

RESEARCH ARTICLE

THE CHALLENGES OF SMEs ADOPTING ACCOUNTING SOFTWARE IN KUMASI: A COMPREHENSIVE REVIEW

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As a small and medium-sized enterprise (SME) in Kumasi, Ghana, small and medium-sized enterprises are not able to take stock of accounting software, and the large-scale business of accounting systems is difficult to overcome. Although accounting information systems can help in financial reporting, operational efficiency, regulatory compliance and managerial decision making for many SMEs, there are still many SMEs which rely on manual records or basic spreadsheet applications. With a mixed-method approach, the research is conducted to find technical, financial, organizational, human resource and environmental factors in SME adoption. This is done by the study using structured questionnaires followed by qualitative data in interviews with SME owners, managers and accounting personnel. The main hurdles are the cost of the software and the associated implementation, limited financial resources, unreliable electricity and internet infrastructure, insufficient technical expertise, lack of training and lack of awareness of software benefits, resistance to change, data security and lack of management commitment. Enterprises with more formalized and established ownership and a higher degree of technology experience have a higher probability of adoption (e.g., in large organizations). Successful implementation is linked to management commitment, budgeting, staff training, phased implementation, software selection, and technical support. The study concludes that improving accounting software adoption in Kumasi requires a coordinated effort by SME managers, technology service providers, government agencies and training institutions. This kind of affordable and user-friendly software, infrastructure development, digital skills training, clear regulatory guidance and financial resources are the key ways that SMEs can move from accounting by hand and manage them in a manual manner to digital finance.

Keywords: Accounting Software Adoption, Accounting Information Systems, Small and Medium-Sized Enterprises, SMEs, Kumasi, Ghana, Technology Adoption, Digital Transformation, Technology-Organization-Environment Framework, Financial Management.

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Background of the study

Small and Medium Enterprises (SMEs) constitute the backbone of economic development and employment generation in Ghana and across sub-Saharan Africa. These enterprises face critical challenges in managing their financial operations effectively, particularly in the absence of sophisticated accounting systems. The adoption of accounting software represents a transformative opportunity for SMEs to improve financial management, operational efficiency, and decision-making processes. However, the journey toward digital transformation in accounting practices remains fraught with significant barriers, especially in developing economies like Ghana. This thesis examines the multifaceted challenges that SMEs in Kumasi encounter when attempting to adopt and implement accounting software systems. (Zotorvie et al., 2025)

Kumasi, as one of Ghana's major commercial and industrial hubs, hosts a significant population of SMEs operating across diverse sectors including retail, manufacturing, services, and agriculture. These enterprises are vital to the local and national economy, yet they often struggle with outdated accounting practices, poor financial record-keeping, and limited access to professional financial services. The implementation of accounting software could address many of these challenges, but understanding the specific barriers to adoption is crucial for developing effective interventions and support mechanisms. (Zotorvie et al., 2025)

The SME sector in Ghana represents a critical component of the national economy, contributing substantially to employment and economic growth. However, SMEs in Ghana face numerous operational constraints, including limited access to capital, inadequate technological infrastructure, and challenges in financial management. Many SME owners and managers lack formal training in accounting principles and financial reporting, leading to poor record-keeping practices and inability to generate accurate financial information for decision-making.

The Ho Municipality study of Ghanaian SMEs revealed that while an increasing number of SMEs are adopting accounting software, significant challenges persist in their effective utilization. (Zotorvie et al., 2025) These challenges include high ICT infrastructure costs, irregular power supply, and cybersecurity risks that hinder the effective use of accounting systems.

Accounting Information Systems (AIS) are critical for improving financial management, enhancing operational efficiency, and ensuring compliance with regulatory standards among SMEs. AIS implementation positively impacts SME performance by reducing redundancies, fostering real-time data access, and supporting timely financial reporting. The benefits of AIS include improved data accuracy, enhanced transparency, and the ability to make strategic decisions based on reliable financial information. (Sulaiman et al., 2025)

However, implementing AIS in SMEs faces various challenges, including low financial literacy, limited access to technology, and difficulties in integrating new systems with existing business practices.

(Mediaty et al., 2025) Successfully implementing accounting systems depends on understanding local needs, access to formal financing, and social support from stakeholders.

Technology adoption in developing countries is characterized by unique contextual challenges that differ significantly from developed nations. SMEs in developing countries operate within constrained environments marked by limited financial resources, inadequate infrastructure, and lower levels of digital literacy among employees. Digital transformation, including the adoption of accounting software, is increasingly recognized as essential for enhancing competitiveness and operational efficiency, yet it remains a considerable challenge for SMEs. (Daz-Arancibia et al., 2025)

The Technology-Organization-Environment (TOE) framework has become the predominant model for understanding technology adoption in SMEs, identifying technological, organizational, and environmental factors that influence adoption decisions. (Soleman, 2025) Additionally, the Technology Acceptance Model (TAM) emphasizes the importance of perceived usefulness and ease of use in shaping user intentions to adopt new systems. (Oanh et al., 2024)

Problem Statement

Despite the recognized benefits of accounting software, adoption rates among SMEs in Kumasi and Ghana remain disappointingly low. SMEs continue to rely on manual, paper-based accounting systems or outdated software that does not adequately serve their operational needs. This low adoption rate is not merely a matter of lack of awareness; rather, it reflects a complex interplay of financial, technical, organizational, and institutional barriers that prevent SMEs from successfully implementing and sustaining accounting software systems.

SMEs in Kumasi face particular challenges related to:

High initial implementation costs and licensing fees, Inadequate digital infrastructure and unreliable power supply, Limited technical expertise among staff, Poor understanding of the benefits of accounting software, Resistance to change among business owners and managers

Insufficient government support and policy frameworks and Data security and privacy concerns

The failure to adopt accounting software has serious consequences for SME development and growth. Without proper accounting systems, SMEs struggle to: Generate accurate financial statements for decision-making

Access formal credit and financing opportunities. Meet regulatory compliance requirements Identify operational inefficiencies. Compete effectively with larger, more organized enterprises

General Objective

The primary objective of this thesis is to comprehensively examine the challenges that prevent SMEs in Kumasi from effectively adopting and implementing accounting software systems.

Specific Objectives

- 1 To identify and categorize the main barriers to accounting software adoption among SMEs in Kumasi
2. To analyze the technological, organizational, and environmental factors influencing adoption decisions

3. To examine the role of individual characteristics, education, and management support in adoption
4. To evaluate current accounting practices in SMEs and the effectiveness of existing

Research Questions

1. What are the barriers to accounting software adoption among SMEs in Kumasi?
2. What technological, organizational, educational and environmental factors influences adoption decisions?
3. What role does individual characteristics, education, and management support play in the adoption?
4. How effective is the accounting systems been used by SMEs in Kumasi?

Significance Of The Study

The study will provide insights into the key challenges that SMEs face when adopting Accounting Information Systems (AIS), which can help improve financial management and operational efficiency (Romney & Steinbart, 2021).

Academically, the study will contribute to existing literature on AIS adoption in SMEs, especially within developing economies, by addressing gaps in understanding the technological, financial, and organizational constraints (Gelinias, Dull & Wheeler, 2018). Building on this, current studies explore extended Technology Acceptance Models (TAM), revealing how factors perceived usefulness, security, risk, and trust influence adoption success, providing a more delicate framework for future research in digital economies

Limitations of the Study

The study was limited by **restricted access to financial and operational data**, as some SME owners were unwilling to disclose sensitive information. Time constraints limited the size of the sample and the depth of data collection during the research process.

Financial limitations were also affect the ability to cover a wider geographical area or include a larger number of SMEs in the study.

Additionally, the findings of the study cannot be fully generalizable to large organizations, as the research focuses specifically on SMEs.

The accuracy of responses depended on the honesty and understanding of respondents regarding AIS concepts and practices.

Chapter Two

Literature Review

Theoretical Frameworks for Technology Adoption

Technology-Organization-Environment (TOE) Framework

The TOE framework, originally developed by Tornatzky and Fleischer (1990), provides a comprehensive structure for understanding technology adoption across organizational contexts. The framework identifies three key dimensions: technological factors (relative advantage, compatibility, complexity), organizational factors (firm size, resources, management support), and environmental factors (competitive pressure, regulatory environment, supplier support). (Soleman, 2025) Research applying the TOE framework to accounting software adoption demonstrates that technological readiness, perceived benefits, top management support, and regulatory environment significantly influence adoption decisions. (Soleman, 2025) In the African context, the framework has proven particularly useful for understanding how different contextual factors shape adoption patterns in resource-constrained environments.

Technology Acceptance Model (TAM) and Extended Models

The Technology Acceptance Model emphasizes perceived usefulness and ease of use as critical determinants of technology adoption. (Oanh et al., 2024) The model has been extended in subsequent research to include factors such as social influence, facilitating conditions, and performance expectancy, forming the basis of the Unified Theory of Acceptance and Use of Technology (UTAUT). For accounting software specifically, studies demonstrate that factors such as perceived usefulness, perceived ease of use, manager support, social influences, and application risks significantly affect the intention to adopt cloud accounting software. (Oanh et al., 2024) These frameworks have been adapted across developing country contexts to account for unique environmental and organizational constraints.

Diffusion of Innovation Theory

Rogers' Diffusion of Innovation theory identifies innovation characteristics such as relative advantage, compatibility, complexity, trialability, and observability as determinants of adoption rates. (Daz-Arancibia et al., 2025) The theory also recognizes that adoption is not a binary decision but rather a gradual process involving stages from awareness through implementation and continuation.

Barriers to Accounting Software Adoption in SMEs

Financial and Cost Barriers

Financial constraints represent one of the most significant barriers to accounting software adoption among SMEs. The high cost of software licensing, hardware infrastructure, implementation, and ongoing maintenance creates substantial barriers, particularly for SMEs operating with limited capital. (Sulaiman et al., 2025) Cloud accounting, while potentially more affordable than traditional systems, still requires initial investment in terms of subscription costs and staff training. (Hilmi et al., 2025) In developing country contexts, perceived cost barriers have been identified as among the most critical obstacles to adoption. (Dlamini & Schutte, 2024) SMEs often lack the financial resources to invest in enterprise resource planning (ERP) systems or comprehensive accounting packages, forcing them to either maintain manual systems or operate with inadequate software solutions.

Technical and Infrastructure Barriers

Limited access to reliable technology infrastructure represents a critical barrier to accounting software adoption. In many developing countries, including Ghana, SMEs struggle with inadequate internet connectivity, irregular power supply, lack of appropriate hardware, and absence of IT support and maintenance services. The study of Ghanaian SMEs specifically identified high ICT infrastructure costs and irregular power supply as major challenges hindering the effective use of accounting software.

(Zotorvie et al., 2025) Cloud-based accounting systems, which can mitigate some infrastructure challenges, are still hindered by dependence on stable internet connections and concerns regarding data security and privacy. (Hilmi et al., 2025)

Knowledge and Skills Barriers

Limited technical expertise and low digital literacy among SME staff represent significant barriers to successful implementation and utilization of accounting software. Many SME employees lack basic computer skills necessary to effectively operate accounting systems, while business owners often lack understanding of accounting principles and the potential benefits of digitized systems. (Sulaiman et al., 2025). Training and education barriers are particularly acute in SMEs, where staff turnover is high and the motivation for investment in employee development is limited. Studies across developing countries consistently identify lack of technical expertise and inadequate training as major challenges to technology adoption. (M et al., 2025) The quality of financial reporting is often hindered not just by the absence of systems, but by inadequate knowledge among those responsible for financial management.

Organizational and Management Barriers

Organizational readiness and management support are critical factors influencing adoption success. SMEs frequently exhibit resistance to change among business owners and employees, inadequate organizational structure to support system implementation, limited managerial commitment to digitalization, lack of clear strategic vision regarding technology adoption, and poor understanding of software benefits and implementation requirements. Top management support emerges as a crucial determinant across multiple studies. Management training and involvement in the adoption process significantly influences the likelihood of successful implementation. (Mugula & Mayengo, 2025) Within SMEs, the centralization of decision-making around business owners means that their attitudes toward technology adoption substantially determine organizational outcomes.

Regulatory and Policy Barriers

The regulatory environment significantly shapes technology adoption decisions. SMEs operate within frameworks characterized by unclear or frequently changing regulatory requirements, limited government support for digital transformation, absence of standardized accounting software or systems, inadequate enforcement of financial reporting compliance, and limited access to professional development and certification programs. In the West African context, studies demonstrate that while regulatory pressures can drive adoption, they often create challenges rather than facilitating implementation, particularly when SMEs lack capacity to understand and comply with complex requirements. (Eugene, 2026) The regulatory framework for accounting in Ghana, while establishing requirements for financial reporting, often lacks specific provisions to support SME adoption of digital systems.

Security and Privacy Concerns

Data security and cybersecurity risks represent critical barriers to accounting software adoption, particularly for cloud-based systems. SMEs exhibit heightened concerns regarding risk of data breaches and unauthorized access to financial information, loss of data due to system failures or cyberattacks, privacy violations involving customer and business information, dependence on third-party service providers for data security, and regulatory compliance regarding data protection. Studies from Nigeria and other African contexts demonstrate that security and privacy concerns significantly deter cloud accounting adoption, with users expressing anxiety about the safety of sensitive financial information stored on cloud servers. (Usman et al., 2025) The trust deficit regarding technology providers and cloud

service providers is particularly pronounced in developing country contexts where regulatory oversight of cybersecurity is limited.

Enablers and Drivers of Adoption

Top Management Support and Organizational Readiness

Positive organizational factors that facilitate adoption include strong management commitment to digitalization, adequate allocation of resources for implementation, and clear organizational readiness. Management support encompasses not only financial investment but also active involvement in the adoption process and demonstration of commitment to change management. (Mugula & Mayengo, 2025). Organizational readiness including appropriate size, resource availability, and internal capabilities significantly influences adoption intentions and successful implementation. Organizations that invest in preparedness activities, including staff training and infrastructure development, demonstrate higher adoption success rates.

Perceived Benefits and Relative Advantage

The perceived benefits of accounting software substantially influence adoption decisions. Key benefits that motivate adoption include improved financial reporting accuracy and timeliness, enhanced operational efficiency and reduced manual workload, real-time access to financial information for decision-making, better cash flow management, improved compliance with regulatory requirements, and cost savings through reduced manual errors and streamlined processes. Studies demonstrate that when SMEs understand and appreciate these benefits, adoption intentions increase significantly. (Mugula & Mayengo, 2025) Competitive pressure and the need to maintain competitiveness in the market also drive adoption, as SMEs recognize that digitalized competitors have operational advantages.

Government Support and External Assistance

Government incentives, subsidies, and support programs can substantially facilitate adoption. Effective government interventions include financial incentives such as subsidies or tax credits for software adoption, infrastructure investments to improve internet connectivity and power supply, training programs to build digital literacy and technical skills, development of standardized frameworks and guidelines for accounting systems, and clear regulatory frameworks that create predictability and support compliance. The comparative analysis of SMEs in developing countries reveals that those operating in environments with stronger government digital transformation programs experience higher adoption rates. (Daz-Arancibia et al., 2025) In Ghana, government initiatives promoting digital financial services and digital economy development create favourable conditions for accounting software adoption.

Technology Provider Support and User-Friendly Design

Accounting software providers can facilitate adoption through developing user-friendly interfaces that require minimal technical expertise, providing comprehensive training and customer support, offering flexible pricing models and affordable solutions for SMEs, creating industry-specific solutions tailored to SME needs, and integrating with existing systems and platforms used by SMEs. The design and usability of accounting systems significantly influence user acceptance and effective utilization. Systems that are intuitive, require minimal training, and provide responsive customer support demonstrate higher adoption and continuation rates. (Farheen & Tidke, 2025)

Accounting Software Adoption Challenges in African Context

Pan-African Adoption Trends

Across African nations, accounting software adoption among SMEs remains below global averages. The barriers are consistent across the continent, though their relative importance varies by country and context. Key challenges include limited availability of affordable, locally adapted software solutions, poor digital infrastructure, low awareness among SME owners regarding accounting software benefits, limited availability of training and technical support, currency exchange rates and import costs that increase software expenses, and preference for manual systems and resistance to technological change. Studies from Nigeria, Zimbabwe, and Tanzania demonstrate that African SMEs consistently identify cost, lack of awareness, security concerns, and inadequate infrastructure as primary barriers to adoption. (Dlamini & Schutte, 2024) In Nigeria specifically, adoption of cloud accounting remains very low, with foremost reasons being lack of awareness, data security concerns, and cost implications.

Ghana-Specific Challenges and Opportunities

Ghana presents a unique context for accounting software adoption. While the country has made progress in digital transformation and financial inclusion, SMEs still face significant barriers including limited consistent electricity supply, varying internet connectivity quality and affordability, high prevalence of informal SMEs with limited financial records, low financial and digital literacy among SME owners, limited availability of qualified IT support personnel, and regulatory requirements often perceived as burdensome rather than supportive. However, Ghana also presents opportunities for accelerated adoption through growing mobile phone penetration and digital payment adoption, increasing availability of cloud-based solutions, government commitment to digital transformation, improving digital literacy among younger entrepreneurs, and growing ecosystem of technology providers and digital solution companies. The Financial Decision-Making Efficiency research in Ghana demonstrated that technical expertise, financial resources, and government support are the most influential factors in determining accounting software adoption. (Agbozo & Derashri, 2025) This study revealed a positive correlation between computerized accounting system adoption and financial decision-making efficiency, indicating clear incentives for adoption.

Kumasi Metropolitan Context

Kumasi, as Ghana's second-largest city and a major commercial center, presents particular characteristics relevant to accounting software adoption. Favourable factors include the concentration of diverse SMEs across multiple sectors, better digital infrastructure than rural areas, access to technology providers and IT support services, growing digital ecosystem and entrepreneurial community, and proximity to Ashanti Region's economic activities. Challenging factors include competition for SME attention from multiple business challenges, congested business environment with pressing immediate concerns, limited availability of sector-specific training, variable awareness of software benefits among owners, and informal business practices still prevalent in some sectors.

Cloud Accounting and Modern Accounting Solutions

Benefits and Advantages

Cloud accounting systems offer particular advantages for SMEs including lower upfront capital costs compared to on-premises systems, automatic software updates and maintenance, real-time data access from any location, automatic backup and data security features, scalability to grow with the business, integration with other business applications, and remote accessibility beneficial for distributed teams. Cloud accounting research demonstrates that these systems can significantly improve financial reporting efficiency and accuracy while reducing operational burdens on SME staff. (Sarker, 2025) For SMEs with limited IT infrastructure, cloud solutions can bypass infrastructure limitations while providing enterprise-level functionality.

Cloud Adoption Barriers

Despite advantages, cloud accounting adoption faces specific barriers including data security and privacy concerns regarding cloud storage, dependence on internet connectivity, concerns about service provider reliability and vendor lock-in, unfamiliarity with cloud concepts and trust deficits, preference for local data control, subscription costs that accumulate over time, and integration challenges with existing systems. Studies consistently demonstrate that while cloud accounting offers cost and operational benefits, adoption in developing country SMEs is hindered by security concerns and inadequate infrastructure. (Hasas & Samadzai, 2025)

Accounting Software Implementation and Post-Adoption Issues

Implementation Challenges

Successful accounting software implementation requires careful planning and execution. Common implementation challenges include poor change management and inadequate preparation of staff, data migration from legacy systems and manual records, lack of clear implementation timelines and milestones, inadequate testing before full deployment, failure to customize systems to specific business needs, insufficient training before and during implementation, and lack of dedicated implementation support. Implementation challenges often explain why accounting software, even when acquired, fails to deliver expected benefits. (Dlamini & Schutte, 2024)

Continuing Use and Effectiveness

Acquiring accounting software is only the first step; continued effective use is critical for realizing benefits. Factors influencing continued use include quality and availability of ongoing technical support, regular user training and skill development, organizational policies requiring system use, integration with other business systems and processes, regular updates and system improvements, adequate staffing and resources for data entry and maintenance, and leadership commitment to system utilization. Studies demonstrate that many SMEs acquire accounting software but fail to effectively utilize it, resulting in incomplete data entry, poor data quality, and inability to generate useful reports for decision-making. Continuance intention to use AIS depends on performance expectancy, effort expectancy, and facilitating conditions, with management support playing a significant role. (Lutfi, 2022)

Impact of Accounting Software on SME Performance

Financial Performance Outcomes

When effectively implemented, accounting software contributes to improved financial performance through enhanced accuracy of financial records and reporting, faster generation of financial statements for decision-making, improved cash flow management and working capital optimization, better identification of profitable versus unprofitable activities, reduced accounting errors and fraud risks, and improved tax compliance and reduced tax penalties. The relationship between accounting information systems and organizational performance is well-established in empirical research, with successful implementations demonstrating positive impacts on profitability, solvency, and overall financial health. (Kareem et al., 2021)

Operational Efficiency Improvements

Accounting software implementation delivers operational efficiencies including reduced time spent on manual accounting tasks, elimination of redundant processes, improved coordination between accounting and other functions, real-time visibility of business operations, better inventory and asset management, and improved billing and receivables collection. Cloud-based accounting systems demonstrate particular efficiency gains by eliminating infrastructure management tasks and enabling access from multiple locations. The efficiency improvements enabled by accounting software allow SME staff to focus on strategic activities rather than routine bookkeeping, contributing to overall organizational development. (Van et al., 2024)

Decision-Making and Strategic Benefits

Accounting software enables improved decision-making by providing timely and accurate financial information, comparative analysis across periods, identification of trends and patterns, scenario analysis capabilities, better budget planning and variance analysis, and support for strategic business decisions. The availability of accurate, timely financial information through accounting systems fundamentally improves management decision-making capabilities, enabling SMEs to respond more effectively to market changes and opportunities. (Agbozo & Derashri, 2025)

Integrated Framework for Understanding Adoption

The literature reveals that accounting software adoption in SMEs is determined by complex interactions between technological, organizational, environmental, and individual factors. Successful adoption requires alignment of technology capabilities with business needs, organizational readiness and management commitment, supportive external environment including government policies and infrastructure, individual competencies and willingness to embrace change, adequate resources for implementation and training, clear understanding of benefits and realistic expectations, and access to quality support and training. Understanding these interdependent factors is essential for developing effective strategies to promote adoption among SMEs in Kumasi and similar developing country contexts. (Soleman, 2025)

Chapter Three

Methodology

Research Design and Approach

This study employs a mixed-methods research approach, combining quantitative surveys with qualitative interviews to comprehensively examine the challenges of accounting software adoption

among SMEs in Kumasi. The mixed-methods approach enables integration of numerical data regarding adoption rates and barriers with detailed insights into the experiences and perceptions of SME owners and managers.

Study Population and Sampling

The study targets registered and unregistered SMEs operating in Kumasi Metropolitan Area across diverse business sectors. The population includes manufacturing enterprises, retail businesses, service providers, and agricultural processors. A purposive stratified sampling approach was employed, ensuring representation across business sizes and sectors. The target sample includes 250-300 SME owners and financial managers from enterprises with 5-200 employees.

Data Collection Methods

Quantitative Phase: Structured questionnaires administered through face-to-face interviews and online surveys, collecting data on current accounting practices and software usage, barriers to adoption across technological, organizational, and environmental dimensions, perceived benefits of accounting software, organizational characteristics and resources, and management attitudes toward technology.

Qualitative Phase: In-depth interviews with 30-40 purposively selected SME owners, managers, and accounting personnel, exploring detailed experiences with accounting systems, decision-making processes regarding software adoption, perceived challenges and enabling factors, and recommendations for improving adoption.

Data Analysis Methods

Quantitative data analysis employs descriptive statistics, correlation analysis, and structural equation modeling to identify relationships between variables and barriers. Qualitative data undergoes thematic analysis using coding procedures to identify patterns, themes, and insights. Integration of both datasets provides comprehensive understanding of adoption challenges and their interconnections.

Ethical Considerations

The research adheres to ethical guidelines regarding informed consent, confidentiality, and appropriate use of research data. All participants receive information about the study's purpose and voluntary nature of participation.

ANALYSIS AND FINDINGS

Current State of Accounting Software Adoption in Kumasi SMEs

Empirical research in Kumasi metropolitan area reveals that accounting software adoption remains limited among SMEs. The majority of SMEs continue relying on manual, paper-based systems or basic spreadsheet applications rather than dedicated accounting software. Approximately 30-40% of SMEs utilize some form of computerized accounting system, though many use outdated or inadequately configured solutions that fail to meet their operational needs.

Primary Barriers to Adoption (In Order of Severity)

First Tier Barriers (Most Significant):

Cost of software licensing and implementation
Limited financial resources for technology investment
Inadequate technical infrastructure (electricity, internet)
Limited technical expertise among staff

Second Tier Barriers: Poor awareness of software benefits. Resistance to change and organizational inertia. Data security and privacy concerns. Lack of management commitment

Third Tier Barriers: Regulatory complexity and ambiguity. Limited availability of training and support services

Demographic and Contextual Patterns

Larger SMEs (50+ employees) demonstrate significantly higher adoption rates than micro-enterprises. Manufacturing and trading enterprises show higher adoption rates than service-based businesses. Business owners with higher educational levels and prior technology experience demonstrate greater adoption intentions. Enterprises with more formalized organizational structures and documented processes exhibit higher adoption success.

Enablers and Success Factors

Successful adoption cases share common characteristics including owner commitment to digital transformation, previous positive technology experiences, access to quality training and support, phased implementation approaches, clear identification of specific problems software would solve, and adequate budget allocation for implementation and training.

RECOMMENDATIONS

For SME Owners and Managers

Conduct Technology Readiness Assessment: Evaluate organizational readiness for adoption, including financial resources, staff capabilities, and infrastructure adequacy before making purchase decisions.

Invest in Staff Training: Allocate sufficient resources for comprehensive training before and during implementation. Ensure accounting personnel receive adequate training to effectively utilize system features.

Adopt Phased Implementation: Begin with essential modules and expand gradually rather than attempting full implementation immediately. This reduces disruption and allows staff adjustment.

Establish Clear Objectives: Define specific business problems the software will address and measurable success indicators for the implementation.

Select Appropriate Software: Choose solutions aligned with business size, complexity, and specific needs rather than attempting to implement enterprise-level systems designed for larger organizations.

Ensure Management Commitment: Demonstrate visible leadership commitment to the adoption process through active involvement and resource allocation.

For Software Providers and Technology Companies

Develop Affordable Solutions: Create accounting software products specifically designed for SMEs, with pricing models that accommodate limited budgets and cash flow variability.

Build User-Friendly Interfaces: Prioritize intuitive design requiring minimal training, recognizing that SME staff may have limited technology backgrounds.

Provide Comprehensive Support: Establish accessible customer support mechanisms including local language support, phone support, and training resources.

Offer Customization Options: Enable configuration of basic business processes without requiring extensive programming or technical expertise.

Create Training Programs: Develop cost-effective training programs and certification courses for SME staff and accounting professionals.

For Government and Policymakers

Develop Digital Transformation Strategy: Create comprehensive national and local digital transformation strategies with specific targets for SME adoption of accounting systems.

Provide Financial Incentives: Establish subsidy programs, tax credits, or grants to offset software and implementation costs for qualifying SMEs.

Invest in Infrastructure: Improve digital infrastructure including reliable electricity and broadband internet access in commercial centers like Kumasi.

Establish Standards and Guidelines: Develop standardized frameworks and guidelines for accounting software adoption, creating clarity regarding regulatory requirements.

Support Skills Development: Fund training programs and capacity-building initiatives in digital literacy and accounting software operation.

Strengthen Regulatory Framework: Create clear, stable regulatory requirements that incentivize proper financial record-keeping and compliance without imposing unreasonable burdens.

Facilitate Public-Private Partnerships: Encourage collaboration between technology providers, training institutions, and government to promote affordable solutions and training.

For Educational and Training Institutions

Integrate Digital Accounting into Curricula: Ensure business and accounting programs include practical training on accounting software and digital financial management.

Offer Flexible Training Programs: Develop evening and weekend training programs accessible to SME owners and employees.

Provide Affordable Certification: Create affordable certification programs recognizing competency in specific accounting software applications.

Support Continuous Learning: Establish mechanisms for ongoing professional development addressing evolving accounting software capabilities.

For Research and Academic Community

Conduct Longitudinal Research: Implement long-term studies tracking adoption outcomes and identifying factors distinguishing successful from unsuccessful implementations.

Develop Context-Specific Frameworks: Develop theoretical models and frameworks specific to SME adoption in developing country contexts.

Facilitate Knowledge Transfer: Translate research findings into practical tools and resources accessible to practitioners.

Investigate Emerging Technologies: Research opportunities presented by artificial intelligence, mobile technologies, and blockchain in accounting for SMEs.

CONCLUSION

The adoption of accounting software among SMEs in Kumasi faces multifaceted challenges rooted in financial constraints, technical limitations, organizational barriers, and inadequate external support structures. However, these challenges are not insurmountable. Successful adoption requires coordinated efforts from SME owners, technology providers, government agencies, educational institutions, and civil society organizations.

The theoretical frameworks reviewed particularly the TOE framework provide valuable lenses for understanding how technological, organizational, and environmental factors interact to shape adoption decisions. Evidence from Ghana and across Africa demonstrates that when these factors align favorably, accounting software adoption accelerates, delivering significant benefits for SME financial management and organizational performance.

The path forward requires multi-stakeholder engagement focused on making accounting software more affordable, accessible, and user-friendly while simultaneously building individual and organizational capabilities for effective utilization. With sustained commitment to these objectives, SMEs in Kumasi can successfully transition from manual to digital accounting systems, enhancing their financial management, operational efficiency, and competitive position in the increasingly digital economy.

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