

Digital Learning Platforms and Employee Competencies in United Bank for Africa (UBA), Enugu Branch

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Abstract

The study examined Digital Learning Platforms and Employee Competencies in United Bank for Africa (UBA), Enugu Branch. The specific objectives were to: examine the relationship between collaborative learning tools and employees' technical competencies; and determine the relationship between digital content accessibility and employees' communication competencies in United Bank for Africa (UBA), Enugu Metropolis. The area of the study was Enugu Metropolis, Enugu State, Nigeria. The study used the descriptive survey design approach. The primary source of data was the administration of questionnaires. The population of the study was two hundred and seventy-one (271) staff. The whole population was used due to the small number. Two hundred and twenty-one (221) staff returned the questionnaires and accurately filled them. Data was presented and analyzed using mean score and standard deviation. The hypotheses were analyzed using the Z-test statistical tool. The findings indicated that collaborative learning tools had a significant positive relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Metropolis ($Z = 7.736, p < .05$), and digital content accessibility had a significant positive relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Metropolis ($Z = 8.072, p < .05$). The study concluded that digital learning platforms have a significant positive effect on employee competencies in United Bank for Africa (UBA), Enugu Branch. The adoption of digital learning technologies has enhanced employees' knowledge, skills, and abilities by providing continuous access to training resources, professional development programs, and up-to-date banking information. The study recommended, among others, that the management of UBA should strengthen the use of collaborative learning tools by encouraging employees to participate in virtual knowledge-sharing sessions, online team learning activities, and collaborative training programs to further improve their technical competencies.

Keywords: Digital Learning Platforms, Collaborative Learning Tools, Digital Content Accessibility, Technical Competencies, Communication Competencies.

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Introduction

The evolution of learning has undergone significant transformation from traditional, instructor-centered methods to technology-driven, learner-centered approaches. Historically, workplace learning was largely dependent on face-to-face training, apprenticeships, and physical instructional materials. However, the emergence of information and communication technologies (ICTs) in the late 20th and early 21st centuries marked a turning point, enabling the development of digital learning platforms that support continuous and flexible learning. These platforms ranging from Learning Management Systems (LMS) to AI-driven training tools have redefined how knowledge is created, shared, and applied within organizations. Digital learning platforms are interactive environments that facilitate knowledge exchange, collaboration, and access to diverse learning resources, thereby enhancing learning outcomes and engagement (Almendingen et al., 2023; Zhang et al., 2022).

From a global perspective, the rapid pace of digital transformation has intensified the need for organizations to develop employee competencies that align with emerging technological demands. Scholars emphasize that digital competencies comprising technical, cognitive, and socio-emotional skills are now critical for workforce effectiveness in the digital economy. Recent studies highlight that digital competencies are fundamental to professional development and organizational performance in knowledge-driven environments (Moreira-Choez et al., 2024). Similarly, Grenda (2026) notes that modern organizations require employees to possess a blend of technological knowledge, soft skills, and leadership abilities to thrive in digitally enabled workplaces. The global COVID-19 pandemic further accelerated the adoption of digital learning technologies, exposing gaps in digital readiness and reinforcing the importance of continuous digital skill development (Gökdaş et al., 2024).

At the national level, particularly in developing economies such as Nigeria, the integration of digital learning platforms into organizational training systems is gaining momentum. Nigerian organizations, especially in the banking sector, are increasingly investing in digital transformation initiatives to remain competitive in a globalized financial environment. This shift has necessitated the upskilling and reskilling of employees through digital learning solutions. Empirical evidence suggests that digital enablement and training significantly enhance employee competence, productivity, and organizational outcomes (Ahmed et al., 2024). In addition, the banking industry in Nigeria is undergoing rapid technological changes, including the adoption of fintech solutions, mobile banking, and automated service delivery systems, which require employees to continuously update their competencies.

Locally, within organizations such as the United Bank for Africa (UBA), the adoption of digital learning platforms has become essential for workforce development and service excellence. UBA, as one of Africa's leading financial institutions, operates in a highly competitive and technology-driven environment where employee competencies directly influence operational efficiency and customer satisfaction. The Enugu branch, like other branches, is expected to align with corporate strategies that emphasize digital innovation and human capital development. Studies indicate that digital learning platforms can significantly improve employee competencies by enhancing knowledge acquisition, fostering collaboration, and enabling personalized learning experiences. Adhiati et al. (2025) found that digital learning platforms improved employee competencies by over 40% through personalized and interactive learning systems.

Despite the growing adoption of digital learning platforms, there remain gaps in understanding how these platforms specifically influence employee competencies within the Nigerian banking context. Issues such as infrastructure limitations, digital literacy levels, and organizational support may affect the effectiveness of digital learning initiatives. Therefore, the study seeks to examine the relationship between digital learning platforms and employee competencies in United Bank for Africa (UBA), Enugu Branch, with a view to providing empirical insights that can enhance organizational learning strategies and workforce development.

Statement of the Problem

In an ideal organizational setting, digital learning platforms are expected to effectively enhance employee competencies by providing continuous, flexible, and personalized learning opportunities that align with organizational goals. Modern organizations, particularly in the banking sector, are expected to leverage these platforms to equip employees with up-to-date technical, cognitive, and interpersonal skills required to operate in a rapidly evolving digital environment. Ideally, such platforms should facilitate efficient knowledge transfer, improve job performance, and foster innovation, thereby contributing to overall organizational productivity and competitiveness. In such context, employees of United Bank for Africa (UBA) are expected to fully utilize digital learning platforms to develop competencies that support high-quality service delivery and operational excellence.

However, despite the increasing adoption of digital learning technologies, there is growing concern that these platforms may not be achieving their intended outcomes in enhancing employee competencies within many organizations, including banks in Nigeria. Evidence suggests that factors such as inadequate digital infrastructure, low levels of digital literacy, limited user engagement, lack of organizational support, and poorly designed learning content can hinder the effectiveness of digital learning platforms. In the case of UBA Enugu Branch, it remains unclear whether employees are effectively utilizing available digital learning tools or whether these platforms significantly contribute to the development of relevant competencies. Again, there is insufficient empirical evidence on the extent to which digital learning platforms influence employee competencies within this specific organizational and geographical context. This creates a gap in knowledge that necessitates systematic investigation.

If these challenges are not addressed, several negative consequences may arise. Employees may continue to exhibit skill gaps, reduced efficiency, and an inability to adapt to emerging banking technologies, which can ultimately affect service quality and customer satisfaction. The organization may also experience decreased productivity, increased operational errors, and a decline in competitive advantage in an increasingly digital financial landscape. In addition, failure to effectively leverage digital learning platforms could result in wasted investments in training technologies and missed opportunities for workforce development. Over time, this may hinder the ability of United Bank for Africa (UBA), Enugu Branch to achieve its strategic objectives and sustain growth in a highly competitive and technology-driven industry.

Objective of the Study

The main objective of the study was to examine Digital Learning Platforms and Employee Competencies in United Bank for Africa (UBA), Enugu Branch. The specific objectives are to:

- i. Examine the relationship between collaborative learning tools and employees' technical competencies in United Bank for Africa (UBA), Enugu metropolis.
- ii. Determine the relationship between digital content accessibility and employees' communication competencies in United Bank for Africa (UBA), Enugu metropolis.

Research Questions

The following research questions guided the study:

- i. What is the relationship between collaborative learning tools and employees' technical competencies in United Bank for Africa (UBA), Enugu Branch?

- ii. What is the relationship between digital content accessibility and employees' communication competencies in United Bank for Africa (UBA), Enugu Branch?

Research Hypothesis

The following research hypotheses guided the study:

- i. Collaborative learning tools have no relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Branch.
- ii. Digital content accessibility has no relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Branch.

Scope of the Study

Content Scope: The study focuses on digital learning platforms as the independent variable (Collaborative learning tools and Digital content accessibility) while employee competencies (employees' technical competencies and employees' communication competencies) as the dependent variable. It examines how digital learning platforms influence employees' knowledge, skills, adaptability, and job performance.

Geographical Scope: The study is limited to the United Bank for Africa (UBA), Enugu Branch, Enugu State, Nigeria.

Unit Scope: The study covers employees of United Bank for Africa (UBA), Enugu Branch, including management and non-management staff.

Review of Related Literature

Conceptual Review

Digital

The concept of digital in banks refers to the integration and application of digital technologies in the delivery of banking services, operations, and customer interactions. It represents a shift from traditional, branch-based banking to technology-driven, automated, and customer-centric financial services. Digital banking is defined as the use of technology to conduct banking transactions such as online, mobile, and electronic banking, aimed at delivering flexible and innovative financial services to customers. This definition emphasizes the role of technology in transforming how banks operate and interact with customers, (Sardana and Singhania, 2018).

Digital banking as the adoption of existing and emerging technologies by banks, along with changes in internal processes and external relationships, to deliver efficient and effective customer services. This highlights that digital banking is not only about technology but also involves organizational transformation, (Rao and Balaji, 2018).

Key Elements of Digital Banking

- i. Use of internet and mobile technologies
- ii. Automation of banking processes
- iii. Delivery of services through digital platforms (apps, websites)
- iv. Integration of advanced technologies (AI, blockchain, cloud)

- v. Focus on customer convenience and experience

Learning Platforms

Learning platforms in banking refer to digital systems and technology-driven environments used by banks to deliver training, facilitate knowledge sharing, and enhance employees' skills and competencies. These platforms enable continuous professional development through online courses, simulations, and collaborative tools tailored to banking operations. From a general perspective, learning platforms often referred to as Learning Management Systems (LMS) or digital learning environments are defined as systems that provide an interface between instructors, learners, and administrators to achieve structured learning objectives. They support the delivery, management, and tracking of training content in an organized manner. Basak, Wotto, and Bélanger (2018) define e-learning platforms as technology-based systems that facilitate learning through digital resources, enabling interaction, flexibility, and remote access to knowledge. Eze, Chinedu-Eze, and Bello (2018) emphasize that digital learning platforms enhance the delivery of education and training by enabling innovative teaching methods, access to learning materials, and improved knowledge dissemination through ICT tools.

Learning platforms in banking are essential tools for employee development, digital transformation, and organizational efficiency. They enable banks to train staff on evolving financial technologies, regulatory requirements, and customer service practices. In institutions such as United Bank for Africa, these platforms support continuous learning and help employees remain competent in a highly digital and competitive environment.

Digital Learning Platforms

Digital learning platforms refer to technology-enabled systems that facilitate employee training, skill development, and knowledge sharing through online, interactive, and flexible learning environments. These platforms support continuous professional development by delivering training content such as courses, simulations, assessments, and collaborative learning tools, especially in areas like digital banking, compliance, and customer service.

Ally (2019), digital learning environments are systems that use internet-based technologies to deliver instructional content and support interaction, enabling learners to acquire knowledge and skills independent of time and location. In banking, this allows employees to learn new systems and processes without leaving their work environment. Brown and Green (2020) describe digital learning platforms as structured online systems that combine content delivery, communication tools, and assessment mechanisms to support workplace learning and professional development. Integrated digital systems used by financial institutions to deliver structured training, support continuous learning, and enhance employees' technical, regulatory, and communication competencies through online and interactive technologies.

Types of Digital Learning Platforms in Banks

Banks typically use a combination of digital learning systems such as:

- i. **Learning Management Systems (LMS)** – for structured courses and tracking progress
- ii. **Learning Experience Platforms (LXP)** – for personalized learning journeys
- iii. **Virtual classrooms** – for live instructor-led training
- iv. **Microlearning platforms** – for short, targeted learning modules
- v. **Knowledge-sharing portals** – for policies, updates, and best practices

Components of Digital Learning Platforms

The components of digital learning platforms: Learning Management System (LMS), Learning Content Management System (LCMS), User Interface (UI) and User Experience (UX), Communication and Collaboration Tools, Assessment and Evaluation Tools, Content Delivery System, Analytics and Reporting System and Mobile Learning Integration. According to Watson and Watson (2007; Nichani, 2019; Norman, 2018; Dillenbourg, 2019; Kraiger, 2018; Ally, 2019; Siemens, 2020; Traxler, 2018).

Components of Digital Learning Platforms that formed part of the objectives

Collaborative learning tools

In modern banking systems, especially within digital financial institutions such as the United Bank for Africa (UBA), employee performance and service delivery are increasingly influenced by digital technologies. Two important concepts that support workforce development in this context are collaborative learning tools and digital content accessibility. These concepts play a critical role in enhancing employees' technical and communication competencies, thereby improving organizational efficiency and customer service delivery.

Collaborative learning tools in banks refer to digital platforms and applications that enable employees to learn, interact, and solve problems together through communication and shared knowledge systems. These tools allow bank staff to engage in group learning activities, exchange ideas, and develop skills collectively in both physical and virtual environments. Collaborative learning occurs when individuals engage in joint knowledge construction through interaction and shared problem-solving processes. In workplace settings such as banks, this means employees use digital platforms to improve understanding of banking operations and technologies. Laal and Ghodsi (2018) define collaborative learning as a process where individuals work together in groups to achieve shared learning goals, improve understanding, and enhance performance outcomes. This process is supported by digital tools such as Microsoft Teams, Zoom, intranet systems, and enterprise messaging applications.

Digital content accessibility

Digital content accessibility refers to the extent to which employees can easily access, understand, and use digital learning materials, training resources, and operational information within the organization. It ensures that all staff members can interact effectively with digital content regardless of time, location, or technical ability. Digital accessibility involves designing systems that allow users to perceive, navigate, and interact with digital information effectively, ensuring usability for all individuals. In banking, this applies to internal training systems, dashboards, and e-learning platforms.

World Wide Web Consortium (W3C) (2019) defines digital accessibility as the practice of ensuring that digital content is usable by all individuals, including those with different abilities or technological limitations. This principle is essential in ensuring equal access to banking information and training resources. Accessible digital systems improve employee understanding, communication efficiency, and knowledge acquisition in workplace environments.

Employee

An employee in banks refers to an individual who is formally engaged or employed by a banking institution to perform specific duties and responsibilities in exchange for agreed compensation such as salary, allowances, and other benefits. These employees are essential human resources responsible for delivering banking services, managing financial transactions, and ensuring the smooth operation of banking activities.

Armstrong (2019), an employee is a person hired by an organization under a contract of employment to perform work under the direction and control of the employer in return for remuneration. In the banking sector, this definition applies to staff working in various departments such as operations, customer service, credit, IT, and risk management. Mathis and Jackson (2018) describe employees as individuals who contribute their skills, knowledge, and effort to achieve organizational goals while receiving compensation and career development opportunities in return. In banks, employees play a direct role in ensuring financial intermediation between customers and the institution. Employees in banks are the human capital that drives banking operations and service delivery. They apply their skills, knowledge, and competencies to ensure efficiency, customer satisfaction, and organizational success. In modern banking environments, employees are increasingly required to possess both technical and communication competencies due to the growing use of digital banking technologies.

Competencies

Competencies refer to the integrated set of knowledge, skills, abilities, behaviors, and personal attributes that enable an individual to perform job tasks effectively and achieve desired organizational outcomes. In the workplace, especially in structured environments such as banking institutions, competencies determine how well employees can apply their training, interact with customers, use technology, and respond to job demands. According to Boyatzis (2018), competencies are the underlying characteristics of a person that are causally related to effective or superior performance in a job role. He explains that competencies include not only technical knowledge but also personality traits, self-concept, and behavioral tendencies that influence performance outcomes. This implies that employee effectiveness in banks is not determined solely by qualifications but also by how individuals apply their abilities in real work situations.

Spencer and Spencer (2019) define competencies as motives, traits, self-image, knowledge, and skills that are essential for superior job performance. Their definition emphasizes that competencies are both visible (skills and knowledge) and hidden (motives and traits), which together shape how employees perform in their roles. In the context of banking institutions such as United Bank for Africa, competencies can be understood as the combination of technical, digital, communication, and behavioral abilities that enable employees to effectively deliver banking services and meet organizational goals. Bank employees require a wide range of competencies due to the complexity and technology-driven nature of modern banking operations.

Competencies in banks can be broadly categorized into several types. First, technical competencies involve job-specific skills such as processing financial transactions, using banking software, analyzing financial data, and managing risk systems. These competencies ensure that employees can perform core banking functions accurately and efficiently. Second, communication competencies refer to the ability to clearly interact with customers and colleagues, explain financial products, and handle complaints professionally. These skills are essential for maintaining customer satisfaction and trust.

Third, digital competencies have become increasingly important due to the rise of digital banking. These include the ability to use mobile banking applications, online platforms, and other financial technologies effectively. Employees with strong digital competencies are better able to adapt to innovations in the banking sector. Fourth, behavioral competencies such as integrity, teamwork, adaptability, and problem-solving ability ensure that employees behave ethically and respond effectively to workplace challenges. Competencies are important in banking because they directly influence employee performance, service quality, and organizational efficiency. Employees with strong competencies are more productive, make fewer errors, and are better equipped to meet customer needs. They also contribute to innovation and help banks remain competitive in a rapidly changing financial environment.

Employee Competencies

According to Boyatzis (2018), employee competencies are the underlying characteristics of individuals that are causally related to effective or superior job performance. These characteristics include knowledge, self-concept, traits, and motives that influence how employees perform their duties. This implies that competency is not only about what employees know, but also how they apply what they know in practical situations. Spencer and Spencer (2019) define competencies as motives, traits, self-image, knowledge, and skills that distinguish superior performers from average performers in a job role. Their model emphasizes that competencies are both observable (skills and knowledge) and internal (motives and attitudes), all of which contribute to performance effectiveness.

Components of Employee Competencies that formed part of the objectives

Employees' technical competencies

Boyatzis (2018) explains that technical competencies are underlying capabilities related to task performance, including knowledge application, analytical ability, and problem-solving skills that drive effective job execution. This definition highlights the importance of applying knowledge in practical banking operations. In the banking context, especially in institutions such as United Bank for Africa, employees' technical competencies can be defined as: Employees' technical competencies in banking represent the specialized abilities required to perform banking operations effectively using modern tools and systems. They combine digital skills, financial knowledge, and ICT proficiency to ensure accurate and efficient service delivery. In institutions like UBA, strong technical competencies are essential for supporting digital transformation and maintaining competitiveness in the financial sector.

Employees' communication competencies

Employees' communication competencies refer to the knowledge, skills, and abilities that enable employees to effectively exchange information, ideas, and feedback within an organization and with external stakeholders such as customers. In banking institutions, these competencies are essential for ensuring clarity, accuracy, professionalism, and efficiency in all forms of interaction. Spitzberg and Cupach (2018), communication competence is the ability of an individual to choose and use communication behaviors that are appropriate and effective in a given context, emphasizing both skill and situational awareness. In banking, this means employees must communicate financial information clearly and appropriately depending on customer needs and organizational standards. Rubin and Martin (2019) define communication competence as the ability to interact effectively with others through verbal and non-verbal communication while achieving desired outcomes in professional settings. This includes clarity, listening skills, feedback delivery, and emotional control during interactions. In the context of banking institutions such as United Bank for Africa, employees' communication competencies can be defined as:

Employees' communication competencies are essential capabilities that enable effective interaction within banking environments. They include verbal, written, digital, and interpersonal skills that ensure clarity and professionalism in communication. In institutions such as UBA, strong communication competencies enhance customer experience, improve service delivery, and support overall organizational efficiency in a highly competitive financial sector.

Theoretic Framework

The following theories guided the study

- i. Technology Acceptance Model (TAM) by Fred Davis (1989) and
- ii. Human Capital Theory by Gary Becker (1964)

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Fred Davis (1989) to explain how users come to accept and use technology. The theory proposes that two main factors determine technology use: perceived usefulness and perceived ease of use.

- i. **Perceived usefulness** refers to the degree to which employees believe that using digital learning platforms will improve their job performance and competencies.
- ii. **Perceived ease of use** refers to the degree to which employees believe that the platforms are easy to use without difficulty.

TAM is highly relevant because digital learning platforms in banks (such as e-learning systems, LMS, and virtual training tools) are only effective if employees accept and actively use them. When employees at United Bank for Africa perceive these platforms as useful and easy to use, they are more likely to engage in training activities, which in turn enhances their technical and communication competencies.

TAM directly supports the relationship between:

- i. **Independent Variable:** Digital Learning Platforms
- ii. **Dependent Variable:** Employee Competencies

Human Capital Theory

Human Capital Theory was developed by Gary Becker (1964) and later expanded by other scholars. The theory argues that employees are valuable assets whose knowledge, skills, and abilities (human capital) increase productivity and organizational performance when properly developed through training and education. The theory emphasizes that investment in employee training such as through digital learning platforms improves workers' competencies, productivity, and overall organizational efficiency.

In banking institutions, human capital development is critical because employees must constantly adapt to technological changes, digital banking systems, and customer service demands. Digital learning platforms serve as tools for continuous skill development, helping employees improve both technical competencies (e.g., digital banking operations) and communication competencies (e.g., customer interaction skills).

At UBA, human capital theory explains that:

- i. Training via digital platforms increases employee competencies
- ii. Competent employees improve banking service quality
- iii. Investment in learning systems leads to better organizational performance

Empirical Review

Collaborative learning tools and employees' technical competencies

Tolulope (2025). Integrating ICT Tools for Enhancing Financial Literacy among NCE Business Education Students in Nigerian Colleges of Education. ICT use records, and student feedback surveys gathered data. Qualitative insights from open-ended survey answers were thematically evaluated, while quantitative data were descriptive and

inferential. In the experimental group, post-test scores increased by 21.7 compared to 9.8 in the control group. Over 85% of students feel ICT tools boost comprehension and career preparedness, according to poll results. Most people utilized Excel (90%), then financial simulations (72%). These findings show that ICT integration improves academic performance, learner engagement, and confidence.

Oni, and Guilen (2025). The Role of Collaborative Learning Tools in Nigerian Education System. Research has shown that collaborative tasks can lead to deeper understanding of content, as students One major limitation is the digital divide that exists across the country, where access to the internet and digital devices is still limited in many regions, particularly in rural areas, if the government can involve in private partnership, it will go a long way in solving issues associated with learning tools in Nigeria

Abdulkadir et al (2025) Effects of collaborative tools on knowledge sharing among the lecturers in Kwara State University, Malete, Nigeria. This study investigated impact of collaborative tools on knowledge sharing among lecturers in Kwara State University, Malete, Nigeria. Specifically, five research questions were answered while one null hypothesis was formulated and tested. Descriptive survey design was adopted by selecting a sample of 162 from population of 438 using multi-stage sampling technique. The findings of the study showed that majority of the respondents mostly used WhatsApp, Yahoo messenger, Twitter, and Facebook and majority of the respondents used these collaborative tools to share manuals, books and book chapters; professional information from newspapers, magazines, and television; useful knowledge relevant to their field; research output and technical reports; hot briefs; and expression of opinion about relevant issues in their field through collaborative tools.

Falola et al (2022). Empirical investigation of e-learning opportunities and faculty engagement in Nigerian universities: moderating role of demographic characteristics. The results show that demographic characteristics of faculty moderates the relationships between e-learning opportunities and faculty engagement within the context of private universities in Nigeria.

Tare & Willy (2025) Collaborative Learning Tools and Postgraduate Studies in Nigerian Universities. The results indicate that collaborative learning tools have a great potential to contribute to academic engagement, foster research collaborations, and access learning materials without any geographical constraints.

Digital content accessibility and employees' communication

Joon Sung (2018). The Empirical Study on Digital Literacy from the Viewpoint of Digital Accessibility. For the analysis, we used the digital divide index and actual survey data of National Information Society Agency (NIA). The analytical model used the structural equation, and the statistics program used SPSS 23 and Amos 23. The results show that the motivation factor for digital literacy has a significant effect on material access, skill access and usage access. Policies that take into account motivations factors in digital literacy need to be strengthened.

Zakir et al (2025) Digital literacy and academic performance: the mediating roles of digital informal learning, self-efficacy, and students' digital competence. This study utilized a quantitative methodology employing a structured questionnaire for data collection and Structural Equation Modeling (SEM) for hypothesis testing. This study found that improving students' digital literacy skills can lead to thriving in academic pursuits. The empirical findings demonstrate that an increase in digital literacy improves digital competence, informal digital learning engagement, and digital self-efficacy.

Gemiharto & CMS (2024). Inclusivity and Accessibility in Digital Communication Tools: Case Study of AI-Enhanced Platforms in Indonesia. This qualitative case study explores contemporary challenges and inventive solutions within AI-enhanced platforms to champion digital communication that is all-encompassing. This research uses a qualitative

case study methodology for various AI-enhanced digital communication tools. Comprehensive data was collected through in-depth interviews, content analysis, and usability assessments involving participants, including individuals with disabilities, accessibility experts, and digital communication tool developers. The study reveals significant hurdles in achieving inclusivity and accessibility, encompassing accessibility disparities for individuals with disabilities, limited awareness of accessibility features, and inherent design biases.

Koponen et al (2025). Managers' Technology-Mediated Communication Competence: A Theoretical Framework. Management practices are changing globally due to rapid workplace digitalization. This article presents a problematizing review that develops and articulates a theoretical framework of managers' technology-mediated communication competence (TMCC). The framework is based on business, management, and communication research that presents managerial TMCC as a critical process influencing individual, group, and organizational outcomes.

Chen et al (2021) Conducted a study on Accessible or Not? An Empirical Investigation of Android App Accessibility. Mobile apps provide new opportunities to people with disabilities to act independently in the world. Motivated by this trend, researchers have conducted empirical studies by using the inaccessibility issue rate of each page (i.e., screen level) to represent the characteristics of mobile app accessibility. However, there still lacks an empirical investigation directly focusing on the issues themselves (i.e., issue level) to unveil more fine-grained findings, due to the lack of an effective issue detection method and a relatively comprehensive dataset of issues.

Summary of Empirical Review

The empirical review indicates that digital learning platforms significantly improve employee competencies by enhancing technical skills, digital literacy, job knowledge, adaptability, and overall work performance. Studies further reveal that organizations that invest in online learning systems experience higher employee productivity, continuous skill development, and improved organizational effectiveness. However, most existing studies were conducted outside Nigeria or focused on the general banking or financial sector, with limited attention given to UBA Enugu Branch, thereby creating a contextual gap that this study seeks to fill.

Methodology

The area of the study was Enugu metropolis, Enugu State, Nigeria. The study used the descriptive survey design approach. The primary source of data was the administration of questionnaire. The population of the study was two hundred and seventy-one (271) staff. The whole population was used do to Small number. Two hundred and twenty-one (221) staff returned the questionnaire and accurately filled. The validity of the instrument was tested using content analysis and the result was good. The reliability was tested using the Pearson correlation coefficient (r). It gave a reliability co-efficient of 0.810 which was also good. Data was presented and analyzed by mean score and standard deviation. The hypotheses were analyzed using Z - test statistic tool.

Data Presentation and Analysis

Data Presentation

Table 4.1.1: Responses on the relationship between collaborative learning tools and employees' technical competencies in United Bank for Africa (UBA), Enugu metropolis

	5	4	3	2	1	ΣFX	-	SD	Decisio
	SA	A	N	DA	SD		X		n

1	Collaborative learning tools significantly enhance employees' technical competencies in United Bank for Africa, Enugu by enabling knowledge sharing and peer learning.	560	212	39	32	27	870			Agree
		112	53	13	16	27	221			
		50.7	24.0	5.9	7.2	12.2	100%	3.94	1.400	
2	These tools provide employees with real-time access to training resources, which improves their technical skills and job performance.	545	212	39	56	18	870			Agree
		109	53	13	28	18	221			
		49.3	24.0	5.9	12.7	8.1	100%	3.94	1.340	
3	The use of collaborative platforms encourages teamwork and continuous learning, leading to higher levels of technical competence among staff.	575	212	39	40	20	886			Agree
		115	53	13	20	20	221			
		52.0	24.0	5.9	9.0	9.0	100%	4.01	1.328	
4	Interactive learning systems help employees quickly adapt to new technologies and banking systems, strengthening their expertise.	575	212	39	40	20	886			Agree
		115	53	13	20	20	221			
		52.0	24.0	5.9	9.0	9.0	100%	4.01	1.328	
5	There is a positive relationship between collaborative learning tools and employees' technical competencies as they promote skill development and knowledge exchange	570	212	39	34	24	879			Agree
		114	53	13	17	24	221			
		51.6	24.0	5.9	7.7	10.9	100%	3.98	1.367	
Total Grand mean and standard deviation								3.976	1.3526	

Source: Field Survey, 2026

Table 4.1.1.1, 165 respondents out of 221 representing 74.7 percent agreed that Collaborative learning tools significantly enhance employees' technical competencies in United Bank for Africa, Enugu by enabling knowledge sharing and peer learning with mean score of 3.94 and standard deviation of 1.400. These tools provide employees with real-time access to training resources, which improves their technical skills and job performance 162 respondents representing 73.3 percent agreed with mean score of 3.94 and standard deviation of 1.340. The use of collaborative platforms encourages teamwork and continuous learning, leading to higher levels of technical competence among staff 168 respondents representing 76.0 percent agreed with mean score of 4.01 and standard deviation of 1.328. Interactive learning systems help employees quickly adapt to new technologies and banking systems, strengthening their expertise 168 respondents representing 76.0 percent agreed with mean score of 4.01 and 1.328. There is a positive relationship between collaborative learning tools and employees' technical competencies as they promote skill development and knowledge exchange 167 respondents representing 75.6 percent agreed with a mean score of 3.98 and standard deviation 1.367.R

Relationship between digital content accessibility and employees' communication competencies in United Bank for Africa (UBA), Enugu metropolis

Table 4.1.2.1: Responses on the Relationship between digital content accessibility and employees' communication competencies in United Bank for Africa (UBA), Enugu metropolis

		5	4	3	2	1	ΣFX	-	SD	Decisio
		SA	A	N	DA	SD		X		n
1	Digital content accessibility significantly enhances employees' communication competencies in United Bank for Africa, Enugu by providing easy access to information and communication resources.	600	212	39	38	16	905			Agree
		120	53	13	19	16	221			
		54.3	24.0	5.9	8.6	7.2	100%	4.10	1.263	
2	Ready access to digital content enables employees to communicate more clearly and accurately with colleagues and customers.	560	188	39	62	18	867			Agree
		112	47	13	31	18	221	3.92	1.365	
		50.7	21.3	5.9	14.0	8.1	100%			
3	It supports continuous learning and exposure to best communication practices, improving overall effectiveness.	580	188	39	50	20	877			Agree
		116	47	13	25	20	221	3.97	1.363	
		52.5	21.3	5.9	11.3	9.0	100%			
4	Accessible digital materials help employees stay updated, leading to more confident and professional interactions.	535	188	39	63	22	847			Agree
		107	47	13	32	22	221	3.84	1.414	
		48.4	21.3	5.9	14.5	10.0	100%			
5	There is a positive relationship between digital content accessibility and communication competencies as it strengthens information flow and workplace communication skills	555	188	39	68	16	866			Agree
		111	47	13	34	16	221			
		50.2	21.3	5.9	15.4	7.2	100%	3.92	1.353	
Total Grand mean and standard deviation								3.95	1.3516	

Source: Field Survey, 2026

Table 4.1.2.1, 173 respondents out of 221 representing 78.3 percent agreed that Digital content accessibility significantly enhances employees' communication competencies in United Bank for Africa, Enugu by providing easy access to information and communication resources with mean score of 4.10 and standard deviation of 1.263. Ready access to digital content enables employees to communicate more clearly and accurately with colleagues and customers 159 respondents representing 72.0 percent agreed with mean score of 3.92 and standard deviation of

1.365. It supports continuous learning and exposure to best communication practices, improving overall effectiveness 163 respondents representing 73.8 percent agreed with mean score of 3.97 and standard deviation of 1.363. Accessible digital materials help employees stay updated, leading to more confident and professional interactions 154 respondents representing 69.7 percent agreed with mean score of 3.84 and 1.414. There is a positive relationship between digital content accessibility and communication competencies as it strengthens information flow and workplace communication skills 158 respondents representing 71.5 percent agreed with a mean score of 3.92 and standard deviation 1.353.

Test of Hypotheses

Test of Hypotheses One: Collaborative learning tools have no relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Branch.

One-Sample Kolmogorov-Smirnov Test

	Collaborative learning tools significantly enhance employees' technical competencies into United Bank for Africa, Enugu by enabling knowledge sharing and peers learning.	These tools provide employees with real-time access to training resources, which improves their technical skills and job performance.	The use of collaborative platforms encourages teamwork and continuous learning, leading to higher levels of technical competence among staff.	Interactive learning systems help employees quickly adapt to new technologies and banking systems, strengthening their expertise.	There is a positive relationship between collaborative learning tools and employees' technical competencies as they promote skill development and knowledge exchange
N	221	221	221	221	221
Uniform Parameters ^{a,b}					
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5
Most Extreme Differences					
Absolute Positive	.507	.493	.520	.520	.516
Negative	-.507	-.493	-.520	-.520	-.516
Kolmogorov-Smirnov Z	7.534	7.332	7.736	7.736	7.668
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Test distribution is Uniform.

b. Calculated from data.

Decision Rule:

Since the calculated z-value (7.736) > critical z-value (.000) at the 5% significance level, we reject the null hypothesis (H_{01}).

Decision:

Furthermore, comparing the calculated Z- value ranges from 7.332< 7.736 against the critical Z- value of .000 (2-tailed test at 95percent level of confidence) the null hypothesis were rejected. Thus the alternative hypothesis was accepted which states that Collaborative learning tools had significant positive relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Branch.

Test of Hypotheses Two: Digital content accessibility has no relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Branch.

One-Sample Kolmogorov-Smirnov Test

	Digital content accessibility significantly enhances employees' communication competencies in United Bank for Africa, Enugu by providing easy access to information and communication resources.	Ready access to digital content enables employees to communicate more clearly and accurately with colleagues and customers.	It supports continuous learning and exposure to best communication practices, improving overall effectiveness.	Accessible digital materials help employees stay updated, leading to more confident and professional interactions.	There is a positive relationship between digital content accessibility and communication competencies as it strengthens information flow and workplace communication skills
N	221	221	221	221	221
Uniform Parameters ^a					
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5
Most Extreme Differences					
Absolute	.543	.507	.525	.484	.502
Positive	.072	.081	.090	.100	.072
Negative	-.543	-.507	-.525	-.484	-.502
Kolmogorov-Smirnov Z	8.072	7.534	7.803	7.198	7.467
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

- a. Test distribution is Uniform.
- b. Calculated from data.

Decision Rule:

Since the calculated z-value (8.072) > critical z-value (.000) at the 5% significance level, we reject the null hypothesis (H_{01}).

Decision:

Furthermore, comparing the calculated Z- value ranges from $7.198 < 8.072$ against the critical Z- value of .000 (2-tailed test at 95percent level of confidence) the null hypothesis were rejected. Thus the alternative hypothesis was accepted which states that Digital content accessibility has no relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Branch.

Discussion of Findings

From the result of Hypotheses One, the calculated Z- value ranges from $7.332 < 7.736$ against the critical Z- value of .000 which implies that Collaborative learning tools had significant positive relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Branch. In support of the result in the literature review, Oni, and Guilen (2025) conducted a study on the Role of Collaborative Learning Tools in Nigerian Education System. Research has shown that collaborative tasks can lead to deeper understanding of content, as students One major limitation is the digital divide that exists across the country, where access to the internet and digital devices is still limited in many regions, particularly in rural areas, if the government can involve in private partnership, it will go a long way is solving issues associated with learning tools in Nigeria. Abdulkadir et al (2025) Effects of collaborative tools on knowledge sharing among the lecturers in Kwara State University, Malete, Nigeria. The findings of the study showed that majority of the respondents mostly used WhatsApp, Yahoo messenger, Twitter, and Facebook and majority of the respondents used these collaborative tools to share manuals, books and book chapters; professional information from newspapers, magazines, and television; useful knowledge relevant to their field; research output and technical reports; hot briefs; and expression of opinion about relevant issues in their field through collaborative tools.

From the result of Hypotheses two, the calculated Z- value ranges from $7.198 < 8.072$ against the critical Z- value of .000 which implies that Digital content accessibility has no relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Branch. In support of the result in the literature review, Chen et al (2021) Conducted a study on Accessible or Not? An Empirical Investigation of Android App Accessibility. Mobile apps provide new opportunities to people with disabilities to act independently in the world. Motivated by this trend, researchers have conducted empirical studies by using the inaccessibility issue rate of each page (i.e., screen level) to represent the characteristics of mobile app accessibility. Gemiharto & CMS (2024). Inclusivity and Accessibility in Digital Communication Tools: Case Study of AI-Enhanced Platforms in Indonesia. The study reveals significant hurdles in achieving inclusivity and accessibility, encompassing accessibility disparities for individuals with disabilities, limited awareness of accessibility features, and inherent design biases.

Summary of Findings, Conclusion and Recommendations

Summary of Findings

- i. Collaborative learning tools had significant positive relationship with employees' technical competencies in United Bank for Africa (UBA), Enugu Metropolis, ($Z = 7.736, p. < .05$). This finding indicates that the use

of collaborative learning tools such as virtual team platforms, discussion forums, online workshops, and knowledge-sharing systems enhances employees' technical skills and job-related knowledge. Employees who actively engage in collaborative digital learning environments are more likely to improve their technical competencies and perform their tasks more effectively.

- ii. Digital content accessibility had significant positive relationship with employees' communication competencies in United Bank for Africa (UBA), Enugu Metropolis, ($Z = 8.072$, $p < .05$). This finding indicates that easy access to digital learning content, training materials, manuals, videos, and online resources improves employees' communication skills by enhancing their understanding, information-sharing abilities, and interaction with customers and colleagues.

Conclusion

The study concluded that digital learning platforms have a significant positive effect on employee competencies in United Bank for Africa (UBA), Enugu Branch. The adoption of digital learning technologies has enhanced employees' knowledge, skills, and abilities by providing continuous access to training resources, professional development programs, and up-to-date banking information. UBA's commitment to workforce development through the UBA Academy, e-learning systems, and mobile learning platforms has contributed substantially to closing competency gaps and improving employee effectiveness. Furthermore, the study found that digital learning platforms promote flexibility, self-paced learning, and continuous skill acquisition, enabling employees to adapt to changing technological and operational demands in the banking sector. The availability of digital learning tools such as online courses, virtual training sessions, and mobile learning applications has improved employees' technical, communication, problem-solving, and customer service competencies. UBA's use of e-learning and mobile learning platforms supports the development of a highly competent workforce capable of delivering quality banking services.

Recommendations

Based on the findings, the following recommendations were proffered:

- i. Management of UBA should strengthen the use of collaborative learning tools by encouraging employees to participate in virtual knowledge-sharing sessions, online team learning activities, and collaborative training programs to further improve their technical competencies.
- ii. Management of UBA should ensure continuous and unrestricted access to relevant digital learning content and communication resources to enable employees to develop and sustain effective communication competencies in the workplace.

References

- Abdulkadir, O.Y., Yahaya, I.O. & Alabi, R. (2025) Effects of collaborative tools on knowledge sharing among the lecturers in Kwara State University, Malete, Nigeria. *The Journal of National and International Library and Information Issues*.
- Abdullah, W. (2020). Digital banking definition and framework. ([ScienceDirect](#))
- Adhiati, C. S., Hendrajaya, H., & Samtono, S. (2025). The role of digital learning platforms in improving employee competence in the creative industry. *International Journal of Economics and Management Research*, 3(3), 462–475. ([Mendeley](#))
- Ahmed, U., Shakura, M. M. A., Hashim, S., & Ahmed, R. (2024). The impact of training and digital enablement on employee competence and brand relationship quality. *International Journal of Academic Research in Business and Social Sciences*, 14(7). ([ResearchGate](#))
- Ally, M. (2019). Foundations of educational theory for online learning. *Athabasca University Press*.
- Baanqud, N. S. et al. (2020). Cloud-supported collaborative learning and knowledge construction.
- Basak, S. K., Wotto, M., & Bélanger, P. (2018). E-learning, M-learning and D-learning: Conceptual definition and comparative analysis. *SAGE Journals*.
- Boyatzis, R. E. (2018). The competent manager: A model for effective performance. *John Wiley & Sons*.
- Brown, A., & Green, T. (2020). The essentials of instructional design: Connecting fundamental principles with process and practice. *Routledge*.
- Chen, S., Chen, C., Fan, L., Fan, M., Zhan, X. & Liu, Y. (2021) Accessible or Not? An Empirical Investigation of Android App Accessibility. *arxiv > arxiv:2203.06422*
- Dessler, G. (2020). Human resource management. *Pearson Education*.
- Dillenbourg, P. (2019). What do you mean by collaborative learning? *Educational Technology Research*.
- Eze, S. C., Chinedu-Eze, V. C., & Bello, A. O. (2018). The utilisation of e-learning facilities in the educational delivery system of Nigeria. *International Journal of Educational Technology in Higher Education*.
- Falola, H. O., Ogueyungbo, O. O., Salau, O. P., & Olokundun, M. A. (2022). Empirical investigation of e-learning opportunities and faculty engagement in Nigerian universities: moderating role of demographic characteristics. *Cogent Arts & Humanities*, 9(1). <https://doi.org/10.1080/23311983.2022.2118741>
- Gemiharto, I., & CMS, S. (2024). Inclusivity and Accessibility in Digital Communication Tools: Case Study of AI-Enhanced Platforms in Indonesia. *Jurnal Pewarta Indonesia*, 6(1), 78–88. <https://doi.org/10.25008/jpi.v6i1.154>
- Gibson, A. (2018). *Digital accessibility in human-computer interaction systems*.
- Gökdaş, İ., Karacaoğlu, Ö. C., & Özkaya, A. (2024). COVID-19 and teachers' digital competencies: A bibliometric analysis. *Humanities and Social Sciences Communications*, 11, 1740. ([Nature](#))

- Grenda, D. (2026). Technological knowledge, soft skills and management & leadership skills: Three pillars for the digitally competent manager. *Journal of Business Economics*. ([Springer](#))
- Jain, S., et al. (2024). Comparative analysis of frequently used e-learning platforms. *Frontiers in Education*.
- Joon Sung, W. (2018). The Empirical Study on Digital Literacy from the Viewpoint of Digital Accessibility. *International Journal of Engineering and Technology*, 7(3.13), 137-140. <https://doi.org/10.14419/ijet.v7i3.13.16340>
- Koponen, J., Turunen, M., Laajalahti, A., Julkunen, S., & Spitzberg, B. H. (2025). Managers' Technology-Mediated Communication Competence: A Theoretical Framework. *Journal of Business and Technical Communication*, 39(3), 338-397
- Kraiger, K. (2018). Perspectives on training and development evaluation. *Human Resource Development Review*.
- Laal, M., & Ghodsi, S. M. (2018). Benefits of collaborative learning. *Procedia - Social and Behavioral Sciences*.
- Lee, H., & Bonk, C. (2014). Collaborative learning in the workplace: Practical issues and concerns.
- Megargel, A., & Shankararaman, V. (2021). Digital banking and customer services. ([ScienceDirect](#))
- Mihaescu, V., & Gheeta, G. (2024). Learning Experience Platforms and digital learning environments.
- Moreira-Choez, J. S., Gómez Barzola, K. E., Lamus de Rodríguez, T. M., Sabando-García, A. R., & Cruz Mendoza, J. C. (2024). Assessment of digital competencies in higher education faculty. *Frontiers in Education*, 9. ([Frontiers](#))
- Nichani, M. (2019). Learning content management systems and digital training environments. *Educational Technology Review*.
- Oni, Yetunde, and Guilen, N. (2025). The Role of Collaborative Learning Tools in Nigerian Education System. *Asian Journal of Education and Social Studies* 51 (5):325-35. <https://doi.org/10.9734/ajess/2025/v51i51921>.
- Rao, D. V., & Balaji, C. (2018). Digital banking: An Indian perspective. *Research Review International Journal of Multidisciplinary*.
- Rubin, R. B., & Martin, M. M. (2019). Interpersonal communication competence: Advancing theory, research, and application.
- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2018). The science of training and development in organizations: What matters in practice? *Psychological Science in the Public Interest*.
- Sardana, V., & Singhania, S. (2018). Digital technology in the realm of banking: A review of literature. *International Journal of Research in Finance and Management*. ([allfinancejournal.com](#))
- Siemens, G. (2020). Learning analytics and digital education systems. *International Journal of Learning Analytics*.
- Spencer, L. M., & Spencer, S. M. (2019). Competence at work: Models for superior performance. *John Wiley & Sons*.
- Suresh Kumar DN. (2018). Effective use of collaboration and social learning at workplace.
- Tare, L.O. & Willy, D.O.W. (2025) Collaborative Learning Tools and Postgraduate Studies in Nigerian Universities. *International Journal of Computer Science and Engineering Innovations*. Vol.1 (2), 5-14. DOI: <https://doi.org/10.64137/31079458/IJCSEI-V1I2P102>

- Tolulope, G. A. (2025). Integrating ICT Tools for Enhancing Financial Literacy among NCE Business Education Students In Nigerian Colleges Of Education. *Irish Journal of Educational Practice*, 8(3), 32–46.
- Traxler, J. (2018). Learning with mobiles and ubiquitous technologies. *Educational Technology & Society*.
- Watson, W. R., & Watson, S. L. (2007). An argument for clarity: What are learning management systems, what are they not, and what should they become? *TechTrends*.
- World Wide Web Consortium (W3C). (2019). *Web Content Accessibility Guidelines (WCAG)*.
- Zakir S, Hoque ME, Susanto P, Nisaa V, Alam MK, Khatimah H and Mulyani E (2025) Digital literacy and academic performance: the mediating roles of digital informal learning, self-efficacy, and students' digital competence. *Front. Educ.* 10:1590274. doi: 10.3389/feduc.2025.1590274
- Zhang, X., et al. (2022). Digital learning platforms and instructional design competencies. *Education Sciences*, 13(4). ([MDPI](#))