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Factors Affecting the Implementation of Blended Learning in Higher Learning Institutions in Tanzania: A Comprehensive Review of Literature

Joyce Nemes

The University of Dodoma, Dodoma, Tanzania
Correspondence: E-mail: joyce.nemes@udom.ac.tz

ABSTRACT

Blended Learning Approach (BLA) is considered effective for students balancing multiple responsibilities. However, its implementation in Tanzania's Higher Learning Institutions (HLI) encounters notable challenges, with limited research exploring these barriers. This review investigates the obstacles to BLA adoption, guided by the Technology Acceptance Model (TAM) and Rogers' Diffusion of Innovations Theory (DIT). Findings show that many instructors lack training and practical experience, leading to resistance and poor integration—consistent with TAM's emphasis on perceived ease of use and preparation. Students also face issues such as limited computer skills and unreliable internet, reflecting DIT's focus on accessibility and communication. Outdated learning materials further hinder student engagement, underscoring the need for robust support systems. The study concludes that successful BLA implementation requires improvements in training, infrastructure, and support. A paradigm shift is necessary, with targeted preparation for both instructors and students. Expanding access for students in remote areas is also crucial to ensure equity.

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1. INTRODUCTION

The adoption of Blended Learning Approaches (BLA) in teaching and learning process is experiencing unprecedented growth in developing countries, particularly within Higher Learning Institutions (HLI). This pedagogical approach, which strategically combines online digital components with traditional face-to-face instruction between facilitators and learners, serves as a transformative method for widening educational access and enhancing learning outcomes. On the same note, BLA provides convenient and flexible learning opportunities for both in-service professionals and self-employed individuals while simultaneously reducing educational costs along with addressing geographical barriers to quality education (Bamoallem and Altarteer, 2022; Bayyat, Muaili and Aldabbas, 2021; Celestino and Noronha, 2021; Mhlanga, 2021; Semlambo, Sengati and Angalia, 2022; Singh, Steele and Singh, 2021; Widjaja and Aslan, 2022; Zawadka et al., 2021).

Nevertheless, despite the fact that these evident advantages and the growing recognition of the Blended Learning Approach's potentials as pointed out in quite a good number of studies such as the study by (Bhadri and Patil, 2022; Brenya, 2024; Celestino and Noronha, 2021; Muhuro and Kangethe, 2021), a number of scholars worldwide have raised critical concerns about the BLA's implementational challenges and its effectiveness in developing countries as asserted in the study by (Anthony, 2022; Brenya, 2024; Muhuro and Kangethe, 2021; Sele, Nyakerario and Wanjiku, 2023; Stephen and Makoji-Stephen, 2023; Zhang, et al., 2022).

These concerns highlight the intricacy of successfully implementational of BLA in resource-constrained environments where technological infrastructure, digital literacy and institutional support systems are limited. While broad reviews with regard to BLA in HLI are abundant worldwide, most focus predominantly is on developed countries rather than addressing the unique contextual challenges encountered by developing nations, Tanzania in particular. This geographic and contextual partiality creates a significant knowledge gap in understanding implementational factors specifically to Sub-Saharan African contexts. For example, (Anthony et al., 2022) examined the implementation of BLA in HLI after reviewing only eight articles published between 2010 and 2013, with studies mainly from developed countries, in that regard limiting applicability to the Tanzanian contexts.

Similarly, (Gallagher and Savage, 2023) focused on Higher Learning Institutions but employed the outdated studies published between 2000 and 2016, thus raising questions about the current relevance of their findings. Furthermore, (Bizami, Tasir and Kew, 2023) provided valuable insights by reviewing ninety-seven articles correlating with the BLA in HLS published across fifteen journals between 2012 and mid-2017, but their analysis again emphasized solely on the developed countries experiences. Additional reviews are the one by (Mustapha et al., 2022) who carried it out in Malaysia, (Ahmed, Alwi and Akhtar, 2022) which focused on key themes and categories from 103 articles from Science Direct related to BLA globally without a little specific regional focus and (Abuhassna et al., 2022) who conducted a comprehensive bibliometric study covering 39 studies published between 2011 and 2021.

Besides, another review is the current systematic review by (Cao et al., 2025) which examined BLA among undergraduate nursing students' acceptance and satisfaction and the review by (Pantiwati et al., 2023) who investigated on the effectiveness of online and BLA in general. In the Tanzanian context precisely, there is a bibliometric study by (Mwakyusa and Ngwebeya, 2022) which is now outdated focusing broadly on e-learning rather than BLA's implementation factors and the review by (Machumu et al., 2022) who addressed general e-learning contexts in Tanzania.

Along similar lines, even though these studies are methodologically sound and valuable to the global discourse, they have remained scattered across various geographical and institutional contexts subsequently lacking comprehensive synthesis specifically to the Tanzania's unique educational, technological and socio-economic environment. In that regard, the absence of a consolidated understanding of implementational factors, creates challenges for policymakers, institutional leaders and practitioners seeking evidence-based guidance for successful adoption of Blended Learning Approaches. For that reason, this study aims at addressing this critical gap by providing a systematic and comprehensive review of the existing literatures that document, analyze and synthesize the challenges and factors affecting the implementation of BLA in the Higher Learning Institutions in Tanzania.

The historical context and current landscape of BLA Approach in Tanzania can be traced back as from the late 1990s, evolving from early experiments in computer-assisted learning to sophisticated integrated pedagogical approaches (Bizami, Tasir and Kew, 2023). Thus, Tanzania has been standing among the pioneering African countries that have embraced the implementation of BLA in HLI, with systematic initiatives dating back to 1998, thus reflecting the nation's commitment to leveraging technology for educational advancement and democratization of the access to quality higher education. This has been due to the fact that; Blended Learning Approach has been an integral component in the HLI worldwide thus being adopted in Tanzania in that regard.

Since 2008, various universities in Tanzania, have strategically expanded their tentacles thus offerings various programs through specialized Learning Centres, subsequently demonstrating institutional innovation in educational delivery. For instance, several institutions have successfully implemented three distinct postgraduate programs namely, the postgraduate diploma in Education, the postgraduate diploma in Engineering Management and a Master's degree in Engineering—through dedicated Learning Centres strategically positioned in major urban centers such as Mwanza, Arusha and Dar es Salaam (Mwakyusa and Ngwebeya, 2022). This geographical distribution strategy has enabled institutions to extend their reach while maintaining quality standards and ensuring accessibility for diverse student populations.

On the same note, the Open University of Tanzania (OUT) has been at the forefront with regard to educational transformation, pioneering innovative approaches to distance and blended learning delivery.

Since 2001, OUT has offered an extensive portfolio of postgraduate programs such as Postgraduate Diplomas, Master's degrees and PhD qualifications (Bubou and Job, 2021). The institution's systematic e-learning development, commenced in 2006 with the strategic implementation of the A-tutor system through external consultancy support, demonstrating early recognition of the potential in favor of technology-enhanced

learning (Mtani and Mbelwa, 2022). Currently, OUT operates as the Tanzania's leading Open and Distance Learning (ODL) institution, offering comprehensive blended learning programs across all regions in Tanzania, including specialized branches in Zanzibar, thereby serving as the national model for blended learning implementation.

In the same vein, the outbreak of COVID-19 pandemic served as a significant catalyst, dramatically accelerating the adoption of blended learning approaches across Tanzanian Higher Learning Institutions. This crisis-driven transformation, forced institutions to rapidly adapt their pedagogical approaches, leading to widespread implementation of digital learning platforms.

Many institutions delivered postgraduate programs through sophisticated blended learning platforms, utilizing technologies such as Moodle for content management and Zoom for synchronous virtual meetings and interactive sessions. Notable institutions that have successfully embraced this technological transformation include the Institute of Accountancy Arusha (IAA), the College of Business Education (CBE) and other public and private universities, demonstrating the widespread nature of this educational evolution.

The extensive implementation of BLAs, aligns strategically with Tanzania Education and Training Policy (ETP) of 2014, 2023 Edition, which provides comprehensive strategic direction for integrating technology in educational delivery while addressing challenges of access, quality and relevance in HLI. Besides, the policy framework recognizes BLA as a key strategy for achieving educational goals while addressing the unique challenges faced by developing nations in the digital age.

1.1. Problem Statement and Research Gap

Previous research on the implementation of BLA in Tanzania has been notably fragmented, with individual studies examining isolated aspects of implementation challenges without providing the broad analytical framework necessary for holistic understanding. While several scholars have conducted valuable investigations such as the study by (Bubou and Job, 2021; Li and Wang, 2022; Mazana, Montero and Njotto, 2023; Muhuro and Kangethe, 2021; Semlambo, Sengati and Angalia, 2022; Wahab and Adawiyah, 2025).

These studies have primarily focused on specific institutional contexts or particular aspects of blended learning challenges, rather than providing a systematic synthesis of implementation factors across the broader Tanzanian Higher Learning Institutions landscape.

Although these studies have identified various factors that impede the implementation of BLA in Tanzania, they still lack the wide-ranging scope and analytical depth required to understand the full spectrum of challenges and opportunities present in the current educational environment.

Moreover, individual studies have successfully identified specific barriers and factors for BLA's success within their respective contexts, but there is a critical absence of systematic synthesis that presents a holistic, theoretically-grounded understanding of the multidimensional factors affecting BLA's implementation across diverse HLI in the country.

This fragmentation, has created several significant problems amongst stakeholders in the HLI. First, policymakers lack thorough evidence-based guidance for developing supportive frameworks for BLA's implementation. Second, institutional leaders are not in the best position for accessing consolidated insights so as to inform strategic decision-making regarding technology adoption and resource allocation. Third, practitioners lack access to best practices across-the-board and lessons learned across the sector. Finally, researchers lack a consolidated foundation upon which to build future empirical investigations.

In that regard, the paucity of a thorough, theoretically-grounded synthesis, represents a significant gap in the literature that limits the sector's ability to learn from collective experiences and implement evidence-based improvements which this study aimed to fill.

1.2. Study Objectives

This study aims at conducting a broad, theoretically-grounded literature review to systematically identify, critically analyze and synthesize the multidimensional factors affecting the implementation of blended learning in Tanzania's Higher Learning Institutions. Specifically, the study seeks to:

- i. Systematically identify the key factors that facilitate or hinder the implementation of BLA across different institutional contexts in Higher Learning Institutions in Tanzania
- ii. Critically analyze the factors apt for the implementation of BLA through the theoretical lens of the Technology Acceptance Model (TAM) and Diffusion of Innovations Theory in order to provide deeper understanding of the implementation dynamics
- iii. Synthesize the findings so as to develop a broad framework that explains the multidimensional relationships between individual, institutional and systemic factors affecting the adoption BLA
- iv. Provide evidence-based recommendations for improving the implementation of BLA's practices across different stakeholders
- v. Establish a consolidated foundation for future empirical research and evidence-based policy development in Tanzania's HLI.

1.3. Significance of the Study

This comprehensive review significantly enhances the understanding of educational technology's implementation in developing countries, Tanzania in particular. Theoretically, it integrates the TAM and Diffusion of Innovations Theory, thus providing a robust framework for analyzing the implementation of Blended Learning Approach in Sub-Saharan Africa. Empirically, the review fills a critical gap by synthesizing factors influencing BLA in Tanzania's HLI, consequently offering valuable insights previously scattered across studies.

Methodologically, the review showcases the effectiveness of narrative literature reviews in consolidating fragmented research, subsequently providing a template for

future reviews in similar contexts. Practically, the current study review delivers evidence-based recommendations for stakeholders, from instructors to policymakers, so as to enhance BLA practices. In addition, the review informs policy development by guiding the integration of technology-enhanced learning into sustainable ways. Serving as a foundational resource for future research, the current study review identifies knowledge gaps subsequently promising directions for further investigation, while its findings remain relevant to other Sub-Saharan African countries facing similar challenges, in this manner contributing to a global understanding of technology adoption in resource-constrained educational environments.

2. THEORETICAL FRAMEWORK

The current study review was guided by the Technology Acceptance Model (TAM) and Diffusion of Innovations Theory (DIT). The TAM provided a robust theoretical lens for understanding how individual users accept and adopt blended learning technologies in HLI. The model's core constructs are perceived usefulness, ease of use, attitude toward use and are discerning behavioral intention hence serving as analytical categories for examining factors that influence faculty and students' acceptance of BLAs in Tanzanian Higher Learning Institutions.

Moreover, the study utilized TAM's proposition that, users' acceptance of technology is primarily determined by their perception of the technology's usefulness in enhancing their performance and their assessment of the effort required to use the system.

Along similar lines, The Diffusion of Innovations Theory was employed in order to provide a broader organizational and systemic perspective on the implementation of BLA. This theory enabled the study to examine how blended learning innovations are spread within and across HLI in Tanzania, in that manner considering factors such as relative advantage, compatibility, complexity, trialability and observability in the educational settings in sub-Saharan African region, Tanzania in particular.

Significantly, the theoretical framework was particularly suitable for this review as it allowed to systematically categorize and analyse the pertinent factors for the implementation of BLA in multiple levels such as individual, institutional and systemic level while providing a across- the board understanding of both the technological acceptance processes and the broader innovation diffusion patterns that characterize BLA adoption in HLI in Tanzania. Moreover, the integration of these two theories provided a holistic analytical framework that captured both micro-level user acceptance behaviors and macro-level organizational adoption processes.

3. METHOD

The research adopted a narrative literature review methodology so as to investigate the factors influencing the implementation of BLA in the context of HLI in Tanzania. This methodological choice was deliberate, as it facilitated a comprehensive examination and integration of existing scholarly work while offering the analytical flexibility necessary to contextualize findings within the broader framework of educational technology adoption in developing nations, Tanzania in particular. Further, the narrative approach employed, proved valuable for synthesizing diverse research methodologies

and theoretical frameworks, ultimately enabling the development of a wide-ranging understanding of the multidimensional challenges associated with the implementation of BLA in Tanzania's academic institutions.

The literature identification process employed a strategic and literative search methodology across multiple academic databases, including Google Scholar, Bielefeld Academic Search Engine (BASE) and African Journals Online (AJOL). The literature search employed flexible combinations of the following key terms, Core concepts for: "blended learning," "hybrid learning," "mixed-mode learning," "e-learning" Geographic focus for: "Tanzania," "Tanzanian," Educational context for: "higher education," "university," "tertiary education," "postgraduate" "Higher Learning Institutions" and Implementation focus for: "implementation," "adoption," "challenges," "barriers," "factors," "experiences".

The selection framework was guided by specific inclusion parameters requiring publications solely from 2013-2024 which addressed the Blended Learning Approach in HLI with substantial focus on Tanzanian experiences, while excluding studies limited to primary and secondary education or those lacking analytical depth regarding the factors necessary for the implementation of BLA. Finally, only 10 studies were reviewed in that regard.

The analytical framework incorporated thematic synthesis techniques in order to identify recurring patterns and relationships within the selected literature coupled with the support of the theoretical foundations of the TAM and Diffusion of Innovations Theory. The analysis process encompassed broader source familiarization, systematic coding of implementation-related concepts, thematic categorization and critical interpretation of findings across individual, institutional and systemic levels.

Notably, in order to ensure methodological rigor and credibility, the current study review-maintained transparency in documentation selection processes, subsequently incorporating multiple perspectives and sources, acknowledging inherent limitations including potential language and accessibility biases in addition to grounded evidence conclusions from diverse rather than isolated sources. In the third content with the Do approach, the ER generated was 5.54%, also included in the moderate category. This strategy encourages the audience to take real action, such as reporting corruption or joining an anti-corruption campaign.

However, according to the Theory of Planned Behavior (Hagger et al., 2022), the intention to act is not formed solely from an explicit invitation, but also from a positive attitude, social norms, and self-confidence. Although a call to action is an important strategy in building real change, content with this strategy does not always get a high response if it is not accompanied by emotional motivation or sufficient understanding. This indicates that a call to action needs to be built on a foundation of understanding (Think) and emotional involvement (Feel) (Ayeko-Kümmeth, 2024; Slavytska, Bilak and Kozii, 2022).

4. RESULTS AND DISCUSSION

This research underscores the critical importance of strategic message design in optimizing public engagement with anti-corruption content on Instagram. By employing the Think-Feel-Do communication framework, the study reveals that emotionally

resonant content (Feel) consistently garners the highest levels of engagement. This finding reinforces the compelling influence of affective messaging in the context of digital public campaigns. While educational messages (Think) and action-oriented content (Do) also contribute to audience interaction and awareness, their impact is comparatively moderate, highlighting the unique persuasive power of emotionally driven narratives.

4.1. Instructor-Related Factors

4.1.1. Perceived Ease of Use and Professional Development Challenges

The literature reviewed revealed significant challenges related to instructors' perceived ease of use in connection with blended learning technologies, a core construct in the TAM. Professional development emerged as a critical barrier to successful implementation of the BLA. (Mtani and Mbelwa, 2022) found that, only 40.2% of the academic staff at the Open University of Tanzania (OUT) who participated in their study had received training in Moodle usage only. This finding was corroborated by (Semlambo, Sengati and Angalia, 2022), who reported that, more than 70% of instructors at the Open University of Tanzania had not received adequate training on Moodle system utilization.

On the same note, the dearth of experiential learning background, further compounds these challenges as evidenced at the University of Dar es Salaam (UDSM), where the majority of instructors lacked first-hand experience as distance learners before assuming their teaching roles (Semlambo, Sengati and Angalia, 2022). This study finding aligns with Rogers' Diffusion of Innovations Theory, particularly the concept of compatibility which suggests that, innovations are more readily adopted when they align with adopters' existing experiences and values. In that regard, the absence of personal experience with BLA modalities creates a compatibility gap that hinders its effective implementation.

These findings align with international studies as asserted by (Bensalem, et al., 2025) and (Al-Marooof, et al., 2022) in Saudi Arabia who acknowledged the availability of ICT equipment as part of government prioritization but noted that, training in using ICT, including how to perform blended learning, was required for academic staff. The same challenge was reported in Saudi Arabia by (Bamoallem and Altarteer, 2022) who found that, insufficient IT skills among lecturers pose significant challenges in the transition to blended learning approaches. Moreover, in Nigeria, (Stephen and Makoji-Stephen, 2023) found poor ICT skills among instructors and lack of professional skills whilst a review by (Anthony et al., 2022) also found that, facilitators lack skills in implementing Blended Learning Approach in their particular educational settings.

However, these findings contradict with the results from a recent study by (Muhuro and Kangethe, 2021) at Jabal Ghafur University, Indonesia, who found that, lecturers achieved competency in using blended models after receiving training in skills and platform usage. In South Africa for instance, (Sanders and Mukhari, 2024) recommended that, for successful and effective implementation of the blended learning in HLI, lecturers need management support, additional training and enhanced professional development.

4.1.2. Resistance to Innovation and Attitude Toward Use

With regard to behavioral resistance, this theme emerged as another significant factor affecting the success in the implementation of BLA as (Semlambo, Sengati and Angalia, 2022) reported considerable resistance among teaching staff, while (Bubou and Job, 2021) identified staff resistance to adopting the Moodle platform, particularly among faculty members who were reluctant to embrace technological changes. This resistance directly relates to the TAM construct of "attitude toward use" where negative attitudes toward blended learning technologies impede their acceptance and effective utilization in their particular educational settings.

Similarly, regional comparisons show that, resistance to BLA often times arises from traditional beliefs, negative attitudes toward new methods, workload concerns, generational gaps, fear of change, fear of unknown, workload, quality concerns, as well as job insecurity (Anthony et al., 2022; Antwi-Boampong, 2021).

Correspondingly, in Saudi Arabia, (Saleh and Meccawy, 2022) recommended that, training for faculty members should be provided on a continual basis, with workshops organized to build confidence and skills. In addition, the study also recommended organizing workshops on major topics including instructional design, e- learning strategies, content creation, learning management system use, and student assessment so as to equip faculty members with blended teaching skills.

Comparably, (Magasu et al., 2022) in Zambia at Kwame Nkrumah University found that, some lecturers in certain faculties were not willing to implement Blended Learning Approach due to psychological challenges which include issues like confidence and anxiety about technology, as well as control over the teaching process (Jafarzadeh et al., 2021). Thus, (Müller, Mildemberger and Steingruber, 2023) recommended the need for proper preparation of facilitators and careful long-term planning during transition to Blended Learning Approach.

In general, the resistance phenomenon can also be understood through the Diffusion of Innovations Theory's concept of "relative advantage" in the view of the fact that, if instructors do not perceive clearly the benefits from BLA compared to traditional teaching methods, they are less likely to adopt the innovation. The literature suggests that, inadequate incentive structures further exacerbate this resistance, as faculty members lack motivation to invest time and effort in learning new technologies without perceiving any tangible benefits or recognition (Arifin and Sari 2024; Nyamboga, Gichohi and Kiarie, 2024).

4.2. Student-Related Factors

4.2.1. Digital Literacy and Perceived Ease of Use

Student-related challenges notably impact the implementation of BLA, on digital literacy and technical skills as (Machumu, Mwamkinga and Seni, 2024) identified computer illiteracy as a major barrier, as many students lack basic computer skills vital for effective participation in blended learning environments. Likewise, (Mwakyusa and Ngwebeya, 2022) reported specific technical difficulties faced by students, including inability to open and upload files, audio or video clips. Student testimonials captured in the literature depict these challenges as one student moaned that "there are other

materials which are not downloaded when you need to download it... some PDF files and video clips are not playing" (Mwakyusa and Ngwebeya, 2022).

These technical difficulties directly impact the perceived ease of use construct in TAM, thus creating negative user experiences that discourage continued engagement with BLA platforms. Conversely, (Gallagher and Savage, 2023) admitted the value of BLA in Tanzania as it increases students participations, though in (Gallagher and Savage, 2023) it is suggested to improve infrastructure of ICT in Tanzanian HLI

In the same vein, regional comparisons show similar challenges as (Alhusban, 2022) in Saudi Arabia found that, students are not fully prepared for the independent learning aspect of blended education whilst (Singh, Steele and Singh, 2021) recommended that, students should be provided with orientation regarding the important details in relation to the educational innovation before commencing Blended Learning Approach.

Further, in Zambian higher learning institutions, (Magasu et al., 2022) reported the challenges with regard to internet connectivity as well as lack of orientation to students on how to use e-learning tools since blended learning requires strong proficiency in digital literacy components, including computing and handling digital tools (Ashraf et al., 2022) for the implementation to be effective.

In a nutshell, (Syahrawati, Susantini and Indana, 2022) recommended that, for successful implementation of Blended Learning Approach, higher learning institutions require careful planning regarding the availability of supportive facilities and infrastructure for integration of the learning activities. Similarly, according to (Heilporn, Lakhali and Bélisle, 2021), instructions should clarify how to start and locate course components along with a well-designed course overview which helps students to understand the objectives, structure, materials and requirements, consequently boosting motivation and engagement. All in all, minimum technology requirements and necessary computer skills should also be in place and clearly outlined.

4.2.2. Infrastructure and Accessibility Challenges

Notably, infrastructure limitations emerged as critical barriers to the implementation of BLA, mainly affecting students in peripheral and remote areas. The literature documented significant connectivity challenges, with students reporting that: "In our area there is no internet connectivity, I am used to travel to town so that I can access the internet and do an assignment and reading notes, this is very costly to any student like me" (Muhuro and Kangethe, 2021). Likewise, (Li and Wang, 2022) identified inadequate learning facilities such as Wi-Fi, books, projectors, internet, speakers, and computers as major barriers in relation to infrastructure.

These infrastructural challenges relate to both TAM and Diffusion of Innovations Theory as evidenced by the TAM perspective that, poor internet connectivity reduces perceived usefulness of Blended Learning Systems, as students cannot reliably access course materials or participate in online activities. Thus, the high cost of internet access, as reported by (Mirata et al., 2022), further diminishes the relative advantage of BLA, making it less attractive compared to traditional learning modalities.

Global literature shows mixed results in the view of the fact that, some Higher Learning Institutions in China have emerged as leaders by effectively implementing blended learning frameworks and integrating Moodle along with various other

platforms and methods (Ashraf et al., 2022). The same systematic review also reported lack of techniques, devices, tools and infrastructure in some Chinese Higher Learning Institutions. On the other hand (Chen et al., 2022) in Pakistan found that, although university students were positive about BLA, they were facing problems like unavailability of Learning Management Software so as to use technological items for learning purposes. Likewise, (Antwi-Boampong, 2021) reported the stability challenges for platforms and systems, including barriers to technical support, insufficient training for users and lack of adequate assistance as significant factors impeding the implementation of BLA.

4.2.3. System Support and Content Quality Issues

The literature revealed additional challenges related to system support and content quality that affect student experiences as they reported that, instructors were frequently unavailable during scheduled online sessions, as one student lamented that: "Mostly lecturers are not available online during session hours which impede the effectiveness of the blended learning in that regard " (Mwakyusa and Ngwebeya, 2022). Furthermore, while learning materials were uploaded to Moodle platforms, many were reported as be outdated as depicted in the study by (Mwakyusa and Ngwebeya, 2022).

(Muhuro and Kangethe, 2021) in a quantitative study among OUT postgraduate instructors and students found that, there was inaccessibility of internet connectivity with only 33.3% of respondents above 40 years indicating that, internet connectivity was a problem in facilitating the effective implementation of the BLA.

Similarly, (Li and Wang, 2022) noted that, another limitation of BLA is substantially lack of additional tutorials for students, in the view of the fact that, when lessons are not clear, they have no opportunity to extend time with their instructor. Comparably, regional comparisons show varied experiences as the study by (Alsahhi et al., 2021) in the United Arab Emirates at Ajman University found that, BLA positively impacts academic success in that particular university. However, in Poland at the University of Gdańsk, (Zawadka, et al., 2021) it was revealed that, students complained about the quality of materials offered via BLA. For instance, 34% of surveyed respondents indicated that, the quantity of the materials presented by facilitators was too small in addition to the absence of solutions for exercises published on the platform which was identified as the primary disadvantage as confirmed by 42.2% of the respondents surveyed (Mulenga and Shilongo, 2025).

Similar issues were reported in Saudi Arabia by (Bamoallem and Altarteer, 2022), whereby students were dissatisfied with the quality of teaching and learning as related to the study by (Singh, Steele and Singh, 2021) who found minimal interaction between facilitators and learners, as reported in Malaysia by (Mustapha et al., 2022), resulting into some students failing to adopt blended learning due to lack of clear instructions. These issues directly impact the perceived usefulness of BLA as asserted by TAM, as students question the value of blended learning systems that do not provide reliable instructor support or current content. Moreover, from a Diffusion of Innovations perspective, these challenges affect the "observability" of benefits as students cannot clearly see the advantages of BLA when the system support is inadequate and contents are not maintained at the acceptable standards (Prifti, 2022).

4.3 Theoretical Integration and Implications

The current study findings demonstrate complex interactions between individual acceptance factors as explained by TAM and broader innovation diffusion processes as conceptualized in theory (Gupta and Garg, 2025). At the individual level, both instructors and students face challenges related to perceived ease of use and perceived usefulness of blended learning technologies. At the institutional level, lack of adequate training, infrastructure and support systems creates barriers to innovation diffusion across Higher Learning Institutions. The data suggests that, successful implementation of BLA in Tanzania requires addressing both technological acceptance factors and institutional innovation diffusion challenges (Islam, Sarker and Islam, 2022).

This dual approach should focus on enhancing user's perceptions of technology usefulness and the ease of use while simultaneously improving institutional capacity to support innovation adoption and sustainability for the educational innovation to be effective (Yu et al., 2025). These insights carry significant implications for public communication strategies, particularly in the domains of governance, civic education, and institutional transparency. Effective communication in the digital era demands more than just the transmission of factual information or calls to action—it requires an emotional connection that resonates with audiences on a personal level (Addam, 2025; Ama 2025). Such resonance has the potential to deepen user engagement, foster greater awareness, and potentially catalyze behavioral change. For public institutions seeking to combat corruption and build trust, incorporating emotional appeal into digital outreach is not merely advantageous but essential for maximizing impact and relevance (Sumbayak, Saragih, and Natalia, 2025).

5. CONCLUSION

This narrative literature review systematically examined factors influencing the implementation of BLA in Higher Learning Institutions in Tanzania, through the lenses of Technology Acceptance Model and Diffusion of Innovations Theory. The analysis revealed several challenges affecting both instructors and students. Key instructor-related barriers included insufficient professional development, as only 40.2% of them receiving adequate Moodle training, technological resistance and lack of distance learning experience. Similarly, student challenges included digital illiteracy, connectivity problems, high internet costs and inadequate technical support affecting those in remote areas.

The current review findings, align strongly with both theoretical frameworks as TAM constructs of perceived usefulness and ease of use were negatively impacted by technical difficulties and infrastructure limitations, while instructor resistance reflected poor attitudes toward technology adoption. On the same note, Diffusion of Innovations Theory explained implementational challenges through compatibility issues, increased complexity perceptions, and diminished relative advantages compared to traditional instruction. These theoretical insights highlight how individual acceptance factors and institutional diffusion processes interact to create implementation barriers.

With regard to the contributions to knowledge, the study contributes significantly by providing the broader synthesis of the Blended Learning Approach challenges in Tanzania, applying integrated theoretical frameworks to developing country contexts thus offering evidence-based recommendations for stakeholders.

Along similar lines, in relation to practical implications, the practical implications of this study emphasize the necessity for several key components to enhance effectiveness in the educational environment. First, comprehensive faculty development programs are essential to equip educators with the skills needed to adapt to new teaching methodologies and technologies.

Besides, robust infrastructure investment is crucial so as to ensure that, the necessary tools and resources are available for effective teaching and learning. Moreover, supportive policy frameworks must also be established in order to create an environment conducive to innovation and growth.

Furthermore, implementing user-friendly technology solutions will facilitate easier access and engagement for both faculty and students. Lastly, continuous technical support systems are vital to assist users in navigating challenges and maximizing the benefits of these advancements. Collectively, these multidimensional elements are fundamental to fostering a more effective and responsive educational system.

While limitations include potential selection bias and limited generalizability, this review creates a foundation for future research and evidence-based decision-making. Future studies should focus on institutional factors and assessment mechanisms, since are so crucial for successful execution of Blended Learning Approach of which were not well covered in the reviewed literature. In addition, carrying out the empirical studies examining the effectiveness of specific interventions addressing the noted barriers are of paramount importance.

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