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Evaluating students' willingness to use digital technologies

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ABSTRACT

The prevalence of digital technologies in education has fundamentally reshaped the learning landscape. Despite acknowledging their positive impact, limited studies exist in understanding the factors influencing students' engagement and its effect on teaching and learning outcomes. To address this gap, the study evaluates students' willingness to use digital technologies by utilizing the Unified Theory of Acceptance and Use of Technology (UTAUT) framework to analyze the determinants that shape students' usage patterns of digital technologies. A quantitative research approach included surveying 222 university students who were actively engaged with digital technologies. Data analysis comprised mean, standard deviation, and Pearson correlation calculations, with appropriate reliability and validity values established based on the obtained data. Correlation analysis validates the proposed model's hypothesis, revealing a statistically significant yet weak relationship between performance expectancy, effort expectancy, and students' willingness to use digital technologies. Conversely, social influence and facilitating conditions exhibit a moderately positive and statistically significant correlation with students' willingness to adopt digital technologies. These findings indicate factors that influence and have a positive relationship with students' willingness to use digital technologies, providing insights into effective ways for integrating and maximizing educational technologies in today's increasingly digital learning environment.

Contribution/Originality: This paper uses the UTAUT framework and quantitative research methods to provide a detailed knowledge of the factors that influence students' engagement with digital technologies in education. The research findings provide useful information for educators and stakeholders interested in technology implementation. Using this information to optimize educational technology projects can improve the entire learning experience in the digital era.

1. INTRODUCTION

In recent years, the widespread adoption of digital tools and platforms has led to a significant global transformation, resulting in considerable changes across numerous industries and opening new options for creativity while challenging conventional paradigms (Brunetti et al., 2020). The utilization of digital tools promotes extraordinary growth, innovation, and productivity. Innovation thrives in the dynamic digital context, enabling the creation of solutions that were once deemed impossible. In the current digital revolution, creativity is more crucial than ever as people and companies leverage technology to explore novel ideas. At the core of this revolution is the adoption of digital technologies, encompassing various electronic devices, software programs, and systems built

upon digital data, often encoded in binary format (0s and 1s) (Lyu & Liu, 2021). This phenomenon has had a significant impact on how people live, work, and interact with the world around them, from redefining entertainment and communication to igniting innovation in business and education (Tan, 2023; Venkatesh, 2020). Digital technologies take many forms, each with unique abilities that add to the constantly changing digital environment and created an ecosystem that includes both traditional computer systems and a variety of innovations (Ciarli, Kenney, Massini, & Piscitello, 2021). Examples of these include computers, smartphones, tablets, and other personal computers that have become indispensable in contemporary society. Software applications, on the other hand, are how these technologies are used in real-world scenarios (Attia, 2019).

Digital technologies, including electronic tools and platforms that process digital data, offer numerous benefits. For instance, the internet functioning as a global digital network dramatically alters information sharing. Digital media revolutionizes the distribution of news and information, influencing enjoyment. Social networking sites fundamentally change interpersonal interactions. Additionally, artificial intelligence (AI) holds the potential to profoundly impact enterprises and society, while cloud computing is currently transforming data storage and retrieval (Munirathinam, 2020; Thompson, Wang, & Daya, 2020). Concurrently, the increasing significance of cybersecurity and the need to counter cyberattacks are transforming our interactions with the environment, particularly with the emergence of the Internet of Things (IoT). Similarly, Big Data is reshaping the information landscape by offering quicker insights and decision-making capabilities. The introduction of virtual and augmented reality has created new possibilities across different sectors, such as entertainment and learning. Alongside these advancements, blockchain technology offers distinctive opportunities for secure transactions (Ande, Adebisi, Hammoudeh, & Saleem, 2020; Gruetzemacher & Whittlestone, 2022; Surbiryala & Rong, 2019).

Furthermore, the widespread adoption of digital technologies, especially in education, is not only revolutionizing traditional teaching and learning approaches but is also introducing new possibilities. However, this transformative wave in education brings both opportunities and challenges, particularly regarding the willingness to accept these evolving technologies (Koohang et al., 2023; Peschl, 2019). It is important to assess the extent to which educational institutions embrace and utilize these advancements in this continuously evolving digital landscape. Hence, the study aims to determine the degree to which students adopt and utilize emerging digital technologies to enhance their educational experiences, aligning with the following research questions:

- To what extent are students willing to integrate digital technologies into their educational experiences?
- Is there a statistically significant correlation between UTAUT constructs and students' inclination to adopt digital technologies?

The research questions inform the formulation of the ensuing research objectives, which are:

- To examine the extent of students' willingness to incorporate digital technologies into their educational experiences.
- To evaluate if a statistically significant correlation exists between UTAUT constructs and students' inclination to adopt digital technologies.

The importance of this research lies in the growing utilization of digital technologies in education. With educational institutions actively exploring e-learning and other digital tools, this study will shed light on how digital technologies are enhancing educational experiences and are essential for developing digital literacy programs that ensure students are prepared for the digital future. This understanding is critical for educators, policymakers, and institutions as they adapt and improve education in the digital age.

In the following sections, we discuss the literature review, theoretical frameworks, research methodology, presentation of key findings, and discussions for enhancing the integration of digital technology in academic institutions.

2. LITERATURE REVIEW

The growing impact of digital technologies on various aspects of modern life has prompted substantial research into the potential outcomes of this digital revolution. The ability of e-learning to improve the teaching and learning process has made the integration of technology into education a global priority for educational institutions (Asad, Hussain, Wadho, Khand, & Churi, 2021; Oyetade, Harmse, & Zuva, 2023a). The adaptability and accessibility of digital platforms have facilitated the development of new learning methods, offering innovative pedagogical approaches to accommodate diverse learners. This examination of essential digital technology components, such as computers, cell phones, software applications, and the internet, underscores their transformative potential when integrated (Alenezi, 2023; Imamov & Semenikhina, 2021). Exploring how technologies such as artificial intelligence (AI) and the Internet of Things (IoT) have amplified the impact of the digital revolution, there's a growing recognition of the importance of equipping individuals with digital literacy skills to prepare them for an increasingly digital future (Emmert-Streib, 2021; Khuraisah, Khalid, & Husnin, 2020). Furthermore, research emphasizes the necessity for educational institutions to adapt their approaches to cultivate digital competence. Given the impact of digital technologies on business processes, studies have demonstrated how new models are generated, broadened global reach, and reshaped industries to adapt to the rapidly evolving digital ecosystem. Research has also explored the pervasiveness of digital technology and its effects on daily living and social norms (Li, 2020; Zhao, Llorente, & Gómez, 2021). Specifically, the impact of technology on communication, entertainment, and information access has been examined, with a focus on the changing role of digital tools in these domains (Lember, Brandsen, & Tõnurist, 2019; Varadarajan, Welden, Arunachalam, Haenlein, & Gupta, 2022).

Investigation into the growing use of social media and the integration of AI into decision-making processes has highlighted the importance of addressing ethical and security concerns. Privacy, cybersecurity, and the ethical use of digital data are significant considerations that require attention in the evolving digital landscape (Karale, 2021). Moreso, several studies have examined the adoption and driving forces behind digital technology, aiming to promote its appropriate and efficient use in education. These studies have outlined the factors influencing technology adoption and highlighted the challenges and intricacies associated with the use of digital technologies across various fields and contexts (Oyetade, Harmse, & Zuva, 2023b; Zhao et al., 2021). The introduction of digital technology in education has significantly altered communication methods, interactions with learning resources, and the processes of acquiring and distributing knowledge (Carroll et al., 2023). To comprehensively understand the complex dynamics of technology adoption by individuals and organizations, a strong theoretical framework is necessary, which is discussed in the next section. The research gaps this study fills lie in providing a comprehensive understanding of the degree to which students adopt and utilize emerging digital technologies for educational enhancement. By exploring students' willingness and correlating it with UTAUT constructs, the study contributes valuable insights into the dynamics of technology adoption in education, ensuring the development of effective digital literacy programs and enhancing educational experiences.

3. THEORETICAL FRAMEWORK

This section explains the varied theoretical frameworks that inform the study's examination of the processes that determine how much students embrace and utilize new digital technology to enhance their learning opportunities.

3.1. Innovation Diffusion Theory

The framework emerges as one of the most relevant and acceptable ways to comprehend how digital technology is adopted within a social system and to understand how it spreads within the educational setting (Rogers, Singhal, & Quinlan, 2014; Vargo, Akaka, & Wieland, 2020). The Innovation Diffusion Theory (IDT) considers various factors, including the characteristics of innovation, communication channels, social systems, time,

and the adopter's characteristics. It provides a systematic and organized approach to understanding the complex process of adopting new technology. Also, IDT offers a strong foundation for evaluating the readiness and challenges associated with implementing digital innovations in education (García-Avilés, 2020; Wani & Ali, 2015). Moreover, the alignment of IDT variables with the dynamics of digital technology adoption highlights the relevance and applicability of this theory to the study's objectives. The primary variables within the IDT framework for understanding the diffusion and adoption of technology include relative advantage, compatibility, complexity, trialability, observability, and communication channels (Al-Rahmi et al., 2019). Relative advantage measures how much an innovation improves on its predecessor. Assessing students' willingness to use digital tools involves considering benefits such as improved accessibility, interactivity, and efficiency. It's crucial to evaluate how innovations align with current expectations to understand their impact on existing curricula. Complexity examines the ease of understanding and usability, while trialability involves limited testing, reflecting practical use. Observability involves students recognizing the advantages of using digital tools. Compatibility assesses how well digital technologies fit into students' learning practices and enhance educational goals. Communication channels are pathways through which information about innovations spreads, influencing adoption decisions through formal and informal channels (Raman et al., 2023).

3.2. Unified Theory of Acceptance and Use of Technology (UTAUT)

Developed by Venkatesh, Morris, Davis, and Davis (2003) this framework provides a robust foundation for assessing the readiness and challenges associated with adopting digital innovations in education. It integrates concepts such as social influence, effort expectation, and performance expectancy, and facilitating conditions in which to comprehend the dynamics of how individuals and organizations embrace digital advancements. Performance expectancy is the extent to which a person thinks that utilizing a given technology will improve their ability to carry out tasks or improve their performance at work. Regarding digital technology, students' views on how well these tools can enhance their instruction and learning objectives are referred to as performance expectations (Ukut & Krairit, 2019). Effort expectations are related to how easy or difficult people think it is to use digital technologies (Rumangkit, Surjandy, & Billman, 2023). A low effort expectation indicates that people think the technology is simple to use and intuitive. Students' intentions are greatly influenced by their perceptions of the amount of work necessary for successful integration (Venkatesh et al., 2003). The impact of external factors on the adoption of technology is expressed by social influence, which comprises peer, supervisor, and colleague influences. Individuals are more inclined to embrace and use technology if they receive encouraging feedback and support from their social network. Students' perceptions of the value and validity of e-learning platforms differ from those of their classmates, teachers, and institutional support staff (Al-Fraihat, Joy, & Ra'ed Masa'deh, 2020; Venkatesh et al., 2003). The resources and support that users believe are available to them to help with technology adoption are referred to as facilitating conditions. This covers factors such as infrastructure, training, and technical support. The existence of facilitating conditions can lower obstacles to the usage of technology.

3.3. Connectivism

Connectivism is a learning theory that highlights the importance of networked interactions and rapid knowledge expansion (Siemens, 2007). The growing integration of digital technology in various domains has transformed how we access, exchange, and generate knowledge, as well as redefine instructional techniques. An organized method for comprehending the intricacies of knowledge creation, learning, and networked interactions in the digital age is provided by connectivism (Jacobsen, 2019). The core tenet of connectivism is that networks and connections facilitate learning. The concept is consistent with the idea that, when it comes to the adoption of digital technology, digital tools provide connectivity between teachers, students, and knowledge sources (Prestridge, Jacobsen, Mulla, Paredes, & Charania, 2021). Additionally, distributed learning—where knowledge is spread across

digital spaces and resources that support the central idea of the framework—is emphasized by connectivism (Apostolidou, 2022). The active participation of students in the creation of knowledge is highlighted by connectivism. When faculty members use digital technology, they frequently use different digital tools and platforms to create, curate, and share knowledge. Connectivism's concept of collective intelligence is directly applicable to the collaborative and knowledge-sharing features of digital technology adoption. Through digital networks and communities, faculty members can collaborate, exchange insights, and contribute to collective intelligence (Prestridge et al., 2021). In digital environments, self-directed learning is valued by connectivism. Students who use digital technology frequently take the initiative to investigate, experiment, and adapt to these technologies, which aligns with the framework's emphasis on learning autonomy.

3.4. Technology Acceptance Model

The Technology Acceptance Model (TAM) describes how people accept new technologies based on perceived usefulness and simplicity of use, anticipating actual usage behavior. The TAM is frequently used in various contexts to inform technology adoption and deployment. It provides an organized and comprehensive way to assess students' preparedness and challenges in relation to embracing digital innovations by presenting an applicable framework for understanding the elements that drive technology adoption (Kim, Kim, & Han, 2021; Opoku & Enu-Kwesi, 2019). The alignment of the TAM's variables with the dynamics of digital technology adoption emphasizes the theory's relevance and applicability to the study's objectives (Mustafa & Garcia, 2021). The uptake of digital technology in education is exactly aligned with perceived usefulness. Understanding students' adoption behavior is dependent on their perceptions of how digital technologies improve their learning, research, and general academic activities. Perceived ease of use is directly related to students' perceptions of the ease or difficulty of incorporating digital technology into existing teaching and learning techniques (Maziriri, Gapa, & Chuchu, 2020; Siron, Wibowo, & Narmaditya, 2020). This corresponds to the difficulties and ease of use involved in digital technology adoption. The TAM views technological attitude to be a significant determinant of adoption. It also enables the incorporation of external factors that may influence technology acceptability. External variables in digital technology can include the influence of peer recommendations, the availability of technical support, and training programs that assist students in adopting and effectively using digital tools (Malatji, Eck, & Zuva, 2020).

3.5. Conceptual Similarities

The study found conceptual similarities between factors in previously examined frameworks for evaluating the uptake and usage of digital technologies. These similarities give the study a solid basis on which to build an in-depth understanding of how technology is accepted and integrated into a variety of environments. For instance, the perceived advantages that users anticipate from embracing and utilizing technology are at the center of perceived usefulness in the TAM and performance expectancy in the UTAUT model (Kim et al., 2021; Venkatesh et al., 2003). The TAM evaluates how technology improves individual performance, while the UTAUT's performance expectancy quantifies the anticipated advantages of technology use in accomplishing activities or objectives. Also, the TAM's perceived usability is consistent with the UTAUT's effort expectations. Both variables highlight the ease or difficulty that people associate with adopting and using technology. In addition, the connectivity variable in connectivism shares a conceptual link with social influence in the UTAUT to highlight the role of social connections in technology adoption as well as the influence of social interactions, emphasizing the relevance of having connections to peers and other knowledge sources. Likewise, regarding how easy or difficult it is to use technology, self-directed learning in connectivism and effort expectation in the UTAUT conceptually mirror each other. Self-directed learning emphasizes the independence and self-control that students possess when utilizing technology. In the UTAUT, effort expectation measures how simple or complex a task is to employ technology for. The user's viewpoint on the usability of technology is addressed by both variables. Furthermore, there is a

conceptual connection between the UTAUT's facilitating conditions and IDT's compatibility in terms of supporting and enabling technology adoption (Prestridge et al., 2021; Venkatesh et al., 2003). In IDT, compatibility refers to how well an invention fits in with current norms and principles; similarly, in the UTAUT, facilitating conditions include the tools and assistance that facilitate technology adoption. In conclusion, the concepts of compatibility and support for technology adoption are shared by UTAUT's facilitating conditions and IDT's compatibility. Similar to how the facilitating conditions in the UTAUT include the tools and assistance that facilitate technology adoption, compatibility in IDT refers to how well an invention conforms to current practices and values (Rogers et al., 2014; Venkatesh et al., 2003).

3.6. Hypotheses

It is critical to assess students' willingness to use digital technology and comprehend the factors impacting their adoption as they navigate this digital transformation. This study chose the UTAUT model because it has undergone thorough testing and validation for a variety of technologies and contexts. Additionally, there is a convergence of shared characteristics between the variables of the UTAUT and the variables of the assessed theories (IDT, connectivism, TAM). In addition, the UTAUT continually evolves due to new research contributions and modifications, which keeps it current and applicable in the rapidly evolving field of technology adoption.

Performance expectancy refers to an individual's belief that employing a specific technology will improve their performance. This variable is directly related to analyzing how students see the potential benefits of digital tools in increasing their learning, research, and overall academic activities in the context of digital technology adoption.

H_1: Performance expectancy has a significant relationship with students' use of digital technologies.

Effort expectancy describes how simple a technology is thought to be to use. Understanding how students view the ease or difficulty of incorporating digital tools into their current teaching and learning techniques is essential for the adoption of digital technology. This variable has a direct bearing on the difficulties and usability of digital technologies.

H_2: Effort expectancy has a significant relationship with students' use of digital technologies.

Social influence takes into consideration how outside influences, such as friends and coworkers, affect people's adoption of new technology. The adoption process of digital technology is significantly impacted by the influence of peers and the significance of peer recommendations. Students may be inspired by peers who have successfully integrated digital technologies into their classroom instruction.

H_3: Social influence has a significant relationship with students' use of digital technologies.

Facilitating conditions refers to the degree to which people think that the resources, support, and infrastructure needed to enable technology use are in place. It also pertains to the availability of technical support, training, and resources that help students use digital tools for learning and conducting research in an efficient manner when it comes to the use of digital technology.

H_4: Facilitating conditions have a significant relationship with students' use of digital technologies.

4. RESEARCH METHODOLOGY

This section outlines the research design, participant selection, data collection instrument, and analytical techniques employed in this study to provide a comprehensive framework for investigating the adoption and utilization of digital technology among South African university students.

4.1. Research Design

The study employs a descriptive-analytical research design to address its research questions and achieve its objectives.

This approach allows for a comprehensive exploration of the variables influencing the adoption and utilization of digital technology among South African university students.

4.2. Research Population

The primary target population for this study is South African university students. This demographic was chosen due to its heterogeneity in digital technology exposure, providing an ideal environment for investigating the factors affecting technology adoption.

The study includes a sample of 222 university students from Vaal University of Technology, South Africa, ensuring transparency and authentication of the data. In the educational landscape of South Africa, there is a pressing need for innovative approaches that can effectively engage students and enhance their learning experiences. The nation has undergone significant educational reforms in recent years, aiming to address historical disparities and provide quality education for all.

4.3. Instrument

The main data collection tool is a 21-item questionnaire, which utilizes a Likert scale, with responses ranging from "strongly disagree" (1) to "strongly agree" (5).

Aligned with the Unified Theory of Acceptance and Use of Technology (UTAUT), the questionnaire covers various facets of digital technology acceptance and use, including performance expectations, effort expectations, social influence, and facilitating conditions. Background and demographic information are also collected through the questionnaire.

4.4. Validity and Reliability Tests

To ensure the validity of the questionnaire, its content is aligned with UTAUT concepts, and the Likert scale offers a standardized response format. Reliability is assessed through statistical measures. During the initial phase of data analysis, the Shapiro–Wilk test is employed to verify the normal distribution of the data, ensuring the appropriateness of subsequent statistical methods.

Demographic features are analyzed using frequencies and percentages to provide a comprehensive characterization of the participants' profiles. Means and standard deviations are computed for a deeper understanding of the dataset, offering insights into overall trends and variations. To explore the relationship between digital technology acceptance, use, and UTAUT variables, a Pearson correlation analysis is conducted, quantifying the degree and direction of associations through correlation coefficients. These measures collectively contribute to the robustness and reliability of the study's findings.

5. RESULTS

5.1. Demographics

The perceptions in this study are skewed toward male students, who make up the majority of the participants (60.8%). Most of the participants are between the ages of 23 and 29 (75.7%), and most use computers daily (52.3%). Table 1 shows that the age distribution tends toward the composition of higher education inclusion. Most participants are enrolled in diploma programs.

Future study should aim for a more diversified demographic mix to guarantee that the findings can be generalized.

Table 1. Respondents' details.

Category	Characteristic	n	Percentage
Gender	Male	135	60.8
	Female	87	39.2
Age	16–22	26	11.7
	23–29	168	75.7
	30–36	24	10.8
	37+	4	1.8
Computer usage	None	22	9.9
	Daily	116	52.3
	Weekly	50	22.5
	Monthly	34	15.3
Degree program	Diploma	109	49.1
	Honors	57	25.7
	Masters	38	17.1
	PhD	18	8.1

5.2. Students' Willingness to Use Digital Technologies

The data shown in Table 2 shows the means and standard deviations of the research sample's answers to the first research question, which investigates how inclined students are to use digital technology.

Table 2. Students' willingness to use digital technologies.

Characteristic	Mean	Std. Dev.
Digital technologies will be a part of my learning strategies.	3.56	0.769
Soon, I intend to adopt digital technologies.	3.78	0.572
Digital technologies are what I plan to use to organize my information.	3.06	0.317
I complete my academic work using digital technologies.	3.55	0.837
I use digital technology to clarify and respond to academic queries.	3.56	0.648
I can't wait to use digital tools in my academic career.	3.66	0.616

The respondents indicated a moderate intention to include digital technologies in their teaching and learning activities (mean = 3.56). The standard deviation (SD = 0.769), which is rather high, indicates that there is some variability in the responses. Regarding the future use of digital technologies, respondents indicated a high intention (mean = 3.78). The responses are closely clustered around the mean, indicated by the low standard deviation of 0.572, which suggests a high degree of agreement among the respondents. To manage their information using digital technologies, the respondents reported a moderate intention (mean = 3.06). The low standard deviation of 0.317 indicates that the responses are consistent and closely clustered around the mean. Also, the respondents generally stated that they intended to use digital technologies for class assignments in a modest way (mean = 3.55). The comparatively high standard deviation of 0.837 indicates that results may vary somewhat. Moreso, students' intentions to use digital technologies for explanations and answers to questions were moderate (mean = 3.56). Moderate response variability is indicated by the standard deviation of 0.648. In conclusion, the participants expressed a robust inclination (mean = 3.66) to employ digital technologies in their academic pursuits. According to the standard deviation of 0.616, response variability is moderate. These results show that the respondents have varying levels of intention and desire to utilize digital technology, with a statistical significance level of $p < 0.001$, indicating that this intention is statistically significant, therefore validating the observed trends. The findings of the study show that the students are open to utilizing digital technologies in the classroom.

5.3. Correlation

Analytical statistics were employed to investigate whether there is a relationship between the degree of willingness and each factor of the UTAUT. The nature and extent of the association between the UTAUT construct and the degree of willingness to accept digital technology were evaluated using the Pearson correlation coefficient. These outcomes are shown in Table 3. The performance expectancy (r = 0.348, p < 0.001) and effort expectancy (r = 0.298, p < 0.001) constructs have a weak but positive relationship with one another. At the significance level of 0.05, there is a positive and moderate relationship between the degree of willingness and the constructs of facilitating situations (r = 0.499, p < 0.001) and social influence (r = 0.448, p < 0.001). These results can be attributed to individuals viewing specific technology and applications, such as effort expectation, performance expectancy, social impact, and facilitating conditions, as improving their overall performance.

Table 3. Pearson correlation output.

Characteristic	EE	PE	SI	FC	Student willingness
Effort expectancy	—				
Performance expectancy	0.512***	—			
Social influence	0.288***	0.312***	—		
Facilitating conditions	0.326***	0.167*	0.353***	—	
Receptivity	0.298***	0.348***	0.448***	0.419***	—

Note: * p < 0.05, ** p < 0.01, *** p < 0.001.
EE = Effort expectancy, PE = Performance expectancy, SI = Social influence, FC = Facilitating condition, SW: Student willingness = receptivity.

6. DISCUSSION

This study provides valuable insights into the impact of digital technologies on students' educational experiences. The demographic analysis sheds light on the predominant representation of male students aged between 23 and 29, revealing a potential bias in the sample composition. Acknowledging this, future research endeavors should prioritize a more diversified demographic mix to enhance the applicability and generalizability of the findings. The participants expressed a consistent and moderate intention to leverage digital technologies for managing information, reflecting a potential alignment with contemporary organizational and information management trends. However, the diverse attitudes toward using digital technologies for class assignments highlight the need for a tailored approach to educational technology implementation. The correlation analysis, based on the UTAUT constructs and students' willingness to adopt digital technologies, offers valuable insights into the connections between these variables. The marginally positive association between performance expectancy and effort expectancy suggests a delicate balance between the perceived rewards and the effort necessary for technology use. These findings are consistent with previous research. For instance, according to Timotheou et al. (2023), students acknowledge the potential benefits of digital technology, yet their sustained usage remains only marginally advantageous. This suggests that students may not always translate perceived utility into consistent technology use, despite awareness of the benefits. Similarly, Tüchler (2021) found that although students perceive digital technologies as reasonably user-friendly, they show little tendency to integrate them into their learning routines. This highlights the influence of factors beyond the perceived ease of use on adoption decisions, even when technologies are perceived as simple to use.

Additionally, the moderately favorable relationships with social influence and facilitating conditions highlight how important external factors are in influencing students' acceptance of technology. While some studies have shown a positive relationship between facilitating conditions and technology use, there have been instances when the relationship is moderate (Cabellos, Siddiq, & Scherer, 2024; Thusi & Maduku, 2020). Similarly, Timotheou et al. (2023) found that students' use of digital technologies was somewhat positively impacted by the availability of technology tools and support in educational settings. This implies that although facilitating conditions have a role

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in technological adoption, the degree to which this relationship is influenced by other factors may vary. Social influence, another component of the UTAUT model, highlights the impact of peers, educators, and external networks on technology acceptance. Numerous studies have established a positive relationship between social influence and technology adoption (Al Kurdi, Alshurideh, & Salloum, 2020; VanDerSchaaf, Daim, & Basoglu, 2021). However, in cases such as the study conducted by Singh, Sahni, and Kovid (2020) the relationship was identified as moderate. Students' desire to use digital technologies was moderately influenced by the availability of technology resources combined with positive social factors. While social factors are important, technology adoption among students can be influenced by numerous other factors. These findings highlight the complexities of the factors influencing students' technology adoption behaviors, underlining the importance of a comprehensive understanding of the contextual and individual factors driving these relationships across multiple educational environments.

Understanding the complex interactions between psychological, social, and environmental factors that influence students' acceptance of digital technology has been made possible using the Unified Theory of Acceptance and Use of Technology (UTAUT). Based on the perceived benefits and use as well as social influence and environmental support systems, the results emphasize the significance of an integrated strategy. When negotiating the ever-changing world of digital integration, educational institutions can benefit greatly from the use of the UTAUT framework. It guides research initiatives and develops policies to improve students' acceptance and use of technology.

The study's implications include empowering educators and students, informing teaching practices, and leading future research and development around digital technology integration in education. Educators can effectively adjust their teaching methods by using the study's findings to connect instructional approaches with students' preferences and expectations for digital technology use. In turn, students stand to benefit from improved educational experiences, as the study tries to determine the extent to which they are willing to use digital technology in their learning journeys. These findings are vital to educators and students alike, and they can guide educational institutions in South Africa and beyond. The results of the research can inform strategies for seamlessly integrating digital technology into teaching approaches, influencing curriculum creation, teacher training programs, and the establishment of supportive infrastructures. This strategy attempts to improve students' digital literacy and overall learning experiences by creating a technologically enriched educational environment.

7. CONCLUSION

This study investigates how receptive students are to using digital technologies in their teaching and learning experience. The participants' growing perspectives are indicated by their moderate intention to integrate digital technology into teaching and learning activities, as well as the variety of attitudes seen in this area. The strong tendency for future technology adoption highlights the expected contribution of digital technologies to the learning process. The results not only offer a quick overview of the current situation but also set the stage for further research into the dynamics of digital technology adoption in educational settings.

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