

INFLUENCE OF DIGITAL COLLABORATION TECHNOLOGY ON BUSINESS EDUCATORS' INSTRUCTION DELIVERY AND ACADEMIC RESEARCH IN TERTIARY INSTITUTIONS

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Abstract

This study examined the influence of digital collaboration technology on business educators' instruction delivery and academic research in tertiary institutions in Southwest, Nigeria with two specific purposes and two research questions. The study employed an explanatory mixed-methods design (QUAN + qual). A structured questionnaire, titled "Questionnaire on Digital Collaboration Technology on Business Educators' Instruction Delivery and Academic Research in Tertiary Institutions (QDCTBEIDAR)" was administered to all 248 business educators across 18 public tertiary institutions offering business education, using a census sampling technique. Additionally, semi-structured interviews were conducted with the Heads of Department in these institutions. The instruments underwent expert face and content validation, and the reliability of the questionnaire was confirmed with a Cronbach's alpha coefficient of 0.81. In line with the study's focus on exploring digital collaboration technology in instruction delivery and academic research, the researcher adopted a digital data collection approach. Data collected through the two research questions were analyzed using mean and standard deviation while interview data were thematically analyzed to enrich the quantitative findings. Results indicated a high influence of digital collaboration technology on both instruction delivery ($M = 3.09, SD = 0.68$) and academic research ($M = 2.98, SD = 0.68$). The study concluded that digital collaboration platforms significantly enhance instruction delivery and academic research of business educators in south west, Nigeria. It recommended, among others, that quality assurance units in tertiary institutions should develop and implement standardized policies for the use of digital collaboration platforms by business educators.

Keywords: Academic Research, Business Educators, Digital Collaboration, Instruction Delivery

Introduction

Tertiary institutions have three core mandates; teaching, research and community service. Accomplishing these mandates in this 21st century requires the adoption of digital technologies. The utilization of digital technologies in this age of Information and Communication Technology (ICT) has become a norm especially in the education sector. The craving for digital technologies stem from the central role of ICT with access to free online journals, magazines, and other information resources anytime and from anywhere for academic and research purposes. The quality of teachers' instruction delivery and academic research is, to a large extent, dependent on the quality, quantity and recency of resources consulted or cited. In the 21st century, digital collaboration technology has become an indispensable component of instruction delivery and academic research. The effective integration of these tools enables business educators to deliver high quality instruction, facilitate collaborative learning and conduct research that is informed by global perspectives. As educational landscape continues to evolve, embracing digital collaboration technology is no longer a luxury, but a necessity for business educators seeking to stay in their field.

Business educators are professionally trained teachers of business subjects who are competent in delivery of the contents of business education curriculum at different levels of education. Business educators are business education graduates who are pedagogically trained in the area to perform the

task of equipping recipients at the secondary and post-secondary school levels with skills and knowledge to confidently pursue entrepreneurial career and lifelong learning tasks. A business educator, in the opinion of Agboola (2015) is an individual who has undergone professional training in a business-related course and has, in addition undergone training in pedagogy of that course. Ideally, a business educator is an individual who is pedagogically trained in accounting, entrepreneurship, marketing and office technology management. According to Shaibu et al. (2023), business educators' responsibility for teaching functions and role requires certain relevant skills that enable them perform effectively and efficiently in this present digital technology age. The functions of business educators in recent times have expanded and broadened such that Nwabufo and Mamman (2014) posited that for any meaningful skills and technical achievement to be taught in business education courses, adequate and modern instructional resources must be adopted. Therefore, the need for the adoption of digital collaboration technology by business educators for instruction delivery and academic research has become imperative in tertiary institutions.

Digital collaboration technology refers to the use of digital tools, platforms, and software to facilitate communication, coordination, and cooperation among individuals or teams remotely or in real-time. It enables people to interact more efficiently and effectively, regardless of their geographical location (Fasola & Abimbola, 2022). Examples of digital collaboration tools applicable for instruction delivery and academic research include video conferencing tools like Zoom and Google Meet, instant messaging apps like Slack and Microsoft Teams, project management software like Asana and Trello, and file sharing platforms like Google Drive and Dropbox. Digital technologies have changed the way educators teach and researchers conduct research, offering numerous benefits that enhance the learning and research experience (Zhang, Zhao & Liao 2020). Digital collaboration tools enable educators to share resources, ideas, and best practices, fostering a sense of community and teamwork. By sharing educational materials and resources through online platforms, educators can access a wealth of knowledge and expertise, and engage in meaningful discussions through online forum and social media groups. This collaborative approach allows educators to work together on projects initiatives, share feedback and insights, and learn from one another's strengths and challenges (Oyenuga, 2020). Through digital collaboration, educators can develop a sense of belonging to a larger community, leading to improved instruction delivery practices as well as academic research.

The influence of digital collaboration technologies on instruction delivery in educational settings has been increasingly significant, reshaping traditional teaching methodologies and enhancing learning experiences. Digital collaboration tools encompass a variety of platforms and applications designed to facilitate communication, interaction, and collaboration among educators and students. One prominent impact of these technologies is their role in fostering interactive learning environments. Platforms such as virtual classrooms, video conferencing tools, and collaborative editing software enable real-time communication and collaboration, transcending physical barriers and allowing for synchronous interactions. This capability is highlighted in the study by Mtebe (2022), which emphasized how digital collaboration tools enhance student engagement by promoting active participation and fostering peer-to-peer learning. Moreover, digital collaboration technologies support flexible and inclusive instructional practices. Educators can utilize these tools to accommodate diverse learning preferences and facilitate personalized learning experiences. For instance, adaptive learning platforms and collaborative project management tools allow students to work collaboratively on assignments, share resources, and provide feedback to peers, as noted in the research by Zhang et al (2020). This collaborative approach not only enhances students' understanding of course materials but also promotes critical thinking and problem-solving skills. Digital collaboration technologies on instruction delivery is profound, offering transformative opportunities to create engaging, inclusive, and efficient learning environments. These technologies facilitate interactive learning experiences, support personalized instruction, enable collaborative learning practices, and enhance administrative efficiency. As educational institutions continue to embrace digital transformation, the ongoing integration and advancement of digital collaboration technologies will play a crucial role in shaping the future of instructional delivery. Gopinathan, Kaur and Veeraya (2022) submitted that the use of digital collaborative technology supports student engagement as it aid the practice of people working

together online or remotely. Tools such as Padlets, Electronic white boards, Slido, and Kahoot are simple and quick-to-use digital collaborative tools that can be used to enhance student engagement. Timya (2022) posited that digital technology requires confident, critical and responsible approach to its use and engagement which is encompassed by digital literacy and enables effective digital collaboration involving the ability to work together, share resources and communicate effectively with others in online environments (Timya, 2022). In the same vein, Crossdale-Ovwido (2023) posited that digital technology encompasses a range of technological tools and devices that enable business educators to co-create learning experiences with students, promote peer-to-peer learning and foster a sense of community, thereby enhancing student engagement, participation and outcomes.

Digital collaboration technologies have fundamentally reshaped the landscape of academic research, revolutionizing how researchers communicate, collaborate, and disseminate knowledge globally. These technologies encompass a range of tools and platforms that facilitate seamless interaction and coordination among researchers, regardless of geographical location or institutional affiliation. The primary impact of digital collaboration technologies is their ability to enhance the efficiency of collaboration among researchers. Platforms such as virtual meeting tools and collaborative document editing software enable real-time communication and simultaneous editing of documents, streamlining the collaborative process (Bikard & Marx, 2017). This efficiency not only accelerates project timelines but also allows researchers to leverage on the expertise of one another more effectively, leading to richer and more comprehensive research outcomes. Digital collaboration technologies play crucial role in facilitating the rapid dissemination of research findings. Researchers can now publish preprints, share datasets, and collaborate on open-access publications with greater ease and efficiency. This accelerated dissemination process enhances the visibility and impact of research outputs, fostering broader engagement and facilitating faster integration of new knowledge into the academic community. These technologies also promote interdisciplinary research by connecting researchers from diverse fields who can contribute complementary expertise to address complex research questions collaboratively. Virtual collaboration spaces enable interdisciplinary teams to exchange ideas, integrate methodologies, and co-create knowledge across disciplinary boundaries, fostering innovation and facilitating holistic approaches to research challenges. In terms of productivity, digital collaboration tools optimize research workflows by reducing administrative burdens and improving coordination among team members (Nguyen (2023).

According to Akinwale (2019), tools such as cloud storage, collaborative document editing, and virtual meeting platforms have facilitated greater collaboration among researchers, enabling them to work together seamlessly regardless of geographical location. Digital collaboration technologies have significantly transformed academic research by fostering efficient collaboration, accelerating knowledge dissemination, promoting interdisciplinary approaches, and enhancing research productivity. While challenges persist, continued innovation and strategic investments in digital infrastructure hold the potential to further optimize collaborative research practices and propel scientific innovation in the digital age. In a study carried out by Yu-Chiung and Ya-Ming (2018), it was revealed that digital collaboration technology have improved the efficiency and productivity of research projects, as they allow for real-time communication, data sharing, and co-authoring of research papers.

Statement of the problem

Despite the growing integration of digital technologies in education, gaps still exist in the consistent and strategic use of digital collaboration tools by business educators for instruction delivery and academic research. While platforms such as Zoom, Microsoft Teams, and Google Meet offer opportunities for real-time interaction, peer collaboration, and virtual academic engagement, many business educators in Nigerian tertiary institutions still face challenges in fully harnessing these tools. Inconsistent institutional policies, limited technical know-how, and lack of standardized practices often hinder the effective use of such technologies, which can negatively affect lecturers' pedagogical practices and the quality of research outputs. If this issue is not properly addressed, instruction delivery may remain fragmented, and business educators may continue to lag in aligning their research practices with global academic standards. This could not only weaken the teaching and learning

process but also limit innovation, collaboration, and productivity in academic research. Understanding how digital collaboration technologies influence business educators' practices is therefore imperative to enhance quality education and achieving the Sustainable Development Goal (SDG 4).

Purpose of the Study

The main purpose of the study was to examine the influence of digital collaboration technology on business educators' instruction delivery and academic research in tertiary institutions in South West, Nigeria. Specifically, the study sought to:

Research Questions

The following research questions were raised to guide the study:

1. To what extent does digital collaboration technology influence business educators' instruction delivery in tertiary institution in South West, Nigeria?
2. To what extent does digital collaboration technology influence business educators' academic research in tertiary institution in South West, Nigeria?

Methodology

The study employed an explanatory mixed methods design, specifically a QUAN + qual simultaneous approach, where the quantitative aspect served as the primary component and the qualitative aspect as a supportive element. As Merriam (2018) noted, combining quantitative and qualitative methods enables a more in-depth and holistic understanding of research problems. When quantitative data alone is insufficient to capture key insights, a mixed methods strategy becomes appropriate to enrich and clarify the findings. The study focused on 250 business educators, with 248 responding, using a census sampling technique that included all business educators from the selected institutions due to the population's manageable size. For the qualitative strand, purposive sampling was used to select all 19 Heads of Department across the institutions, of which 18 participated in interviews. Data collection tools included researcher-developed questionnaire structured on a modified four-point Likert scale ranging from Very High Extent (4) to Very Low Extent (1), and an interview guide with two items directly aligned with the study's purposes. The instruments were validated and tested for reliability using Cronbach's alpha, which yielded a coefficient of 0.81. In line with the study's digital focus, data collection was conducted electronically: the questionnaire was distributed via Google Forms, while interviews were held through Zoom or WhatsApp (audio or video) based on respondents' preferences. Ethical consideration such as voluntary participation, informed consent, and confidentiality were strictly followed. Quantitative data were analyzed using mean and standard deviation, while qualitative responses were transcribed, organized, and thematically analyzed to support and enrich the quantitative results.

Results

Research Questions Analysis

Data to answer the research questions were analyzed and presented in Tables 1 to 2 as follows:

Research Question One

To what extent does digital collaboration technology influence business educators' instruction delivery in tertiary institution in South West, Nigeria?

Table 1: Mean and standard deviation of responses on the extent digital collaboration technology influence business educators’ instruction delivery in tertiary institution in South West, Nigeria

S/N	Items	Mean	SD	Remarks
1	Interactive learning environment is fostered through zoom technology	3.02	0.58	High Extent
2	Zoom platform proffer solution to the constraints of physical space	3.21	0.79	High Extent
3	Google Meets platform enhances active participation and peer learning	2.99	0.67	High Extent
4	Inclusive instructional practices are supported through instant messaging apps like Slack	2.97	0.61	High Extent
5	Microsoft Team platforms promote critical thinking and problem-solving skills	3.02	0.76	High Extent
6	Sharing of resources and knowledge dissemination are facilitated through zoom technology	3.27	0.54	Very High Extent
7	Google Meets platform facilitates business educators’ administrative efficiency	2.94	0.68	High Extent
8	Zoom technology improves the ability of business educators to give feedback to students	3.15	0.63	High Extent
9	Google Meets technology provide opportunity to business educators to teach large classes	3.35	0.65	Very High Extent
10	WhatsApp platforms facilitate teaching in a rural area	3.01	0.87	High Extent
	Weighted average	3.09	0.68	High Extent

Analysis of data in Table 1 shows the mean and standard deviation of responses on the extent of the influence of digital collaboration technology on business educators’ instruction delivery in tertiary institutions. The results indicate that digital collaboration technology plays significant role in enhancing instructional practices. Respondents indicated that Google Meets facilitates the opportunity for business educators to teach large classes (mean = 3.35), suggesting that this platform is particularly effective for managing large student groups. Zoom technology was also highlighted as a powerful tool for fostering an interactive learning environment (mean = 3.02), which aids in creating a more engaging classroom experience. The ability to share resources and disseminate knowledge was significantly improved through Zoom technology (mean = 3.27), indicating its importance in facilitating collaboration and resource sharing among business educators.

Furthermore, Zoom was recognized for solving the constraints of physical space (mean = 3.21), suggesting that it provides flexibility for both students and business educators by overcoming spatial limitations. Google Meets also enhances active participation and peer learning (mean = 2.99), allowing students to engage in discussions and group activities. Similarly, Microsoft Teams was noted for promoting critical thinking and problem-solving skills (mean = 3.02), indicating its effectiveness in encouraging higher-order cognitive skills through collaborative projects and discussions. The study shows that inclusive instructional practices are supported through instant messaging apps like Slack (mean = 2.97), though this platform had a slightly lower impact. Google Meets also improves business educators’ administrative efficiency (mean = 2.94), but its effect is somewhat less than other tools in terms of overall administrative support. Zoom’s impact on giving timely feedback to students was also notable (mean = 3.15), helping business educators maintain communication and provide meaningful feedback. WhatsApp platforms were recognized for facilitating teaching in rural areas (mean = 3.01), providing a practical solution for reaching remote students. All the 10 constructed items have standard deviations ranging from 0.54 to 0.87, showing that the respondents’ responses are close to their respective mean scores. The table has a weighted average mean and standard deviation score of 3.09

and 0.68 respectively. This implies that digital collaboration technology influences instruction delivery of business educators in tertiary institutions to a high extent (mean = 3.09, SD = 0.68).

Research Question Two

To what extent does digital collaboration technology influence business educators’ academic research in tertiary institutions in South West, Nigeria?

Table 2: Mean and standard deviation of responses on the extent digital collaboration technology influence business educators’ academic research in tertiary institution in South West, Nigeria

S/N	Items	Mean	SD	Remarks
11	Virtual meeting platforms like zoom enhances quality of research work	3.07	0.64	High Extent
12	Zoom technology reduced time consumption on research work	3.04	0.53	High Extent
13	Telegram platform facilitates rapid dissemination of research findings	2.74	0.89	High Extent
14	Microsoft Teams platform promotes interdisciplinary research	2.90	0.79	High Extent
15	Skype technology enhances research collaboration	2.76	0.69	High Extent
16	Zoom platform promote research activity	2.92	0.70	High Extent
17	International research collaboration is enhanced through google meets	3.17	0.59	High Extent
18	Whatsapp platform encourages mentorship of junior researchers	3.02	0.68	High Extent
19	Google form increases confidence of researchers	3.04	0.62	High Extent
20	Publication of research findings is enhanced through open-access publishing platforms	3.14	0.62	High Extent
Weighted average		2.98	0.68	High Extent

Analysis of data in Table 2 shows the mean and standard deviation of responses on the extent of the influence of digital collaboration technology on business educators' academic research in tertiary institutions. The results indicate that digital collaboration technology plays significant role in enhancing academic research practices. Respondents indicated that international research collaboration is enhanced through Google Meets (mean = 3.17), suggesting that this platform is particularly effective in facilitating global partnerships among researchers. Additionally, virtual meeting platforms like Zoom are seen as enhancing the quality of research work (mean = 3.07), which indicates their positive influence on improving the depth and rigor of academic research. The use of Zoom technology also reduces time consumption on research work (mean = 3.04), highlighting the platform's role in streamlining the research process and making it more efficient. Furthermore, Microsoft Teams was reported to promote interdisciplinary research (mean = 2.90), helping researchers work across different fields and bringing diverse expertise into their studies. The respondents indicated that Telegram platform facilitates the rapid dissemination of research findings (mean = 2.74), ensuring that results can be shared quickly with a broader audience. Similarly, Skype enhances research collaboration (mean = 2.76), contributing to greater interaction and knowledge exchange among researchers. The Zoom platform also promotes research activity (mean = 2.92), suggesting that the platform plays crucial role in maintaining the momentum of research projects. WhatsApp was identified as a tool for encouraging mentorship of junior researchers (mean = 3.02), showing that it helps foster professional development and knowledge-sharing within the research community. The use of Google Forms was found to increase the confidence of researchers (mean = 3.04), highlighting its role in simplifying data collection and analysis processes, which in turn enhances researchers’ confidence in their work. The respondents also indicated that open-access publishing platforms were found to enhance the publication of research findings (mean = 3.14), promoting greater accessibility and visibility of academic research.

All the 10 constructed items have standard deviations ranging from 0.53 to 0.89, showing that the respondents' responses are close to their respective mean scores. The table has a weighted average mean and standard deviation score of 2.98 and 0.68 respectively. This implies that digital collaboration technology influences academic research of business educators in tertiary institutions to a high extent (mean = 2.98, SD = 0.68).

Qualitative Analysis

Interview Question One: In what ways do digital collaboration technology influence delivery of instruction by business educators in tertiary institution in South West Nigeria?

Responses:

The interview conducted on 18 Heads of Department of higher institutions offering business education programme in South West Nigeria and their responses regarding digital collaboration technologies revealed that, 94% (17 HODs) agreed that it promotes real-time communication and facilitates collaborative teaching methods. This technology enables business educators to work together on developing teaching materials, with 83% (15 HODs) mentioning their role in enhancing student-centered learning and encouraging peer collaboration. Moreover, 50% (9 HODs) emphasized its effectiveness in creating a more inclusive and dynamic learning environment, fostering active student participation. Importantly, 56% (10 HODs) noted the ability to bridge geographical barriers, making collaboration more accessible to both business educators and students, regardless of location.

The outcome of the interview buttressed that digital collaboration technologies enhance real-time communication between business educators and students, fostering more interactive learning and promoting better engagement. In addition, the outcome of the interview emphasized that digital technologies enable collaborative teaching approaches, where business educators can share resources, materials, and ideas, ultimately improving instruction quality. Digital collaboration technologies encourage student participation and peer learning, enhancing the learning environment by fostering teamwork and collaboration. Similarly, the outcome of the interview reinforced the findings that digital collaboration tools help overcome geographical barriers, allowing students and educators from different locations to collaborate seamlessly. This was how some of the HODs responded:

HOD 7: *"It enhances student engagement and interactive learning experiences."*

HOD 8: *"It helps facilitate the generation of instructional tools through collaborative efforts."*

HOD 11: *"It creates more dynamic, inclusive, and effective learning environments, ultimately enhancing student learning outcomes."*

HOD 13: *"Collaboration at any level of learning brings together different perspectives with accurate learning outcomes."*

HOD 14: *"It bridges distance barriers, allows access to large numbers of students simultaneously, and encourages follow-up and feedback."*

Interview Question Four: How does digital collaboration technology influence academic research of business educators in tertiary institution in South West Nigeria?

Responses:

The interview conducted on 18 Heads of Department of higher institutions offering business education programme in South West Nigeria and their responses revealed that; for academic research, digital collaboration technology tools significantly influence productivity and the quality of research output. 89% (16 HODs) reported that these tools facilitate global collaboration, enabling real-time communication and easy sharing of research materials. Furthermore, 67% (12 HODs) indicated that these tools improve co-authoring efforts and data sharing. 50% (9 HODs) observed that they provide access to a wider range of research resources and materials, thus supporting more comprehensive and diverse research outcomes. 39% (7 HODs) indicated that digital collaboration tools also promote cost-sharing among researchers, making joint academic efforts more feasible.

The outcome of the interview reinforced the findings that digital collaboration tools significantly improve research collaboration by facilitating co-authoring and data sharing across institutions. The outcome of the interview further stressed the finding that digital collaboration tools also improve access to a broad array of research resources, allowing business educators to find relevant

literature and data more quickly and effectively. This was how some of the HODs responded:

HOD 9: *"It leads to better collaboration and improved research output."*

HOD 11: *"It facilitates co-authoring papers, sharing data, and working on projects together, enabling global partnerships."*

HOD 16: *"It facilitates robust and thorough research initiatives."*

Discussion of Findings

The findings from the first research question revealed that digital collaboration technologies significantly enhance instruction delivery among business educators in tertiary institutions in South West, Nigeria. Tools such as Zoom, Google Meet, Microsoft Teams, and WhatsApp were found to facilitate a more engaging, flexible, and interactive learning environment. These results corroborate the assertion of Fasola and Abimbola (2022) which emphasized the increasing importance of digital platforms in reshaping pedagogical practices, particularly in higher education contexts. For instance, the use of Google Meet and Zoom was identified by respondents as enabling large class instruction and breaking spatial constraints, thus enhancing instructional reach. This supports the work of Eblie et al. (2021), who found that during the COVID-19 pandemic, synchronous virtual platforms such as Zoom became essential in maintaining continuity of learning, fostering interaction, and promoting student engagement. These technologies allow educators to conduct lessons, discussions, and assessments effectively regardless of physical limitations, a vital consideration for institutions in regions with infrastructural challenges. Similarly, the study found that collaborative tools like Microsoft Teams and Slack promote student-centered learning, critical thinking, and knowledge sharing. These findings align with Fasola (2024), who observed that Nigerian educators have increasingly adopted digital collaboration tools not just for teaching, but for group project coordination and student engagement. Such tools were seen to encourage more active participation, foster critical dialogue, and facilitate resource sharing, which are essential elements of constructivist learning environments. The findings from the qualitative data through the interview conducted on 18 Heads of Department also noted the importance of real-time communication and the ability of these technologies to bridge geographical barriers. A majority noted that digital collaboration platforms enabled teamwork, resource sharing, and peer engagement, thus supporting inclusive and dynamic instructional practices. These outcomes resonate with the findings of Kpolovie and Obilor (2022), who highlighted the positive impact of digital technologies in fostering inclusive education and enabling equitable learning opportunities, especially in Nigerian tertiary institutions.

Findings from research question two revealed a significant influence of digital collaboration technologies on academic research among business educators, demonstrating a broad spectrum of benefits supported by quantitative data. Notably, tools like Zoom, Whatsapp, Video Conferencing and Google Meets were rated highly for facilitating international research collaboration and improving research quality and efficiency. This aligns with the findings of Amie-Ogan and Nwosu (2023), who noted a strong and positive relationship between the use of WhatsApp, Zoom, and other video conferencing tools and lecturers' productivity. These technologies equip business educators with 21st-century skills and knowledge that foster independence, creativity, and lifelong learnings that significantly enhance their productivity. Similarly, Google Workspace and Google Forms were associated with streamlined data collection and researchers' confidence, aligning with studies that highlight their effectiveness in fostering teamwork and boosting academic confidence in similar educational settings. This corroborate the study by Venu (2023), who submitted that google forms enables researchers to quickly collect and organize survey data, ensuring their studies continue smoothly even when faced with logistical challenges. The findings from the qualitative data through the interview conducted on 18 heads of department also complement the quantitative insights, 89% of Heads of Departments reported that digital tools support global partnerships and real-time information sharing, while 67% emphasized improved co-authoring and data sharing. These insights mirror broader evidence that digital collaboration technology enhances professional development and collaborative writing. This aligns with the Technology Acceptance Model Theory, which states that when users find digital technologies both easy to use and genuinely helpful, they are more likely to adopt and continue using the platforms (Davis, 1989).

Conclusion

The study concluded that digital collaboration technology significantly influences both instruction delivery and academic research among business educators in tertiary institutions in South West, Nigeria. The high extent of influence observed reflects a growing integration of platforms such as Zoom, Microsoft Teams, and Google Meet into pedagogical and scholarly practices. This adoption enhances real-time interaction, fosters research collaboration, and promotes global academic engagement. However, the absence of standardized institutional policies and varying levels of adoption among business educators indicate the need for more structured and strategic implementation. Strengthening the use of digital collaboration technologies is vital not only for improving instructional effectiveness and research productivity but also for aligning business education with 21st-century digital competencies and achieving the Sustainable Development Goal of quality education (SDG 4).

Recommendation

The following recommendations were made in line with the findings of the study:

1. Quality Assurance Units in tertiary institutions should develop and implement standardized policies for the use of digital collaboration platforms by business educators.
2. Heads of Business Education Departments should encourage business educators to adopt digital collaboration platforms like Zoom or Microsoft Teams for research presentations and feedback.

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