

APPRAISAL OF TECHNOLOGY RESISTANCE AMONG LECTURERS FOR EFFECTIVE KNOWLEDGE MANAGEMENT IN UNIVERSITIES IN SOUTH-EAST NIGERIA

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ABSTRACT

The study aimed to ascertain the level and effects of technology resistance among lecturers in developing countries. This study examined technology resistance among lecturers and its implications for effective knowledge management in universities in South-East Nigeria. Adopting descriptive survey design, data were collected from a sample of 400 lecturers selected through systematic random sampling. Data collected using structured questionnaire were analysed using frequencies, percentages, means, standard deviation, t-test, analysis of variance (ANOVA) and simple linear regression analysis. There is high level of technology resistance among lecturers, and this was largely influenced by inadequate training, poor infrastructure, weak institutional support, and limited technical assistance. Technology resistance was found to have significant negative influence ($B = -551$, $t = -6.106$, $p = 0.00$) on the level of effective knowledge management, while lecturers exhibited moderately unfavourable attitudes toward technology use. Age had significant effect ($p < 0.05$) on the level of technology resistance, where older lecturers displayed higher level of resistance to digital adoption. Gender and academic ranks of the lecturers had no significant effect ($p > 0.05$) on their level of technology resistance. Improved digital training, better infrastructure, and stronger institutional support to enhance technology adoption among the university lecturers.

KEYWORDS: digital competence; ICT adoption; institutional support; knowledge management, lecturers, technology resistance

1. INTRODUCTION

The contemporary university system is increasingly characterized by the integration of digital technologies into virtually all aspects of academic and administrative operations (Sangrà, Vlachopoulos and Cabrera, 2012, Zafar, 2019, and Xu, Hania and Waqas, 2024). Information and communication technology (ICT) has become indispensable tools in higher education due to their capacity to improve teaching delivery, research collaboration, information accessibility, scholarly communication, and institutional knowledge dissemination (Clark and Mayer, 2016 and Szymkowiak et al., 2021). Across the globe, universities have deployed digital repositories, learning management systems, online academic databases, cloud storage applications, virtual classrooms, and collaborative communication tools to facilitate the effective management of knowledge resources (Walimbwa, 2023, Culdaz, 2024, and Panakaje et al., 2024). The growing relevance of these technologies reflects the transition from traditional information environments to digitally driven academic ecosystems.

Knowledge management has emerged as one of the most strategic organizational functions in this digital era. It refers to the systematic process through which institutions create, capture, organize, preserve, share, and utilize knowledge in order to enhance productivity, innovation, and decision-making (Ipinnaiye and Riskey, 2024). Quarchioni, Paternostro, and Trovarelli (2022) explained that knowledge management provides organizations with mechanisms for identifying and utilizing intellectual resources to improve institutional effectiveness. Furthermore, Vyas (2024) described knowledge management as a coordinated process of transforming individual and organizational knowledge into accessible institutional assets for continuous improvement. Within universities, knowledge management manifests through the generation of research outputs, digital archiving of scholarly works, online dissemination of instructional materials, collaborative research engagement, and effective academic communication among scholars (Onyema, 2020, Oye, Salleh & Iahad, 2011, and Vitalis et al., 2025).

University lecturers occupy a central position in institutional knowledge management because they are the principal creators, processors, and disseminators of academic knowledge. Through teaching, research, publication, supervision, and professional engagement, lecturers contribute significantly to the intellectual advancement of universities (Bubou and Job, 2021). Teferra and Altbach (2021) observed that lecturers constitute the driving force behind knowledge production in higher education institutions. Their role becomes even more significant in a knowledge economy where academic institutions are evaluated based on research productivity, visibility, and contribution to innovation. Consequently, lecturers are expected not only to generate knowledge but also to

effectively use technological systems that facilitate the storage, retrieval, and sharing of such knowledge. The realization of this expectation is largely dependent on lecturers' willingness and capacity to embrace technological innovations. In many universities, especially within developing nations, the availability of technological facilities does not automatically translate into their effective use (Ipinnaiye and Risquez, 2024 and Rajendran and Pushkeria, 2026). Many lecturers continue to demonstrate low commitment, delayed adaptation, and in some cases outright reluctance toward digital systems introduced for academic work (Trust and Wehalen, 2020). This behavioural reluctance is often conceptualized as technology resistance.

Technology resistance refers to the degree of opposition, avoidance, or reluctance shown by users toward the adoption and utilization of technological innovations (Samhan, 2018). It is often expressed through negative perceptions, low confidence, delayed engagement, and preference for familiar traditional systems (Samara, 2024). Nagy and Dringó-Horváth (2024) noted that users tend to resist technologies they perceive as complex, stressful, difficult to understand, or unsupported by their institutions. In higher education environments, technology resistance may manifest when lecturers avoid using digital repositories, fail to engage with online teaching platforms, delay adapting to institutional software, or maintain stronger dependence on conventional paper-based systems (Samhan, 2025).

The issue of technology resistance has become a growing concern in Nigerian universities (Durodolu and Okiki, 2017). Although university administrations and regulatory agencies have introduced digital transformation initiatives aimed at strengthening institutional efficiency and global competitiveness, many lecturers still exhibit poor engagement with these systems (Nwonye et al., 2025). Ogunbodede, Ewata, Kumar, and Okediji (2023) observed that inadequate digital competence, poor technological support systems, and weak institutional encouragement remain major barriers to lecturers' technological adaptation in Nigerian higher institutions. This implies that despite the increasing emphasis on digital knowledge systems, lecturers may still be constrained by infrastructural, psychological, and institutional challenges that discourage technological participation (Petimeza, 2025).

In South-East Nigeria, universities have embraced various forms of technological modernization such as institutional repositories, e-learning platforms, digital library subscriptions, online communication systems, and automated academic services (Onuegbu, 2020 and Ukeje et al., 2023). These initiatives are expected to improve knowledge management by ensuring that scholarly information is properly generated, stored, retrieved, shared, and utilized. However, practical observations suggest that many lecturers still underutilize these digital facilities (McCarthy et al., 2025). Some lecturers continue to rely on traditional methods of handling academic information, while others show low confidence and limited consistency in digital engagement. This situation raises concerns about the extent of technology resistance among lecturers and the consequences such resistance may have on the effectiveness of knowledge management systems. It is against this background that this study was designed to appraise technology resistance among lecturers for effective knowledge management in universities in South-East Nigeria.

2. Statement of the Problem

The growing digitalization of higher education has made technology adoption an unavoidable necessity for lecturers in contemporary universities. Universities are increasingly judged by the effectiveness of their knowledge systems, research productivity, digital visibility, and collaborative academic engagement (Ibironke and Jayeola, 2025). To achieve these objectives, many universities in South-East Nigeria have invested significantly in digital infrastructure such as internet facilities, institutional repositories, virtual communication systems, and electronic academic databases. Despite these investments, available evidences suggest that many lecturers still demonstrate substantial reluctance in fully adopting and utilizing these technological systems (Lenee, 2020). Many lecturers continue to rely more on conventional teaching methods, physical storage of scholarly materials, and face-to-face academic communication, while institutional digital platforms remain underutilized (Nwonye et al., 2025). This raises serious concerns because the mere provision of technological facilities does not automatically guarantee effective knowledge management unless lecturers actively engage with them.

Although previous studies have examined ICT competence and infrastructure availability in Nigerian universities, there remains limited empirical understanding of the actual level of technology resistance among lecturers, the major factors responsible for such resistance, the degree to which such resistance affects institutional knowledge management, lecturers' attitudes toward technology use, and practical strategies capable of reducing this resistance. In addition, there is inadequate evidence on whether demographic variables such as gender, age, and academic rank influence lecturers' technology resistance. This unresolved situation therefore constitutes the problem of this study. Therefore, the aim of this study was to appraise technology resistance among lecturers for effective knowledge management in universities in South-East Nigeria. Specifically, the objectives of the study include: (1) determine the level of technology resistance among lecturers in universities in South-East Nigeria; (2) identify the factors responsible for lecturers' resistance to the use of technology for knowledge management; (3) examine the extent to which technology resistance affects effective knowledge management; (4) determine the perceived attitudes of lecturers toward the use of technology for knowledge management; and (5) identify strategies that can be adopted to reduce technology resistance among lecturers for effective knowledge management. The following null hypotheses were tested at 0.05 level of significance: (1) There is no significant difference in the mean ratings of male and female lecturers on the level of technology resistance in universities in South-East Nigeria; (2) There is no significant difference in the mean ratings of lecturers across different age

brackets on the level of technology resistance in universities in South-East Nigeria; (3) There is no significant difference in the mean ratings of lecturers across academic ranks on the level of technology resistance in universities in South-East Nigeria; (4) Technology resistance among lecturers does not significantly affect effective knowledge management in universities in South-East Nigeria.

3. METHODOLOGY

The study adopted a descriptive survey research design. This design was considered appropriate because it enabled the researchers to obtain data from a representative sample of lecturers and describe the prevailing condition of technology resistance as it exists without manipulation of variables. The study was carried out in three selected federal universities in South-East Nigeria namely University of Nigeria, Nsukka; Nnamdi Azikiwe University, Awka; and Federal University of Technology, Owerri. These institutions were selected because they are among the leading federal universities in the zone with visible ICT integration initiatives. The population of the study consisted of 4,230 lecturers across the three universities. A sample size of 400 lecturers was selected using systematic random sampling technique to ensure fair representation.

The instrument used for data collection was a structured questionnaire developed for the study. The questionnaire was divided into sections responding to respondents' demographic information, level of technology resistance, factors responsible for technology resistance, effect technology resistance on knowledge management, attitudes toward technology use, and strategies to reduce technology resistance. The research instrument was validated and has Cronbach's alpha reliability coefficient of 0.84, indicating high reliability and internal consistency. Data were collected through face-to-face administration of the questionnaire to the respondents with the help of trained research assistants. Descriptive methods, mean and standard deviation, were used to answer the five research questions. An item with a mean score of 2.50 and above was considered 'Agree' or 'High extent' on a four-point Likert scale. Independent samples t-test and one-way analysis of variance (ANOVA) were the inferential statistical methods used to analyze the null hypotheses. All tests of significance were conducted at 0.05 level of significance.

4. RESULTS

Level of technology resistance

Table 1 presents the mean ratings and standard deviation on the level of technology resistance among lecturers in universities in South-East Nigeria. The data show that all the six items had mean scores ranging from 2.97 to 3.18, which are all above the criterion mean of 2.50. This indicates that the respondents agreed with all the statements describing technology resistant behaviours. Specifically, the lecturers agreed that they preferred conventional academic methods to digital systems, avoided new technologies except, when necessary, felt uncomfortable with advanced digital platforms, were reluctant toward newly introduced technological tools, delayed learning emerging technologies, and found it difficult integrating technology into academic tasks. The grand mean of 3.07 with a standard deviation of 0.79 indicates that lecturers in universities in South-East Nigeria exhibited a high level of technology resistance. The relatively low spread of the standard deviation also suggests consistency in the respondents' opinions.

Table 1: Mean Ratings on the Level of Technology Resistance among Lecturers in Universities in South-East Nigeria

S/N	Items on Level of Technology Resistance	Mean	SD	Remark
1	I prefer conventional academic methods to digital systems.	3.18	0.74	Agree
2	I avoid using new technologies unless it becomes absolutely necessary.	3.06	0.81	Agree
3	I feel uncomfortable when required to use advanced digital platforms.	3.11	0.79	Agree
4	I am reluctant to quickly adopt newly introduced technological tools.	2.97	0.83	Agree
5	I often delay learning how to use emerging technologies.	3.02	0.76	Agree
6	I find it difficult integrating technology into my academic tasks.	3.08	0.80	Agree
	Grand Mean	3.07	0.79	Agree

Factors responsible for technology resistance

Results displayed in Table 2 shows the factors responsible for lecturers' resistance to the use of technology for knowledge management. The table reveals that all the eight items had mean ratings ranging from 2.88 to 3.37, which are above the 2.50 mean cut-off score. This implies that the respondents agreed that inadequate training, technological complexity, weak institutional encouragement, poor internet connectivity, stress from unfamiliar technologies, insufficient workshops, lack of technical assistance, and irregular electricity supply were all major factors contributing to lecturers' resistance. The grand mean of 3.17 indicates a strong collective agreement that technology resistance among lecturers is largely sustained by institutional, infrastructural, and competence-related barriers.

Table 2: Mean Ratings of Factors Responsible for Lecturers' Resistance to the Use of Technology

S/N	Factors Responsible for Technology Resistance	Mean	SD	Decision
1	Inadequate training affects my use of digital technologies.	3.26	0.69	Agree
2	Most technological tools appear too complex to operate.	2.88	0.82	Agree
3	I do not receive enough institutional encouragement to use technology.	3.31	0.71	Agree
4	Poor internet connectivity discourages effective digital engagement.	3.37	0.66	Agree
5	I experience stress when using unfamiliar technologies.	2.93	0.79	Agree
6	There are insufficient workshops on digital competence.	3.24	0.72	Agree
7	Lack of technical assistance reduces my willingness to use technology.	3.19	0.74	Agree
8	Irregular electricity supply disrupts my digital activities.	3.15	0.77	Agree
	Grand Mean	3.17	0.74	Agree

Extent technology resistance affect effective knowledge management

Results of data analysis summarized in Table 3 revealed that all the six items had mean scores ranging from 3.09 to 3.28, indicating that respondents agreed to a high extent that technology resistance negatively affected effective knowledge management. The respondents agreed that technology resistance reduced digital storage of scholarly materials, weakened online collaboration, limited the use of institutional repositories, slowed academic communication, lowered global academic visibility, and hindered dissemination of research outputs. The grand mean of 3.18 indicates that technology resistance affected effective knowledge management to a high extent. This suggests that resistance to technology is not merely a personal behavioural issue but one with broad institutional consequences.

Table 3: Mean Ratings on the Extent Technology Resistance Affects Effective Knowledge Management

Effects on Knowledge Management	Mean	SD	Decision
Technology resistance reduces digital storage of scholarly materials.	3.12	0.78	High Extent
Technology resistance weakens online research collaboration.	3.21	0.73	High Extent
Technology resistance limits the use of institutional repositories.	3.28	0.71	High Extent
Technology resistance slows academic communication and information sharing.	3.09	0.80	High Extent
Technology resistance lowers lecturers' visibility in global scholarship.	3.16	0.76	High Extent
Technology resistance reduces effective dissemination of research outputs.	3.24	0.70	High Extent
Grand Mean	3.18	0.75	High Extent

Perceived attitudes toward use of technology

In Table 4, the results of the perceived attitudes of lecturers toward the use of technology for knowledge management were presented. The results show that all the six items had mean scores ranging from 2.89 to 3.29. This implies that lecturers generally perceived digital systems as stressful, time-consuming, occasionally frustrating, and less convenient than conventional academic methods. They also expressed low confidence in handling advanced digital applications. The grand mean of 3.06 indicates that lecturers possessed moderately unfavourable attitudes toward the use of technology. This implied that beyond infrastructural limitations, there are still attitudinal and psychological reservations influencing technology use among lecturers.

Table 4: Mean Ratings of Perceived Attitudes of Lecturers Toward Technology Use

Perceived Attitudes toward Technology Use	Mean	SD	Decision
I consider some digital platforms stressful to use.	3.01	0.81	Agree
I feel more productive with traditional methods than with digital systems.	2.94	0.77	Agree
I am not always confident using advanced technological applications	3.07	0.74	Agree
I perceive many digital systems as time-consuming.	2.89	0.80	Agree
I am cautious about depending heavily on technology for knowledge tasks.	3.13	0.76	Agree
I become frustrated when technological systems malfunction.	3.29	0.68	Agree
Grand Mean	3.06	0.76	Agree

Strategies to reduce technology resistance

Table 5 shows that all the proposed strategies had mean scores ranging from 3.11 to 3.42, all above the criterion mean of 2.50. This indicates that respondents agreed that regular digital training, improved internet services,

institutional incentives, peer mentoring, technical assistance, and user-friendly technological systems were viable strategies capable of reducing technology resistance among lecturers. The grand mean of 3.27 shows a strong consensus among lecturers that resistance can be reduced when supportive technological and institutional conditions are improved.

Table 5: Mean Ratings and Standard Deviation on Strategies for Reducing Technology Resistance

S/N	Strategies for Reducing Technology Resistance	Mean	SD	Decision
1	Regular training programmes will improve lecturers' digital competence.	3.42	0.61	Agree
2	Improved internet facilities will encourage technology use.	3.38	0.65	Agree
3	Institutional incentives will motivate lecturers toward technology adoption.	3.17	0.72	Agree
4	Peer mentoring and collaborative support will reduce resistance.	3.11	0.75	Agree
5	Responsive technical assistance will improve confidence in digital systems.	3.29	0.69	Agree
6	Provision of user-friendly software will encourage wider adoption.	3.24	0.71	Agree
	Grand Mean	3.27	0.69	Agree

Effect of gender on technology resistance

T-test was used to analyse the difference in the mean ratings of male and female lecturers on the level of technology resistance in universities in South-East Nigeria. The results of the t-test, presented in Table 6, revealed that t-value = -1.105 with $p = 0.269$. Since ($p > 0.05$), the null hypothesis was not rejected. That is, there is no significant difference between the mean responses of male and female lecturers on the level of technology resistance in universities in South-East Nigeria. This implied that gender does not significantly affect the level of technology resistance among the lecturers of the universities in Southeast Nigeria. Rather, the results indicate that both male and female lecturers exhibited the same levels of resistance toward technology adoption.

Table 6: T-test Results of Level of Technology Resistance by Sex of University Lecturers

Variable	Respondent	N	Mean	Std. Dev	t	df	P-Value	Remark
Level of technology resistance	Male lecturer	327	2.90	0.88	-1.105	395	0.269	Not significant
	Female lecturer	70	3.12	0.84				

Effect of age on level of technology resistance

The effect of the age of the lecturers on the level of technology resistance was analysed using one-way analysis of variance and the results summarized in Table 7. The ANOVA results, $F(5, 391) = 758.44$ and $p = 0.00$, indicate that the ages of the university lecturers have significant effect on the level of technology resistance. Therefore, the null hypothesis was rejected at 0.05 level of significance. The Duncan's multiple range test (Table 8) showed that the mean technology resistance levels of the different age brackets of the university lecturers differed significantly and increased as age increased. Lecturers in older age brackets (56 years and above) have higher mean technology resistance than lecturers in lower age brackets. This implied that older lecturers demonstrated relatively higher resistance to technology compared to younger lecturers.

Table 7: ANOVA Results of Effects of Age on Lecturers' Level of Technology Resistance

Source	Type III Sum of Squares	df	Mean Square	F	P-Value
Age bracket	12502.88	5	2500.576	758.44	0.00
Error	1289.11	391	3.297		
Total	13792.58	396			

Table 8: Duncan's Post-Hoc Analysis of Age and Technology Resistance

Subset for alpha = 0.05							
	Age Bracket	N	1	2	3	4	5
Duncan ^a	Less than 25 years	16	2.431				
	25-35 years	90		2.677			
	36-45 years	112			3.452		
	46-55 years	101			3.501		
	56-60 years	57					3.831
	More than 60 years	20					3.911
	Sig.		1.000	1.000	.219		1.000

^aMeans for groups in homogeneous subsets are displayed.

Effect of academic ranks on level of technology resistance

One-way analysis of variance yielded $F(6, 390) = 1.637$ with $p = 0.136$, which is greater than the 0.05 significance level ($p > 0.05$). Therefore, the null hypothesis was not rejected. This implied that academic rank did not significantly influence lecturers' level of technology resistance. Lecturers of different academic ranks exhibited similar level of technology resistance.

Table 9: One-Way ANOVA for Effect of Academic Rank on Level of Technology Resistance

Source	Type III Sum of Squares	df	Mean Square	F	P-value
Academic rank	1605.38	6	267.563	1.637	0.136
Error	63727.64	390	163.404		
Total	65333.02	396			

a. R Squared = .989 (Adjusted R Squared = .988)

Influence of technology resistance on effective knowledge management

Simple linear regression was used to analyse the influence of lecturers' technology resistance on effective knowledge management in the universities (Table 10). The regression ANOVA, $F = 128.008$ with $p = 0.00$, indicated that the simple linear regression model was adequate to describe the relationship between lecturers' technology resistance and effective knowledge management. The model yielded R-square = 0.807, which implied that 80.7% of the variations in effective knowledge management was accounted for by lecturers' technology resistance. The regression analysis showed that the independent variable, technology resistance, has model coefficient, $B = -0.551$ with t -value = -6.106 and $p = 0.00$, which indicates that lecturers' technology resistance has significant influence on effective knowledge management in universities in South-East Nigeria. The negative value of the model coefficient implied that as technology resistance increases, the effectiveness of institutional knowledge management decreases significantly.

Table 10: Simple Linear Regression Analysis of Influence of Technology Resistance on Effective Knowledge Management

Model	Unstandardized Coefficients		Standardized Coefficients	t	P-value
	B	Std. Error	Beta		
1 (Constant)	2.503	0.311		8.055	0.000
Technology resistance	-0.551	0.090	0.659	-6.106	0.000

Regression ANOVA, $F = 128.008$, $p = 0.00$, R-Square = 0.807

5. DISCUSSION

The study revealed that lecturers in universities in South-East Nigeria exhibited high level of technology resistance, as indicated by the grand mean of 3.07. This finding suggests that many lecturers still prefer traditional academic procedures and are hesitant toward full adoption of digital technology to enhance knowledge management in the university system. The implication is that although digital technologies are increasingly available in university settings, the level of adoption by the lecturers to enhance academic productivity remains poor. This finding corroborates Nagy and Dringó-Horváth (2024), who reported that university teachers often demonstrate resistance when technological systems appear difficult, stressful, or unfamiliar. The finding also aligns with one of the concepts of the Unified Theory of Acceptance and Use of Technology, which explains that users' behavioural intentions toward technology are shaped by their perceptions of usefulness, ease of use, and facilitating conditions (Venkatesh et al, 2003). Technology resistance may influence perceived ease of use, and where the facilitating conditions are weak, resistance becomes stronger, which further damages perceived ease of use.

Age was identified as a factor having significant effect on the level of technology resistance among the lecturers of universities in Southeast, Nigeria. As revealed by the study findings, technology resistance increased among the lecturers with increase in age. Younger lecturers displayed lower level of technology resistance while older lecturers displayed higher level of technology resistance in the university system. This indicates that the younger lecturers are more in tune with technological advancements in teaching and research and re therefore, more open to adoption.

Several structural and institutional factors were identified to be responsible for lecturers' resistance to the use of technology for knowledge management, as revealed in the findings of the study. These factors include inadequate digital training, poor internet connectivity, weak institutional encouragement, technological complexity, stress from unfamiliar digital systems, insufficient workshops, lack of technical assistance, and irregular power supply. The grand mean of 3.17 indicates that lecturers strongly perceived these institutional and infrastructural barriers as central to their resistance to technology. This implied that technology resistance by universities lecturers could be attributed to institutional and structural deficiencies which hampers adoption of advanced technology-enhanced teaching and research facilities for knowledge management. This finding agrees with Ogunbodede, Ewata, Kumar, and Okediji (2023), who observed that lecturers in Nigerian universities often struggle with digital transformation due to low technological support systems and inadequate competence-building opportunities. Lack of adequate

technical support for staff severely affects adoption of technological methods and increases resistance. Similar findings by Quarchioni et al. (2022) maintained that effective knowledge management requires not just technological availability but also a supportive organizational environment that promotes confidence and participation. Thus, the finding shows that technology resistance is not merely a matter of personal unwillingness but a product of broader environmental deficiencies.

The findings further showed that technology resistance affected effective knowledge management to a high extent. The respondents agreed that resistance reduced digital storage of scholarly materials, weakened online research collaboration, limited the use of institutional repositories, slowed academic communication, lowered global academic visibility, and reduced effective dissemination of research outputs. The findings implied that when lecturers resist technology, the entire institutional processes of creating, storing, sharing, and applying knowledge becomes grossly inefficient. This weakens the institutional knowledge management and productivity systems. This finding corroborates the work of Vyas (2024), who emphasized that technology serves as the operational backbone of modern knowledge management and that poor technological engagement directly weakens institutional productivity. In practical terms, universities cannot attain global competitiveness in research and innovation if the lecturers who are central to knowledge generation do not actively utilize digital systems.

Study findings also revealed that there is high level of negative attitudes of university lecturers toward the use of technology for knowledge management. Most lecturers perceived many digital platforms as stressful to use, frustrating, time-consuming, and less dependable than traditional methods. This indicates that lecturers' technology resistance is reinforced by attitudinal and psychological reservations beyond institutional and infrastructural issues. This finding is consistent with the observation by Xue, Rashid, and Ouyang (2024), who noted that technology acceptance in higher education is significantly shaped by users' confidence, prior experiences, and emotional disposition toward digital systems. Where users associate technology with frustration and uncertainty, negative attitudes are likely to persist and resistance are likely to increase.

Findings on strategies to minimize technology resistance among university lecturers revealed such strategies like regular digital training, improved internet services, institutional incentives, peer mentoring, responsive technical support, and provision of user-friendly technological systems as effective means of reducing technology resistance. The respondents strongly agreed that these measures could improve lecturers' confidence and willingness toward technological engagement. This finding confirms the view of Teferra and Altbach (2021), who argued that sustainable digital transformation in African universities depends heavily on continuous professional development and supportive institutional policies. Therefore, technology resistance can be reduced when universities move beyond merely providing equipment to actively building lecturers' competence and confidence.

6. CONCLUSION

Universities have increasingly embraced digital systems aimed at strengthening research productivity, scholarly communication, and information dissemination, many lecturers still demonstrate significant resistance in adopting and effectively utilizing these technologies. Based on the findings of the study, technology resistance remains a substantial barrier to effective knowledge management in universities in South-East Nigeria. This resistance is sustained by a combination of institutional, infrastructural, support-related, and attitudinal factors such as inadequate digital training, poor internet connectivity, technological complexity, weak technical support, and psychological discomfort with digital platforms. Technology resistance significantly undermined knowledge management by weakening digital storage, reducing collaborative scholarship, limiting online dissemination of research outputs, and lowering academic productivity and visibility. Age of the lecturers was found to have significant effect on the level of technology resistance, unlike gender and academic rank. Strengthening institutional and technical support systems to provide immediate assistance to lecturers experiencing technological difficulties will enhance lecturers' adoption of digital technology.

Author Contributions

All authors contributed substantially to the conception, design, data collection, analysis, interpretation, drafting, and final approval of this manuscript. Each author reviewed the manuscript critically and approved the final version for publication.

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The authors have no conflict of interest to declare.

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Ethical Approval

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Data availability statement

The data supporting the findings of this study are available from the corresponding author on reasonable request.

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