Comparative Analysis of Traditional and Digital Financial Administration Implementation on MSME Financial Management Effectiveness

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ABSTRACT

This study aims to compare the implementation of traditional (manual) and digital financial administration in Micro, Small, and Medium Enterprises (MSMEs) and analyze its impact on the effectiveness of MSME financial management. The method used is a comparative literature review examining ten national and international scientific articles published between 2018 and 2025. The analysis is based on effectiveness indicators such as time efficiency, data accuracy, and report preparation speed. The review results indicate that digital systems have higher effectiveness compared to traditional systems across various indicators. However, the implementation of traditional systems remains dominant among MSMEs, primarily due to limited digital literacy, high initial investment costs, and internet accessibility issues in certain regions. Therefore, the conclusion of this study emphasizes the importance of adopting a hybrid system (combining traditional and digital systems) and improving digital financial literacy. This is crucial to ensure that the MSME financial administration process can run more effectively, efficiently, and sustainably.
Keywords: Financial Administration, MSMEs, Digitalization, Effectiveness, Literature Review.

A. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are fundamental pillars of the Indonesian economy. According to data from the Ministry of Cooperatives and SMEs, this sector contributes more than 60% to the National Gross Domestic Product (GDP) and absorbs over 97% of the workforce. This significance makes MSME resilience and management a strategic national issue. Despite their vital role, a major obstacle hindering MSME growth and scalability is weakness in financial administration systems. Many MSME actors still rely on manual recording, which tends to be unstructured, prone to human error, and characterized by a lack of structured documentation and archiving. This condition directly affects data accuracy and the speed of managerial decision-making.

Responding to these constraints, the digital era offers solutions through various financial applications, such as BukuWarung, Akuntansiku, or similar apps, which facilitate the digital recording and financial reporting process. Digitalization of financial administration is believed to improve time efficiency, data accuracy, and transparency of MSME financial reports (Hendrawati et al., 2024). Although the potential benefits are significant, the level of digital technology adoption among MSMEs still varies. This is primarily caused by factors such as limited internet access in certain areas and low digital financial literacy (Hakim, 2024). The gap between the potential effectiveness of digital systems and implementation challenges underscores the urgency of this research. Based on the background and gaps presented, this study aims to comprehensively compare the implementation of traditional and digital financial administration systems on the

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effectiveness of MSME financial management. Through a comparative literature review method, the analysis is conducted by reviewing and comparing various relevant research results and scientific articles from 2018 to 2025.

B. LITERATURE REVIEW

1. Traditional Financial Administration in MSMEs

   Traditional financial administration is defined as a recording system that relies on manual processes using physical media such as cash books, receipts, and document archives. This system is generally characterized by simple processes and minimal technology investment. According to Zaky & Utami (2025), the main advantage of this system is its ease of use for business owners unfamiliar with modern technological devices, resulting in very low adoption barriers. However, the fundamental weaknesses of this system are the risk of data loss or damage (including physical disaster risks), potential for recording errors (human error), and the significant time required for reconciliation and report verification. Inayah (2025) states that manual systems tend to hinder the financial analysis process due to the absence of automation systems. Consequently, MSME actors often struggle to evaluate cash flow and determine financial policies in a timely manner, which negatively impacts business growth.

2. Digital Financial Administration in MSMEs

   Digital financial administration is the practice of using software or technology-based applications (including cloud-based ones) in the entire process of recording, reporting, and financial analysis. According to Hendrawati et al. (2024), this digital accounting can substantially improve the quality of financial information and assist business owners in data-driven decision-making. A study by Hakim (2024) further shows that digitizing financial records increases operational efficiency, transparency, and accountability. Although the advantages of digitalization are clear, challenges such as limited digital literacy among entrepreneurs and application subscription costs remain significant adoption barriers. Meanwhile, Inayah (2025) found that using cloud-based accounting systems provides real-time data access advantages and accelerates the financial reporting process, which in turn contributes to increasing investor and financial institution confidence in MSMEs.(Fristya et al., 2024)

3. Effectiveness of MSME Financial Management

   The effectiveness of financial management in the context of MSMEs is the extent to which financial goals can be achieved optimally. Indicators for measuring this effectiveness include time efficiency, report accuracy, decision-making precision, and cash flow control capabilities. Based on the "Comparative Study of Manual vs Digital Accounting in SMEs" (2025), digital systems are proven to significantly improve operational efficiency and financial report accuracy compared to traditional systems. The difference in effectiveness generated by these two systems is the main focus of this study.(Arifin et al., 2025)

4. Main Theoretical Framework

   To explain the differences in adoption levels and perceived benefits of both financial administration systems, this study uses two main theoretical frameworks:

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Technology Acceptance Model (TAM): This model explains that technology adoption is influenced by two key factors: Perceived Ease of Use and Perceived Usefulness.

Diffusion of Innovation Theory (Rogers, 2003): This theory explains how new ideas or technologies (digitalization) are spread and adopted within a social system (MSMEs), influenced by innovation attributes and environmental readiness.

C. RESEARCH METHODOLOGY

1.Type and Approach of Research

This study uses a library research method with a comparative analysis approach. The comparative approach was chosen to systematically compare the effectiveness of implementing traditional (manual) and digital financial administration in the context of MSMEs based on findings from various scientific literatures.

2.Data Sources and Collection

The data used in this study is secondary data sourced from ten relevant scientific articles (journals). The literature search process was conducted through leading academic databases, including Google Scholar, Garuda, and ResearchGate. To ensure data validity and currency, the publication period of articles is limited to the last seven years (2018 to 2025).

3. Inclusion Criteria

To ensure relevance and analytical focus, the article inclusion (filtering) criteria used are as follows:

a. Topic Focus: Articles specifically discuss financial administration systems in MSMEs.

b. Comparison Scope: Articles contain discussions regarding manual (traditional) and/or digital financial administration systems.

c. Study Type: Articles are results of empirical research (case studies, surveys) or in-depth literature reviews.

d. Publication Year: Articles published in the 2018–2025 period.

4. Data Analysis Technique

The collected data were subsequently analyzed through the following steps:

a. Comparison Matrix Preparation: Data from ten articles were summarized and classified into a comparison matrix. This matrix is arranged based on four main indicators of MSME financial management effectiveness used as comparison benchmarks: Time Efficiency, Report Accuracy, Ease of Decision Making, and Access to Financing.

b. Thematic Analysis: Thematic analysis was conducted to highlight key differences and similarities between findings regarding traditional and digital systems on each effectiveness indicator. The results of this analysis are then interpreted to answer the research objectives and linked to the theoretical frameworks used (TAM and DOI).

D. RESULTS AND DISCUSSION
Result
1. Comparative Analysis Results

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Based on the review of ten scientific articles published between 2018–2025, it was found that digital financial administration systems excel in almost all indicators of MSME financial management effectiveness compared to traditional systems. The comparative findings are grouped according to effectiveness indicators as presented in Table 1:

Table 1. Comparison of Traditional and Digital Administration Effectiveness

Effectiveness Aspect	Traditional Administration (Manual)	Digital Administration (App/Online)
Time Efficiency	Low; recording, archiving, and reconciliation processes are slow and dependent on individuals.	Very High; Automation features (auto-calculation) speed up recording and financial report preparation.
Report Accuracy	Prone to calculation errors (human error), risk of physical data loss, and difficult to verify.	Accurate and Reliable; Data is stored securely in cloud systems and minimizes input errors.
Decision Making	Data is difficult to process into information quickly; analysis requires significant additional time.	Real-time data and dashboard features support rapid analysis for strategic decision-making.
Access to Financing	Difficult to show a structured and credible financial track record to third parties.	Standardized digital financial reports increase business credibility, facilitating access to financing.

Consistently, studies by Hendrawati et al. (2024) and Hakim (2024) reinforce these findings, showing that digitalization significantly improves recording and reporting effectiveness. However, Zaky & Utami (2025) emphasize that this effectiveness is highly dependent on technological readiness and adequate training for users.

Discussion

1. Effectiveness Analysis and Theory Reinforcement (TAM)
   It can be concluded that the digitalization of financial administration has a significant positive impact on the effectiveness of MSME financial management. Digital advantages especially in efficiency and accuracy—align closely with the principle of Perceived Usefulness in the Technology Acceptance Model (TAM), where MSME actors adopting digital systems perceive tangible benefits in ease of work and report quality.

2. Implementation Gap and Theory (DOI)
   Despite the high potential of digitalization, there is a clear gap between theoretical potential and field application. This gap can be analyzed using the Diffusion of Innovation Theory (DOI):
   Inhibiting Factors (Individual Readiness): The main inhibiting factor is the lack of digital literacy and low understanding of the benefits of digital systems (Inayah, 2025). This relates to low Perceived Ease of Use (a factor in TAM) hindering adoption.
   Inhibiting Factors (Environmental Readiness): Infrastructure factors, such as internet network constraints in rural areas (Hakim, 2024), serve as external barriers hindering the diffusion of financial technology innovation.

3. Transition Solution (Hybrid System)

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To bridge this gap, the "Comparative Study of Manual vs Digital Accounting in SMEs" (2025) suggests that using a hybrid system (a combination of manual and digital) can be an effective transition solution. This model allows MSME actors to adapt gradually (in accordance with the Trialability principle in DOI) without losing control over their financial records. This hybrid solution accommodates MSMEs that still have literacy or infrastructure limitations.

E. CONCLUSION AND SUGGESTIONS

Conclusion

Based on the comparative analysis results from the literature review conducted, it can be concluded that the implementation of digital financial administration significantly improves the effectiveness of MSME financial management compared to traditional (manual) administration systems. This improvement in effectiveness is clearly visible in three main aspects: time efficiency in recording and reporting, financial report accuracy, and the ease and speed of managerial decision-making. Although digital superiority is scientifically proven, inhibiting factors such as low digital literacy, high initial adoption costs, and technological infrastructure limitations (especially internet access) remain major challenges hindering the comprehensive implementation of digital systems among MSMEs.

Suggestions

Based on the conclusions above, the following suggestions are recommended:

Practical Suggestions (Policy Implications): Strategic collaboration is needed between the government, educational institutions, and technology service providers to address the adoption gap. Focus areas include:

1. Improving Digital Literacy: Providing training and mentoring focused on the practical use of simple financial applications relevant to the MSME scale.
2. Hybrid Solution Innovation: Encouraging the use of hybrid systems as a transition solution so that MSME actors can adapt gradually without completely abandoning manual systems.
3. Adoption Incentives: Providing incentives such as software cost subsidies or tax relief for MSMEs starting to switch to digital financial administration.
4. Suggestions for Future Research: It is suggested that future research use a quantitative approach with field (empirical) data. Hypothesis testing on the MSME population directly will strengthen and validate the comparative results found from this literature review, especially in measuring the impact of digital literacy variables on adoption rates and financial management effectiveness in the field.

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