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RESEARCH ARTICLE

INFORMATION AND COMMUNICATION TECHNOLOGIES AND JOB PERFORMANCE AMONG SENIOR NON-TEACHING STAFF OF ALVAN IKOKU FEDERAL COLLEGE OF EDUCATION, OWERRI, IMO STATE, 2010-2020

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ABSTRACT

The research investigated Information and Communication Technologies (ICTs) and job performance among senior non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri. The use of ICT has supplanted traditional equipment utilised by personnel to execute their everyday tasks, leading to office automation and a paperless environment. Since the implementation of ICTs, there are assertions that it has improved job performance. Nonetheless, the accuracy of this argument remains unverified, and there is minimal or no rigorous investigation supporting it. In this context, this paper poses the following questions: Does the adoption of ICTs improve job performance among senior non-teaching staff at AIFCE, Owerri, during the study period? Additionally, does the use of ICT facilities equally enhance job performance for male and female senior non-teaching staff? The study utilised sociotechnical system theory and appropriately adopted a survey research approach. The data were obtained from primary and secondary sources. The acquired data were examined using the chi-squared test. The findings indicated that the adoption of ICTs improved job performance among senior non-teaching personnel at AIFCE, and that the utilisation of ICT facilities similarly benefitted job performance for both male and female employees. The study advises that the college administration should guarantee sufficient availability of contemporary ICT resources and promote the enhancement of staff ICT proficiency.

Keywords: Information, communication technology, job performance, non-teaching staff development

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1.0. INTRODUCTION

Before 1999, ICT resources and facilities were severely restricted in the country. Access to these amenities and services was restricted to a select few affluent Nigerians. Internet access and services were scarce, and for an extended period, the facsimile (fax) was the sole method available to Nigerians for transferring and receiving data or documents internationally. The public's awareness of ICT and its applications was minimal. Shortly thereafter, there was a swift increase in the accessibility and utilisation of ICT resources. Substantial investments from both the commercial and public sectors in the country's ICT industry facilitated this advancement. Currently, educational institutions are increasingly reliant on the extensive use of ICT to enhance quality and efficiency in teaching, learning, research, and administration. The implementation and use of ICT in higher education institutions significantly affect their service delivery. The ICT revolution has resulted in restructuring, alterations in work patterns, a requirement for new competencies, and job retention across all sectors. This is one of the implications of globalization as the liberal scholars who are the proponents of globalization as interdependency therefore believe that the global arena would be better if nations states would realize and utilize to the maximum the opportunities presented by the interplay resulting from globalization(Abaneme &Nwagbo, 2015)..

Yusuf (2005) characterizes ICT as a computer-based instrument employed by organisational staff to address their information and communication requirements. It includes computer hardware and software, networks, and various devices like music, video, photos, and cameras that convert information into digital form. ICT applications in education help people easily access, save, share, and work with different types of audio and visual content, thanks to their ability to create an engaging environment (Kawade and Kulkarni, 2012).

Hiltrop and Despres (1994) define job performance as the value contributed by an individual to an activity or task in the workplace. John (1992) defines "job performance" as the extent to which organisational members contribute to the attainment of organisational objectives. Ivancevich and Matterson (1996) define job performance as a function of the ability to perform, the opportunity to perform, and the motivation to perform. Another viewpoint

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characterises job performance as an individual-level characteristic, pertaining to the behaviour of a solitary individual. This method distinguishes itself from broader conceptions, like organisational performance or national performance, which are higher-order variables (Campbell, 1990).

It is essential to recognise that workplace performance is distinct from concepts such as effectiveness, productivity, and efficiency. Effectiveness pertains to assessments of performance outcomes, namely the financial values derived from sales. Productivity is the ratio of efficacy to the expense incurred in achieving the objective. The ratio of work hours (input) to constructed items (output) exemplifies productivity (Sabine et al, 2008).

Alvan Ikoku Federal College of Education, Owerri, was founded in 1963 as the Advanced Teachers Training College, Owerri. The college undertook the obligation of training educators with intermediate qualifications. According to East Central State Edict No. 11, dated May 31, 1973, the school was restructured into a college of education and subsequently designated as the "Alvan Ikoku College of Education (A.I.C.E.) Owerri." In 1983, the institution was affiliated with the University of Nigeria, Nsukka, to offer degree programs alongside its primary responsibility of training National Certificate of Education teachers. In 2007, the federal government assumed control of the college, renaming it Alvan Ikoku Federal College of Education, Owerri. In 2015, during the administration of President Goodluck Jonathan, the college was elevated to university status as Alvan Ikoku University of Education, Owerri; however, this was subsequently suspended by President Muhammadu Buhari. Since 2010, the college authority has made significant efforts to digitise its operations through various initiatives, including the establishment of an IT resource centre, the provision of desktop and laptop computers for offices, and the training of staff on pertinent IT software by the ICT unit, among others. This study systematically analysed the influence of ICT on job performance among senior non-teaching personnel at AIFCE, Owerri, Imo State, from 2010 to 2020.

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1.1. Statement of the Problem

While academics often emphasises the beneficial effects of technology, there persists a significant concern in media and information science literature regarding the influence of ICT on employees (Balsam, 2015). Regarding their study of the influence of email within organisations. There is a persistent concern in the media and organisational literature about the impact of ICT on job performance. The majority of academic discourse and activities on ICT in education mostly concentrate on its use in teaching and learning, with a recent emphasis on research, while neglecting its relevance to administration and staff job performance specifically. The implementation of ICT at Alvan Ikoku Federal College of Education in Owerri, Imo State, has undoubtedly resulted in several effects, including enhanced job performance and anxiety among office personnel. Nonetheless, there is little to no systematic investigation or consideration regarding the impact.

Given this context, the study aimed to answer the following research questions: 1. Does the implementation of ICT improve work performance among senior non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri, throughout the specified timeframe?

2. Does the use of ICT facilities improve the job performance of both male and female senior non-teaching staff at Alvan Ikoku Federal College of Education, Owerri, or equivalently?

1.2. Objectives of the Study

The primary aim is to evaluate the influence of information and communication technology on job performance among senior non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri, with particular objectives as follows:

1. To determine whether the integration of ICT has enhanced the job performance of non-teaching personnel at Alvan Ikoku Federal College of Education in Owerri, Imo State.

2. To ascertain whether the use of ICT facilities has improved the job performance of both male and female senior non-teaching staff at Alvan Ikoku Federal College of Education, Owerri, in an equivalent manner.

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1.3. Significance of the Study

This research work possesses both theoretical and practical value. Theoretically, its relevance resides in its potential contribution to literature and theory. It would therefore add to the corpus of current research on ICT and job performance. It is anticipated to serve as a foundation for extensive engagement with the application of information and communication technologies for administrative functions in higher education institutions. This study's findings would furnish essential insights for college management and other higher education institutions in Nigeria, enabling them to adopt proactive measures to utilise information and communication technology for enhanced effectiveness and efficiency. It would assist policymakers and other stakeholders, particularly in the public and private sectors, in formulating potential ways to mitigate the adverse effects of ICT utilisation.

The study will be important in designing literacy courses and enhancing programmes for developing job performance for the collegiate workforce. Furthermore, the study is pragmatically beneficial as it will stimulate awareness regarding potential measures to align Nigerian institutions with worldwide norms in ICT use. This study will serve as a reference for scholars and students in political science interested in related research fields.

2.0. CONCEPTUAL FRAMEWORK AND THEORETICAL FOUNDATION

2.1. Conceptualizations

Relationship between ICT and Job Performance

There are fundamentally two predominant schools of thinking about the influence of ICT on job performance: the positivist and negativist schools. The positivist school of thinking, as articulated by Mikuletoky and Wincheste (1983), William Mercy (2017), and Nicole Long (2017), posits that effective integration and management of ICT will inherently enhance job quality, job quantity, accuracy, and the efficiency of task completion. Mikuletoky and Winchester (1983) observed a correlation between nurses' job performance and their computer literacy in their study of the effects of contemporary technological advancements in health information systems in rural hospitals across southern Illinois, United States. Nurses with elevated computer literacy exhibited superior job performance.

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In the United States, researchers performed a study among college graduates to examine the relationship between their improved computer skills and work performance. The follow-up survey of graduates (n.d.), conducted via telephone with recent alumni of Rio Salado College, indicated that of the seventy-nine participants, seventy-three percent concurred or strongly concurred that their enhanced computer skills positively impacted job performance (Chee, 2003). Moreover, technology that facilitates process automation would alleviate the workload for staff, enabling them to focus on alternative projects and responsibilities.

Innovative computer programs and software applications can facilitate the collection and analysis of data that would typically remain unused or require significant effort for workers to extract. The implementation of new technology can improve work processes and increase productivity for both individuals and the organisation (Nicole, 2017). Nwabueze and Ozioko (2011), asserts that ICT facilitates the formulation of high-quality judgements while concurrently conserving time. Furthermore, Attama and Owolabi (2008), asserts that ICT is highly beneficial in corporate settings since it enhances performance and increases efficiency. They also assert that policymakers have acknowledged the significant features and advantages of ICT as a fundamental paradigm.

The opposing perspective is held by negativists, like Bentley (1996), Miki (2017), Hamlett (2017), and Samaantha (2017), who acknowledge that the implementation of ICT adversely affects the workplace. Such implementation has resulted in communication breakdowns, heightened stress, distractions, disconnection, health problems, job loss, and an incessant workday. Bentley (1996) asserts that many individuals feel that enhanced personnel capabilities will lead to improved performance. Regrettably, his analysis indicated that this notion is not universally accurate. While personnel must possess requisite levels of computer proficiency, it is essential to ascertain the specific competencies required for the anticipated tasks. The enhancement of job competencies is contingent upon the availability of this information. The findings indicated that enhanced computer literacy does not inherently result in superior job performance.

Chee (2003) asserted that job performance is affected not just by specific competency levels but also by additional elements like job attitudes, organisational cultures, reward systems, and

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work surroundings. Miki (2017) reported that the ubiquity of computers in the workplace has rendered email a standard means of professional communication. This evolution has resulted in numerous misunderstandings and concerns. A significant number of employees have inadequate writing skills, which hinders their ability to effectively communicate messages.

Office workers are interrupted by emails, instant messaging, phone calls, and other diversions almost every three minutes. These factors diminish overall productivity, as it requires eight minutes for the brain to attain a creative state. In addition to genuine work-related interruptions, employers contend with technology-induced distractions, including social networking, online gaming, news feeds, and pornography. Communications Workers of America report that computer-based offices see a heightened incidence of cardiovascular diseases due to the relentless scrutiny of work through computers, in addition to the commonly acknowledged visual and musculoskeletal issues (Miki, 2017).

Ibenekwu (2004) noted that cell phone usage while at work results in decreased productivity among non-academic workers at the University of Nigeria Nsukka. The allocation of time for office tasks is compromised by personal phone usage for calls, SMS, and chatting, resulting in diminished productivity during official work hours. Furthermore, there exists the problem of spam. Spam denotes unsolicited and unwelcome email communications. Spam is pervasive and adversely affects businesses, as stated in the essay "Impact of Information Technology on Global Business" published by Purdue University. Filtering spam emails is a laborious undertaking, and the efficacy of spam filters is constrained. Users of spam filters must verify essential email messages that have been erroneously classified as spam (Samantha, 2017).

Prior research indicated that ICT produced varied effects on work performance within a company. Nonetheless, the reality is that the beneficial consequences surpassed the detrimental impacts. Consequently, this study aimed to identify a beneficial correlation between ICT and job performance. Institutions and organisations with well-integrated and managed IT resources are likely to exhibit superior job performance. This study methodically investigated the influence of ICT utilisation on job performance, specifically among senior non-teaching personnel at AIFCE in Owerri, due to the absence of previous literature on this subject.

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2.2. Theoretical Framework

This study used system theory as its analytical framework, as posited by Cherns in his 1976 work, The Principle of Socio-Technical Design, and subsequently revised by Clegg (2000) to include internet-based ICT. The domains of computer systems, social networks, organisational resilience, performance, and productivity, among others, have applied this systemic approach. Socio-technical system theory is a framework for comprehending the interplay between technology, persons, organisations, and society in workplace design. This system-orientated approach encompasses, but is not restricted to, hardware, software, social, psychological, political, policy, and legal systems. Moreover, it concentrated on comprehending the social dimensions arising from interpersonal interactions inside societies and the technical facets of machinery and technology aimed at optimising the utility matrix (www.igiglobal.com/chapter/pa, what is socio-technical system theory).

Two fundamental concepts and assumptions form the foundation of the theory. The interplay between social and technological elements establishes the conditions for either successful or bad organisational performance. The optimisation of each individual feature, whether social or technical, tends to enhance not just the quality of unpredictable, informal interactions but also those relationships detrimental to system performance (www.en.m.wikipedia.or/wiki/sociotechnicalsystems).

The premises of socio-technical system theory will aid in comprehending the dynamics involved in the application of ICT inside a workplace. All subsystems must function cohesively for the organisation to attain its optimal objectives. The idea demonstrated that both human and non-human entities are equally significant; thus, the growth and stability of any firm depend on the link between them. From this perspective, achieving job precision and quality time in task completion becomes possible.

Hypotheses

1. The implementation of ICT has not improved work performance among senior non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri, Imo State, during the specified study period.

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2. The implementation of ICT improved work performance among senior non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri, Imo State, during the study period.
3. H0: The utilisation of ICT facilities did not improve the job performance of either male or female senior non-teaching staff at Alvan Ikoku Federal College of Education, Owerri, Imo State, equivalently.
4. The implementation of ICT improved the job performance of both male and female senior non-teaching staff at Alvan Ikoku Federal College of Education, Owerri, Imo State, equally.

3.0. METHODOLOGY

3.1. Research Design

The study is both descriptive and analytical. The survey method was used because it has benefits over other methods, such as allowing a large number of participants and being flexible with different ways to collect data, which helps gather detailed answers from respondents.

3.2. Population of the Study

The study population comprised all senior non-teaching personnel of Alvan Ikoku Federal College of Education, Owerri (AIFCE), Imo State. The population of non-teaching personnel at the time of the study was one thousand three hundred seventy-three (1373) individuals. An analysis reveals that the male senior non-academic staff population was four hundred fifty-five (455), whereas the female senior non-academic staff population was nine hundred fifteen (915) (Office of the Registrar, 2020). The selection of non-teaching personnel was guided by the predominance of their tasks involving ICT resources. They mostly address administrative issues and other tasks directly or indirectly associated with the college's daily operations.

3.3. Sample and Sampling Technique

We employed a convenience sample because it was impractical to include all senior non-teaching staff at the college. We judiciously picked the Bursary and Registry departments, including a personnel population of 267 individuals. The selection of these departments was

based on their implementation of automation and networking; a significant proportion of the personnel utilised computers and other ICT tools.

3.4. Methods of Data Collection

We classified the study tools into two categories: main data and secondary data. The principal data utilised comprised the questionnaire and the outcomes of the performed interview. This study used the questionnaire method for gathering information because it describes things well, can uncover new or ignored problems, and keeps respondents anonymous, which helps them share their honest opinions without worrying about consequences.

The questionnaire was meticulously designed to encompass all aspects of the research objectives and hypotheses. The enquiries were posed in clear, unequivocal language to ensure consistent interpretation by both the researcher and the respondents. It comprised three pieces. Section A comprised questions regarding the respondents' personal data, and Sections B and C included enquiries pertaining to the study's hypotheses. The tool utilised a four-point Likert scale: strongly agree, disagree, and strongly disagree. We evaluated the items using a four-point scale: highly agree (4), agree (3), disagree (2), and strongly disagree (1). We administered a total of 267 surveys.

The secondary data used in the literature review and theoretical framework of this research study were sourced from published materials obtained both within and outside the college, including books, journal articles, conference papers, and periodicals. We also heavily relied on materials sourced from the internet.

3.5a. Validity of the Instrument

Two specialists from the Department of Measurement and Evaluation at AIFCE, Owerri, verified a self-developed questionnaire with minor amendments. A relevant literature review confirmed the authenticity of the content.

3.5b. Reliability of the Instrument

Upon confirming the instrument's validity, we proceeded to evaluate its dependability. The questionnaire was designed to address the difficulties identified in this research.

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Subsequent to the instrument's validation, we executed a pilot study to assess its dependability. We applied a pre-test and post-test methodology to twenty (20) staff members who were not part of the study population. Twenty (20) copies of the questionnaire were distributed to the group by the researchers, who remained to collect the completed questionnaires afterwards. Two weeks later, another sample of individuals were handed the identical (20) questionnaire by the researchers. The researchers gathered and evaluated the test-retest outcomes using the Spearman rank correlation coefficient. The investigation yielded a Rho value of 0.80, indicating a strong positive correlation, thus confirming the instrument's reliability.

3.5c. Administration of Instrument

The researchers and three research assistants personally administered the finalised questionnaire to participants. The process guaranteed a complete restoration of one hundred per percent (100%) as none was lost during transit.

3.6. Method of Data Analysis

We manually aggregated the raw data received and employed frequency tables to quantify the respondents' reactions to the posed questions. The chi-square statistical method was utilised to analyse and test the research questions and hypotheses. The chi-square (X^2) statistic is represented by the formula.

$$X^2 = \frac{(O-E)^2}{E}$$

4.0. DISCOURSES

Decision Rule

If X^2 calculated is greater than the X^2 tabulated at the 0.05 or 5% level of significance, reject the null hypothesis. But if X^2 calculated is less than or equal to the X^2 tabulated at the 0.05 or 5% level of significance, accept the null hypothesis.

Empirical verifications

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Table 1: Distribution of Respondents by Gender

S/N	Sex	Frequency	Percentage (%)
1	Male	104	39
2	Female	163	61
	Total	267	100

Source: Authors' Fieldwork (2020).

The table above indicates that 61% of the staff comprises females, while 39% consists of males.

Table 2: Degree of Response on Job Performance with adoption of ICT

S/N	Statements	SA	A	D	SD	Total
1	With the use of ICT tools less time is spent in doing work than analogue system	97	111	42	17	267
2	The quality/quantity of work done using ICT are much better than the manual era	107	111	29	20	267
3	There is high level accuracy, easy access and reliable data using ICT than the printed information resources.	114	99	27	27	267
4	ICT tools enabled quicker access to data	102	91	44	30	267
5	With spreadsheet package exam entries and result are accurately done.	134	62	32	39	267
6	ICT resources enable receiving sending information quicker.	95	94	49	29	267
	Total	649	568	223	162	1602

Source: Authors' Field Work (2020).

Table 2 illustrates the replies concerning the influence of ICT on job performance. The research indicates that 111 (42%) of respondents concurred; 97 (36%) strongly concurred; 37 (16%) disagreed; and only 17 (7%) strongly disagreed that less time is required to complete a task utilising ICT. Of the respondents, 111 (42%) concurred that the quality of work performed using ICT much surpasses that of the manual age, followed by 107 (40%) who strongly concurred, 29 (10%) who disagreed, and 20 (10%) who firmly disagreed. Concerning the perception that tasks executed with ICT tools exhibit greater accuracy than those utilising traditional printed information resources, 114 (43%) respondents strongly concurred; 102 (38%) agreed, while 27 (10%) disagreed, and another 27 (10%) strongly disagreed. Regarding the claim that ICT tools make it faster to access data, 96 (39%) of the respondents strongly agreed, 86 (35%) agreed, 39 (16%) disagreed, and 25 (10%) strongly disagreed.

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Of the respondents, 128 (52%) highly agreed that utilising spreadsheet exam entries and results is both accurate and expedient, followed by 57 (23%) who agreed. Conversely, 34 (14%) strongly disagreed, and 27 respondents, representing 11%, disagreed. Of the respondents, 89 (36%) highly concurred that ICT resources facilitate the expedited transmission and reception of information, while another 89 (36%) agreed. Conversely, 44 (18%) disagreed, and 24 (10%) strongly disagreed.

Table 3: Distribution of respondent on the impact of ICT based on Gender

S/N	Gender	SA	A	D	SD	Total
1	Male	54	34	14	2	104
2	Female	59	78	15	11	163
	Total	113	112	29	13	267

Source: Authors' Fieldwork (2020).

Table 3 demonstrates the distribution of male staff among the choices as follows: Fifty-four strongly agreed, thirty-Four agreed, Fourteen disagreed, and two strongly disagreed. Conversely, among the female employees, 59 highly concurred, 78 concurred, 15 disagreed, and 11 severely disagreed.

Test of Hypothesis one

H0: The integration of ICT does not improve job performance among the non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri, Imo State, during the specified timeframe. In evaluating null hypothesis one, the researcher utilised Table 2: Degree of response about job performance following the introduction of ICT in AIFCE, Owerri.

$$\frac{£ (0 - E)^2}{E} = 44.6$$

Cal X2 value = 44.6; Degree of freedom = (6-1) (4-1) =15
Tabulated X2 value at 0.05 level of significance and 15 degree of freedom = 25.00
Calculated X2 > tabulated X2 44.6 > 25.00

The computed chi-square value of 44.5 exceeds the critical value of 25.00, prompting the rejection of the null hypothesis and the acceptance of the alternative hypothesis, which posits that the use of ICT has enhanced job performance for non-teaching staff at AIFCE, Owerri,

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during the study period. The aforementioned statement is accurate; evidence suggests that utilizing computers, laptops, scanners, and printers significantly conserves time, and data can be effortlessly stored and accessed in contrast to the manual preparation of results and other papers using conventional typewriters. This improves job performance. Prior to the implementation of ICT, students in the accounts section would endure prolonged waits, often spanning days or weeks, to obtain school fees and receipts. With the automation of the accounts unit, student account officers can now effortlessly gather data from students and provide them with necessary information. Students can now, at the convenience of their hostels and homes, complete the entrance procedure, fill out course forms online, and see their results online. Instances of school fee non-payment, financial fraud, diploma fabrication, and racketeering are readily identifiable. Such technology has significantly conserved time and mitigated hassles for both staff and students. Computers and printers are indispensable instruments in typesetting and printing activities. These have apparently improved the efficiency of secretaries in executing their duties by allowing them to process precise and pertinent data rapidly.

This paper maintains that the internet and other telecommunication networks significantly influence the future of human connection, and so far, these changes have predominantly been beneficial across social contexts.

Hypotheses Two

The use of ICT resources did not equally improve the job performance of senior non-teaching personnel, both male and female, at AIFCE in Owerri. In evaluating null hypothesis 2, the researcher utilized Table 3, which presents the frequency distribution of staff perceptions regarding the influence of ICT, categorized by gender.

$$\pounds \frac{(O-E)2}{E} = 11.3$$

Calculated X2 value = 11.3 Degree of freedom = (2-1) (4-1) = 3
Tabulated X2 value at 0.05 level of significance and 3 degree of freedom = 7.8
Calculated X2 value 11.3> Tabulated X2 value of 7.8

Since the calculated chi-square value of 8.1 is higher than the tabulated value of 7.8, we reject the null hypothesis and accept the alternative hypothesis, which suggests that using ICT facilities has equally improved the job performance of both male and female senior non-teaching staff at AIFCE, Owerri. This study's findings show that gender does not significantly impact staff views on how ICTs affect job performance.

This study's findings indicate that gender does not significantly affect staff perceptions regarding the influence of ICTs on job performance. This finding indicates that both male and female participants in the study are proficient in utilising ICT for their daily responsibilities. Furthermore, it suggests that gender should not be considered a significant determinant that could hinder or enhance computer literacy. This study indicates that both male and female staff at AIFCE recognizes the necessity of acquiring IT skills to alleviate work-related time and energy demands and improve job performance.

5.0. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The research investigated the relationship between information and communication technology and job performance among the non-teaching personnel at Alvan Ikoku Federal College of Education, Owerri. The ICT revolution has impacted the majority of the activities of the non-teaching personnel at AIFCE, Owerri.

We conducted an empirical investigation of the aforementioned themes by formulating research questions that directed our work. We emphasised both general and specific aims, outlined the importance of the study, and examined pertinent literature. To overcome the literature gap, we developed two hypotheses derived from the study's aims and research questions. The theoretical framework was based on socio-technical systems theory. The study used a descriptive survey research approach, collected data from both secondary and primary sources, and employed a quantitative data analysis method. The results of our data analysis refuted all the hypotheses in the study. The findings indicated that the use of ICT resources improved job performance among the non-teaching personnel at AIFCE, affecting both male and female employees equally.

5.2. Recommendations

This paper presents the subsequent recommendations based on the findings: The research demonstrates that utilizing ICT resources improves job performance. Consequently, the Federal Ministry of Education, Tertiary Education Trust Fund, tertiary institutions in Nigeria, and college authorities must promptly facilitate the supply of contemporary and enhanced ICT resources. They must establish plans and regulations to govern their ICT, with the objective of amplifying the beneficial impacts of connectivity while alleviating any adverse effects. Such an approach will allow the institutions to capitalize on ICT uptake.

Higher education institutions in Nigeria, specifically AIFCE, should implement ongoing training and retraining programmes for both male and female personnel, both domestically and internationally, to ensure they remain informed about the current advancements in the ICT sector. The acquisition of sufficient ICT knowledge and skills should be a prerequisite for the recruitment of new staff.

Competing Interest

The authors have declared that no conflicting interest exist in this study

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