Bayero Journal of Library and Information Science, 6(3) April, 2026
E-ISSN: 3121-7893 (Online) https://bjolis.com.ng

Digital Literacy and Reading Skills as Determinants of Digital Reading Behaviour among Library and Information Science Undergraduates in Kwara State, Nigeria

By

Shuaib A. Olarongbe[1], Maryam Jummai Zakariyau[2], Abdulakeem Sodeeq Sulyman[3], Sheu Olanrewaju Ishola[4], Uchenna L. Ozoh[5] & Musa Olaoti Rasaq[6]

[1]Department of Library and Information Science, University of Ilorin, Kwara State, Nigeria
[2,4,6] Department of Library and Information Science, Al-Hikmah University, Ilorin, Nigeria
[3]Department of Library and Information Science, Kwara State Polytechnic, Ilorin, Nigeria
[5]The Main Library, Federal Polytechnic, Offa, Kwara State, Nigeria
Corresponding author: Sulyman.abdulakeem@kwarastatepolytechnic.edu.ng
08132226994

Abstract

Digital reading is gaining prominence among students due to the rapid evolution of digital resources and tools. This study investigated digital literacy and reading skills as determinants of digital reading behaviour among 400-level Library and Information Science undergraduates in three universities in Kwara State, Nigeria. A descriptive correlational survey design was employed, and the entire population of 520 students was studied using total enumeration. Data were collected using a validated, researcher-designed questionnaire with reliability coefficients of 0.848 (digital literacy), 0.717 (reading skills), and 0.832 (digital reading). Out of the distributed instruments, 387 (73.53%) were duly completed and analysed using Pearson Product-Moment Correlation and multiple regression. Findings revealed a very strong, significant positive relationship between digital literacy and digital reading ($r = 0.876$, $p = .000$), leading to the rejection of Ho_1. Similarly, reading skills showed a strong, significant relationship with digital reading ($r = 0.793$, $p = .000$), thereby rejecting Ho_2. Jointly, digital literacy and reading skills demonstrated a strong predictive relationship with digital reading ($R = 0.876$; $R^2 = 0.768$), indicating that 76.8% of the variance in digital reading behaviour is explained by the two predictors. The regression model was statistically significant ($F = 634.739$, $p = .000$), thus rejecting Ho_3. Coefficient results further showed digital literacy as the strongest predictor ($B = 1.171$, $\beta = .954$, $p = .000$), while reading skills had a non-significant negative contribution ($B = –0.128$, $\beta = –.085$, $p = .176$). The study concludes that digital literacy is the most critical determinant of digital reading behaviour, underscoring the need for enhanced digital skills training within LIS curricula.

Keywords: Digital literacy, Digital reading, LIS undergraduates, Reading skills

Introduction

Reading remains a fundamental pillar of human development, intellectual growth, and societal progress. It expands knowledge, deepens critical thinking, and enhances individuals' capacity for problem-solving and informed decision-making (Bana, 2020; Kabir & Jeromes, 2022; Oghenetega & Lydia, 2024). Yet, despite its indispensability, the reading culture in Nigeria

continues to decline at an alarming rate. Studies have long highlighted the poor state of reading attitudes among Nigerians; notably, 40% of adults reportedly never complete a single non-fiction book after formal schooling (Onyenachi et al., 2021), while students' reading habits consistently deteriorate across contexts (Oghenetega & Lydia, 2024). The surge in social media usage, competing digital distractions, and inadequate motivation to read have further compounded this already declining landscape.

The emergence of digital technologies has, however, reshaped how information is accessed, processed, and consumed. Digital reading, defined as the practice of accessing, interpreting, and engaging with texts on digital devices (Yu, 2019; Sulyman et al., 2024), has become particularly prominent among younger generations and digital natives. Through mobile phones, tablets, laptops, e-readers, and online platforms, users can now retrieve and interact with information ubiquitously (Lim & Toh, 2020). As digital transformation accelerates globally, it increasingly influences reading behaviours, educational practices, and literacy development (Dezuanni et al., 2024; Nguyen & Tuamsuk, 2023). For many students, digital reading has become the default mode through which academic and non-academic information is encountered (Bond et al., 2018; Hargreaves et al., 2022).

However, effective engagement with digital texts requires more than access to devices; it demands a robust combination of digital literacy and reading skills. Digital literacy encompasses the ability to navigate digital environments, evaluate online information, manipulate digital tools, and use digital resources meaningfully (OECD, 2016; Sharma et al., 2023). Reading skills, on the other hand, include the cognitive and metacognitive competencies necessary for comprehending, interpreting, and evaluating written content across formats (Guven & Haddad, 2023; Hanover Research, 2016). As digital texts differ significantly from printed ones in structure, interactivity, and navigation demands (Maden, 2018), readers must possess both technical proficiency and strong comprehension abilities to extract meaning effectively.

Evidence across global and regional studies shows that digital literacy and reading skills shape students' engagement with digital reading in varying ways. In some contexts, access to digital resources has improved students' reading frequency and academic engagement (Bana, 2020; Kumara & Kumar, 2021; Mirza et al., 2021), while other studies report weak or nonexistent relationships between digital resource usage and reading habits (Marliana & Nurhayati, 2020; Priambodo et al., 2019). In

Nigeria, growing access to smartphones, e-resources, and online materials has sparked optimism that digital technologies may offer a pathway to revitalising declining reading habits among students (Liasu & Bakrin, 2022; Sulyman et al., 2024). Empirical evidence from various Nigerian institutions indicates increasing use of digital platforms for academic purposes, including e-books, e-journals, and online newspapers (Okorie, 2018; Eze et al., 2022; Ogunbodede & Sawyerr-George, 2023).

Despite these encouraging trends, gaps remain regarding the specific roles that digital literacy and reading skills play in shaping students' digital reading behaviour, particularly among Library and Information Science (LIS) undergraduates. As future information professionals, LIS students are expected to possess advanced competencies in digital navigation, information evaluation, and reading comprehension. Yet, empirical evidence on how these competencies influence their digital reading practices in the Nigerian context, especially among LIS students, remains limited. Given the rapid evolution of digital technologies and the growing reliance on digital texts for academic purposes, it is critical to understand the extent to which digital literacy and reading skills determine students' engagement with digital reading. This study, therefore, examines digital literacy and reading skills as determinants of digital reading behaviour among LIS undergraduates in Kwara State, Nigeria, addressing an important gap in reading research and offering insights relevant for curriculum design, digital literacy interventions, and the future of reading culture in Nigeria.

Statement of the Problem

Despite the global shift toward digital information consumption, reading culture in Nigeria continues to deteriorate, especially among young people and students who are expected to be active participants in knowledge economies. Evidence shows that a significant proportion of Nigerians rarely engage in sustained reading activities, with 40% of adults unable to complete a non-fiction book after formal schooling (Onyenachi et al., 2021). Students' reading habits have been described as progressively declining, due in part to competing digital distractions, low reading motivation, and weak literacy foundations (Oghenetega & Lydia, 2024). Although digital technologies offer new opportunities to revive reading interest, they also introduce complexities that require specific competencies to navigate effectively.

Digital reading, now a dominant mode of information engagement among young people

demands strong digital literacy skills as well as robust cognitive reading abilities. Research indicates that the skills needed to process digital texts differ from those required for print Reading (Maden, 2018), making digital literacy crucial for locating, evaluating, and interpreting online information (OECD, 2016; Sharma et al., 2023). Similarly, reading skills remain foundational for comprehension, meaning-making, and academic success across learning platforms (Hanover Research, 2016; Guven & Haddad, 2023). Yet, the extent to which these digital and reading competencies jointly influence digital reading behaviour among Nigerian university students remains insufficiently explored.

While some studies in Nigeria highlight the positive influence of digital resources on students' reading habits (Okorie, 2018; Eze et al., 2022; Ogunbodede & Sawyerr-George, 2023), others report inconsistencies in how digital exposure translates to meaningful reading engagement. Furthermore, there is limited empirical evidence focusing specifically on Library and Information Science undergraduates, who, as emerging information professionals, are expected to demonstrate high proficiency in both digital navigation and reading comprehension. This gap creates uncertainty about whether LIS students in Kwara State possess the necessary digital literacy and reading skills to effectively engage in digital reading practices.

Given the increasing reliance on digital platforms for academic activities, and the critical role of reading competence in educational achievement and professional development, it becomes imperative to examine the determinants of digital reading behaviour among this important group of students. Therefore, the problem this study addresses is the inadequate understanding of how digital literacy and reading skills influence digital reading behaviour among Library and Information Science undergraduates in Kwara State, Nigeria. This gap limits the ability of educators, policy makers, and curriculum developers to design effective interventions that enhance students' digital reading engagement and overall academic performance.

Research Objectives

The main objective of this study was to investigate digital literacy and reading skills as determinants of digital reading behaviour among LIS undergraduates in Kwara State, Nigeria. The specific objectives are to:

1. Establish the relationship between digital literacy skills and digital reading behaviour among LIS undergraduates in

Kwara State, Nigeria.

2. Establish the relationships between reading skills and digital reading behaviour among LIS undergraduates in Kwara State, Nigeria.

3. Establish the joint relationships among digital literacy skills, reading skills and digital reading behaviour of LIS undergraduates in Kwara State, Nigeria.

Research Hypotheses

The following null hypotheses were formulated to guide the conduct of this study and would be tested at 0.05 level of significance:

Ho_1: There is no significant relationship between digital literacy skills and digital reading behaviour among LIS undergraduates in Kwara State, Nigeria.

Ho_2: There is no significant relationship relationships between reading skills and digital reading behaviour among LIS undergraduates in Kwara State, Nigeria.

Ho_3: There is no joint significant relationship among digital literacy skills, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria.

Review of Related Literature

Digital Reading, Digital Literacy and Reading Skills of Students

Digital reading has attracted significant scholarly attention as educational institutions increasingly integrate digital materials into teaching and learning. Cardoso et al. (2021) provide early evidence that digital reading adoption varies across contexts, with Portugal exhibiting marginal engagement due largely to limited access to digital devices. Their findings underscore that even where internet penetration is relatively high, digital reading practices may remain peripheral. This highlights an important caution: availability of technology does not automatically translate to meaningful digital reading engagement. Such a perspective is useful for studies in developing contexts like Nigeria, where infrastructural limitations may likewise shape digital reading behaviours.

In contrast, Divya and Mohamed (2020) show that postgraduate students in Kerala exhibit increased digital reading as access to mobile phones, laptops, and the internet expands. Their work highlights the role of device accessibility, user interface features, and usability elements such as font size and background colour as

crucial determinants of digital reading. Importantly, they observe that digital reading tends to promote superficial and selective reading while reducing in-depth engagement. This raises a critical implication: digital reading behaviour may be influenced not only by digital literacy skills but also by cognitive shifts associated with reading in screen-based environments.

Complementary insights come from research exploring how pedagogical approaches influence digital literacy development. Anggana (2024) found that problem-based learning (PBL) can enhance students' digital literacy, though its success is contingent upon learner motivation, relevance of learning tasks, and availability of quality digital resources. This suggests that digital literacy cannot be assumed as an innate skill among students; rather, it requires intentional instructional design. In the context of LIS undergraduates in Nigeria, such findings point to the need for structured pedagogical strategies that equip students with competencies necessary for effective digital reading.

Studies exploring emerging digital environments further complicate our understanding of digital reading practices. Demir and Büyükbaykal (2024) reveal that virtual reality (VR) reading significantly increases engagement and cognitive activity, outperforming traditional print in terms of recall accuracy. While VR remains uncommon in Nigerian higher education, these findings emphasize that the format of digital content can strongly shape reading behaviour. They also suggest that digital literacy now extends beyond basic device operation to include navigating immersive environments—skills that could become increasingly relevant for future LIS professionals.

Research on the changing landscape of digital content, such as audiobooks, also illustrates evolving reading behaviours. Casselden and Paxton (2024) note that public libraries in England and Wales saw shifts in audiobook promotion and usage during the pandemic, uncovering long-standing limitations in digital outreach. Their findings highlight the institutional role in shaping digital reading access and behaviours. For LIS undergraduates who may later manage digital collections, understanding such trends is essential to shaping their own digital reading choices and future professional practices.

Within the Nigerian context, empirical evidence points to growing engagement with digital resources among university students. Ogunbodede and Sawyerr-George (2023) found that Nigerian university students use digital resources daily and perceive them as positively

influencing their reading habits. Their study shows a significant relationship between digital resources and reading behaviour, suggesting that students with higher access to and familiarity with digital platforms are more likely to engage in digital reading. This aligns directly with the central focus of the present study: digital literacy and reading skills as precursors to digital reading behaviour.

A more focused examination of LIS students in Kwara State is presented by Sulyman et al. (2024), who observe strong digital self-efficacy and ability to identify information needs among postgraduate students. They frequently use smartphones for academic reading but face challenges such as low bandwidth, cybersecurity risks, and distractions from social media. These hindrances highlight that digital literacy is not merely technical proficiency but also involves behavioural regulation and critical evaluation skills. The study provides a foundational basis for exploring similar patterns among undergraduate LIS students, who may face even more pronounced challenges.

Finally, broader studies in Asia provide additional insight into determinants of digital reading. Zhang et al. (2024) show that factors such as performance expectations, social influence, and immersive experience significantly enhance students' willingness to engage in digital reading. Meanwhile, Nguyen and Tuamsuk (2023) emphasize the role of institutional support—including policies and digital resources—in shaping digital reading practices. Similarly, Mardiah and Melati (2023) identify process-related, environmental, and linguistic challenges that affect comprehension in digital reading. Collectively, these studies underscore that digital reading behaviour is shaped by a combination of individual skills, digital literacy, institutional support, and technological affordances.

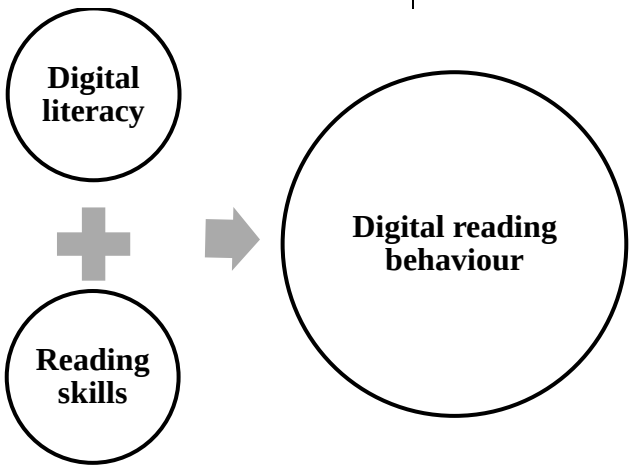
Theoretical Framework: Technology Acceptance Model (TAM)

This study adopts the Technology Acceptance Model (TAM), a widely recognised and robust framework for explaining ICT adoption and user behaviour. TAM was developed to clarify how external variables influence internal beliefs, attitudes, and behavioural intentions (Abdullahi et al., 2020). Building on the Theory of Reasoned Action (TRA), TAM establishes causal relationships among perceived usefulness (PU), perceived ease of use (PEOU), user attitudes (A), behavioural intention (BI), and actual system adoption behaviour (Adenekan et al., 2023; Maduku, 2013). Its application within teaching, learning, and research contexts has increasingly expanded, reflecting evolving trends in the acceptance, adoption, or rejection

of digital technologies in education (Al-Emran et al., 2018). Studies have applied the original TAM to examine knowledge acquisition and technology use in educational environments (Farahat, 2012), extended the model with additional constructs to better understand users' intentions toward e-learning technologies (Abdullah et al., 2020; Weerasinghe & Hindagolla, 2017), and highlighted its relevance in supporting the integration of digital tools in educational settings (Scherer et al., 2019). In this study, behavioural intention (BI) is interpreted as the extent to which digital and reading skills motivate LIS undergraduates in Kwara State to engage in reading, while actual computer adoption behaviour refers to the digital tools these students use to access digital resources and the purposes for which they utilise them.

Conceptual Model for Digital Reading

This study adopts an intuitive conceptual model to present the ideas or variables – Digital skills (IV 1), reading skills (IV 2) and digital resources (DV). Digital skills concentrate on the undergraduates' abilities to operate, use and navigate digital devices ethically and legally. Moreso, reading skills comprise abilities to know what to read, understand, critique and interpret the contents being read, while digital reading comprises the process by which digital contents and texts are transferred to the brain through the eyes for comprehension and interpretation.



Source: Model for Enhancing Digital Reading Behaviour

Methodology

This study adopted a descriptive survey design with a correlational approach. The population of this study is five hundred and twenty 400 - level LIS undergraduates in Kwara State,

Nigeria. The reason for focusing on only the 400-level students is that these researchers believed that the level of the students must have acquired different digital and reading skills, which can motivate them to read with digital tools. The total enumeration technique was used due to the minimal population of this study, affording the researcher an opportunity to cover the entire population.

A self-developed questionnaire validated by three LIS experts was used for data collection. The variables were found to be reliable with Digital reading (.832), Digital literacy (.848) and Reading skills (.717). From the 520 copies of questionnaires distributed, only 387 questionnaires, representing 73.53%, were retrieved and found usable for analysis. Data collected was computed using the Statistical Product and Service Solutions (IBM: SPSS) version 26.0, presented in Pearson Product-Moment Correlation (PPMC) and regression analysis.

Results of Findings

Hypotheses Testing

Ho_1: There is no significant relationship between digital literacy skills and digital reading behaviour among LIS undergraduates in Kwara State, Nigeria.

Table 1: PPMC results showing the relationship between digital literacy and digital reading among LIS undergraduates in Kwara State, Nigeria

S/N	Variables	Mean	SD	Df	Correlations ®	Sig. P	Remark
1.	Digital reading	24.56	6.35	385	.876**	.000	Significant
2.	Digital skills	18.13	5.17	386			

**. Correlation is significant at the 0.05 level (2-tailed).

Decision Rule: Reject Ho_1 if the p-value is ($p<0.05$). If otherwise, do not reject (i.e., if the p-value is greater than (or equal to 0.05).

The data in Table 1 explores the relationship between digital skills and digital reading among LIS undergraduates in Kwara State, Nigeria, using Pearson Product-Moment Correlation (PPMC). Results showed a mean digital reading score of 24.56 (SD = 6.35) and a mean digital skills score of 18.13 (SD = 5.17), indicating higher engagement in digital reading than in digital skill levels, though both displayed moderate variability. The correlation coefficient

(r = 0.876) revealed a very strong, statistically significant positive relationship (p = 0.000), leading to the rejection of the null hypothesis of no relationship. This implies that students with stronger digital skills are more likely to engage in digital reading, highlighting the vital role of digital competence in supporting effective interaction with digital content. Consequently, institutions may need to strengthen digital literacy initiatives to enhance students' academic engagement and digital reading habits.

Ho_2: There is no significant relationship between reading skills and digital reading among LIS undergraduates in Kwara State, Nigeria.

Table 2: PPMC results showing the relationship between reading skills and digital reading among LIS undergraduates in Kwara State, Nigeria

S/N	Variables	Mean	SD	Df	Correlations ®	Sig. P	Remark
1.	Digital reading	24.56	6.35	385	.793**	.000	Significant
2.	Reading skills	21.01	4.21	386			

**. Correlation is significant at the 0.05 level (2-tailed).

Decision Rule: Reject Ho_1 if the p-value is ($p<0.05$). If otherwise, do not reject (i.e., if the p-value is greater than (or equal to 0.05).

The data in Table 2 examines the relationship between digital reading and reading skills among LIS undergraduates in Kwara State, Nigeria, using Pearson Product Moment Correlation (PPMC). With a mean score of 24.56 (SD = 6.35) for digital reading and 21.01 (SD = 4.21) for reading skills, the results show that students generally perform better in digital reading, with slightly greater variability in that area. The correlation coefficient of 0.793 indicates a strong positive relationship between digital reading and reading skills, and the significance value (p = 0.000) confirms that the relationship is statistically significant, leading to the rejection of the null hypothesis. This suggests that students who engage more in digital reading tend to exhibit stronger overall reading skills, implying that digital texts and interactive reading environments may enhance comprehension and literacy. As a result, educational institutions are encouraged to integrate digital reading strategies into their curriculum to support the development of students' reading proficiency.

Ho_3: There is no joint relationship among digital skills, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria.

Table 3: Model Summary results showing the joint relationship among digital skills, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876[a]	.768	.767	3.06996

a**. Predictors:** (Constant), Reading skills, Digital skills

The model summary in Table 3 reveals a strong joint relationship among digital skills, reading skills, and digital reading of LIS undergraduates in Kwara State, Nigeria. With a correlation coefficient of 0.876, the model shows a very strong positive association between the predictors (reading and digital skills) and the outcome variable (digital reading). The R Square value of 0.768 indicates that 76.8% of the variance in digital reading is explained by the predictors, while the adjusted R Square of 0.767 confirms the model's robustness and minimal overfitting. The standard error of the estimate, 3.06996, suggests that predicted scores deviate from actual scores by about three units, showing reasonable accuracy. Overall, the findings demonstrate that reading and digital skills significantly and strongly influence digital reading performance, highlighting the need to strengthen both competencies to improve digital literacy and academic success among LIS undergraduates.

Table 4: ANOVA results showing the joint significant relationship among digital skills, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11964.378	2	5982.189	634.739	.000[b]
	Residual	3619.064	384	9.425		
	Total	15583.442	386			

a. **Dependent Variable:** Digital reading
b. **Predictors:** (Constant), Reading skills, Digital skills

Table 4 presents a regression analysis showing the joint influence of digital skills and reading skills on digital reading among LIS undergraduates in Kwara State, Nigeria. The model is highly significant, with an F-value of 634.739 and a p-value of .000, indicating that the combined effect of the two predictors on digital reading is statistically meaningful. The

regression sum of squares (11,964.378), which is notably higher than the residual sum of squares (3,619.064), demonstrates that a large portion of the variance in digital reading is explained by the predictors. With 2 degrees of freedom for regression and 384 for residuals (total 386 observations), the comparison between the regression mean square (5,982.189) and the residual mean square (9.425) further highlights the model's strength. These findings imply that students' digital and reading skills are crucial determinants of their digital reading performance, underscoring the need for targeted educational interventions that enhance digital literacy and reading proficiency within LIS curricula.

Table 5: Coefficients[a] results showing the joint significant relationship among digital literacy, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria

		Unstandardised Coefficients		Standardised Coefficients		
Model		**B**	**Std. Error**	**Beta**	**T**	**Sig.**
1	(Constant)	6.019	.906		6.643	.000
	Digital skills	1.171	.077	.954	15.173	.000
	Reading skills	-.128	.095	-.085	-1.354	.176

a. **Dependent Variable:** Digital reading

Table 5 presents the coefficients of a regression model assessing the combined influence of digital skills and reading skills on digital reading among LIS undergraduates in Kwara State, Nigeria. The constant value of 6.019 indicates the predicted digital reading score when both predictors are zero. Digital skills have a strong positive effect, with an unstandardised coefficient of 1.171 and a standardised beta of 0.954, meaning that a one unit increase in digital skills leads to an estimated 1.171 unit rise in digital reading; this relationship is highly significant, as shown by the t value of 15.173 and p value of .000. In contrast, reading skills show a slight negative influence, with an unstandardised coefficient of –0.128 and a beta of –0.085, but this effect is not statistically significant (t = –1.354, p = .176). Overall, the model demonstrates that digital skills are the key determinant of digital reading among LIS undergraduates, while reading skills do not significantly contribute, highlighting the central role of digital literacy in academic settings where digital reading is essential.

Discussion of Findings

Relationship between digital literacy and digital reading among LIS undergraduates in Kwara State, Nigeria

The study reveals a very strong positive and statistically significant correlation between digital literacy and digital reading among LIS undergraduates in Kwara State, Nigeria ($r = 0.876$, $p < 0.05$), highlighting the foundational role of digital skills in shaping students' engagement with digital reading platforms. This finding aligns with Sulyman et al. (2024), who similarly observed that digital self efficacy and proficiency strongly influence digital reading behaviours among LIS postgraduate students in the same region. As digital technologies increasingly permeate academic environments, students depend more on digital tools for scholarly reading, a shift also noted by Kabir and Jeromes (2022). This evolution underscores the need for competencies such as navigating e books, annotating digital texts and evaluating online information. Dezuanni et al. (2024) further emphasise that digital environments require both technical and cognitive skills, suggesting that students with stronger digital abilities are more likely to engage meaningfully in digital reading, thereby enhancing their academic performance and information literacy.

Contrasting findings from studies such as Marliana and Nurhayati (2020) and Priambodo et al. (2019), which reported no significant link between digital resource use and reading habits in some Middle Eastern contexts, may reflect variations in digital infrastructure, educational policies and cultural attitudes. However, Nigerian studies by Okorie (2018) and Eze et al. (2022) support the present findings, reinforcing the positive relationship between Internet use and students' reading habits. The Technology Acceptance Model (TAM) provides a useful lens for interpreting these results, as perceived usefulness and ease-of-use significantly influence technology adoption (Maduku, 2013; Abdullahi et al., 2020). Students who view digital reading as beneficial and accessible—and who possess the necessary digital competencies—are more likely to embrace it. Additionally, evidence from Divya and Mohamed (2020) indicates that features such as layout, font size and interactivity shape digital reading behaviours; thus, students with greater digital skills can customise and optimise their reading experiences, leading to improved comprehension and retention.

Relationship between reading skills and digital reading among LIS undergraduates in Kwara State, Nigeria

The study's finding of a strong positive correlation between digital reading and reading skills ($r = 0.793$, $p < 0.05$) highlights the essential interdependence between cognitive literacy competencies and students' ability to engage effectively with digital texts. This relationship supports the study's conceptual

framework, which positions reading skills as a primary driver of digital reading among LIS undergraduates in Kwara State, Nigeria. Defined to include comprehension, vocabulary development, fluency, inference, summarisation, analysis, synthesis and interpretation, these skills constitute the foundation of academic success and lifelong learning (Kabir & Jeromes, 2022; Ukpebor, 2020). The strong correlation also validates Ibrahim's (2020) assertion that sound reading abilities underpin effective navigation of both print and digital materials. Literature further reinforces that digital reading represents not only a technological adaptation but also a cognitive shift. Lim and Toh (2020) emphasised that digital reading requires deep-processing strategies for interpreting multimodal content and constructing meaning, suggesting that students with stronger traditional reading skills are naturally more adept at meeting the demands of digital reading environments. Similarly, Li (2020) underscored that digital reading involves skills such as efficient retrieval, evaluation and utilisation of online information—abilities that are closely tied to traditional literacy competencies. Within the context of the Technology Acceptance Model (TAM), students possessing strong reading abilities may find digital reading both useful and easy to navigate, thereby enhancing their willingness to adopt and engage with digital texts.

Empirical evidence from recent studies further strengthens these findings. Sulyman et al. (2024) reported that postgraduate students with high reading skills and digital self-efficacy showed greater engagement with digital reading platforms, while Ogunbodede and Sawyerr George (2023) similarly identified a significant link between digital resource use and reading habits among Nigerian university students. These converging results emphasise the importance of reading skills in fostering meaningful digital engagement. However, contrasting evidence from Marliana and Nurhayati (2020) and Priambodo et al. (2019), who reported no significant relationship between digital resource use and reading habits in some Middle Eastern settings, suggests that contextual factors such as digital infrastructure, educational policies and cultural attitudes toward reading may account for these variations. Despite such discrepancies, the current findings affirm that within the Nigerian context, reading skills remain a critical determinant of students' capacity to navigate and benefit from digital reading environments.

Joint relationships among digital literacy, reading skills and digital reading of LIS undergraduates in Kwara State, Nigeria

The analysis demonstrates that digital literacy exerts a strong and statistically significant positive influence on digital reading, with an unstandardised coefficient (B = 1.171) and a high standardised beta (β = 0.954) identifying it as the most powerful predictor in the model. This finding reinforces the arguments of Sulyman et al. (2024), who assert that digital skills form the backbone of effective navigation and interaction within digital environments. Similar perspectives are offered by Ulfert and Schmidt (2022), who describe digital proficiency as an essential life skill in an increasingly information driven society. Dezuanni et al. (2024) further observed that the digital revolution has fundamentally altered how information is accessed, processed and utilised, thereby placing digital skills at the centre of academic and personal development. According to the OECD (2016), digital skills encompass the capacity to navigate digital platforms, annotate electronic texts, evaluate online resources and synthesise digital information—activities directly aligned with the components of digital reading in the study's conceptual framework. The high beta value in the regression model thus confirms that students equipped with these competencies are significantly more inclined to engage in digital reading practices.

Conversely, the study found that reading skills exhibited a negative and statistically insignificant relationship with digital reading (B = -0.128, β = -0.085, p = .176), suggesting that traditional literacy competencies may not directly predict digital reading engagement. Although reading skills such as comprehension, vocabulary recognition and inference are widely acknowledged as critical for academic achievement (Bana, 2020; Hanover Research, 2016), their limited predictive power in this context reflects emerging concerns within the literature. Durant and Horava (2020) caution that digital reading may impede deep reading and critical analysis, diminishing the effectiveness of traditional reading abilities in technology mediated environments. Divya and Mohamed (2020) similarly argue that digital reading often encourages selective and superficial engagement rather than sustained comprehension. Additionally, Lim and Toh (2020) note that digital reading requires unique strategies, including managing hyperlinks, navigating multimodal content and filtering online information, not typically emphasised in conventional reading instruction. This divergence underscores the evolving nature of literacy in the digital age. As Li (2020) contends, digital reading demands expanded competencies such as evaluating online credibility and synthesising heterogeneous

information formats, suggesting that traditional reading skills must be redefined and integrated with emerging digital literacies.

Conclusion

The findings of this study clearly demonstrate that digital literacy is a critical determinant of digital reading behaviour among LIS undergraduates in Kwara State, Nigeria. The strong positive correlation between digital skills and digital reading indicates that students who possess higher levels of digital competence are significantly more capable of navigating, interpreting, and engaging with digital texts. This underscores the central role of digital literacy in today's academic environment, where digital platforms increasingly serve as primary channels for accessing scholarly information.

Furthermore, while reading skills showed a strong correlation with digital reading at the bivariate level, the regression analysis revealed that these skills do not significantly predict digital reading when examined alongside digital literacy. This suggests that traditional reading competencies, although essential for comprehension, may not directly drive students' engagement with digital texts unless complemented by strong digital abilities. The dominance of digital literacy over reading skills in predicting digital reading highlights the evolving nature of reading practices in digitally mediated environments.

Overall, the results of the study confirm that digital literacy and reading skills jointly influence digital reading behaviour, with digital literacy emerging as the most powerful predictor. These findings emphasise the need for LIS programmes to strengthen digital literacy training through curriculum enhancement, hands on digital exposure, and targeted skill building initiatives. By equipping students with the necessary digital competencies, institutions can enhance their digital reading engagement, academic performance, and preparedness for professional roles in an increasingly digital information landscape.

Recommendations

Based on the findings, this study recommends that:

1. University management should integrate comprehensive digital literacy instruction into the LIS curriculum to ensure that students acquire the essential competencies required for effective engagement with digital reading platforms.

2. Management of tertiary institutions should improve digital infrastructure, including stable Internet connectivity, functional e libraries, and adequately equipped computer

laboratories, to create an enabling environment for digital reading.

3. University libraries should provide accessible technical support services to assist students in resolving difficulties encountered while using digital platforms and online resources.

4. LIS lecturers should integrate digital reading tasks and activities into course assignments and classroom instruction to encourage regular use of digital texts.

5. Relevant agencies should support universities through policies, funding, and nationwide digital literacy initiatives aimed at improving students' digital competence and resource access.

References

Abdullah, F., Ward, R. & Ahmed, E. (2020). Investigating the influence of the most commonly used external variables of TAM on students' perceived ease of use (PEOU) and perceived usefulness (PU) of e-portfolios. Computers in Human Behavior, 63, 75–90.

Adenekan, F. N., Bello, M. A. & Alegbeleye, G. (2023). Technology competency and perceived ease of use of e-learning system among library and information science lecturers in Nigeria. Library and Information Perspectives and Research, 5(1), 88 – 103. 10.47524/lipr.v5i1.89.

Anggana, B., Kurniawan, W. & Syafiq, A. (2024). Transforming learning in vocational schools: improving digital literacy through learning innovation. Jurnal Taman Vokasi, 12(2), 1- 9. doi: http://dx.doi.org/10.30738/jtvok.v12i2.18069

Bana, A. (2020). Students' perception of using the Internet to develop reading habits. Journal of English Teaching, 6(1), 60-70.

Bond, M., Mar´ın, V.I., Dolch, C. et al. (2018). Digital transformation in German higher education: Student and teacher perceptions and usage of digital media. International Journal of Educational Technology in Higher Education, 15(48), 114-127.

Cardoso, G., Ganito, C. & Ferreira, C. (2021). Digital reading: The transformation of reading practices. https://www.researchgate.net/publication/268370853.

Casselden, B. & Paxton, E. (2024). Learning from audiobook usage in public libraries during the COVID-19 pandemic. Journal of Librarianship and Information Science, 1–16. DOI: 10.1177/09610006241251858.

Demir, S.B. & Büyükbaykal, A.C.I. (2024). Investigating book reading experiences in VR. Journal of Librarianship and Information Science, 47(2) 1–14. DOI: 10.1177/09610006241252659.

Dezuanni, M., Osman, K., Burton, A. & Heck, E. (2024). IFLA Trend Report Scenarios: Phase 2.

Brisbane: Digital Media Research Centre.

Divya, P. & Mohamed, H.K. (2020). Factors influencing digital reading behaviour of students: A Study in Universities in Kerala. Journal of Library & Information Technology, 40 (5), pp. 313-320, DOI: 10.14429/djlit.40.5.15672.

Durant, D.M. & Horava, T. (2020). The future of reading and academic libraries. Portal: Libr.

Acad., 15(1), 5-27.

Eze, E. A., Kaka O., & Okon, V. A. (2022). Students' internet usage as a correlate of reading culture in College of Health Technology, Calabar, Cross River State Nigeria. Journal of Emerging Technologies and Innovative Research, 9(3), 497-514.

Guven, O. & Haddad, Y. (2023). Research on motivation, literacy, and reading development: A review of best practices final report for the Institute of Museum and Library Services.

Hanover Research. (2016). Early skills and predictors of academic success. https://portal.ct.gov/-

/media/SDE/ESSA-Evidence-Guides/Early_Skills_and_Predictors_of_Academic_Success

Ibrahim, S.K.A. (2020). Using digital reading strategies for developing EFL reading comprehension skills among Faculty of Education students. Journal of Faculty of Education, 121(1), 1 – 52.

Joel, A.P. & Ibrahim, F.L. (2021). Digital competencies needed by librarians and information professionals for knowledge management of 21st century university libraries in Borno State. Library Philosophy and Practice (e-journal). 5355.

https://digitalcommons.unl.edu/libphilprac/5355

Kabir, F.S. & Jeromes, I. (2022). The influence of internet and digital media on the reading culture of secondary school students in Nigeria. Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS), 4(3), 51 – 64.

Kumara, B., & Kumar, B. T. S. (2021). Library users and their reading habits: Assessing the impact of ICT. Library Philosophy and Practice, 5670

Li, G. (2020). Challenges and responses to the transformation of reading teaching paradigm in the digital text era. Curriculum, Teaching Material and Method, 40(4), 90–5. https://doi.org/10.19877/j.cnki.kcjcjf.2020.04.013.

Liasu, J. A., & Bakrin, S. F. (2022). The impact of electronic information resources on the reading habits of library users at Osun State University, Nigeria. Library Philosophy and Practice, 7055.

Lim, F. V. & Toh, W. (2020). How to teach digital reading? Journal of Information Literacy, 14(2), pp. 24-43. http://dx.doi.org/10.11645/14.2.2701

Maden, S. (2018). Digital reading habits of pre-service Turkish language teachers. South African Journal of Education, 38(1). 10.15700/saje. v38ns2a1641.

Mardiah, R. & Melati, N.T.S. (2023). Academic purposes digital reading EFL students' practices and challenges. Advances in Social Science, Education and Humanities Research, 595, 562-567.

Mirza, Q., Pathan, H., Khatoon, S. & Hassan, A. (2021). Digital age and reading habits: Empirical evidence from Pakistani Engineering University. TESOL International Journal, 16(1), 210- 231.

Nguyen, L.T. & Tuamsuk, K. (2023). Digital reading in Vietnamese universities: The situation and influencing factors. International Federation of Library Associations and Institutions, 49(4), 650–663. 10.1177/03400352231196171.

Oghenetega, I. & Lydia, A. (2024). Reading habits of undergraduates for knowledge development in Western Delta University, Oghara, Delta State, Nigeria. Sprin Multidisciplinary Journal in Pashto, Persian & English, 2(3), 28–32. https://doi.org/10.55559/smjppe.v2i3.410.

Ogunbodede, K. F., & Sawyerr-George, O. E. (2023). Digital resources and the reading habits of university students in Nigeria. International Journal of Professional Development, Learners and Learning, 5(1), ep2304. https://doi.org/10.30935/ijpdll/12748

Okorie, J. N. (2018). Influence of electronic information resources utilization on academic performance of HND students

in Federal Polytechnic, Nekede, Owerri. Library Philosophy and Practice, 1950.

Onyenachi, J.C., Amadi, E.C. and Awa, O.O. (2021) Print or Electronic, Reading Is Indispensable: Case of Ibeku High School Umuahia Abia State. Open Access Library Journal, 6: e4824. https://doi.org/10.4236/oalib.1104824

Park, H.R. & Kim, D. (2016). English language learners' strategies for reading computer-based texts at home and in school. Calico Journal, 33(3), 380–409. http://dx.doi.org/10.1558/cj.v33i3.26552

Scherer, R., Siddiq, F. & Tondeur, J. (2020). All the same or different? Revisiting measures of teachers' technology acceptance. Computers & Education, 143, 103656.

Sharma, R., Patel, M. & Singh, A. (2023). Digital literacy and its impact on higher education: A review. International Journal of Digital Learning, 19(1), 101-117.

Sulyman, A.S., James, B.O., Aremu, B.A., Sodiq, A., Jimoh, A.B. & Balogun, B. (2024). Digital self-efficacy and skills as correlates of digital reading among library and information science (LIS) postgraduate students in Kwara State, Nigeria. Journal of Library and Information Advancement, 1(1/2), 58 – 72. DOI: http://doi.org/10.47524/jlia.v1i1.59.

The Organization for Economic Cooperation and Development [OECD] (2016). OECD Technical report of the survey of adult skills (PIAAC). (2nd ed.). United States of America: OECD.

Ukpebor, C. O. (2020). Availability of print and internet resources as factors influencing reading culture of secondary school students in Edo State, Nigeria. (Doctoral dissertation).

Ulfert, A.S. & Schmidt, I. (2022). Assessing digital self-efficacy: Review and scale development. Computers & Education, 191, 104626. https:// doi.org/10.1016/j.compedu.2022.1 04 626.

Yu, W. (2019). How to cultivate students' digital reading competency? Curriculum, Teaching Material and Method, 39 (1). 79–85. https://doi.org/10.19877/j.cnki.kcj cjf.2019.01.013.

Zhang, W., Chen, X., Zhang, J. & Xu, X. (2024). A study on factors influencing digital reading behavior of junior high school students. Libri, 74(3), 255–271.