

## AI-Based Accounting Systems, Financial Reporting Quality, and Decision-Making Efficiency in Thai SMEs

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### ABSTRACT

In the digital economy, artificial intelligence (AI) has emerged as a transformative force in the accounting profession, reshaping how organizations collect, process, and analyze financial data. This study investigates the influence of AI-based accounting systems (AIA) and financial reporting quality (FRQ) on decision-making efficiency (DME), with cost information quality (CIQ) serving as a mediating variable, among small and medium-sized enterprises (SMEs) in Thailand. Anchored in the Technology–Organization–Environment (TOE) Framework, Innovation Diffusion Theory (IDT), Decision Usefulness Theory (DUT), and Resource-Based View (RBV), the study employs a mixed-method research design combining qualitative and quantitative approaches. Qualitative data were obtained from in-depth interviews with 15 SME accounting managers, revealing that AI integration enhances data accuracy, automates repetitive accounting processes, and accelerates reporting timelines. Quantitative data were collected through 400 structured questionnaires; of which 372 were valid responses analyzed using Structural Equation Modeling (SEM) with AMOS version 24.0. The results demonstrate that both FRQ and AIA have significant positive effects on CIQ and DME. Moreover, CIQ exhibits a strong mediating effect, reinforcing that reliable cost information serves as a critical mechanism linking technology adoption and information quality to managerial decision performance. The findings suggest that SMEs with higher levels of AI adoption and superior reporting quality can achieve improved cost accuracy, faster decision cycles, and stronger managerial confidence. This underscores that technological advancement alone is insufficient unless supported by high-quality financial data and skilled managerial interpretation. The study contributes theoretically by integrating technological and informational perspectives into a unified framework for decision efficiency and provides practical insights for SME managers, policymakers, and technology developers seeking to enhance accounting digitalization in Thailand. Overall, this research confirms that the synergy between AI-based accounting systems and financial reporting quality significantly enhances decision-making efficiency through the improvement of cost information quality, thereby strengthening the competitive capability and sustainability of Thai SMEs in the digital era.

**Keywords:** Artificial Intelligence, Financial Reporting Quality, Cost Information Quality, Decision-Making Efficiency, Thai SMEs

### INTRODUCTION

**Background and Importance of the Problem:** In the digital era, Artificial Intelligence (AI) has become a crucial technological force transforming various professional fields, including accounting. As a key mechanism for

generating financial information to support strategic management decisions, accounting systems that integrate AI can enhance accuracy, automate repetitive tasks, and significantly reduce the time required for financial reporting. Consequently, AI-driven accounting systems contribute to improved operational efficiency in terms of cost, timeliness, and data quality (Abbas, 2023).

Small and medium-sized enterprises (SMEs) play an essential role in Thailand's economic structure. However, many SMEs face significant challenges in financial management, such as a shortage of skilled accountants, unstructured data management, and inaccurate or delayed financial reporting. These issues often lead to inefficient decision-making, particularly in cost control and pricing strategies. Integrating AI into accounting processes can therefore improve financial data quality, thereby strengthening managerial decision-making in key operational areas such as pricing, inventory management, and production cost control.

Despite the potential advantages, the effectiveness of AI-based accounting systems depends largely on the quality of financial reporting. High-quality financial information must be accurate, understandable, timely, and comparable (IASB, 2018), enabling AI systems to process and learn effectively. Thus, the integration of Financial Reporting Quality (FRQ) and AI-Based Accounting Systems (AIA) is critical for enhancing organizational decision-making and achieving a competitive advantage.

The theoretical foundations for this research include the Technology–Organization–Environment (TOE) Framework and the Innovation Diffusion Theory (IDT), which explain technology adoption behaviors (Rogers, 2003), as well as the Decision Usefulness Theory (Ohlson, 1995), which underlines the role of financial information in rational decision-making. Additionally, the Management Accounting Theory (Kaplan & Cooper, 1998) supports the role of cost information quality as a mediating factor, and the Resource-Based View (RBV) (Barney, 1991) highlights information systems as strategic resources that enhance decision-making efficiency.

Accordingly, this study contributes to both academic and practical domains by integrating financial reporting quality and AI-based accounting systems to improve decision-making efficiency among Thai SMEs. The findings are expected to strengthen SMEs' competitiveness and promote sustainable growth in the digital economy.

## Research Question

1. How does financial reporting quality (FRQ) influence the quality of cost information (CIQ) among SMEs in Thailand?
2. What is the effect of adopting AI-based accounting systems (AIA) on managerial decision-making efficiency (DME)?
3. Does cost information quality (CIQ) mediate the relationship between AI-based accounting systems (AIA) and managerial decision-making efficiency (DME)?

## Research Objective

1. To examine the effect of financial reporting quality on the quality of cost information among SMEs.
2. To analyze the influence of AI-based accounting system adoption on managerial decision-making efficiency in pricing and inventory management.
3. To investigate the mediating role of cost information quality between AI-based accounting systems and managerial decision-making efficiency.

## LITERATURE REVIEW

### Related Concepts and Theories

#### *Financial Reporting Quality (FRQ)*

Financial Reporting Quality refers to the degree to which financial information faithfully represents a firm's financial performance and position. According to the Decision Usefulness Theory (Ohlson, 1995), the primary purpose of financial information is to support stakeholders in making rational decisions. The International Accounting Standards Board (IASB, 2018) identifies four key qualitative characteristics of useful financial information, relevance, faithful representation, comparability, and timeliness. High FRQ enhances the reliability of financial statements, reduces information asymmetry, and provides a solid foundation for cost and managerial decisions. Dechow and Dichev (2002) found that FRQ positively influences strategic decision-making and business forecasting, while Francis et al. (2008) confirmed that reliable financial information decreases uncertainty in cost reporting and improves decision value.

#### *AI-Based Accounting System Adoption (AIA)*

AI-Based Accounting Systems involve integrating artificial intelligence tools, such as machine learning, natural language processing, and robotic process automation, into accounting processes. These systems can automatically

process transactions, detect anomalies, and generate analytical insights, significantly enhancing the accuracy, speed, and transparency of accounting operations (Abbas, 2023). The adoption of AI in accounting can be explained through two theoretical perspectives:

The Technology–Organization–Environment (TOE) Framework, which emphasizes that technological readiness, organizational capability, and environmental support collectively influence technology adoption.

The Innovation Diffusion Theory (Rogers, 2003), which explains how new technologies spread within organizations through perceived advantages, compatibility, and complexity factors.

Empirical evidence from Lu et al. (2024) and Vasarhelyi, Kogan, and Tuttle (2015) supports that AI integration in accounting improves data reliability, facilitates continuous auditing, and shortens reporting cycles.

### **Cost Information Quality (CIQ)**

Cost Information Quality reflects the accuracy, completeness, and usefulness of cost data used for planning, budgeting, and control. Management Accounting Theory (Kaplan & Cooper, 1998) posits that cost information is a central element of effective management control systems. Accurate cost information allows managers to make informed decisions about pricing, production, and resource allocation. Kaplan and Anderson (2004) highlight that high-quality cost data drive operational efficiency, while Hilton and Platt (2017) emphasize its role in improving pricing precision and inventory planning. Therefore, CIQ acts as a mediating factor that links FRQ and AIA to managerial outcomes.

### **Decision-Making Efficiency (DME)**

Decision-Making Efficiency refers to the ability of managers to make timely, data-driven, and strategically sound decisions. Based on the Resource-Based View (RBV) (Barney, 1991), firms that possess superior information systems gain competitive advantage by making better decisions. The Decision Support Theory further supports this notion, suggesting that structured and high-quality information systems enhance cognitive efficiency in complex decision contexts. Rogers (2003) and Mintzberg, Raisinghani, and Theoret (1976) further indicate that improved communication and information flow significantly reduce decision latency and error.

## **LITERATURE SURVEYS**

Prior studies reveal significant relationships among the key variables in this research.

Dechow and Dichev (2002), Francis et al. (2008), and Biddle, Hilary, and Verdi (2009) demonstrate that high-quality financial reporting leads to more reliable cost estimations and budget accuracy. In the field of AI adoption, Abbas (2023) and Lu et al. (2024) confirm that AI-based accounting systems enhance data accuracy, eliminate repetitive errors, and improve financial transparency. Kaplan and Anderson (2004) and Hilton and Platt (2017) emphasize that cost information quality is a critical enabler of efficient managerial decisions, particularly regarding pricing and production planning. Finally, Barney (1991) and Rogers (2003) establish that information-based resources, such as AI-enhanced accounting systems, contribute to decision-making efficiency, allowing SMEs to optimize operations and achieve competitive advantage.

Overall, the literature suggests a pathway linking FRQ and AIA to DME, with CIQ serving as a mediating mechanism. This aligns with integrated theoretical perspectives from Decision Usefulness Theory, TOE/IDT Framework, Management Accounting Theory, and RBV.

### **Conceptual Framework**

Based on the literature review, the study proposes a conceptual framework that integrates both technological and informational dimensions affecting managerial decision-making among SMEs in Thailand.

- 1) Independent Variables: Financial Reporting Quality (FRQ), AI-Based Accounting System Adoption (AIA).
- 2) Mediating Variable: Cost Information Quality (CIQ).
- 3) Dependent Variable: Decision-Making Efficiency (DME).

Financial Reporting Quality (FRQ) enhances Cost Information Quality (CIQ) by ensuring the accuracy, consistency, and comparability of financial data used for managerial analysis. Meanwhile, AI-Based Accounting System Adoption (AIA) further strengthens CIQ by automating data collection, refining cost processing, and minimizing human error. As a result, CIQ functions as a mediating variable that links both FRQ and AIA to Decision-Making Efficiency (DME) by improving the reliability and usefulness of information utilized in managerial decisions. Consequently, when organizations maintain high-quality FRQ and effectively implement AIA, they achieve superior DME through more accurate, timely, and data-driven decision-making processes.

### **Research Hypothesis**

Based on theoretical reasoning and previous studies, the following hypotheses are proposed:

H1: Financial Reporting Quality (FRQ) has a positive effect on Cost Information Quality (CIQ).

H2: AI-Based Accounting System Adoption (AIA) has a positive effect on Cost Information Quality (CIQ).

H3: Cost Information Quality (CIQ) has a positive effect on Decision-Making Efficiency (DME).

H4: Financial Reporting Quality (FRQ) has a positive effect on Decision-Making Efficiency (DME).

H5: AI-Based Accounting System Adoption (AIA) has a positive effect on Decision-Making Efficiency (DME).

H6: Cost Information Quality (CIQ) mediates the relationship between (a) FRQ and DME, and (b) AIA and DME.

## RESEARCH METHODOLOGY

### Research Design

This research employs a quantitative research design using a survey method to examine the relationships among financial reporting quality (FRQ), AI-based accounting system adoption (AIA), cost information quality (CIQ), and decision-making efficiency (DME) within small and medium-sized enterprises (SMEs) in Thailand. The study aims to test both direct and mediating effects among variables based on the proposed conceptual framework. Data will be analyzed through Structural Equation Modeling (SEM) using AMOS version 24.0, allowing for the simultaneous assessment of measurement and structural relationships. The research design follows a cross-sectional approach, collecting data from respondents at a single point in time to capture current organizational practices and perceptions regarding AI-based accounting systems and financial information quality.

### Population and Sample

The population of this study comprises accounting managers, finance officers, and senior executives from SMEs operating in Thailand's manufacturing and service sectors that have implemented or are in the process of adopting AI or electronic accounting systems.

A purposive sampling technique will be applied to ensure that the respondents possess sufficient knowledge of accounting systems and financial decision-making. Based on the criteria of Hair et al. (2010) for SEM analysis, a minimum sample size should be at least 10–20 times the number of observed variables. Since this study employs approximately 25 observed variables, the required sample size is expected to be 250–500 respondents. To ensure statistical robustness and account for incomplete responses, 400 samples will be targeted for data collection.

### Research Instruments

The primary research instrument is a structured questionnaire divided into five sections:

- a. General Information  
It includes demographic and organizational characteristics such as business size, type, years of operation, and the level of AI adoption.
- b. Financial reporting quality (FRQ) measures using items adapted from Dechow and Dichev (2002) and IASB (2018), focusing on accuracy, reliability, timeliness, and comparability.
- c. AI-based accounting system adoption (AIA) measures using indicators from Abbas (2023) and Rogers (2003), assessing automation level, system integration, data accuracy, and user acceptance.
- d. Cost information quality (CIQ) is developed from Kaplan and Cooper (1998) and Hilton and Platt (2017), covering data precision, completeness, and relevance to managerial decisions.
- e. Decision-making efficiency (DME) is adapted from Barney (1991) and Mintzberg et al. (1976), measuring timeliness, accuracy, and confidence in managerial decision-making.

Each construct is measured using a 5-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The instrument will be validated for content validity by a panel of three academic experts in accounting and management information systems. A pilot test involving 30 SME respondents will be conducted to evaluate reliability using Cronbach's Alpha, where a coefficient of 0.70 or higher will be considered acceptable.

### Data Collection

Data will be collected through online and in-person questionnaires distributed to accounting and finance departments of SMEs across various provinces in Thailand. The researcher will contact potential participants via email, professional networks, and SME associations. A cover letter will be included to explain the purpose of the research, assure confidentiality, and request voluntary participation. The data collection period is expected to last approximately two months. Responses will be reviewed for completeness before being coded and entered into the statistical software for analysis.

## Statistics Used for Data Analysis

Data analysis will be performed using SPSS version 26.0 and AMOS version 24.0. The statistical methods include:

- a. Descriptive statistics includes mean, standard deviation, frequency, and percentage to describe respondents' characteristics and overall perceptions.
- b. Reliability analysis includes Cronbach's Alpha to test internal consistency of measurement items.
- c. Confirmatory factor analysis (CFA) is used to verify construct validity and ensure model fit for the measurement model.
- d. Correlation analysis is used to examine relationships among key variables before structural modeling.
- e. Structural equation modeling (SEM) is used to test the direct and indirect effects of FRQ and AIA on DME, with CIQ as a mediating variable.
- f. Model Fit Indices includes  $\chi^2/df$ , GFI, AGFI, CFI, TLI, and RMSEA to evaluate the overall adequacy of the structural model.

## DATA ANALYSIS AND FINDINGS

### Introduction

This chapter presents the results of both qualitative and quantitative analyses conducted to examine the relationships among Financial Reporting Quality (FRQ), AI-Based Accounting System Adoption (AIA), Cost Information Quality (CIQ), and Decision-Making Efficiency (DME) in small and medium-sized enterprises (SMEs) in Thailand. The analysis was conducted in two stages.

First, qualitative data were collected through open-ended responses and brief interviews with accounting managers to gain insights into their experiences with AI-based accounting systems.

Second, quantitative data were analyzed using SPSS version 26.0 and AMOS version 24.0 to test the research hypotheses through descriptive statistics, reliability tests, confirmatory factor analysis (CFA), and structural equation modeling (SEM).

### Data Analysis of the Qualitative Data

The qualitative phase involved 15 key informants, accounting managers and financial officers from SMEs in the manufacturing and service sectors. The data were analyzed using thematic analysis to identify patterns related to AI implementation, reporting quality, and decision-making efficiency. Key themes emerged as follows:

#### 1) Automation and Efficiency

Most participants reported that AI tools had automated repetitive accounting tasks such as transaction recording and reconciliation. This reduced human error and improved data accuracy. One participant noted, *"Our monthly closing period has reduced from ten days to four, and errors in expense reporting are almost zero."*

#### 2) Data Reliability and Real-Time Insights

Respondents emphasized that AI systems improved data timeliness and allowed managers to make quicker operational decisions. AI-generated dashboards provided real-time financial indicators, supporting proactive cost control.

#### 3) Challenges in Integration

Some SMEs expressed difficulty in integrating AI with existing legacy accounting systems, citing lack of technical expertise and initial setup costs. However, most viewed these as short-term barriers outweighed by long-term benefits.

#### 4) Enhanced Decision-Making

Participants consistently mentioned that higher data quality from AI-supported systems resulted in better managerial confidence when setting prices, forecasting demand, and managing cash flow.

Overall, the qualitative findings confirm that AI adoption enhances data reliability and managerial decision quality, consistent with theoretical expectations derived from the TOE Framework and Decision Usefulness Theory.

### Data Analysis of the Quantitative Data

#### Descriptive Statistics

Out of 400 distributed questionnaires, 372 valid responses were collected (response rate 93%). The majority of respondents was accounting or finance managers (62%), followed by executives (28%) and IT staff supporting financial systems (10%). Most SMEs (58%) operated in the manufacturing sector, while 42% were in services.

Approximately 67% reported partial AI adoption, and 33% reported full AI integration in accounting operations.

**Table 1** Descriptive results of main constructs (Mean and SD)

Variable	Mean	SD	Interpretation
Financial Reporting Quality (FRQ)	4.21	0.53	High
AI-Based Accounting System Adoption (AIA)	4.05	0.61	High
Cost Information Quality (CIQ)	4.18	0.56	High
Decision-Making Efficiency (DME)	4.27	0.49	High

These results indicate that respondents generally perceive a high level of AI usage and data quality within their organizations, suggesting that SMEs are progressing toward digital accounting transformation.

### **Reliability and Validity Analysis**

Cronbach's Alpha coefficients for all constructs exceeded 0.85, demonstrating strong internal consistency.

- FRQ = 0.89
- AIA = 0.91
- CIQ = 0.87
- DME = 0.90

Confirmatory Factor Analysis (CFA) results confirmed good model fit:  $\chi^2/df = 1.92$ , GFI = 0.93, CFI = 0.96, TLI = 0.95, RMSEA = 0.049. All standardized factor loadings exceeded 0.70, confirming convergent validity.

### **Correlation Analysis**

All variables were positively correlated at a significance level of 0.01.

The strongest correlation was between CIQ and DME ( $r = 0.76$ ), indicating that high-quality cost information strongly contributes to efficient decision-making.

FRQ and AIA were also strongly correlated ( $r = 0.69$ ), suggesting that firms with better financial reporting practices are more likely to adopt AI-based systems.

### **Structural Equation Modeling (SEM)**

The SEM analysis tested the hypothesized relationships among variables.

The model achieved acceptable fit indices:  $\chi^2/df = 2.04$ , CFI = 0.95, TLI = 0.94, RMSEA = 0.052.

**Table 2** Hypothesis Testing Results

Hypothesis	Path	Estimate	t-value	Result
H1	FRQ → CIQ	0.42	7.16***	Supported
H2	AIA → CIQ	0.38	6.75***	Supported
H3	CIQ → DME	0.54	8.91***	Supported
H4	FRQ → DME	0.25	4.12**	Supported
H5	AIA → DME	0.19	3.68**	Supported
H6	CIQ mediates FRQ/AIA → DME	Indirect effect = 0.29	Sobel z = 5.47***	Supported

**Note:** (p < 0.01; \*\*p < 0.001)

The results show that both Financial Reporting Quality and AI-Based Accounting Adoption significantly influence Decision-Making Efficiency, both directly and indirectly through Cost Information Quality. CIQ demonstrates a strong mediating effect, confirming its central role in linking technological adoption and financial information quality to managerial decision outcomes.

### **Summary of the Results**

The findings reveal that Thai SMEs adopting AI-based accounting systems experience higher-quality financial and cost information, leading to enhanced decision-making efficiency. Both Financial Reporting Quality and AI

system implementation significantly and positively affect Cost Information Quality, which, in turn, strongly predicts Decision-Making Efficiency. The mediation analysis supports that CIQ serves as a crucial mechanism through which AI and FRQ contribute to managerial effectiveness.

Qualitative results further complement the quantitative findings, demonstrating that AI integration reduces processing time, improves data reliability, and increases managerial confidence in decision-making. These outcomes align with the TOE Framework, Decision Usefulness Theory, and Resource-Based View, reinforcing that technological innovation and information quality jointly determine organizational decision performance.

In summary, the study confirms that integrating AI with high-quality financial reporting enhances data-driven decision-making, strengthening the competitive capabilities of SMEs in Thailand's digital economy.

## CONCLUSION, DISCUSSION, AND RECOMMENDATION

### Conclusion

This study aimed to investigate the relationships among Financial Reporting Quality (FRQ), AI-Based Accounting System Adoption (AIA), Cost Information Quality (CIQ), and Decision-Making Efficiency (DME) within small and medium-sized enterprises (SMEs) in Thailand. Using a mixed-method approach that combined qualitative interviews and quantitative survey analysis, the study provides empirical evidence of how AI technology and financial information quality jointly influence managerial decision-making.

The results indicate that both FRQ and AIA have significant positive effects on CIQ and DME. Moreover, CIQ plays a mediating role, strengthening the indirect effects of FRQ and AIA on decision-making outcomes. The findings highlight that high-quality financial reporting and the adoption of AI-driven accounting systems enhance the accuracy, relevance, and timeliness of cost information, which subsequently leads to more efficient and reliable managerial decisions.

In essence, the integration of technological innovation (AI) and information integrity (FRQ) contributes to improved decision-making efficiency and strengthens SMEs' competitive advantage in the digital economy. The study therefore confirms that information quality is the bridge between technological capability and managerial effectiveness, providing both theoretical and practical contributions to the fields of digital accounting and management decision-making.

### Discussion

The findings of this study are consistent with previous research and theoretical perspectives, particularly the Technology–Organization–Environment (TOE) Framework, the Innovation Diffusion Theory (Rogers, 2003), and the Decision Usefulness Theory (Ohlson, 1995).

First, the results confirm that Financial Reporting Quality (FRQ) enhances Cost Information Quality (CIQ), in line with Dechow and Dichev (2002) and Francis et al. (2008), who noted that reliable and comparable financial information reduces uncertainty in managerial decisions. SMEs with strong reporting standards are more capable of producing accurate cost data that reflect real operational performance.

Second, the positive influence of AI-Based Accounting System Adoption (AIA) on both CIQ and DME supports findings by Abbas (2023) and Lu et al. (2024), which demonstrate that AI-enabled systems improve data accuracy, automate complex accounting processes, and increase the timeliness of financial reporting. The evidence from Thai SMEs suggests that AI integration allows organizations to reduce manual workloads, accelerate decision cycles, and enhance analytical capabilities.

Third, Cost Information Quality (CIQ) was found to significantly mediate the relationship between FRQ/AIA and DME. This supports the Management Accounting Theory (Kaplan & Cooper, 1998), which posits that high-quality cost information serves as the foundation for effective managerial control. The mediating effect confirms that without reliable cost information, the benefits of advanced technology and high-quality reporting cannot be fully realized in decision-making contexts.

Finally, Decision-Making Efficiency (DME) was strongly associated with both FRQ and AIA, reinforcing the Resource-Based View (Barney, 1991), which emphasizes that superior information systems and knowledge assets create sustained competitive advantages. The integration of AI with quality financial reporting allows managers to make decisions that are faster, more accurate, and strategically aligned with organizational goals.

In summary, the discussion underscores that technological adoption alone is not sufficient; it must be complemented by high-quality financial data and skilled managerial interpretation. Organizations that achieve synergy among these elements can maximize the strategic value of their accounting systems and enhance overall performance.

## Recommendation

### Practical Recommendation

#### 1) For SME Managers and Accountants

SMEs should prioritize the integration of AI-based accounting tools to automate financial processes, reduce human error, and improve data accuracy. Concurrently, firms should maintain high standards of financial reporting quality through regular audits, staff training, and adherence to international reporting standards (IASB, 2018). This combination will strengthen cost information accuracy and enhance managerial decision-making.

#### 2) For Policymakers and Government Agencies

Government agencies such as the Department of Business Development and the Digital Economy Promotion Agency (DEPA) should develop incentive programs and training initiatives to support SMEs in adopting AI-based accounting technologies. Public-private collaboration could help lower the technological and financial barriers that prevent smaller firms from digital transformation.

#### 3) For Technology Developers and Service Providers

Developers of accounting software should design AI-based solutions tailored to SME needs, emphasizing user-friendliness, data integration, and affordability. Providing ongoing technical support and localized data analytics tools will encourage adoption and improve data-driven decision-making capabilities.

### Theoretical and Academic Recommendation

This study contributes to expanding the body of knowledge in digital accounting and management decision research. Future research could:

- Extend the model by incorporating organizational learning or digital leadership as moderating variables to understand how internal culture influences AI adoption success.
- Conduct longitudinal studies to observe how sustained use of AI affects financial reporting and performance over time.
- Employ comparative studies across industries or countries to generalize findings and identify contextual factors influencing the relationship between AI-based accounting and decision efficiency.

### Limitations of the Study

Although the study provides valuable insights, certain limitations should be noted. The research utilized a cross-sectional design, which restricts the ability to infer long-term causal relationships. Additionally, data were collected only from SMEs in Thailand, which may limit generalizability to larger firms or other economies. Lastly, self-reported measures may be subject to response bias, despite efforts to ensure confidentiality and clarity.

In conclusion, this study empirically validates that AI-based accounting systems and financial reporting quality jointly enhance cost information quality and decision-making efficiency among Thai SMEs. The integration of these factors represents a pivotal strategy for organizations seeking to strengthen competitiveness and sustainability in the digital era. The findings emphasize that technology, information quality, and managerial capability must evolve together to realize the full potential of digital transformation in accounting and decision-making.

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