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Research Article

University Lecturers' Perceived Usefulness of Mobile Technology for Instruction in Kwara State, Nigeria

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Abstract
Even though mobile technologies are highly evolved, their advantages and capabilities have not been fully utilized in education, particularly in underdeveloped nations like Nigeria. Therefore, this study examined how university lecturers in Kwara State, Nigeria, perceived the use of mobile technology for teaching. The study used the quantitative method of descriptive research. Three Kwara State universities were purposefully chosen to provide the sample. Using a proportionate and stratified random sample procedure, 315 respondents were chosen. Data was gathered using a questionnaire modified by the researchers. Frequency counts, percentages, and means were used to address the study topics, while *t*-tests and ANOVA were employed to assess hypotheses at the 0.05 level of significance. The results indicated that university lecturers held favorable perceptions regarding the instructional usefulness of mobile technologies. Statistical analysis revealed no significant differences in lecturers' perceived usefulness of mobile technology for instructional purposes ($F(19, 295) = 0.68$, $p = 0.84$). Additionally, lecturers' perceptions did not differ significantly based on gender. No significant differences were also found in perceived usefulness with respect to educational qualifications ($F(19, 295) = 1.56$, $p = 0.07$) or area of specialization ($F(19, 295) = 1.06$, $p = 0.39$). The study concluded that university lecturers had a positive perception of the use of mobile technologies for instruction in Kwara State, Nigeria, and has great potential if it is adopted for instructional delivery. It was recommended that the university's lecturers should be provided with mobile technologies and encouraged to utilize them for instruction, as it will lead to more active and innovative teaching methods.

Keywords: Gender, Mobile Technology, Perceived Usefulness Qualification, Specialization, Teaching Experience

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1. INTRODUCTION

Instructors now have access to valuable resources to enhance student learning due to the increasing power and widespread use of technology. More people are using technologies for a wider range of reasons and in more facets of life. Technology is the application of processes and knowledge to create systems that are used to increase human capabilities and solve a variety of tasks and issues. Technology has progressed to such an extent that it has made education more easily accessible (Bindu, 2016). Instant messaging, texting, SMART boards, mobile learning, and online classrooms have all significantly enhanced education (Mohammed, 2018). According to Hanushek and Woessmann (2015), Information and Communication Technology (ICT) represents a well-established and extensively implemented technology that can be leveraged to enhance both the speed and breadth of transformations in teaching and learning processes within higher education institutions.

Information-sharing activities are made easier by ICT. These tasks include collecting, analyzing, storing, and presenting data. ICT encompasses everything from radio communication to satellite communication (Olafare et al., 2017). ICT integration in education can be defined as the implementation of technology-supported teaching and learning practices that are intrinsically associated with the use of digital learning tools in higher education. Given that students tend to learn more effectively in technology-enhanced environments and are already familiar with such contexts, ICT integration in universities—particularly within lecture settings—has become increasingly important. This importance stems from the substantial role of technology in strengthening pedagogical processes, as the effective application of ICT facilitates meaningful learning outcomes through the utilization of various ICT tools and resources (Jamieson-Proctor et al., 2013).

Information technologies (IT) have significantly changed human society. A new wave of IT innovation that fundamentally changed the socioeconomic environment was spurred by the development of mobile technology. Nowadays, the majority of people recognize and accept mobile gadgets as a necessary part of everyday life. Mobile technologies are portable, handheld devices that are used by everyone on a regular basis. These mobile technologies have been incorporated into educational environments. Both within and outside of lecture halls, mobile technology is utilized as a teaching and learning tool (Rebiha & Sylia, 2018). Learning is now more accessible because of the notable developments in mobile technology.

Mobile technologies are frequently utilized wireless devices that could help instructors and students make better, more successful judgments. Mobile technology is one technical instrument that can successfully stimulate the minds of digital learners in higher education. The majority of people can now purchase and use mobile devices, often known as hand-held gadgets, such as iPads and smartphones (Tabisa, 2013). Furthermore, it provides opportunities for instructors and students to engage productively no matter where they are (Adedoja, 2016).

Additionally, the possibilities for mobile technology users are further expanded by developments in wireless communication networks, such as the Global Positioning System (GPS), General Packet Radio Service (GPRS), Bluetooth, Hotspot, 4G/3G/data card, data bundles, and Wireless Fidelity (Wi-Fi). Mobile devices, wireless communication tools, and mobile computers (such as laptops, tablets, and palmtops) are all considered "mobile technology" in this study. The availability of mobile devices has enabled educators to support learning both within and beyond the classroom. Students can access and engage with learning materials outside of a typical classroom thanks to the integration of a variety of tools and applications made possible by mobile technology (Anaza, 2017). Instructors and students can exchange ideas and resources by using mobile technologies. They can download information from any location at any time via mobile technology devices that have internet connectivity. Additionally, instructors can communicate with their students through blogs or Short Message Service (SMS) (Anaza, 2017).

The 21st century has seen a rise in mobile technologies that facilitate advanced learning activities; as a result, several educational sectors have adopted them for this reason. This is made possible by the fact that mobile devices permeate every aspect of lecturers' and students' daily lives. Moreover, advances in wireless technology have enabled learning to occur anytime and anywhere, allowing learners to access educational materials independent of geographical constraints. By enabling the distribution of learning resources, mobile technologies offer significant opportunities for timely and interactive knowledge acquisition (Jones et al., 2013; Woodill, 2011). In higher education contexts, the integration of mobile technology plays a crucial role in enhancing lecturers' competencies while also supporting academic activities and the production of high-quality research. Users may now communicate and access information quickly and easily from the comfort of their homes and businesses, as well as from anywhere they go when using a mobile phone or Personal Digital Assistant (PDA). There are 3.3 billion mobile phone subscribers worldwide, which is half of the world's population, and these figures provide strong proof that individuals use information everywhere (Archana & Yadav, 2013). In both formal and informal educational settings, mobile technology has the potential to provide students with rich multimedia experiences and resources of a diverse range, allowing them to learn without being limited by time or place. However, the mere availability of mobile technology does not ensure its utilisation in an educational context (Hwang & Chang, 2011). However, it is anticipated that the use of mobile technology in teaching and learning would significantly impact students' experiences and academic achievement (Jeffrey & Mac Callum, 2013).

Lecturers' adoption of mobile learning is likely to play a pivotal role in determining the success of its implementation (MacCallum, 2010). Nevertheless, the effectiveness with which mobile technology is integrated into classroom practice is strongly shaped by lecturers' attitudes toward its use (Avidov-Ungar & Eshet-Alkakay, 2011; Salmon, 2011; Teo & Ursavas, 2012). Mobile technology has become an enduring presence in educational settings; therefore, institutional readiness for its integration should be grounded in acceptance and strong commitment to employing this technology within the teaching and learning process. Fostering positive attitudes toward the use of mobile technology in higher education is thus essential. Given that students are prone to forget information acquired through rote memorization, favorable attitudes toward instructional media are associated with higher levels of achievement than learning approaches that focus exclusively on knowledge acquisition (Husain, 2011). Insufficient usage of technology by lecturers may result in low academic achievement of students. This may be explained by the dissatisfaction and resentment that instructors feel towards the educational media (Keegan, 2010). Developing a positive attitude towards mobile technology enhances instructors' motivation to study and strengthens their application and usage of technology in the classroom (Mohammad et al., 2008). Mobile devices are now widely used, particularly among university students. Higher education institutions increasingly advocate the integration of e-learning and communication technologies into curricula, as conventional classroom-based instruction is no longer sufficient to address the demands of modern society. Consequently, university lecturers are encouraged to harness the instructional potential of mobile technologies. To support this effort, institutions must establish supportive environments that enable educators to enhance their pedagogical competencies through mobile technology and to access advanced technological resources that facilitate the production of high-quality and original academic work. However, the effective and meaningful integration of mobile technology in instructional settings requires strong commitment from both lecturers and students. Moreover, given the central role of lecturers in implementing teacher education curricula at the tertiary level, it is essential to examine their perceptions of mobile technology for instructional purposes prior to the adoption of mobile learning initiatives (Anaza, 2017). Within higher education institutions, lecturers are pivotal actors in the planning and implementation of mobile technology in teaching and learning processes.

Lecturers are highly regarded members of the educational community who usually educate undergraduate and graduate students in a variety of courses. These people bear the responsibility of enhancing the perspectives and experiences of students. They typically play a leadership position in the management of a programme, and this includes responsibilities related to course administration and evaluation. Lecturers may be heavily involved in curriculum design, development, and other aspects of course administration. In order to keep up and advance their professional, scholarly, and/or research endeavours pertinent to their field or profession, lecturers engage in many activities. In higher education, lecturers primarily engage in two activities: research and teaching, with ancillary administrative responsibilities. In addition to guaranteeing efficacy and efficiency in these two domains of teaching and learning, ICTs can potentially ease or eliminate administrative responsibilities (Onasanya et al., 2010). It is no longer a challenge for lecturers at these institutions to cover the course material or to adopt appropriate teaching pedagogy when the teaching and learning process is critically evaluated. Instead, it is a significant challenge to have access to ICT and use it to embrace teaching and learning during instruction. When it comes to the utilization of mobile devices to enhance university learning, lecturers' perceptions need to be critically examined since they are the facilitators in instructional delivery.

The way a lecturer views, understands, and interprets the use of mobile devices for instructional purposes is known as their perception of mobile technologies. Among other things, smartphones, laptops, and palmtop computers are examples of mobile technologies that have altered how many lecturers approach their instruction. These days, lecturers can use mobile technologies to show students dynamic processes in real time. For example, they can show students how a practical concept is carried out in a science or technology laboratory or show them movies and clips of significant historical events. These methods all help the lecturer get students to think more deeply about the material they are studying (Marie-Anne et al., 2012). The opinions of educators regarding the usage of technology in the classroom have been extensively studied. Cope and Ward (2002) posited that proficient and experienced instructors with minimal or no professional development in utilising mobile technologies for instruction are unlikely to use them and recognise their advantages in utilising mobile technologies for instruction in the classroom. Lecturers were more inclined to employ technology for education when they were actively involved in putting it up in the classroom. For this reason, it's critical that lecturers acquire training in technology skills. This is not to argue

that lecturers' roles are changing as a result of increased use of technology in the classroom; rather, it is meant to improve instruction efficacy and encourage student engagement.

The attitudes and perceptions of the lecturers are critical to the effective integration of mobile devices in instruction. Mobile technologies are used, and their likelihood of being integrated into teaching and learning is determined by lecturers' perception of their utility and usability (Buabeng-Andoh, 2012). The extent to which a person believes a specific system would improve his or her job is known as perceived usefulness (Davis, 1989). In a related vein, Marie-Anne et al. (2012) noted that lecturers who include web-based learning aids in their lectures believe that their students will perform better since it seems to actively engage them in the material. Interactive presentations, which allow students to offer feedback and observations, can be designed and arranged by lecturers. Instructors can provide guidance on how to use mobile technologies in an efficient manner by organising their delivery. Presentations with eye-catching animations and effects can be easily created using an intuitive interface (Lina & Angelin, 2017). The attitudes and beliefs of lecturers towards technology are among the factors that impact the successful integration of ICT into teaching. A person's gender is defined by their sexual orientation, gender identity, and the social and cultural roles that society ascribes to men and women.

The researcher believed gender to be an important issue that has ramifications for schooling and has been examined in other studies. Gender is considered a significant aspect that affects education, and it is important to understand how males and females approach the usage of ICT in order to maintain appropriate communication between lecturers and students (AbdulRahman et al., 2017). Gender analysis affects how people perceive the integration of mobile technology into the classroom, and it's crucial to recognise how males and females view mobile device use when observing communication patterns. Studies pertaining to gender have revealed notable disparities in ICT usage (AbdulRahman et al., 2017). Areas of specialisation are another aspect that influences how mobile devices are used for instruction; a lecturer's familiarity with a certain subject is largely determined by their experience in that field. This suggests that a lecturer should have a wealth of experience in addition to a higher degree in order to deliver high-quality instruction. A lecturer who possesses a higher degree but lacks teaching experience will not be able to deliver high-quality instruction to students (Dugagjin & Andrej, 2017).

Years of experience are a good indicator of a person's professional maturity and willingness to adapt. The number of years that lecturers have been lecturing and supervising both undergraduate and postgraduate students varies. A fundamental premise in examining lecturers' influence on education is that students' learning gains over an academic year are, in part, attributable to their instructors' teaching experience and subject-matter expertise (Tabitha et al., 2016). Many professions acknowledge that an employee's years of experience play a significant role in human resource policies, which include decisions on promotion, benefits, and salary. The theory is that workers' knowledge, abilities, and productivity increase as a result of the experience they accumulate throughout their time of service (Rice, 2010). Teachers can enhance their teaching and classroom management skills through real-world experiences gained while working on the job. Additionally, the average number of years that lecturers have taught is a good indicator of their maturity and dedication to teaching over the long term. Teaching experience exerts its strongest influence during the initial years of practice, after which the incremental benefits tend to diminish (Rice, 2010). Experience acquired in the early stages of a lecturer's career substantially enhances instructional effectiveness, with a stronger impact than most other observable lecturer-related factors, including advanced academic qualifications and class size (Tabitha et al., 2016). The degree of creativity with which they apply this body of information and abilities is a crucial way that novice and seasoned lecturers differ from one another (Tabitha et al., 2016). The expertise, abilities, support, and dedication that lecturers have determine what and how they teach (Zaki & Rashidi, 2013). They went on to say that lecturers do more than just convey knowledge; they also interpret the curriculum so that students can benefit from it and other stakeholders can understand it.

The importance of qualifications in the academic arena cannot be overemphasized. For example, teaching qualifications and experience can help lecturers transcend beyond their role as lecturers and become more professional. It is the responsibility of lecturers to help students develop more positive perspectives (Dugagjin & Andrej, 2017). To ensure that they do not mislead students, lecturers must possess recent technological skills and experience. Higher-qualified lecturers deliver higher-quality instruction than lower-qualified ones, and it is important to recognise that highly qualified lecturers have gained a great deal of knowledge and have gone above and beyond to do research and impart fresh information in their fields.

As a result, lecturers with high level qualification have adequate knowledge (Dugagjin & Andrej, 2017). There should be an underlying conversation that the quality of education or instruction does not solely depend on the higher qualification. Therefore, a lecturer's qualification does not guarantee that they will deliver high-quality instruction with the use of mobile technologies. The same is true for instructors with a great deal of professional development training and those with experience (Dugagjin & Andrej, 2017).

1.1. Statement of the Problem

Mobile technology implementation would not be possible or efficient without a strong commitment from instructors and students. Furthermore, as lecturers play a key role in putting the teacher education curriculum into practice, it is crucial to find out how they feel about using mobile technology for teaching purposes before introducing mobile learning. In order to effectively educate in the twenty-first century, lecturers and students must be prepared for academic environments through the use of cutting-edge pedagogy and relevant, meaningful, and demanding teaching techniques. In order to do this, teachers must be given the freedom to fully utilise mobile learning's potential whenever and wherever it occurs through disruptive schooling transformation (Dede & Bjerede, 2011). By breaking down barriers and advancing instructors towards a high standard of instruction, mobile learning spaces offer a chance to inspire and facilitate change within educational institutions.

Despite their abundance of current features and potential applications, mobile technologies such as smartphones are not widely adopted or used in many colleges. It is also crucial to stress that, in spite of the novel opportunities that mobile technology offers by empowering people, revolutionizing the processes of teaching and learning, and encouraging the development of skills for the twenty-first century, there is no denying that the integration of mobile learning is characterized by significant difficulties. There are still gaps in the Nigerian education system regarding the proper use of mobile technologies; therefore, it is necessary to find out lecturers' perceptions on the usefulness of mobile technologies for instructional purposes in universities in Kwara State, Nigeria.

1.2. Research Questions

1. What is the perceived usefulness of mobile technology among the universities' lecturers for instruction?
2. What is the gender factor of the lecturers on the perceived usefulness of mobile technology for instruction?
3. What is the difference in teaching experience of the lecturers on the perceived usefulness of mobile technology for instruction?
4. What is the difference in the area of specialization of lecturers on the perceived usefulness of mobile technology for instruction?
5. What is the difference in the educational qualifications of lecturers on the perceived usefulness of mobile technology for instruction?

1.3. Research Hypotheses

The hypotheses presented below were developed in alignment with the research questions and were subsequently examined in this study.

H_{01}: There is no statistically significant difference in lecturers' perceived usefulness of mobile technology for instruction when examined by gender.

H_{02}: There is no statistically significant difference in lecturers' perceived usefulness of mobile technology for instruction when examined by educational qualification.

H_{03}: There is no statistically significant difference in lecturers' perceived usefulness of mobile technology for instruction when examined by teaching experience.

H_{04}: There is no statistically significant difference in lecturers' perceived usefulness of mobile technology for instruction when examined by area of specialization.

2. METHODS

This research adopted a descriptive survey design. The survey method was deemed suitable for obtaining primary data from a large population to generate meaningful insights into lecturers' perceptions regarding the use of mobile technology for instructional purposes. The study population included all university lecturers in Kwara State, while the target population comprised lecturers purposively selected from three universities. The sample size for each institution was determined through a proportionate sampling technique based on the defined study area. Furthermore, a stratified random sampling approach was employed to classify lecturers by gender, teaching experience, and field of specialization (Natural Sciences, Humanities and Social Sciences, and Management Sciences). In total, 353 questionnaires were distributed across the selected faculties. Data analysis involved both descriptive and inferential statistical techniques. The first hypothesis was tested using an independent samples t-test, whereas hypotheses two through four were analyzed using one-way analysis of variance (ANOVA) at a 0.05 significance level with the support of SPSS version 20. Statistical assumptions were confirmed before the analyses were carried out. Levene's test revealed homogeneity of variance ($p > .05$), the Shapiro-Wilk test verified the data's normal distribution ($p > .05$), and random sampling techniques satisfied the independence condition. The use of parametric tests was supported by these findings. 315 of the 353 questionnaires that were sent out to the chosen faculties were returned and found to be legitimate for analysis, resulting in an 89.2% response rate. This high response rate reduces worries about non-response bias and improves the dependability and generalizability.

2.1. Research Instrument

The researchers used an adapted survey questionnaire from MacCallum et al. (2014) that comprised two sections. The instrument employed for data collection was a questionnaire entitled "Lecturers' Perception of the Usefulness of Mobile Technology for Instruction in Universities in Kwara State." The questionnaire was organized into two sections. Section A gathered respondents' demographic information, including gender, academic qualifications, teaching experience, and field of specialization. Section B focused on lecturers' perceptions regarding the usefulness of mobile technology for instructional purposes. This section comprised ten (10) items arranged on a four-point Likert scale: Strongly Agree (SA = 4), Agree (A = 3), Disagree (D = 2), and Strongly Disagree (SD = 1). To reduce response bias, the scale incorporated both positively and negatively phrased statements. Specifically, Items 2, 5, and 8 were negatively worded and were reverse-coded during data analysis to maintain consistency in scoring direction. The adapted instrument underwent face and content validation conducted by three lecturers from the Department of Educational Technology at the University of Ilorin, Nigeria. Furthermore, a pilot study was carried out to assess the reliability of the instrument at an institution located in Oyo State, Nigeria. The data obtained from the pilot study were analyzed using Cronbach's alpha reliability coefficient, yielding a reliability index of 0.802.

2.2. Procedure for Data Collection

In order to make it easier to administer the surveys, formal permission was obtained from the relevant authorities of the selected schools through an introductory letter issued by the Department of Educational Technology, University of Ilorin. The researchers distributed the questionnaires to the respondents and allowed sufficient time for completion. Afterward, the completed questionnaires were collected by the researchers. Data analysis was conducted using SPSS (Statistical Package for the Social Sciences) with the assistance of a statistical analyst. Ethical standards were strictly observed throughout the data collection process. Participation was entirely voluntary, and respondents were not compelled to complete the questionnaire. Furthermore, strict confidentiality and anonymity of the participants were maintained during the administration, data compilation, and reporting of the research findings. Adequate

guidance was provided to ensure that the questionnaires were completed correctly and to prevent invalid responses.

Table 1. Percentage Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	174	55.2
Female	141	44.8
Total	315	100.0

Table 1 reveals that 177 (55.2%) of the respondents were male and (44.8%) were female. This implies that more males participated in the study than the females.

Table 2. Percentage Distribution of Respondents by Age Range

Age Range (years)	Frequency	Percentage (%)
25-30	47	14.9
31-35	68	21.6
36-40	72	22.9
41-45	59	18.7
46-50	43	13.7
Over 50	26	8.3
Total	315	100.0

Table 2 shows that lecturers aged 36-40 years constituted the highest percentage (22.9%), followed by those aged 31-35 years (21.6%). Lecturers over 50 years had the least representation (8.3%). This indicates that the majority of respondents were middle-aged professionals.

Table 3. Percentage Distribution of Respondents by Qualification

Qualification	Frequency	Percentage (%)
Doctorate (Ph.D.)	146	46.3
Masters	114	36.2
Degree	55	17.5
Total	315	100.0

Table 3 indicates that respondents with a Doctorate (Ph.D.) had the highest number, with 146 (46.3%), while respondents with a Master's Degree were 114 (36.2%). Respondents with a Bachelor's Degree had the least number, with 55 (17.5%). This implies that respondents with a Doctorate had the highest number of respondents.

Table 4. Percentage Distribution of Respondents by Teaching Experience

Teaching Experience (years)	Frequency	Percentage (%)
0-5	53	16.8
6-10	81	25.7
11-15	89	28.3
16-20	67	21.3
Over 20	25	7.9
Total	315	100.0

Table 4 reveals the respondents' teaching experience. 0 – 5 years of teaching experience had 53 (16.8%) respondents, 6 – 10 years of teaching experience had 81 (25.7%), 11 – 15 years of teaching experience had 89 (28.3%) respondents, while 16 - 20 years of teaching experience had 67 (21.3%) respondents and over 20 years of experience had 25 (7.9%) respondents. The result indicated that the 11 – 15 years of teaching experience had the highest number of respondents.

Table 5 shows that 111 respondents (35.2%) were from Natural Sciences, 105 (33.3%) were respondents were from Humanities and Social Sciences, while 99 (31.4%) respondents were from Management Sciences. It result shows that Natural Sciences have the highest number of respondents.

Table 5. Percentage Distribution of Respondents by Area of Specialization

Area of Specialization	Frequency	Percentage (%)
Natural Sciences	111	35.2
Humanities and Social Sciences	105	33.3
Management Sciences	99	31.4
Total	315	100.0

3. RESULTS

Research Question One: What is the perceived usefulness of mobile technology among the universities' lecturers for instruction?

Table 6. Respondents' Perceived Usefulness of Mobile Technologies for Instruction

S/N	Questionnaire Items	Mean ($\bar{X}$)
1.	Mobile technologies will make teaching more interesting.	3.32
2.	Mobile technologies serve as a way of encouraging more interaction among the students and instructors.	3.25
3.	Mobile technologies improve student learning as they give students the opportunity to access learning content anywhere and anytime.	3.33
4.	Mobile technologies enhance my students' self-directed learning.	3.13
5.	The use of mobile technologies would improve the quality of instruction.	3.17
6.	With the aid of mobile technologies, course contents would be taught effectively and efficiently.	3.15
7.	Mobile technologies enhance my performance during instruction.	3.28
8.	Using mobile technologies makes it easier to influence instructional resources.	3.19
9.	Mobile Technologies are useful in my discipline	3.35
10.	Using mobile technologies could provide me with information that leads to a better instructional delivery method.	3.30
	Grand Mean (X)	3.25

Bench mark = 2.5

Table 6 presents respondents' perceptions of the usefulness of mobile technologies for instructional purposes, with an overall grand mean of 3.25. The highest mean score (3.35) was recorded for the statement that mobile technologies are useful in the respondents' discipline, followed closely by the perception that mobile technologies enhance student learning by enabling access to learning materials anytime and anywhere (M = 3.33). Additionally, respondents agreed that mobile technologies make teaching more engaging (M = 3.32) and provide information that supports more effective instructional delivery (M = 3.30). Similarly, mean scores of 3.28 and 3.19 were obtained for statements indicating that mobile technologies enhance instructional performance and facilitate easier access to instructional resources, respectively. The lowest mean score (3.13) was associated with the perception that mobile technologies enhance students' self-directed learning.

However, using the benchmark of 2.5 and with reference to the total grand mean of all the respondents, 3.25, it can be concluded that respondents had a positive perception of the usefulness of mobile technologies for instruction in universities under study.

Research Hypothesis One: There is no significant difference in lecturers' perceived usefulness of mobile technology for instruction based on gender.

Table 7. T-test of Male and Female Lecturers' Perception of their Perceived Usefulness of Mobile Technologies for Instruction

Gender	N	X	SD	Df	T	Sig.(2-tailed)	Remark
Male	174	32.75	3.82	313	1.55	.12	Not rejected
Female	141	32.12	3.29				
Total	315						

The null hypothesis was retained, as indicated in Table 7, which reports df = 315, t = 1.55, and p =.12. This result occurred because the obtained t-value of 1.55 corresponded to a significance level of 0.12, exceeding the predetermined alpha level of 0.05. Consequently, the null hypothesis was accepted. These findings suggest that there is no statistically significant difference between male and female university professors in their perceived value of mobile technologies for teaching. Furthermore, the mean scores reflecting the overall perceptions of both male and female lecturers indicate that university faculty members hold a highly positive view of the use of mobile technology for instructional purposes.

Research Hypothesis Two: There is no significant difference in lecturers' perceived usefulness of mobile technology for instruction based on educational qualification.

Table 8. ANOVA of University Lecturers' Perceived Usefulness of Mobile Technologies for Instruction Based on Educational Qualification

Sources of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remark
Between Groups	15.96	19	.840	1.56	.07	Not Rejected
Within Groups	158.75	295	.538			
Total	174.71	314				

Because F (19, 295) = 1.56, p =.07 was greater than the 0.05 Alpha value, Table 8 indicates that there is no significant difference in university lecturers' perceptions of the value of mobile devices for instruction depending on educational qualification. This suggests that there was no rejection of the null hypothesis. Based on their qualifications, lecturers' perceptions of the value of mobile technology for teaching did not differ much. Therefore, regardless of their level of education, lecturers thought mobile devices were beneficial.

Research Hypothesis Three: There is no significant difference in lecturers' perceived usefulness of mobile technology for instruction based on the teaching experience.

Table 9. ANOVA of University Lecturers' Perceived Usefulness of Mobile Technologies for Instruction Based on Teaching Experience

Sources of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remark
Between Groups	18.68	19	.98	.68	.84	Not Rejected
Within Groups	425.77	295	1.44			
Total	444.44	314				

Table 9 shows that, according to teaching experience, university lecturers' perceptions of the value of mobile technologies for instruction do not differ significantly (F(19, 295)=.68, p=.84). The outcome demonstrates that the Alpha value of.05 is less than the p value of.84. As a result, the null hypothesis is accepted. Therefore, based on their teaching experience, lecturers' perceptions of the value of mobile technology for education do not differ significantly.

Research Hypothesis Four: There is no significant difference in lecturers' perceived usefulness of mobile technology for instruction based on the area of specialization

Table 10. ANOVA of University Lecturers' Perceived Usefulness of Mobile Technologies for Instruction Based on Area of Specialization

Sources of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Remark
Between Groups	13.79	19	.72	1.06	.39	Not Rejected
Within Groups	202.09	295	.69			
Total	215.89	314				

Due to {F(19, 295) = 1.06, p =.39}, Table 10 shows that there is no significant difference in university lecturers' perceptions of the value of mobile devices for instruction based on area of expertise. Because the significant value p =.39 was determined to be bigger than the alpha value 0.05, it is implied that the null hypothesis was not rejected. Therefore, lecturers' perceptions of the value of mobile technology for teaching do not significantly alter depending on their area of expertise.

4. DISCUSSION

This investigation explored university lecturers' perceived usefulness of mobile technology for instruction in Kwara State, Nigeria. Results demonstrate consistently positive perceptions across all measured dimensions and demographic variables.

The overall grand mean of 3.25 indicates that lecturers perceive mobile technology as beneficial for instructional purposes. This observation aligns with Davis's (1989) Technology Acceptance Model, which identifies perceived usefulness as a fundamental determinant of technology adoption. The highest-rated item, "Mobile Technologies are useful in my discipline" (mean = 3.35), suggests cross-disciplinary acceptance, demonstrating that mobile technology benefits extend across subject-specific boundaries.

The absence of significant gender differences (t = 1.55, p =.12) challenges traditional assumptions about gender-based digital divides in educational contexts. This outcome supports Falana's (2015) observation that male and female students exhibited similar attitudes toward mobile technology for learning. The gender neutrality may reflect the widespread nature of mobile devices in contemporary society and equivalent professional development opportunities.

No significant differences emerged based on educational qualification (F = 1.56, p =.07), teaching experience (F =.68, p =.84), or area of specialization (F = 1.06, p =.39). These outcomes suggest that mobile technology's perceived benefits are recognized universally among lecturers, irrespective of demographic characteristics. This challenges expectations that more experienced faculty might resist new technologies or that certain disciplines would be more receptive than others.

The widespread positive perception across demographic variables indicates institutional readiness for mobile technology integration. However, the study measured perceptions rather than actual usage, representing a limitation. Positive attitudes do not guarantee successful implementation, as noted by Buabeng-Andoh (2012), who emphasized that technology integration success depends on multiple factors beyond initial acceptance.

The outcomes support previous research by Ghavifekr and Rosdy (2015), who found that lecturers recognized ICT's benefits for improving teaching with updated materials. The consistency of positive perceptions across all measured items suggests that lecturers view mobile technology as addressing multiple instructional needs, from content delivery to student engagement.

The theoretical implications align with Rogers' (2003) Diffusion of Innovation theory, suggesting that mobile technology has moved beyond early adoption phases toward mainstream acceptance in educational contexts. The absence of demographic barriers indicates that the technology has achieved critical mass acceptance among educators.

From a practical perspective, the outcomes suggest that institutional investments in mobile technology infrastructure and training would likely encounter minimal resistance from faculty. The widespread positive perceptions provide a foundation for policy development and resource allocation decisions. However, institutions must address implementation challenges, including technical support, infrastructure reliability, and pedagogical training, to translate positive perceptions into effective practice.

The study's limitations include its cross-sectional design, geographical restriction to Kwara State, and reliance on self-reported data. Future research should examine actual implementation behaviors and investigate factors that influence the transition from positive perceptions to effective classroom integration.

5. CONCLUSIONS

University lecturers in Kwara State demonstrated positive perceptions toward the usefulness of mobile technology for instruction, with no significant differences based on gender, educational qualification, teaching experience, or area of specialization. The findings indicate readiness for mobile technology integration across all lecturer demographics. The universal positive perception suggests that institutional barriers to mobile technology adoption may be minimal, provided adequate infrastructure and support systems are established. However, the gap between perception and implementation requires further investigation. The study contributes to understanding technology acceptance in Nigerian higher education contexts and provides a foundation for evidence-based policy development regarding mobile technology integration in universities.

6. LIMITATIONS AND RECOMMENDATIONS

Several limitations should be acknowledged. The study was geographically limited to Kwara State, potentially restricting generalizability to other regions with different technological infrastructure or cultural contexts. The cross-sectional design captured perceptions at a single time point, which may not reflect the dynamic nature of technology acceptance. The study relied on self-reported data, which may be subject to social desirability bias. Additionally, the purposive selection of three universities may not represent all institutional types in the region. The study measured perceptions rather than actual usage behaviors, and positive perceptions do not guarantee successful technology implementation.

Based on the findings, several recommendations emerge:

1. Universities should develop comprehensive mobile technology integration policies that capitalize on the demonstrated positive perceptions while addressing infrastructure and support needs.
2. Professional development programs focusing on mobile technology pedagogy should be implemented, given the universal acceptance across lecturer demographics.
3. Future research should employ longitudinal designs to track perception changes over time and investigate the relationship between perceptions and actual implementation behaviors.
4. Studies should extend beyond Kwara State to examine regional variations in technology acceptance and implementation challenges.
5. Mixed-methods approaches combining quantitative measures with qualitative insights would provide a deeper understanding of factors influencing mobile technology integration in Nigerian higher education.
6. Research should include student perspectives and learning outcome measures to evaluate the comprehensive impact of mobile technology integration on educational effectiveness.

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Data Availability Statement. Access to the data is subject to ethical considerations and institutional regulations to protect the confidentiality and privacy of the research participants. Where applicable, supporting materials used in the study are also available upon request.

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