This is noted on the ground that the internet is fast becoming the essential infrastructure in the digitalization of the 21st century. With online presence, institutions and other globally inclined establishments are able to communicate faster and faster. They could harness their vision and mission with digital presence to enhance its operations and attainments. Thus, embracing of digital equipment and tools such as internet connection facilities, google drive and office social media to enhance tertiary institution's effectuality is seen in this study as digital office infrastructure adoption. It cuts across the hardware and software of digitalization in an institution.

The costly and complex infrastructure that carries the traffic that makes digital services possible is hardly immune to similar headaches and impediments. In its own highly interconnected way, the internet can be as fragile as a bridge or roadway exposed to the elements. In connecting to internet, there are some resources used as facilitators. These facilities are called internet connection facilities. They range from wifi, mifi, single user modem, router, browser etc. Internet connection facilities adoption is an influential dimension of digital office infrastructure adoption which aimed at ensuring that administrative heads of state owned tertiary institution in Rivers State are acquainted in using its resources in relation to workplace, this will make their work smarter and promotes administrative effectiveness and efficiency.

This is in line with the findings of Finklestein and Wong (2017) that an interaction/ link that exist between the physical and digital worlds greatly enhances the employees morale in relation to

workplace, because works will be done with ease and administrative officers will equally found it easy in ensuring information are properly circulated to places where they are needed, improving administrative effectiveness in terms of smooth workflow, information dissemination and target accomplishment. In contrary with the findings above, Pena-Lopez and Itu (2005) found that most administrators are naturally lazy and are allergic to changes due to the fear of unknown. Whereas, even if these resources or facilities are made available in the digital workplace, most of them socially in tertiary institution will still found it very difficult in working effectively. Although, this could be predicted on the ground that their digital competency level is still very low, this is not healthy for institution. These results to the reduction of the organizational goodwill, delay in service delivery, unorganized work system etc.

However, supporting the findings of this study, Joseph (2018) found that employee could best perform their respective jobs if they are able to adopt digital office infrastructure and other form of information sharing means. This for sure will quickens their respective tasks, resulting to administrative effectiveness in our case, (smooth workflow, information dissemination & target attainment).

CONCLUSIONS

Base on the analyses and discussion of findings, the study concludes that there is a significant positive relationship between internet connection facilities adoption and administrative effectiveness of state-owned tertiary institutions in Rivers State. This implies that consequent usage of digital office infrastructure such as internet connectivity brings about a corresponding improvement in administrative effectiveness of state-owned tertiary institutions in Rivers State in terms of smooth workflow, information dissemination and target accomplishment.

RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. Management of state-owned tertiary institution could ensure they provide wifi to administrative staff to give way for effective task execution that will greatly drive the institution to better heights.
2. Management of state-owned tertiary institution could ensure frequent subscription of modems' for their administrative staff.
3. Administrative staff of state-owned tertiary institution could ensure to poses single user modem.

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