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IMPACT OF COMPUTER USE ON THE EFFICIENCY OF CIVIL SERVANTS IN EKITI STATE,NIGERIA.

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Abstract:

The study focuses on the impact of computer use on the efficiency of civil servants in Ekiti State. The research adopted a descriptive survey method. The sample consisted of 58 civil servants which were randomly selected among civil servant Ekiti State, Nigeria. The research instrument for the collection of data was 20-item structured questionnaire. Three research hypotheses were formulated and tested, at 0.05level of significance. t-test statistical analysis was used to analyze the data collected. The result revealed a significant difference in the efficiency of civil servants on the use of computer. The finding showed that there was no significant difference in the impact of computer on the efficiency of junior and senior civil servants as well as no significant difference in the efficiency of female and male civil servants in the use of computer. There is no significant difference between the computer operators and non-computer operators in the use of computer in production and service delivery. Recommendations were made for Ekiti State government to increase more resources for the civil servants to be computer literate and be exposed to periodical computer training.

Keywords: efficiency, computer, automation, service delivery, ICT.

Background to the study:

The emergence of computer system has brought revolution among various aspects of human endeavour. The role of computer globally cannot be over-emphasized because it has been the major vehicle of change in the transition from the industrial age to the information age. Computer has made sending of information from one source to the other easier and simple. The awareness and use of computer system can be found in almost every office due to the high standard of the communication network. Nigeria has embarked on a concerted effort in joining the league of industrialized nations in the acquisition, deployment, consumption and utilization of Information and Communication Technology (ICT). It has become an indispensable tool for individual and national empowerment, improvement, development and actualization of service. Debela (2009) emphasized that automation of physical activities has been affecting the blue-collar workers. He went further to say that automation of information activities in office has changed the nature of office work and has highly affected the activities of knowledge on workers. The use of computer assists and improves the delivery of services in public service due to the high qualities of processing, service delivery and maximum efficiency in all areas that involve the knowledge of computer. Computer is also relevant to both public and private organization as well as to individuals. Computers are used in assisting in the organizational functions such as administrative planning, coordinating, controlling, directing, budgeting, reporting and staffing.

Fountain (2007) opined that better public service requires first a thorough rethinking and reexamination of the structure of public services and then to exploit possibilities of creating value by working across boundaries and jurisdiction to foster potential gains of redesigned services in terms of speed and cost. High efficiency in public service delivery can therefore be achieved through ICT. It implies that the civil servants can be empowered through ICT to improve their service delivery. This assertion was supported by Zambrano (2008) that besides gaining efficiency in public service delivery through ICT, there is also evidence that demonstrates the potential of ICTs in empowering the poor.

The usefulness of computer to the society is in various forms, such as in health, government, military, business and education. Aribisala (2008) asserted that efficient management of personnel and other resources of Nigerian Armed Forces depend on the use of computer-data, on several defense-related matters which are daily assembled by radars, solar, as well as other military and intelligence sources. These data are stored, processed and analyzed to gain a proper understanding of detonation of explosive, land mines etc through the use of remotely controlled computerized robots. In industry and technology, computer has a wide range of industrial application like Computer Aided Design (CAD) systems which are used to automate the production of design drawing and design change. It is also used to assist in the creation, modification analysis or optimization of a design. All these are carried out through communication system.

Harthony (1990) stated that communication system carries a mixture of voice, data and image signals that are used effectively as intelligent rods in communication system acting as switches, multiplexes, demultiplexens protocol converters. Olorunsola and Ekong (2006) emphasized that the importance of computers in the exchange of electronic mail (e-mail) with other users, transfer of public domain software from another computer into another disk so that anybody can run the programme on the computer and hold conference with a number of other users. This is one of the major applications of computers in communication.

The Nigeria federal civil service officials are expected to perform their duties with political neutrality, anonymity and impartiality. The major roles of civil servants are in policy making, supportive in its national objectives and economic development. Efficiency is needed for civil servants at federal and states levels, since it measures the performance of tasks expected to be done. Ajayi and Ayodele (2002) explained that efficiency is a means of using minimum resources or input to achieve maximum objective or output. In every establishment efficiency is regarded as a vital weapon for good service returns. Production level will definitely increase in any organization where efficiency is seen as a vital tool and consequently accelerates the rate of economic growth.

The introduction of office automation and information technology has assisted to strengthen information and service delivery. According to Bhuiyan (2011) major computerization and infrastructure development in the public sector in Bangladesh has been taking place to replace internal manual work processes by ICT-based automation. Similarly, the impact of computer education on the efficiency of civil servants in Ekiti State, Nigeria cannot be over-emphasized. The civil servants need to be educated in ICT, so that the use of typewriters, filling of information on papers in cabinets, keeping of documents and letters in files are modernized through automotion. The automation function needs to be introduced on PC's, the spread sheet programme such as Lotus 1-2-3 on Microsoft excel that allows the screen to image a large sheet of paper broker into rows and columns. Text machine reprographic equipment are example of kinds of automation introduced into the public sector to enhance administrative efficiency and effectiveness (Ayeni 1992). Many scholars have discussed the contribution of Information Technology (IT) in increasing the efficiency of organizations in collecting, classifying, documenting, storing and disseminating information in making managerial decisions, in speeding communication and in improving capacities of organizational memory and knowledge (Pickering & King, 1996; Argyres, 1999; Henderson & Venkatraman 1994). Office automation and computerization of the public sector have been on the increase over the years, therefore the introduction of computer in all the civil service offices is a must since the whole world has become a village due to introduction of ICT.

Statement of the Problem

The researcher was concerned with the problems in the manual processing of data and service delivery in public offices. The problems of wastage of papers due to errors detected during processing of data, errors in the course of manipulation of data which have led to waste of time and resources, improper or poor means of storing and retrieving of information. These have far reaching implications for effective service delivery.

Purpose of the study

The main purpose of this study was to determine the impact of computer on the efficiency of the civil servants in the course of carrying out their assignments. The study was set out to highlight the role and functions of computer in enhancing the functional duties of the civil servants.

Research Hypotheses

The following hypotheses proposed for this study were tested at 0.05significance level.

1. There is no significant difference in the impact of use of computer on the efficiency of junior and senior civil servants.

2. There is no significant difference in the impact of use of computer on the efficiency of female civil servants and male civil servants.
3. There is no significant difference between the computer operators and non-computer operators in services delivery.

Methodology

This study is a descriptive research of the survey type. The sample comprised of 58 civil servants in the civil service of Ekiti State, Nigeria. The junior and senior civil servants were randomly selected for the study. Stratified random sampling was used to select the sample so that male and female civil servants would be represented in the study.

The research instrument used for the study was a self designed questionnaire to collect information from the respondents. The questionnaire consists of 20 items which the respondents will either agree to or disagree with as the case may be. The research instrument was validated by using face method and content methods. The reliability of the instrument was done through the use of test- retest reliability method. The questionnaires were administered to a group of workers outside the ministries targeted. The workers were made to sit down and were given the questionnaire to answer, the same group of workers were given the same questionnaire after two weeks. The two tests were correlated using Pearson Product Moment Correlation Analysis and the reliability coefficient was found to be high (0.81). This was found to be high enough to attest to the reliability of the instrument. The copies of the questionnaires were personally administered and collected by the researcher.

Data collected were analyzed using t-test statistical method. The t-test was used to analyze the three hypotheses so as to investigate significant difference between junior and senior, male and female, computer operators and non-operators in the use of computer in production and service delivery. To test the hypotheses, the mean score and standard deviation obtained on the difference on the impact of computer on the efficiency of staff were analyzed using t-test analysis. All hypothesis were tested at0.05 level of significance.

Results - There is no significant difference in the efficiency of the junior civil servants and senior civil servants in the use of computer. The result of data analysis to test this hypotheses is shown in table 1

Table 1: t- test analysis on difference in the efficiency of junior civil servants and senior civil servants in the use of computer.

Group	**N**	$\overline{X}$	**SD**	**df**	**t-cal**	**t-tab**
Junior civil servants	23	27.43	1.56			
				56	0.06(NS)	2.021
Senior civil servants	35	27.41	1.22			

$p > 0.05$

Table 1shows that the calculated t- value is 0.061 and t-table value is 2.021. Since the t-cal is

less than t-table at 0.05 level of significance then the decision upholds the null hypothesis. The table revealed no significant difference in the efficiency of the use of computer by the junior civil servants and senior civil servants in Ekiti State. It implies that the impact of computer is felt by both junior and senior civil servants.

Hypothesis Two: - There is no significant difference in the efficiency of female civil servants and male civil servants in the use of computer.

Table 2: t- test analysis of difference in the efficiency of female civil servants and male civil servants in the use of computer

Group	**N**	$\overline{X}$	**SD**	**df**	**t-cal**	**t-tab**
Male civil servants	32	27.15	1.19			
				56	0.863(NS)	2.021
Female civil servants	26	27.80	1.47			

p> 0.05

Table 2 shows that t-cal 1.86 is less than t-tab 2.021 at 0.05 level of significance. Therefore there is no significant difference on the impact of computer education on the efficiency of male civil servants and female civil servants in Ekiti State.

Hypothesis Three: - There is no significant difference between the computer operators and non-computer operators in the use of computer in the production and service delivery.

Table 3: t-test analysis of difference in the efficiency of computer operator and non-computer operators in the production and service delivery.

Group	**N**	$\overline{X}$	**SD**	**df**	**t-cal**	**t-tab**
Non- computer operator	21	27.33	1.62			
				56	0.43(NS)	2.021
Computer operator	37	27.51	1.15			

p> 0.05

Table 3 shows that t-cal 0.43 is less than t-tab 2.021 at 0.05 level of significance. The null hypothesis is upheld. Therefore, there is no significant difference between non- computer operators and computer operators in the use of computer in the production and service delivery. This implies that the impact of computer is felt by both computer operator and non-computer operators but production and service delivery is low (27.33) for non-computer operators.

Discussion: The findings revealed that there is no significant difference on the impact of computer education between junior and senior civil servants, however, the mean scores and standard deviation revealed that the X = 27.43, S.D = 1.56 for junior staff while the senior staff is X = 27.46, S.D= 1.22, the t-calculated is 0.061. It implies that the impact of computer is felt by both senior and junior

civil servants. This result is in line with Pickering & King 1995 on the contribution of IT in increasing the efficiency of organizations in collecting, classifying documenting, storing, and disseminating information in making managerial decisions, in speeding communication and improving capacities of organizational memory and knowledge.

The study also revealed that there is no significant difference in the efficiency of female civil servants and male civil servants in the use of computer. This indicates that sex is not a determinant factor on the impact of computer on the efficiency of civil servants. The result disagrees with Nerisa and Millicent (2007) that states that interdepartmental exchange of information and merges of related services enhance between the government agencies. The finding also disagrees with Muhammed Raisbin Abdul Karim (1995) that emphasized that the knowledge of computer is required in running the administrative duties, so an average civil servants today cannot be successful in her/his post of duties without the knowledge of computer.

The result of data analysis further shows that there is no significant difference between the computer operators and non-computer operators in the use of computer in production and service delivery. The result shows that there was no significant difference. However, the mean scores and standard deviation revealed that the computer operators (X =27.33, S.D=1.62) had a slightly more impact of computer than non-computer operators who are at advantage state than non-computer operators (X =27.51, S.D =1.19). The result indicates that computer operators are at advantage state than non-computer operators though both felt the impact of computer on their performance. The finding of the study agrees with the finding of previous studies conducted on the importance of computer by the users. (Debela ,2009 & Argyres ,1999)

Conclusion and Recommendations

The study revealed that there was no significant difference in the impact of computer on the efficiency of junior and senior civil servants as well as female and male civil servants in the use of computer. The finding of the study also revealed that there is no significant difference between the computer operator and non-computer operators in production and service delivery. Based on the result obtained from the findings, it is recommended that civil servants should be exposed to periodical computer training, seminar and workshop on the use of ICT. Senior members of staff should also be encouraged to be computer literate.

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