

Correlates of Information and Communication Technologies Usage among Academic Staff in Botswana's Colleges of Education

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ABSTRACT— This study examined the correlates of usage of Information and Communication Technologies (ICTs) by academic staff in Botswana's colleges of education. It specifically identified and described some selected demographic and job characteristics of the academic staff, determined the levels of availability of and accessibility to ICTs, determined the level of usage of ICTs by the academic staff in performing their academic roles; and empirically established some variables that determines the extent of usage of ICTs. A pre-tested and validated questionnaire was used to elicit information from all the 265 academic staff across the four colleges of education in country. Data collected were subjected to descriptive statistics, such as frequencies, percentages, means, and standard deviations, as well as inferential statistics like Analysis of Variance (ANOVA) and Pearson correlation using SPSS. The findings revealed that most (57%) of the respondents were female with the mean age of 51.6 years. Most (55.1%) of the respondents are married, and 84.9% obtained a master's degree. The mean experience of the respondents was 25.45 years with standard deviation of 7.4 years; and the mean income per month was BWP 24,014.83 with standard deviation of BWP 3,016.22. In the order of importance, the results showed good congruence between mean scores of availability of and accessibility to Microsoft teams, Interactive whiteboards, You Tube, Laptop and Projectors ranking between 1st and 5th, while Microsoft word, WhatsApp, Microsoft excel, Microsoft PowerPoint, Desktop computers are ranked lowest between 10th and 14th. Designation ($F=2.688$; $p\ 0.047$), age ($r = -0.170$, $p = 0.007$) and experience ($r = -0.171$, $p = 0.008$) of the respondents; and availability of ICTs ($r = -0.356$, $p < 0.01$) and accessibility to ICTs ($r = -0.322$, $p < 0.01$) of ICT resources were empirically established as correlates of ICTs usage. It is then recommended that the government and the colleges authorities provide adequate infrastructure for enhancing access to Microsoft Teams and other important ICTs for effective performance of the academic staff roles.

KEYWORDS: ICT usage, College of Education, Academic staff, Botswana.

1. INTRODUCTION

The integration of Information and Communication Technologies (ICTs) into education has been widely recognized as a catalyst for improving teaching and learning processes globally. However, effective ICT usage among academic staff varies significantly across contexts, particularly in developing regions like sub-Saharan Africa. This literature review explores the current knowledge on ICT usage in educational institutions with a focus on availability, accessibility, and usage patterns, as well as factors that influence ICT adoption among

academic staff, particularly, in Botswana's colleges of education.

ICTs have become an integral part of modern education systems, enabling improved access to information, collaboration, and innovative pedagogical approaches [32]. The use of ICT in education facilitates the development of digital skills, promotes blended and online learning, and enhances both teaching and research activities. In addition, it has emerged as a powerful tool for addressing global issues, particularly in the education sector [5]. Despite these benefits, the degree of ICT adoption varies greatly among institutions, and numerous barriers to effective usage persist, especially in developing countries [28].

The availability and accessibility of ICT resources are key factors that determine the extent to which academic staff can integrate technology into their work. While availability, in this context, refers to the presence of ICT infrastructure such as computers, projectors, internet access, and specialized software, the accessibility involves the ease with which these resources can be used by staff for teaching, research, and administrative duties [24]. [20] in their studies have found that limited availability and accessibility of ICT resources is a common challenge in African institutions of higher learning, including those in Botswana. On a general note, inadequate funding, outdated infrastructure, and unreliable internet connections have been found to often hamper the effective use of ICTs [13], [27].

However, the usage patterns of ICT by academic staff in educational institutions often depend on several factors, including individual competence, institutional support, and the availability of relevant tools. According to [31] personal attitudes of academic staff toward technology along with their perceived ease of use and perceived usefulness of ICT, are major determinants of ICT adoption. In many cases, academic staff in developing countries exhibit low ICT usage due to a lack of skills, insufficient training, or negative perceptions about technology's role in education [14].

In Botswana, [18] study suggests that while some academic staff are proficient in the use of basic ICT tools such as email and word processing, more advanced tools such as Learning Management Systems (LMS) and online collaborative platforms are underused. The pattern of usage often leans toward administrative tasks rather than pedagogical innovation, which is partly attributed to the limited training and support available to staff [12].

Moreover, [3] study has identified both enabling and inhibiting factors that influence ICT utilization in educational settings. Key enablers include the availability of adequate infrastructure, supportive institutional policies, and ongoing professional development opportunities. Furthermore, in the context of Botswana, [12] notes that despite national efforts to improve ICT infrastructure in education, challenges remain, particularly in rural and less-developed areas. Limited access to reliable internet and the lack of continuous professional development programs for academic staff further exacerbate the issue [8]. Moreover, staff attitudes toward ICT adoption are influenced by cultural and institutional factors, such as resistance to change, lack of incentives, and limited administrative support [25].

Moreover, a critical factor in the effective usage of ICTs is the level of competence among academic staff. ICT competence refers to the ability to use digital technologies effectively for a variety of tasks, from basic communication to more complex activities such as online teaching and research [33]. Research shows that many academic staff, particularly in developing countries, lack adequate ICT training, which directly affects their confidence and ability to integrate technology into their academic roles [2]. In Botswana's colleges of education, staff competence varies widely, and there is a clear need for targeted training programs that address both basic ICT skills and more advanced pedagogical applications [18].

However, [30] opines that ICT can significantly enhance teaching and learning if effectively used. ICT tools such as interactive whiteboards, online learning platforms, and multimedia resources allow for more dynamic and engaging teaching methods. However, the impact of ICT on teaching and learning is contingent upon several factors, including the availability of relevant resources, the competence of the teachers, and the overall institutional environment [15].

In Botswana, the integration of ICT into teaching and learning has been relatively slow, with most staff using technology primarily for administrative purposes rather than for enhancing student learning [6]. Research suggests that addressing this gap requires not only improved access to ICT tools but also a cultural shift in how technology is perceived and utilized in academic settings [34].

Notwithstanding, several strategies have been proposed to enhance ICT utilization among academic staff in developing countries. These include: infrastructure development by improving the availability of reliable internet connections and modern ICT tools [3]; and institutional support by implementing supportive policies that encourage the integration of ICT in teaching and research activities, including time management and administrative assistance [25].

The aforementioned literature highlights that while ICT offers significant potential to improve academic performance and administrative efficiency, several barriers hinder its full adoption among academic staff in Botswana's colleges of education. Key issues include the uneven availability and accessibility of resources, low levels of ICT competence, and inadequate institutional support. For Botswana's colleges to maximize the benefits of ICT, targeted training, infrastructure development, and supportive institutional frameworks must be prioritized.

In this view, Botswana has made incredible progress in ensuring that adequate infrastructure is made available to the entire population (ETSSP 2005-2020). Through this infrastructure development, the government, through the Ministry of Basic Education, is ensuring that there are computer laboratories fully equipped with qualified personnel and equipment. Lately, each college has had a Wi-Fi connection. Despite all the efforts, teachers are not maximising the usage of the technology provided. This has become a serious matter as previous research has proven that usage of ICT in teaching and learning process could improve students' achievement [23], [10]. Also, the ICT literacy of academic staff has been viewed as a prerequisite for ICT adoption and integration in the school system. However, it has been observed that in Colleges of Education in Botswana, ICT usage among academic staff in the teaching and learning situation is still very low [19].

It is against this background that this study was conceived to examine the availability, accessibility and usage patterns of ICTs among the academic staff in Botswana's Colleges of Education. Specifically, the study identified and described some selected demographic and job characteristics of the academic staff; determined the levels of availability of and accessibility to ICT resources by the academic staff and determined the level of usage of ICT resources by the academic staff in performing their academic roles. Furthermore, two null hypotheses were stated for the study to establish the relationship between the level of ICT usage among the academic staff and the selected demographic and job characteristics, and relationship between the level of ICT usage among academic staff and the levels of availability and accessibility to ICT resources.

2. Methodology

The study was carried out in the four (4) Botswana' colleges of education viz: Tlokweng College of Education, Tonota College of Education, Molepolole College of Education and Serowe College of Education. Each of the colleges has a population of academic staff members thus: 49, 82, 61 and 73, respectively, totaling

265 [29]. The entire population constituted the respondents for the study. A pre-tested and validated questionnaire was administered to elicit information from the respondents. The instrument was designed to measure the demographic and some job characteristics of the respondents, which included age, gender, educational level, marital status, average monthly income, years of work experience and teaching position. It also assessed the availability of and accessibility to ICT resources, and the level at which they were used. The variables were scored thus: available yes (1) or no (2), and accessible: yes (1) or no (2) while the ICT usage level was rated as 1-never used, 2-rarely used, 3-occasionally used and 4-frequently used. The respondents were provided with the participant information and consent forms together with the questionnaires. All of them consented and were given time to complete and return the questionnaires.

The data collected were through the questionnaires were transcribed into the SPSS database which was pre-coded with the questions and responses from the questionnaire. The data were cleaned to remove erroneously entered data and were analysed. Both descriptive and inferential statistical tools were used to analyse the data. Descriptive techniques such as frequency counts, percentages, means and standard deviation, and inferential statistics such as analysis of variance (ANOVA) and Pearson correlation, were used to analyse the data.

3. Results and Discussion

3.1 Demographic and job characteristics of the respondents

Table 1 presents the demographic composition of the respondents highlighting a notable gender disparity, with 57.0% being female and 43.0% male. This gender distribution may reflect broader trends in the education sector, where women have increasingly become predominant. The higher percentage of females could be attributed to evolving gender roles and increased educational opportunities for women. Women's growing presence in academia may also signify a shift towards gender inclusivity in higher education with more women pursuing and succeeding in academic careers.

Table 1: Distribution of respondents by their demographic characteristics (n=265)			
Variable	Frequency	Percentage (%)	Mean±SD
Gender			
Male	114	43.0	
Female	151	57.0	
Age (years)			
<40	16	6.04	51.60±6.112
40-50	94	35.5	
51-60	128	48.3	
>60	8	3.02	
Marital status			
Married	146	55.1	
Single	76	28.7	
Widowed	14	5.3	
Divorced	21	7.9	
Level of education			
Degree	29	10.9	
Master's degree	225	84.9	
PhD	7	2.6	
Income (BWP)*			
<20000	19	7.2	24,014.83±3016.22
20001-25000	99	37.4	
25001-30000	26	9.8	

>35000	1	0.4	
Source: Field survey, 2023			
* 1USA Dollar = 13.20 Botswana Pula			

Only 6.04% of the respondents are under the age of 40 years, while 48.3% fall within the 51-60 years age group. Additionally, 35.5% of the respondents are aged between 40 and 50 years. The mean age of 51.60 years suggests that the workforce is skewed towards the upper age range, indicating a stable and seasoned group of educators with considerable cumulative experience.

The majority (55%) of the respondents are married, reflecting a significant portion of the workforce balancing both professional and family responsibilities. Approximately 28.7% of the respondents identified as single, representing a cohort that may be early in their careers, focusing on professional development, or choosing not to enter a formal marital relationship at this stage. Most (84.9%) of the respondents obtained a master's degree, demonstrating a high level of expertise and specialization in their fields. A smaller group (10.9%) obtained a bachelor's degree, representing individuals with foundational qualifications. Though smaller, this group still contributes significantly to the academic community with their knowledge and skills. A small subset (2.6%) has earned a PhD, highlighting a group of highly specialized and research-oriented academics. The presence of PhD holders adds intellectual depth to the staff, contributing to research, innovation, and advanced academic discourse within the colleges of education. This distribution suggests a well-qualified and diverse academic workforce at various stages of their educational and professional journeys.

A majority (67.9%) of the respondents have over 20 years of experience in education, indicating a wealth of institutional knowledge, pedagogical expertise, and a deep understanding of the academic landscape. In contrast, a smaller but notable percentage of the respondents fall within the experience brackets of 0-5 years (0.8%), 6-10 years (1.1%), 10-15 years (8.3%), and 16-20 years (13.2%) (See Figure 1). These groups, representing early and mid-career professionals, bring fresh ideas, diverse perspectives, and evolving educational methodologies to the academic community. The mean experience of 25.45 years with 7.4 years suggests a relatively uniform level of experience across the sample. While this homogeneity may indicate a stable academic community, it also raises considerations for succession planning, knowledge transfer, and professional growth opportunities, particularly for early and mid-career educators. Income distribution reveals that a substantial portion (37.4%) of the respondents earn between 20,001 and 25,000 Botswana Pula (BWP) per month with a mean of BWP 24,014.83 and Standard deviation of BWP 3016.22, suggesting a degree of financial stability within this income bracket for a significant segment of the academic workforce.

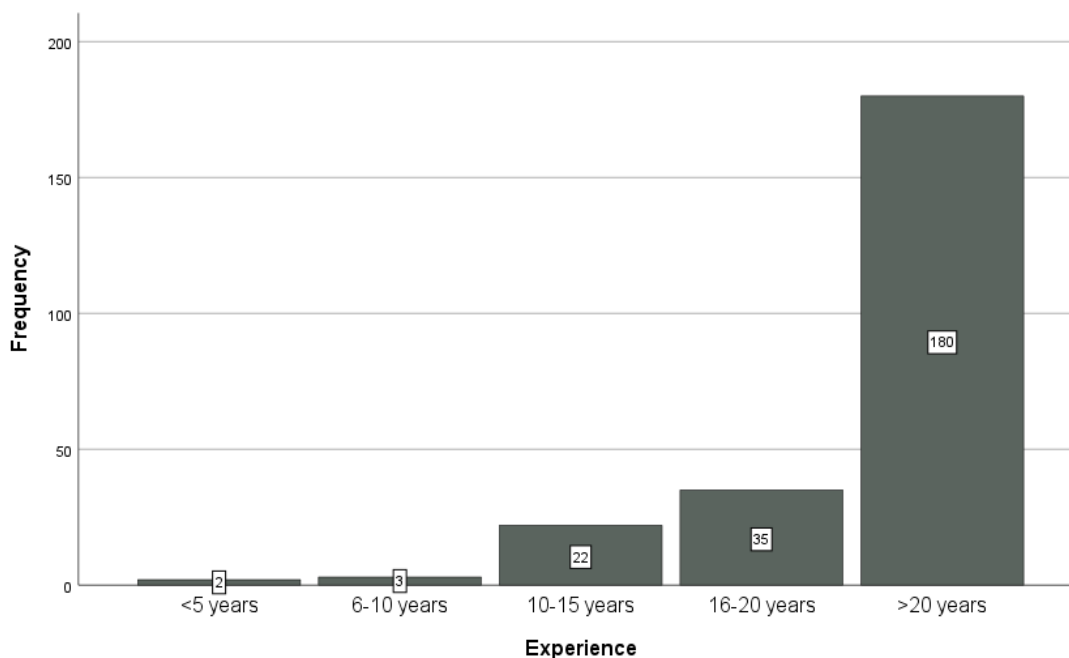


Figure 1: Showing frequency of respondents by years of experience on the job.

As shown in Figure 2, the position of Senior Lecturer I is the most prevalent (46.8%) designation among the respondents, indicating a significant presence of experienced educators with advanced roles and responsibilities, contributing to teaching, research, and possibly administrative duties. Senior Lecturer II, representing 22.3% of the workforce, highlights another substantial group of senior-level educators contributing to institutional growth.

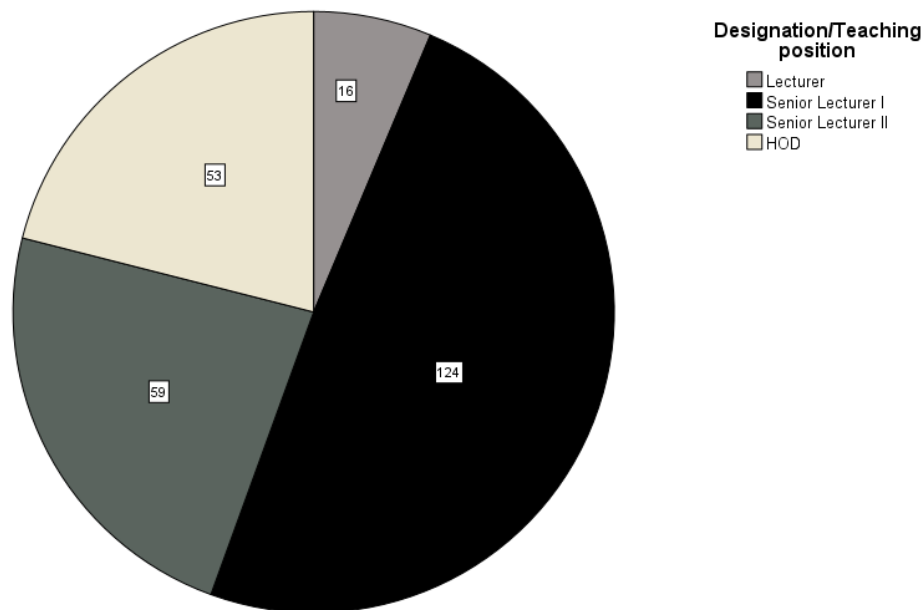


Figure 2: Showing the frequency of respondents by their designation

3.2 Availability of and accessibility to ICTs by the respondents

Table 2 highlights the availability of ICTs among the respondents, revealing a strong presence of essential

technologies. While all the respondents (100%) claimed the availability of desktop computers and Microsoft PowerPoint, more than 90.00% of the respondents indicated the availability of Microsoft word, Microsoft excel, WhatsApp, photocopiers, internet among others. Microsoft teams had a low availability as indicated by 75.5% of the respondents.

Table 2: Distribution of respondents according to the availability of and accessibility to ICT resources (n =265)				
Variable	Availability		Accessibility	
	Yes	No	Yes	No
Desktop Computers	265 (100.0%)	0 (0.0%)	260 (98.1%)	5 (1.9%)
Laptop	247 (93.2%)	18 (6.8%)	219 (85.2%)	38 (14.8%)
Printers	255 (96.2%)	10 (3.8%)	250 (96.2%)	10 (3.8%)
Projectors	251 (94.7%)	14 (5.3%)	241 (93.4%)	17 (6.6%)
Microsoft PowerPoint	265 (100.0%)	0 (0.0%)	251 (97.7%)	6 (2.3%)
Microsoft Excel	263 (99.2%)	2 (0.8%)	267 (100.0%)	0 (0.0%)
Microsoft Word	263 (99.2%)	2 (0.8%)	267 (100.0%)	0 (0.0%)
Microsoft Teams	182 (75.5%)	59 (24.5%)	175 (71.7%)	69 (28.3%)
You Tube	221 (88.8%)	28 (11.2%)	197 (81.1%)	46 (18.9%)
Photocopiers	262 (98.9%)	3 (1.1%)	243 (94.2%)	15 (5.8%)
Interactive Whiteboards	228 (86.0%)	37 (14.0%)	210 (81.7%)	47 (18.3%)
Internet	260 (98.9%)	3 (1.1%)	248 (96.1%)	10 (3.9%)
Email	255 (97.0%)	8 (3.0%)	242 (94.9%)	13 (5.1%)
WhatsApp	263 (99.2%)	2 (0.8%)	253 (99.2%)	2 (0.8%)
Source: Field survey, 2023				

Table 2 further revealed that all (100%) the respondents indicated that they have access to the Microsoft word and Microsoft excel. In addition, more that 90.00% indicated that they have access to Desktop computers, Printers, Projectors, Microsoft PowerPoint, Photocopiers, Internet, Email and WhatsApp. However, Microsoft teams still recorded low accessibility indicated by 71.7%.

Table 3: Mean scores of respondents by ranking of availability of and accessibility to ICTs in the order of importance (n = 265).								
Variable	Availability				Accessibility			
	N	Mean	S.D.	Rank	N	Mean	S. D.	Rank
Microsoft Teams	241	1.24	0.431	1st	244	1.28	0.451	1st
Interactive whiteboards	265	1.14	0.347	2nd	257	1.18	0.387	3rd
You Tube	249	1.11	0.317	3rd	243	1.19	0.393	2nd
Laptop	265	1.07	0.252	4th	257	1.15	0.356	4th
Projectors	265	1.05	0.224	5th	258	1.07	0.249	5th
Printers	265	1.04	0.191	6th	260	1.04	0.193	9th
Email	263	1.03	0.172	7th	255	1.05	0.22	7th
Internet	263	1.01	0.106	8th	258	1.04	0.193	8th
Photocopiers	265	1.01	0.106	9th	258	1.06	0.234	6th
WhatsApp	265	1.01	0.087	10th	255	1.01	0.088	11th

Microsoft word	265	1.01	0.087	11th	257	1.0	0	12th
Microsoft Excel	265	1.01	0.087	12th	257	1.0	0	13th
Microsoft PowerPoint	265	1	0	13th	257	1.02	0.151	10th
Desktop Computers	265	1	0	14th	260	1.0	0	14th

Table 3 showed the mean scores of the respondents by ranking availability of and accessibility to various ICT resources in the colleges of education in the order of importance. The results show quite good congruence between availability of and accessibility to Microsoft teams, Interactive whiteboards, You Tube, Laptop and Projectors ranking between 1st and 5th, which means that the availability of and accessibility to these ICT resources are ranked as very important in their institutions. However, Microsoft word, WhatsApp, Microsoft excel, Microsoft PowerPoint, Desktop computers are ranked lowest between 10th and 14th. These rankings reflect the perceived importance of accessibility and prevalence of ICT tools among academic staff. The prominence of Microsoft Teams at the top of the ranking highlights its growing importance as a collaboration and communication platform in educational settings. This finding aligns with recent research that underscores the critical role of online platforms in facilitating remote learning, particularly in response to the increased demand for digital teaching tools during the COVID-19 pandemic [7].

Similarly, the availability of interactive whiteboards and YouTube as the 2nd and 3rd most available resources reflects the integration of multimedia and interactive tools in modern pedagogical practices. According to [4], the use of such tools enhances student engagement and improves teaching outcomes by enabling more dynamic content delivery. However, the lower rankings for essential productivity tools like Microsoft Word, Excel, and PowerPoint, which fall near the bottom of the list, suggest that despite their critical role in academic administration and content creation, their accessibility may not be as prioritized as newer, more collaborative technologies. This finding contrasts with studies by [11], who emphasize that basic productivity software remains fundamental for academic staff, especially in research and administrative tasks. The relatively lower ranking of computers, traditionally viewed as indispensable in educational environments, may indicate a shift toward mobile and portable devices like laptops, which are ranked higher in this study. As noted by [9], the trend toward mobility and the growing use of laptops in academic contexts reflect the need for flexibility and accessibility in various teaching environments.

3.3 Level of usage of ICT resources by the respondents in performing academic roles

Data in Table 4 showed the extent to which the respondents use ICT resource in performing their academic roles. Desktop computers are the most frequently used, with 93.6% of the respondents reporting regular usage, highlighting their central role in academic functions. Laptops also see widespread use by 72.1% of the respondents frequently using them. Other resources such as printers, projectors, and Microsoft Office applications (PowerPoint, Excel, and Word) are also frequently employed by the respondents. Microsoft Teams, a key collaboration platform, is used frequently by 46.0%, though 19.6% report never using it. Communication tools like email (78.1%) and WhatsApp (88.3%) are highly used, reflecting their importance in facilitating communication and collaboration within the academic community.

These findings underscore the pervasive role of ICT resources in supporting teaching, research, and communication in academic settings. The high usage of desktop computers and laptops is consistent with [1], which emphasizes the essential role of ICT in educational activities. The frequent use of printers, projectors, and Microsoft Office applications highlights how these tools support diverse academic functions, aligning with research that links ICT availability and accessibility to increased usage [16]. Moreover, the high reliance on communication tools like email and WhatsApp reflects [26] emphasis on the critical role of ICT in

promoting effective communication and collaboration within educational institutions.

Table 4: Distribution of respondents according to their level of usage of ICT resources (n=265)				
Variable	Never used 1	Rarely used 2	Occasionally used 3	Frequently used 4
Desktop Computers	3 (1.1%)	1 (0.4%)	13 (4.9%)	248 (93.6%)
Laptop	13 (4.9%)	37 (14.0%)	24 (9.1%)	191 (72.1%)
Printers	3 (1.1%)	18 (6.8%)	16 (6.0%)	228 (86.0%)
Projectors	31 (11.7%)	39 (14.7%)	20 (7.5%)	175 (66.0%)
Microsoft PowerPoint	10 (3.8%)	41 (15.5%)	34 (12.8%)	180 (67.9%)
Microsoft Excel	14 (5.3%)	58 (21.9%)	34 (12.8%)	159 (60.0%)
Microsoft Word	1 (0.4%)	7 (2.6%)	9 (3.4%)	248 (93.6%)
Microsoft Teams	52 (19.6%)	42 (15.8%)	19 (7.2%)	122 (46.0%)
You Tube	16 (6.0%)	50 (18.9%)	15 (5.7%)	162 (61.1%)
Photocopiers	3 (1.1%)	26 (9.8%)	29 (10.9%)	198 (74.7%)
Interactive Whiteboards	36 (13.6%)	30 (11.3%)	15 (5.7%)	169 (63.8%)
Internet	3 (1.1%)	18 (6.8%)	31 (11.7%)	211 (79.6%)
Email	1 (0.4%)	18 (6.8%)	35 (13.2%)	207 (78.1%)
WhatsApp	2 (0.8%)	2 (0.8%)	25 (9.4%)	234 (88.3%)
Source: Field survey, 2023				

3.4 Hypotheses testing

3.4.1 Hypothesis One

The first null hypothesis posits that there are no significant differences between the level of ICT usage among the respondents across their demographic and job characteristics. The data were subjected to Analysis of Variance (ANOVA) to examine potential differences in ICT usage across various demographic categories, including gender, marital status, and designation. Table 5 showed the ANOVA results, indicating that there are no significant differences in ICT usage based on gender ($F = 2.286$, $p = 0.132$) and marital status ($F = 0.506$, $p = 0.678$). However, significant differences were found in ICT usage based on designation ($F = 2.688$, $p = 0.047$). Consequently, the null hypothesis was rejected for designation, suggesting a significant relationship difference across the respondent's designation and ICT usage. Conversely, the null hypothesis was not rejected for gender and marital status, indicating that these factors do not significantly affect ICT usage among the respondents.

Table 5: ANOVA results			
Variable	Categories	F	p-value
Gender	Male, female	2.286	0.132
Marital status	Married, single, widowed, divorced	0.506	0.678
Designation	Lecturer, senior lecturer 1, senior lecturer 2, HOD	2.688*	0.047

Further on hypothesis one, Table 6 showed the Least Significant Difference (LSD) multiple comparisons for ICT usage among the respondents by designation. This revealed a significant difference between Lecturers and Senior Lecturer I, with a mean difference of 5.476 and a p-value of 0.015. This indicates that Lecturers used ICTs significantly differently from Senior Lecturer I. No significant differences were found in comparisons between Lecturers and Senior Lecturer II, Lecturers and Heads of Department (HODs), or among

other pairs with p-values exceeding the 0.05 threshold. Thus, the significant difference in ICT usage was specifically between Lecturers and Senior Lecturer I.

Table 6: LSD multiple comparisons for designations						
(I) Designation /Teaching position	(J) Your designation/Teachi ng position?	Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Lecturer	Senior Lecturer I	5.476*	2.232	.015	1.08	9.87
	Senior Lecturer II	3.958	2.369	.096	-.71	8.62
	HOD	2.953	2.397	.219	-1.77	7.67
Senior Lecturer I	Lecturer	-5.476*	2.232	.015	-9.87	-1.08
	Senior Lecturer II	-1.518	1.329	.254	-4.14	1.10
	HOD	-2.523	1.379	.069	-5.24	.19
Senior Lecturer II	Lecturer	-3.958	2.369	.096	-8.62	.71
	Senior Lecturer I	1.518	1.329	.254	-1.10	4.14
	HOD	-1.005	1.590	.528	-4.14	2.13
HOD	Lecturer	-2.953	2.397	.219	-7.67	1.77
	Senior Lecturer I	2.523	1.379	.069	-.19	5.24
	Senior Lecturer II	1.005	1.590	.528	-2.13	4.14
*. The mean difference is significant at the 0.05 level.						

The results as shown in Table 7, further showed a significant negative correlation between ICT usage and both age ($r = -0.170$, $p = 0.007$) and experience ($r = -0.171$, $p = 0.008$), suggesting that younger and less experienced respondents tend to use ICT more frequently. No significant correlation was found between ICT usage and level of education ($r = -0.044$, $p = 0.483$) or income ($r = 0.004$, $p = 0.966$).

3.4.2 Hypothesis Two

Additionally, Table 7 showed the results of Pearson correlation analysis, which revealed a significant negative relationship between ICT usage and both the availability ($r = -0.356$, $p < 0.01$) and accessibility ($r = -0.322$, $p < 0.01$) of ICT resources. This counter intuitive result suggested that increased availability and accessibility of resources may not necessarily enhance ICT usage. This finding is consistent with concerns of [1], [16], [17], [22] emphasize that simply providing ICT resources is insufficient without adequate teacher training and support. The negative correlations observed may indicate that an overabundance of resources could lead to underutilization due to ineffective integration strategies or lack of appropriate training [21].

Table 7: Correlation between ICT usage and demographics and availability and accessibility levels

Variable	Correlation Coefficient (r)	Coefficient of Determination (r ²)	Decision
Age	-0.170**	0.029	Significant
Education	-0.044	0.002	Not significant
Experience	-0.171**	0.029	Significant
Income	0.004	0.000	Not significant
Availability	-0.356**	0.127	Significant
Accessibility	-0.322**	0.103	Significant
**. Correlation is significant at the 0.01 level (2-tailed).			

4. Conclusion and Recommendation

The study empirically established designation of the academic staff, their age and their job experience as correlates of the usage of ICTs by the academic staff in performing their academic roles. In addition, the availability of ICTs and their accessibility to ICTs equally established as correlates of ICTs usage. The study also showed high availability of Microsoft Office applications and communication tools such as email and WhatsApp coupled with widespread access to key technologies, including desktop computers, laptops, printers, and projectors.

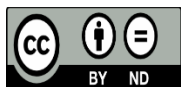
It is recommended that the government and the colleges authorities provide adequate infrastructure for enhancing access to Microsoft Teams and other important ICTs for effective performance of the academic staff roles across designations, age, their job experiences. It is also very imperative that ICTs resources be made available and accessible to the academic staff with a view to facilitating the performance of their roles.

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