ATESTASI: JURNAL ILMIAH AKUNTANSI
Vol 6, Issue 2, (2023), 916 - 930

Evaluation of Technical and Cultural Barriers to Digital Accounting System Implementation in Modern Organizations

Prihartono Aksan Halim [1*]

[*1] Politeknik Piksi Ganesha, Bandung, Jawa Barat, 40274, Indonesia

Email
prihartono@piksi.ac.id [1*]

Received: May, 08, 2023 **Revised:** July, 26, 2023 **Accepted:** September, 30, 2023

Abstract

This research evaluates modern organizations' technical and cultural barriers to implementing digital accounting systems. It seeks to identify how these barriers interact and influence the overall effectiveness of digital transformation efforts in accounting. A systematic literature review synthesized existing research on the subject, focusing on peer-reviewed articles published in 2014. The study incorporated diverse perspectives to understand the challenges organizations encounter comprehensively. The findings reveal significant technical barriers, including inadequate technological infrastructure and challenges in integrating legacy systems with new technologies. Cultural barriers, particularly employee resistance and conservative organizational culture, further complicate the adoption process. The interaction between these barriers underscores the need for a holistic approach to digital transformation. This study contributes original insights to the field of digital transformation in accounting, emphasizing the importance of addressing both technical and cultural aspects for successful implementation. Organizations should invest in technological upgrades while fostering a culture that supports innovation and change. Management should prioritize leadership engagement and employee involvement to facilitate smoother transitions to digital accounting systems.

Keywords: Digital Accounting Systems; Technical Barriers; Cultural Barriers; Digital Transformation; Organizational Change.

DOI : https://doi.org/10.57178/atestasi.v6i2.1001
p-ISSN : 2621-1963
e-ISSN : 2621-1505

Introduction

Organizations are compelled to adopt digital technologies to enhance operational efficiency and maintain competitiveness in the contemporary business environment characterized by rapid technological advancements and increasing competitive pressures. Integrating digital solutions within accounting practices has emerged as a transformative force, offering substantial benefits, including improved accuracy, enhanced transparency, and streamlined financial reporting processes. As organizations strive to transition from traditional manual accounting methods to digital systems, they face many challenges that can hinder the successful implementation of these technologies (Gonçalves et al., 2022). The barriers organizations encounter in adopting digital accounting systems can be broadly classified into two primary categories: technical and cultural. Technical barriers encompass inadequate

technological infrastructure, limited financial resources, and the complexity of integrating new systems with existing processes (Knudsen, 2020). Conversely, cultural barriers involve resistance to change, deeply ingrained organizational norms, and the overarching culture influencing how employees perceive and interact with new technologies.

The Technology Acceptance Model posits that technology's perceived ease of use and usefulness significantly influences users' decisions to accept and utilize it (Venkatesh & Bala, 2008). This model is particularly relevant for understanding how employees within organizations evaluate and adopt digital accounting systems, providing insight into the factors that facilitate or hinder acceptance. Meanwhile, the Diffusion of Innovations theory elucidates the processes through which new technologies are adopted, highlighting the roles of communication channels, social systems, and the inherent attributes of innovations. Resistance to change is a critical concern in successfully implementing digital accounting systems. As organizations shift from traditional accounting practices to digital platforms, employees are reluctant due to uncertainties surrounding their roles, job security, and the usability of new systems (Duong & Fledsberg, 2019). This resistance can significantly obstruct the effective adoption of digital solutions. Therefore, a comprehensive understanding of technical and cultural barriers is imperative for organizations navigating the complexities of digital transformation in accounting. By addressing these challenges, valuable insights can be gained regarding the strategies necessary for successful implementation, ultimately fostering a more adaptive and efficient organizational landscape. Digital accounting systems can enhance corporate governance through improved bookkeeping, better security, and compliance with International Financial Reporting Standards (IFRS). For small and medium-sized enterprises (SMEs), investments in environmental, social, and governance (ESG) factors promote digitalization, while issues such as financial fraud hinder progress. Organizations respond to these challenges by adopting strategic approaches, automating accounting processes, and cultivating a digital culture. Furthermore, government support through electronic financial accounting standards and incentive packages can accelerate digitalization, especially for SMEs.

The transformation of digital practices in accounting and higher education faces various hurdles but offers substantial benefits. Integrating digital accounting and FinTech innovations has enhanced business performance in the banking sector. Digital accounting systems improve corporate governance by providing superior bookkeeping, security, and information quality. The shift towards digitalization in accounting increases efficiency, accuracy, and decision-making capabilities within modern businesses (Anitha & R, 2023). However, implementing digital transformation in higher education institutions encounters numerous barriers, including environmental, strategic, organizational, technological, personnel, and cultural factors (Gkrimpizi et al., 2023). Despite these challenges, digital accounting technologies are revolutionizing financial management and reshaping the accounting landscape, presenting organizations with opportunities to effectively leverage these advancements (Anitha & R, 2023). The success of implementing a digital accounting system (DAS) relies on data quality and organizational readiness, which are critical for enhancing decision-making quality, particularly in the banking sector (Lutfi et al., 2022). Despite a growing body of literature on the challenges of implementing digital accounting systems, significant gaps still exist in understanding how technical and cultural barriers interact and influence successful

implementations. While various individual obstacles have been identified, empirical studies analyzing these barriers holistically still need to be developed. For instance, Gonçalves et al. (2022) emphasize the role of organizational culture in adopting digital technologies but do not examine how cultural factors exacerbate or mitigate technical challenges. Additionally, there is a need for empirical evidence connecting theoretical frameworks such as the Technology Acceptance Model (TAM) and the Diffusion of Innovations theory with real-world case studies across diverse organizational contexts. Anitha & R (2023) highlight that understanding these interactions is critical for organizations to develop effective strategies addressing technical and cultural dimensions, facilitating smoother transitions to digital accounting systems. The absence of detailed exploration into these interactions limits organizations' abilities to anticipate challenges and prepare for digital transformation. Recent studies indicate that the success of the implementation of a digital accounting system (DAS) hinge on technological readiness, organizational culture, and employee attitudes toward change (Al-Okaily et al., 2022). However, research focusing on the interplay between these factors is scarce, underscoring a critical area for further investigation. Addressing these research gaps is essential for a comprehensive understanding of the complexities involved in the digital transformation of accounting practices.

This research addresses the identified gaps by comprehensively evaluating modern organizations' technical and cultural barriers to implementing digital accounting systems. The novelty of this study lies in its focus on investigating the interaction between these barriers and their impact on the success of digital transformation in accounting. While numerous previous studies have discussed various barriers in isolation, this research integrates technical and cultural aspects to offer a more comprehensive understanding of organizations' challenges. The primary research questions guiding this investigation are: What are the critical technical and cultural barriers organizations encounter when implementing digital accounting systems? How do these barriers influence the overall effectiveness of the digital transformation process in accounting? This study aims to deepen the understanding of these barriers, present actionable recommendations for organizations, and contribute to the broader discourse on digital transformation in accounting practices. By addressing these critical questions, this research aspires to provide valuable insights that will assist organizations in navigating the challenges associated with implementing digital accounting systems. Ultimately, this study aims to promote a more effective and sustainable approach to digital transformation within the accounting field, ensuring that organizations can successfully adapt to the evolving technological landscape.

Literature Review

Understanding Technical Barriers

Implementing digital accounting systems offers numerous benefits for organizations, particularly in enhancing efficiency and accuracy in financial management. However, various technical barriers can hinder this adoption process. Understanding these obstacles is crucial for organizations successfully integrating digital solutions into their accounting practices. One of the most significant technical barriers is inadequate technology infrastructure. Gelinas et al. (2018) indicate that many organizations need more hardware, software, and network capabilities to support advanced digital accounting systems. With a robust infrastructure,

organizations may be able to efficiently process data or access real-time information, which can lead to delays and potential inaccuracies in financial reporting. For instance, a company with outdated servers may face challenges implementing a cloud-based accounting system, ultimately limiting its ability to streamline operations (Carlsson-Wall et al., 2022). Thus, organizations must invest in adequate technology infrastructure to implement digital accounting systems effectively.

Another significant challenge is the limited financial resources available to many organizations. Budget constraints can significantly affect an organization's ability to invest in the latest technology and necessary training. Smaller firms, in particular, often need help allocating sufficient funds to adopt new accounting technologies. This financial limitation can restrict organizations from accessing essential tools to enhance operational efficiency. Consequently, many organizations may revert to outdated manual processes that are less efficient and more prone to errors. For example, a small enterprise may adopt an advanced accounting software solution. However, it could not cover subscription costs or employee training, ultimately hindering its competitive edge. The complexity of integrating new digital systems with existing legacy systems presents significant challenges. Many organizations have established systems that may need help to interface with modern accounting technologies (Jasim & Raewf, 2020). This integration issue can result in operational disruptions, data inconsistency, and reliability concerns (Velayutham, 2021). For instance, if a new digital accounting system is incompatible with existing databases, it may lead to data loss or inaccuracies during the transition period. Therefore, organizations must thoroughly assess their existing systems and develop strategic plans to ensure a smooth transition to digital accounting solutions.

A comprehensive analysis of the readiness of existing systems is vital before adopting new technology. Evaluating current systems can help organizations identify their strengths and weaknesses and make informed decisions regarding necessary upgrades (Pargaonkar, 2020). Technology audits and needs assessments can provide valuable insights into existing infrastructure, allowing organizations to prioritize investments effectively. For example, if an audit reveals that the current network cannot support high data traffic, the organization must address this issue before launching a new digital accounting system. Effective change management is essential in navigating these technical barriers. Organizations must prepare their employees and existing systems for the changes accompanying adopting new technologies (Trenerry et al., 2021). Clear communication about the benefits of new systems and involving employees in the decision-making process can foster a sense of ownership and reduce resistance to change. Employees will feel more confident using digital accounting tools by providing training and ongoing support, ultimately leading to a smoother transition.

The Impact of Organizational Culture

Organizational culture plays a critical role in successfully implementing digital accounting systems. Defined as the collective values, beliefs, and behaviors that shape how employees interact with one another and with technology, organizational culture significantly influences the effectiveness of technological adoption. In particular, a culture that fosters innovation, collaboration, and openness is essential for facilitating the transition to digital solutions in accounting practices (Martínez-Peláez et al., 2023). Conversely, a culture resistant

to change can create significant barriers to adopting new technologies. One significant aspect of organizational culture is its influence on employees' attitudes toward change. Goncalves et al. (2020) show that organizations with a culture supportive of innovation and flexibility tend to be more successful in implementing digital technologies. Organizations encouraging open communication and collaboration among employees are better equipped to navigate the challenges of adopting digital accounting systems. In contrast, organizations characterized by rigid hierarchies and a fear of failure can stifle employee engagement and hinder the implementation process.

Resistance to change is a common phenomenon within organizations, often stemming from deeply ingrained cultural norms. Employees may feel threatened by new technologies, fearing disruption to their roles or job security (McClure, 2018). This resistance can escalate in organizations with a culture that does not promote adaptability, making it challenging to introduce new digital systems effectively. To mitigate resistance, organizations must cultivate a culture that emphasizes the benefits of change and supports employees during the transition. Leadership plays a pivotal role in shaping organizational culture and facilitating the adoption of digital accounting systems. Influential leaders can influence the culture by modeling behaviors that promote innovation and change. The leaders who demonstrate transparency and encourage employee participation in decision-making create an environment conducive to change. Leaders can help alleviate employee concerns regarding adopting new technologies by fostering a culture that supports experimentation and learning.

Organizations must implement strategic initiatives that prioritize employee training and development to build a culture that supports digital transformation. Comprehensive training programs are vital for enhancing employees' understanding of new technologies and increasing their confidence in digital accounting systems. Burnett & Lisk (2021) shown that when employees receive adequate training, they are more likely to embrace technological changes and leverage digital tools to improve their productivity. Furthermore, fostering an environment of open communication regarding the goals and benefits of adopting new technologies is crucial. This approach helps align employee expectations with organizational objectives, reducing apprehension and resistance to change. Another essential strategy is to actively engage employees in implementing new systems. Organizations can gather a wide range of perspectives and insights by creating cross-functional teams that incorporate employees from various departments. This collaborative approach informs the implementation strategy and encourages a sense of inclusion among employees (Lindsay et al., 2021). When individuals feel their voices are heard and they play a role in decision-making, their sense of ownership over the changes increases significantly. This heightened sense of ownership leads to greater acceptance of new processes and systems, facilitating a smoother transition during the digital transformation journey (Ghosh et al., 2022). By emphasizing training, communication, and employee engagement, organizations can cultivate a culture that supports and accelerates digital transformation.

The Interplay Between Technology and Culture

Understanding the interplay between technology and organizational culture is essential for effectively implementing digital accounting systems. This relationship is inherently dynamic; changes in technology can influence cultural norms within an organization, and

conversely, the existing culture can shape how new technologies are adopted and utilized. As organizations implement digital tools, they often need to shift their cultural paradigms to embrace new ways of working and communicating (Sheninger, 2019). This highlights the importance of recognizing that technology implementation is not merely a technical endeavor but also involves a cultural transformation. A significant aspect of this interplay is how organizational culture can facilitate or hinder the adoption of new technologies. Cultures that promote openness, innovation, and collaboration tend to be more successful in implementing digital changes (Goncalves et al., 2020). For instance, organizations that encourage employee feedback and participation are likely to experience smoother transitions to digital accounting systems. In contrast, organizations characterized by rigid hierarchies and resistance to change can stifle innovation and discourage employee engagement (Hon et al., 2014). Naveed et al. (2022) show that when employees perceive their organizational culture as supportive of change, they are more willing to embrace new technologies.

The need for a cultural shift becomes even more apparent as organizations transition toward digital transformation. Adopting digital accounting tools often requires adjustments in communication patterns and workflows, necessitating a reevaluation of existing cultural norms. For example, organizations may need to foster a culture prioritizing agility and responsiveness, enabling employees to adapt quickly to new processes and technologies. This cultural transformation is essential to ensure that the workforce aligns with the goals of digital initiatives. Adopting a holistic approach to digital transformation is vital. Organizations must recognize that technical and cultural dimensions must be addressed simultaneously to implement digital accounting systems successfully. Failure to consider cultural aspects can lead to implementation challenges and increased employee resistance (Hamidianpour et al., 2016). Therefore, organizations must assess their culture and identify any barriers to change before embarking on their digital transformation journey.

Mitigating resistance to change is another critical factor influenced by the interplay between technology and culture. Employees often exhibit resistance when they feel uncertain about the impact of new technologies on their roles and job security (Walczuch et al., 2007). Organizations can significantly reduce this resistance by fostering a positive culture that embraces change. Strategies such as clear communication about the benefits of new technologies and involving employees in decision-making processes can help alleviate fears and encourage acceptance of new systems (Venkatesh & Bala, 2008). Organizations must invest in training and development programs that equip employees with the skills to navigate the digital landscape effectively. Comprehensive training can enhance employees' understanding of new tools, increasing their confidence in digital accounting systems. When employees feel competent and supported in their roles, they are more likely to embrace technological changes and contribute positively to the organization's digital transformation efforts.

Strategies for Overcoming Barriers

Organizations face numerous challenges when implementing digital accounting systems in the rapidly changing business landscape. Overcoming both technical and cultural barriers is essential for a successful transition. One of the first critical steps organizations should take is conducting a comprehensive needs assessment. This assessment helps identify gaps in the

existing technological infrastructure, enabling organizations to understand their current capabilities and determine the necessary digital solutions to align with their operational needs and long-term strategic goals (Warner & Wäger, 2019). For instance, organizations can prioritize upgrades before implementing if the assessment reveals that outdated hardware hinders compatibility with new accounting software.

Building a supportive organizational culture is another vital strategy. A culture that fosters innovation and continuous improvement significantly influences the success of digital transformation initiatives. Leadership plays a crucial role in cultivating such a culture, as influential leaders promote openness to change and actively engage employees in discussions about the benefits of new technologies (Cortellazzo et al., 2019). For example, leaders can create regular forums for sharing ideas where employees can express their thoughts on how new technologies could be integrated into their workflows. This approach supports transition, helps build trust, and reduces resistance to change. Providing ongoing employee training and support is essential in facilitating the transition to new technologies. Adequate training equips employees with the necessary skills to navigate digital tools confidently. Mikołajczyk (2022) indicates that organizations investing in comprehensive training programs can significantly diminish employee uncertainty and enhance their competence in using new systems. Training programs should be tailored to address specific needs, combining practical sessions on the new accounting software with information about how it can improve their daily tasks.

Collaboration across departments is also critical during the implementation of digital accounting systems. Engaging employees from various departments ensures diverse perspectives are considered, which enriches the implementation strategy. Cross-functional teams can provide valuable insights into how different functions interact with accounting systems, allowing organizations to identify potential challenges early in the process (van den Adel et al., 2023). When employees feel included in the decision-making process, their sense of ownership increases, which enhances their commitment to the new systems and processes. Organizations should leverage government support and industry resources to aid their digital transformation efforts. Many governments provide financial incentives and resources to encourage businesses to adopt new technologies. For example, grants or subsidies for training programs can ease the financial burden while enhancing employee skills (Almeida et al., 2012). Additionally, industry associations often offer guidelines, best practices, and resources that can assist organizations in navigating the complexities of digital transformation (Warner & Wäger, 2019). Organizations can strengthen their internal capabilities by utilizing these external resources and ensuring a more robust implementation process.

Research Design and Method

Study Design

This study employs a qualitative systematic literature review (SLR) design to explore the interplay between technology and culture in implementing digital accounting systems. The SLR methodology synthesizes existing research findings systematically and critically, providing comprehensive insights into the subject matter. This approach facilitates a deeper understanding of how cultural and technological factors interact during the digital transformation, thereby identifying literature gaps and offering future research directions.

Sample Population

The sample population for this review includes peer-reviewed articles published in academic journals that focus on digital transformation, organizational culture, and technology adoption within the context of accounting systems. The selection criteria encompass studies published from 2014 to the present to ensure the relevance and timeliness of the findings. The review will include diverse perspectives from various industries and geographical locations to capture a holistic view.

Data Collection Techniques and Instrument Development

Data collection will involve systematically searching multiple academic databases, including Scopus, Web of Science, and Google Scholar. The search will utilize keywords such as "digital transformation," "organizational culture," "technology adoption," and "accounting systems." Articles will be screened based on predefined inclusion and exclusion criteria, ensuring that only relevant studies are selected for analysis. A data extraction form will be developed to record essential information from each article, such as author(s), year of publication, research objectives, methodologies, and critical findings.

Data Analysis Techniques

Data analysis will follow a thematic synthesis approach, allowing for the identification of recurring themes and patterns across the selected studies. Each article will be critically appraised to assess its methodological rigor and contributions to understanding technology and culture's interplay. The analysis will culminate in a comprehensive narrative highlighting the critical insights gained from the literature, emphasizing the challenges and strategies for successful digital accounting system implementation.

Results and Discussion

Transformation of Digital Marketing and Its Implications for Financial Reporting

Implementing digital accounting systems in modern organizations is a multifaceted process that often encounters various challenges. These challenges can primarily be categorized into technical and cultural barriers. Understanding these barriers is essential for organizations aiming to navigate the complexities of digital transformation successfully. This section will explore the identification of technical and cultural barriers, their interaction, and their impact on the overall effectiveness of the digital transformation process. One of the most significant technical barriers organizations faces is inadequate technological infrastructure. Many organizations still need to rely on updated hardware and software that cannot support the demands of modern digital accounting systems. For instance, legacy systems may need more capacity to process extensive data efficiently or integrate with newer technologies. This limitation can hinder organizations from adopting essential features that digital accounting solutions offer, such as real-time reporting and data analytics capabilities. Furthermore, financial constraints often restrict organizations from investing in necessary upgrades or new technologies. Organizations operating with tight budgets may need help finding the financial resources needed to enhance their technological infrastructure, leading to a situation where they cannot keep pace with competitors that embrace digital transformation. Another technical challenge is integrating new digital systems with existing legacy systems. Many organizations

have invested heavily in traditional accounting systems over the years. As a result, the transition to digital platforms can be fraught with complications. For example, if the existing system does not seamlessly integrate with the new digital tools, it can lead to data inconsistency and operational disruptions. These technical hurdles affect daily operations and can create significant delays in the implementation process, leading to frustration among employees and stakeholders. In addition to the technical barriers, cultural obstacles also play a critical role in hindering the adoption of digital accounting systems. Resistance to change is a prevalent issue within many organizations. Employees may feel comfortable with established procedures and apprehensive about the uncertainties of adopting new technologies. This resistance often stems from a need for more understanding of digital tools' benefits. Employees need to be adequately informed about the advantages of digital accounting systems. They may perceive these changes as threats to their job security or established organizational roles (Gkrimpizi et al., 2023).

Organizational culture significantly influences how employees respond to technological changes. A culture that values innovation and flexibility is more likely to encourage employees to embrace new technologies (Al-Okaily et al., 2023). Conversely, organizations with rigid hierarchies and a conservative approach to change may find fostering an environment conducive to digital transformation challenging. The existing culture may prioritize traditional methods over innovative practices, further complicating the adoption of digital solutions (Nkhata & Mchunu, 2021). In such environments, employees may feel unsupported or undervalued, leading to disengagement and reluctance to participate in the transition to new systems. The interaction between technical and cultural barriers can create a feedback loop that exacerbates organizations' challenges during implementation. For example, when technical issues arise, such as system incompatibility or performance failures, they can intensify employee resistance to change. Employees may become disillusioned with the new technology, believing it is not worth the effort or investment. Similarly, if the organizational culture does not encourage open communication and collaboration, it can hinder practical efforts to resolve technical issues. This dynamic illustrates the importance of concurrently addressing technical and cultural aspects to facilitate a successful transition.

The impact of these barriers on the overall effectiveness of the digital transformation process is profound. Technical barriers can lead to delays in implementation, increased costs, and a failure to achieve the anticipated benefits of digital accounting systems. Organizations may need help to leverage these systems' full potential, resulting in suboptimal performance and diminished competitiveness in the market. On the other hand, cultural barriers can significantly affect employee morale and engagement. If employees feel disconnected from the digital transformation efforts or need more support, their productivity and job satisfaction may remain high, leading to higher turnover rates and associated costs. Addressing these barriers requires a comprehensive strategy encompassing technical improvements and cultural development. Organizations should prioritize conducting thorough needs assessments to identify gaps in their current technological infrastructure. This proactive approach allows them to allocate resources effectively and decide which digital solutions to implement (Almeida et al., 2020).

Fostering a supportive organizational culture is crucial. Leaders play a pivotal role in promoting a culture of innovation and continuous improvement. By modeling openness to

change and encouraging employee participation in decision-making, leaders can help mitigate resistance and foster a sense of ownership among staff (Anitha & R, 2023). Organizations must invest in training and development programs to equip employees with the necessary skills and knowledge to navigate new technologies confidently. Comprehensive training initiatives can alleviate employees' concerns and enhance their competence in digital accounting systems (Thompson & Ransbotham, 2020). By fostering an environment where employees feel valued and supported, organizations can increase engagement and willingness to adopt new technologies. Collaboration across departments is also essential in overcoming barriers to implementation. Engaging employees from various functions can provide diverse perspectives and insights that inform the implementation strategy. When employees feel involved in planning and executing digital transformation initiatives, they are more likely to embrace the changes and contribute positively to the process.

Discussion

This research reveals significant technical and cultural barriers to implementing digital accounting systems in modern organizations. An in-depth analysis of the technical barriers indicates that inadequate technological infrastructure is a primary obstacle. Many organizations still need to rely on outdated hardware and software that cannot support the complex needs of the latest digital accounting systems. This reliance leads to difficulties in processing data efficiently and diminishes the organization's ability to adopt the advanced features offered by new systems. The incompatibility creates risks of data errors and delays in financial reporting, which can subsequently affect managerial decisions and overall organizational performance. In addition to technical barriers, the study also uncovers substantial cultural obstacles, particularly employee resistance to change. Many employees feel comfortable with established workflows and are skeptical of new technologies. This resistance often stems from a need for more understanding of the benefits that digital accounting systems can provide. A conservative organizational culture that does not foster innovation often exacerbates this situation. Employees who feel unsupported by management in facing technological changes are more likely to exhibit negative attitudes toward adopting new systems, potentially hindering the digital transformation process.

The interaction between technical and cultural barriers is evident in this research. For example, cultural solid resistance can worsen existing technical issues, such as when employees are reluctant to use new systems due to uncertainty about their reliability. Conversely, emerging technical problems, such as system errors or data migration failures, can heighten employee anxiety, reinforcing resistance to change. This dynamic illustrates organizations' need to address both aspects simultaneously to implement digital accounting systems successfully. The impact of these barriers on organizational performance is also significant. Delays in adopting digital accounting systems can result in timely decision-making, decreased operational efficiency, and improved adaptability to a dynamic business environment. The research indicates that organizations unable to overcome these barriers risk losing their competitive advantage in a market increasingly reliant on digital technology.

Addressing these barriers requires a comprehensive strategy encompassing technical improvements and cultural development. Organizations should prioritize conducting thorough needs assessments to identify gaps in their technological infrastructure. This proactive

approach enables them to allocate resources effectively and make informed decisions regarding the necessary digital solutions to implement. Furthermore, fostering a supportive organizational culture is crucial. Leaders play a pivotal role in promoting a culture of innovation and continuous improvement. Leaders can help mitigate resistance and foster a sense of ownership among staff by modeling openness to change and encouraging employee participation in decision-making. Organizations must invest in training and development programs to equip employees with the skills and knowledge to navigate new technologies confidently. Comprehensive training initiatives can alleviate employees' concerns and enhance their competence in digital accounting systems. By creating an environment where employees feel valued and supported, organizations can increase engagement and willingness to adopt new technologies. Collaboration across departments is also essential in overcoming barriers to implementation. Engaging employees from various functions can provide diverse perspectives and insights that inform the implementation strategy. When employees feel involved in planning and executing digital transformation initiatives, they are more likely to embrace the changes and contribute positively to the process.

In the context of the theoretical frameworks that support the findings of this research, the Technology Acceptance Model (TAM) and the Diffusion of Innovations Theory are particularly relevant. The TAM, developed by Davis in 1989, posits that an individual's perception of the ease of use and the usefulness of a technology significantly influences their decision to accept and utilize that technology. This model highlights that employees who need help understanding the benefits and functionalities of new digital accounting systems are more likely to resist adopting them. The findings of this study align closely with TAM, as it reveals that a lack of awareness regarding the advantages of digital systems leads to skepticism and reluctance among staff members. On the other hand, the Diffusion of Innovations Theory proposed by Rogers in 2003 provides insights into how the adoption of new technologies is influenced not only by the characteristics of the innovation itself but also by the organizational culture in which it is implemented. This Theory emphasizes the importance of social systems and communication channels in facilitating or hindering the spread of innovations. The findings of this research indicate that cultural factors, such as organizational openness to change and the level of support provided by leadership, play a crucial role in determining the speed and effectiveness of technology adoption. Thus, this research reinforces the argument that a holistic approach is essential in addressing the barriers faced while implementing digital accounting systems, combining technical and cultural considerations to achieve successful digital transformation in organizations.

Inadequate technological infrastructure limited financial resources, and a lack of precise strategic planning are significant obstacles organizations face in their digital transformation efforts. Specifically, González et al. (2020) also found that insufficient technology infrastructure significantly affects the effectiveness of digital system adoption. This correlation reinforces the importance of a robust technological foundation for successful implementation. Research by Nkhata and Mchunu (2021) supports the notion that organizational culture is critical to the success of digital transformation initiatives. Their study underscores that a conservative organizational culture can hinder the acceptance of new technologies, echoing the findings of this research that highlight employee resistance to change and the need for a supportive environment. These studies collectively indicate that

technical and cultural barriers must be addressed to ensure the successful implementation of digital accounting systems.

Digital accounting systems can enhance corporate governance by improving bookkeeping, security, and compliance with International Financial Reporting Standards (IFRS). This is particularly relevant in small and medium-sized enterprises (SMEs), where investments in environmental, social, and governance (ESG) factors can drive digitalization efforts, while issues like financial fraud present challenges. The implication here is that organizations must navigate both internal barriers and external pressures to leverage digital technologies effectively. Studies examining the banking sector have reported that integrating digital accounting and FinTech innovations has enhanced business performance (Al-Okaily et al., 2023). This finding parallels the arguments presented in this study regarding the potential benefits of adopting digital accounting systems. These systems' increased efficiency, accuracy, and decision-making capabilities are critical for organizations seeking to remain competitive in today's fast-paced environment (Anitha & Dinesh Kumar, 2023).

However, the challenges faced during digital transformation are broader than technical aspects. Implementing digital changes in educational institutions has also highlighted numerous environmental, strategic, organizational, technological, personnel, and cultural barriers (Gkrimpizi et al., 2023). Such insights emphasize the complexity of digital adoption across different sectors and the need for a tailored approach to overcoming these barriers. The integration of findings from this research with previous studies highlights that a comprehensive approach—addressing both technical and cultural dimensions—is essential for successful digital accounting system implementation. While earlier studies may have focused on specific barriers in isolation, this research contributes a more integrated perspective, demonstrating the interplay between these factors and the necessity of a holistic strategy for digital transformation.

The practical implications of these findings are significant for organizational management. First, organizational leaders need to realize that overcoming technical and cultural barriers should be a top priority. By conducting comprehensive needs assessment, organizations can identify areas that need improvement in their technology infrastructure. In addition, management should focus on developing a culture that supports innovation and collaboration. Appropriate training programs should also be designed to improve employees' understanding and skills in new technologies. Employee involvement in decision-making can increase ownership and reduce resistance to change. Thus, the findings of this study can be used as a reference for organizations to formulate more effective strategies for implementing digital accounting systems. Through a comprehensive approach, organizations are expected to overcome existing barriers and take advantage of the opportunities offered by digital technology, thereby increasing efficiency and competitiveness in the market.

Conclusions

This research comprehensively evaluates the technical and cultural barriers to implementing digital accounting systems in modern organizations. The findings reveal that inadequate technological infrastructure and cultural resistance significantly hinder the adoption of these systems. Technical barriers, such as outdated hardware and software and

integration challenges between legacy systems and new technologies, create substantial organizational obstacles. Additionally, cultural factors exacerbate these challenges, including employee resistance and a conservative organizational climate. The interplay between technical and artistic barriers highlights the complexity of the digital transformation process, indicating that both dimensions must be addressed concurrently for successful implementation.

The significance of this study lies in its original contribution to the body of knowledge regarding digital transformation in accounting practices. This research offers a holistic understanding of organizations' challenges by integrating technical and cultural perspectives. The implications for practice are substantial; organizations must prioritize investment in their technological infrastructure while fostering a culture that embraces innovation and change. From a managerial standpoint, this study underscores the importance of leadership in facilitating employee engagement and participation during the transition to digital accounting systems. Organizations that adopt these strategies are more likely to navigate the complexities of digital transformation successfully and enhance their overall operational effectiveness.

However, this study does have limitations. The research focuses on specific organizations and sectors, which may need to capture diverse industry experiences fully. Future research should explore a broader range of organizations and contexts to generalize the findings more effectively. Additionally, longitudinal studies could provide insights into how organizations adapt to digital accounting systems over time and the long-term impact of cultural change on technology adoption. Researchers are encouraged to investigate the role of specific leadership styles in facilitating digital transformation and examine how different organizational cultures can be leveraged to support the implementation of new technologies. Overall, this study lays the groundwork for future inquiries into the multifaceted challenges of digital transformation in accounting and offers valuable directions for scholars and practitioners.

Reference

Almeida, R., Behrman, J., & Robalino, D. (2012). The right skills for the job?: Rethinking training policies for workers. World Bank Publications.

Anitha, K. M., & R, D. K. G. (2023). The Digitalization of Accounting in Modern Business : An Analytical Pedagogy Through Benefits and Challenges of Digitalization. 44, 5428–5434. https://doi.org/10.52783/tjjpt.v44.i4.1917

Burnett, J. R., & Lisk, T. C. (2021). The future of employee engagement: Real-time monitoring and digital tools for engaging a workforce. In International Perspectives on Employee Engagement (pp. 117–128). Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9781003142492-9

Carlsson-Wall, M., Goretzki, L., Hofstedt, J., Kraus, K., & Nilsson, C. (2022). Exploring the implications of cloud-based enterprise resource planning systems for public sector management accountants. Financial Accountability & Management, 38(2), 177–201. https://doi.org/10.1111/faam.12300

Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. Frontiers in Psychology, 10, 1938. https://doi.org/10.3389/fpsyg.2019.01938

Duong, D. C. T., & Fledsberg, K. (2019). Digitalization of the Accounting Industry: The

influence of digitalization on the accountants' role and their self-understanding. An exploratory study based on 13 Norwegian accounting firms. Universitetet i Agder; University of Agder. http://hdl.handle.net/11250/2624790

Gelinas, U. J., Dull, R. B., & Wheeler, P. (2018). Accounting information systems. Cengage AU.

Ghosh, S., Hughes, M., Hodgkinson, I., & Hughes, P. (2022). Digital transformation of industrial businesses: A dynamic capability approach. Technovation, 113, 102414. https://doi.org/https://doi.org/10.1016/j.technovation.2021.102414

Gkrimpizi, T., Peristeras, V., & Magnisalis, I. (2023). Classification of barriers to digital transformation in higher education institutions: Systematic literature review. Education Sciences, 13(7), 746. https://doi.org/10.3390/educsci13070746

Goncalves, D., Bergquist, M., Bunk, R., & Alänge, S. (2020). Cultural aspects of organizational agility affecting digital innovation. Journal of Entrepreneurship, Management and Innovation, 16(4), 13–46. https://doi.org/10.7341/20201641

Gonçalves, M. J. A., da Silva, A. C. F., & Ferreira, C. G. (2022). The future of accounting: how will digital transformation impact the sector? Informatics, 9(1), 19. https://doi.org/10.3390/informatics9010019

Hamidianpour, F., Esmaeilpour, M., & Zarei, R. (2016). The effects of cultural intelligence and transformational leadership style of managers on employee resistance to change. Management.

Hon, A. H. Y., Bloom, M., & Crant, J. M. (2014). Overcoming resistance to change and enhancing creative performance. Journal of Management, 40(3), 919–941. https://doi.org/10.1177/0149206311415418

Jasim, Y. A., & Raewf, M. B. (2020). Impact of the information technology on the accounting system. Cihan University-Erbil Journal of Humanities and Social Sciences, 4(1), 50–57. https://eprints.cihanuniversity.edu.iq/id/eprint/256

Knudsen, D.-R. (2020). Elusive boundaries, power relations, and knowledge production: A systematic review of the literature on digitalization in accounting. International Journal of Accounting Information Systems, 36, 100441. https://doi.org/https://doi.org/10.1016/j.accinf.2019.100441

Lindsay, C., Pearson, S., Batty, E., Cullen, A. M., & Eadson, W. (2021). Collaborative innovation in labor market inclusion. Public Administration Review, 81(5), 925–934. https://doi.org/10.1111/puar.13338

Lutfi, A., Alkelani, S. N., Al-Khasawneh, M. A., Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alrawad, M., Alsyouf, A., Saad, M., & Ibrahim, N. (2022). Influence of digital accounting system usage on SMEs performance: The moderating effect of COVID-19. Sustainability, 14(22), 15048. https://doi.org/10.3390/su142215048

Martínez-Peláez, R., Ochoa-Brust, A., Rivera, S., Félix, V. G., Ostos, R., Brito, H., Félix, R. A., & Mena, L. J. (2023). Role of digital transformation for achieving sustainability: mediated role of stakeholders, key capabilities, and technology. Sustainability, 15(14), 11221. https://doi.org/10.3390/su151411221

McClure, P. K. (2018). "You're fired," says the robot: the rise of automation in the workplace, technophobes, and fears of unemployment. Social Science Computer

Review, 36(2), 139–156. https://doi.org/10.1177/08944393176986

Mikołajczyk, K. (2022). Changes in the approach to employee development in organisations as a result of the COVID-19 pandemic. European Journal of Training and Development, 46(5/6), 544–562. https://doi.org/10.1108/EJTD-12-2020-0171

Naveed, R. T., Alhaidan, H., Halbusi, H. Al, & Al-Swidi, A. K. (2022). Do organizations really evolve? The critical link between organizational culture and organizational innovation toward organizational effectiveness: Pivotal role of organizational resistance. Journal of Innovation & Knowledge, 7(2), 100178. https://doi.org/https://doi.org/10.1016/j.jik.2022.100178

Pargaonkar, S. (2020). A Review of Software Quality Models: A Comprehensive Analysis. Journal of Science & Technology, 1(1 SE-Review Articles), 40–53. https://thesciencebrigade.com/jst/article/view/37

Sheninger, E. (2019). Digital leadership: Changing paradigms for changing times. Corwin Press.

Trenerry, B., Chng, S., Wang, Y., Suhaila, Z. S., Lim, S. S., Lu, H. Y., & Oh, P. H. (2021). Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. Frontiers in Psychology, 12, 620766. https://doi.org/10.3389/fpsyg.2021.620766

van den Adel, M. J., de Vries, T. A., & van Donk, D. P. (2023). Improving cross-functional teams' effectiveness during supply chain disruptions: the importance of information scouting and internal integration. Supply Chain Management: An International Journal, 28(4), 773–786. https://doi.org/10.1108/SCM-06-2022-0243

Velayutham, A. (2021). Overcoming Technical Challenges and Implementing Best Practices in Large-Scale Data Center Storage Migration: Minimizing Downtime, Ensuring Data Integrity, and Optimizing Resource Allocation. International Journal of Applied Machine Learning and Computational Intelligence, 11(12 SE-Articles), 21–55. http://neuralslate.com/index.php/Machine-Learning-Computational-I/article/view/149

Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39(2), 273–315. https://doi.org/10.1111/j.1540-5915.2008.00192.x

Walczuch, R., Lemmink, J., & Streukens, S. (2007). The effect of service employees' technology readiness on technology acceptance. Information & Management, 44(2), 206–215. https://doi.org/https://doi.org/10.1016/j.im.2006.12.005

Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. Long Range Planning, 52(3), 326–349. https://doi.org/https://doi.org/10.1016/j.lrp.2018.12.001