



**THE 12th INTERNATIONAL CONFERENCE
FOR YOUNG RESEARCHERS IN ECONOMICS AND BUSINESS
(ICYREB 2026)**

CONFERENCE PROCEEDINGS



Hanoi, August 2026



FINANCIAL ECONOMICS PUBLISHING HOUSE



The 12th International Conference For Young Researchers In Economics And Business
(ICYREB 2026)

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Số 86 - 98 Thụy Khuê, Phường Tây Hồ, TP Hà Nội
ĐT: 024.3826.4565 - 0913.035.079
Email: phongbientap.nxbtc@gmail.com
Website: nxbtaichinh.vn; nhaxuatbanthongke.vn

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Banking Academy of Vietnam
12 Chua Boc, Kim Lien, Hanoi

T: 1900 561 595 **F:** 1900 561 595

E: truyenthong@hvnh.edu.vn

W: www.hvnh.edu.vn

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SÁCH KHÔNG BÁN

IMPROVING THE EFFECTIVENESS OF ACCOUNTING INFORMATION SYSTEMS IN PUBLIC HOSPITALS: EVIDENCE FROM DIGITAL TRANSFORMATION IN HUE CITY

Nguyen Ngoc Thuy

Hue University of Economics

ABSTRACT

The effectiveness of accounting information systems (AIS) has become increasingly important for public hospitals in the context of financial autonomy and digital transformation. However, empirical evidence on the determinants of AIS effectiveness in public healthcare institutions in developing countries remains limited, particularly in Vietnam. This study aims to investigate the factors influencing AIS effectiveness in public hospitals in Hue City.

Drawing on the Information Systems Success Model of DeLone and McLean (2003), a research model comprising system quality, information quality, service quality, user competence, and top management support was developed. Data were collected from 280 accountants, managers, and AIS users working in public hospitals and analyzed using Cronbach's Alpha, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM).

The results indicate that all proposed factors positively influence AIS effectiveness. Information quality exerts the strongest effect, followed by top management support, system quality, user competence, and service quality. The model explains 68.4% of the variance in AIS effectiveness.

This study extends the applicability of the Information Systems Success Model to the public healthcare sector in Vietnam and provides practical implications for enhancing AIS effectiveness through improvements in information quality, managerial commitment, technological infrastructure, and user capabilities.

Keywords: Accounting Information System; Digital Transformation; Public Hospitals; Hue City.

1. Introduction

In the contemporary context where digital transformation drives strategic adjustments across both the broader economy and the public sector, Accounting Information Systems (AIS) play an increasingly pivotal role in enhancing management efficiency and decision-making quality within organizations. An AIS does not merely facilitate the collection, processing, and provision¹ of financial information; it also serves as a critical mechanism for managers to control resources, evaluate operational performance, and foster governance transparency (DeLone & McLean, 2003). For public hospitals, which face the dual mandate of delivering high-quality healthcare services and optimizing public resource utilization, an AIS is recognized as the foundational infrastructure supporting financial management, medical cost containment, and institutional accountability.

In Vietnam, reforms in public financial mechanisms and the implementation of hospital autonomy have intensified the demand for accurate, timely, and reliable financial data to guide administrative operations. Concurrently, the Government has actively institutionalized the national digital transformation agenda, particularly within the healthcare sector, to elevate the operational efficiency of medical examination and treatment facilities. In this light, the adoption of AIS in public

©Nguyen Ngoc Thuy. Tel.: +84 914 382 188

Email address: nguyenngocthuy@hce.edu.vn

hospitals is has transitioned from a localized technical requirement to a core strategic pillar of financial governance and institutional performance. Accumulating literature corroborates that an effective AIS can significantly upgrade financial reporting quality, strengthen cost control capabilities, and substantiate managerial decision-making (Ifinedo, 2007; Pratiwi et al., 2025).

The effectiveness of information systems broadly, and AIS specifically, has attracted sustained scholarly attention over the past several decades. The seminal Information Systems Success Model by DeLone and McLean (2003) posits that information system success is multidimensionally reflected through system quality, information quality, service quality, system use, user satisfaction, and the net benefits yielded to the organization. Grounded in this framework, numerous empirical studies have demonstrated that system quality, user capability, top management support, and continuous training exert substantial impacts on AIS effectiveness (Ifinedo, 2007; Rahayu & Rifandi, 2023). Within the healthcare landscape, recent studies indicate that an effective AIS contributes markedly to elevating financial data quality, improving resource management efficiency, and catalyzing digital transformation across medical institutions (Pratiwi et al., 2025).

In Vietnam, however, empirical research examining AIS within the public hospital sector remains relatively scarce. Extant literature primarily investigates the antecedents of AIS quality or assesses the baseline adoption of information technology in accounting practices. For instance, Nguyen and Tran (2024) indicated that AIS quality in public hospitals is shaped by a confluence of factors including IT infrastructure, training, leadership support, and managerial capacity. Similarly, Le (2024) highlighted technological infrastructure and user competence as decisive determinants of AIS quality in public medical centers. While these studies provide valuable insights into the drivers of AIS, they remain predominantly focused on the technical dimensions of system quality rather than comprehensively evaluating AIS effectiveness from the perspective of managerial support and strategic decision-making.

Crucially, to date, no published empirical research has systematically evaluated AIS effectiveness within public hospitals located in Hue City. This represents a salient research gap given that Hue City serves as a regional healthcare epicenter in the Central Region of Vietnam, hosting an array of public hospitals characterized by diverse institutional scales and varying tiers of financial autonomy. In recent years, hospitals in Hue have heavily invested in IT infrastructure and digitalized hospital management solutions. However, capital expenditure on technology does not automatically translate into desired organizational outcomes. An AIS is only truly successful when it delivers accurate, timely, reliable, and actionable insights to users while generating tangible net benefits for the institution (DeLone & McLean, 2003). The lack of empirical evidence regarding AIS effectiveness in Hue's public hospitals leaves administrators without a baseline to gauge system success or identify targeted interventions to optimize system utilization.

To address this conspicuous gap, this study evaluates the effectiveness of AIS in public hospitals across Hue City. Diverging from prior research that narrow-focused on standalone quality attributes or isolated determinants, this study adopts a holistic approach to evaluate overall AIS effectiveness in a public hospital environment and dissects its underlying drivers. Consequently, this study makes several noteworthy contributions. First, it adds novel empirical evidence on AIS effectiveness within the public healthcare sector of Vietnam-a domain currently underrepresented in literature. Second, it tests the applicability of established information system success theories and assessment frameworks within the institutional idiosyncrasies of public hospitals in an emerging economy. Third, the empirical findings furnish a scientific foundation for hospital executives and

public policymakers to devise strategies that optimize AIS operations, thereby accelerating digital transformation, sharpening financial governance, and maximizing public health resource utilization.

Although AIS effectiveness has been extensively investigated in private enterprises and commercial organizations, empirical studies focusing on public hospitals remain limited, particularly in developing countries. Existing studies in Vietnam have primarily examined AIS quality or AIS adoption in public organizations, while little attention has been paid to AIS effectiveness and its determinants within public healthcare institutions. Furthermore, previous studies have often focused on a single province or organizational setting, resulting in limited evidence regarding the healthcare sector undergoing digital transformation and financial autonomy reforms.

To address these gaps, this study develops and empirically tests a comprehensive model of AIS effectiveness in public hospitals in Hue City. By integrating technological, organizational, and human-related factors within the Information Systems Success Model framework, the study contributes new empirical evidence to the AIS literature and provides practical insights for improving financial management in public healthcare organizations.

2. Theoretical Framework and Literature Review

2.1. Accounting Information Systems and AIS Effectiveness

An Accounting Information System (AIS) is an integrated configuration of people, procedures, data, and technology designed to collect, process, store, and distribute financial and accounting information to support stakeholder decision-making (Romney & Steinbart, 2021). In modern organizational settings, an AIS transcends basic bookkeeping; it functions as a core apparatus for planning, internal control, performance evaluation, and resource governance. For public hospitals, an AIS serves as a critical conduit to manage fiscal health, track healthcare service costs, administer health insurance revenues, and feed actionable data into managerial workflows. As public hospitals navigate the transition toward financial autonomy and digital maturity, AIS effectiveness emerges as a primary pillar governing financial health and institutional performance.

AIS effectiveness has been operationalized through diverse theoretical frameworks. According to DeLone and McLean (2003), information system effectiveness is manifested in the capability to supply high-quality information that fulfills user requirements and delivers organizational benefits. Ifinedo (2007) conceptualized AIS effectiveness as the extent to which the system assists users in task completion, enhances information utility, and upgrades management efficiency. In this study, AIS effectiveness is operationalized as the degree to which the system satisfies institutional requirements for accurate, timely, reliable, and useful information dedicated to financial management and strategic decision-making in public hospitals.

2.2. Theoretical Framework

This study is theoretically underpinned by the Information Systems Success Model developed by DeLone and McLean (2003). This framework remains a dominant paradigm in the information systems literature for evaluating the efficacy and success of organizational systems. The model posits that information system success is driven by three primary quality dimensions: system quality, information quality, and service quality. These dimensions conjointly influence system use and user satisfaction, which sequentially culminate in net benefits for the organization (DeLone & McLean, 2003). This framework has been extensively replicated across diverse sectors including enterprises, public organizations, banking, education, and healthcare.

Within the accounting discipline, numerous scholars have utilized this model to assess AIS performance and delineate its operational determinants (Ifinedo, 2007; Soudani, 2012). Accordingly, the DeLone and McLean model offers an appropriate and robust theoretical lens through which to examine AIS effectiveness within the public hospital landscape of Hue City.

2.3. Literature Review

The effectiveness of AIS has commanded substantial scholarly inquiries internationally. Extant research consistently underscores system quality, information quality, and user competence as key determinants of AIS success. Ifinedo (2007), in an empirical investigation of enterprise resource planning (ERP) systems, concluded that system quality, information quality, and organizational support positively influence AIS effectiveness. This aligns with the core thesis of DeLone and McLean (2003) that system success is fundamentally contingent upon the caliber of information and technology deployed.

In healthcare contexts, Rahayu and Rifandi (2023) surveyed AIS users in medical institutions and found that user participation, continuous training, and top management support significantly govern the operational effectiveness of accounting systems. Their study accentuated the human element in extracting value from modern information systems. Recently, Pratiwi et al. (2025) explored the nexus between digital transformation, AIS, and financial reporting quality in hospital settings. Their findings revealed that an AIS acts as a vital mediating mechanism that translates technological investments into tangible enhancements in financial information quality and management efficiency. Furthermore, studies by Soudani (2012) and Grande et al. (2011) corroborated that an effective AIS sharpens governance capabilities, enriches decision-making quality, and upgrades overall organizational performance. On balance, international literature shows that AIS effectiveness is simultaneously shaped by technological, human, and organizational dimensions. However, because most of these studies were conducted within corporate environments or developed economies, empirical evidence within public hospital frameworks in emerging countries remains constrained.

In Vietnam, academic interest in AIS within the public sector and public hospitals has expanded only recently, catalyzed by national digital transformation mandates and hospital autonomy policies. Nguyen and Tran (2024), studying public hospitals in Hanoi, found that information technology infrastructure, training initiatives, top management support, organizational culture, and managerial capacity exert positive impacts on AIS quality. Their findings indicated that human and organizational factors are as critical as technological infrastructure. Similarly, Le (2024) investigated public hospitals in Thanh Hoa province and pointed out that IT infrastructure, user competence, and leadership commitment are decisive factors driving AIS operational quality, emphasizing regular training as a prerequisite.

From a management accounting standpoint in public hospitals, Nguyen (2025) demonstrated that information technology, managerial proficiency, and the level of financial autonomy positively influence accounting system efficiency and the quality of internal governance data.

While domestic studies have begun to unpack the factors influencing AIS, most remain preoccupied with technical system quality or basic IT adoption. Empirical studies directly measuring AIS effectiveness through the lens of managerial support and decision-making utility in public hospitals remain scarce. Remarkably, no empirical work has been situated in Hue City—a jurisdiction featuring a highly developed public hospital network aggressively pursuing digital health initiatives. This conspicuous research gap underscores the urgency of conducting an in-depth study on AIS effectiveness in public hospitals across Hue City.

2.4. Hypothesis Development

Integrating the DeLone and McLean (2003) model with antecedent literature, this study proposes five primary factors hypothesized to influence AIS effectiveness in public hospitals: system quality, information quality, service quality, user competence, and top management support.

2.4.1. System Quality and AIS Effectiveness

System quality refers to the desirable characteristics of an information system, including reliability, ease of use, accessibility, flexibility, response time, and security (DeLone & McLean, 2003). According to the Information Systems Success Model, system quality directly influences users' perceptions of system performance and contributes to overall system effectiveness. A high-quality accounting information system enables users to process transactions efficiently, reduces operational errors, and enhances the timeliness of information processing.

Empirical studies have consistently reported a positive relationship between system quality and AIS performance. Grande et al. (2011) found that well-designed accounting information systems improve organizational performance by enhancing information processing capabilities. Similarly, Rahayu and Rifandi (2023) demonstrated that system reliability and usability significantly contribute to AIS effectiveness in hospitals. In the context of public hospitals, where large volumes of financial and operational data are processed daily, system quality is expected to play a crucial role in determining AIS effectiveness.

H1: System quality has a positive impact on AIS effectiveness in public hospitals.

2.4.2. Information Quality and AIS Effectiveness

Information quality refers to the accuracy, completeness, relevance, and timeliness of information generated by an information system (DeLone & McLean, 2003). In the context of public hospitals, high-quality accounting information enables managers to monitor financial performance, control expenditures, and make informed decisions regarding resource allocation. Previous studies have consistently demonstrated that information quality is a critical determinant of AIS success and organizational performance (Soudani, 2012; Pratiwi et al., 2025). Therefore, when accounting information is perceived as accurate, reliable, and useful, users are more likely to evaluate the AIS as effective.

H2: Information quality positively affects AIS effectiveness in public hospitals.

2.4.3. Service Quality and AIS Effectiveness

Service quality refers to the quality of support provided by information technology personnel and system providers to users of the information system (DeLone & McLean, 2003). Effective technical support, timely problem resolution, and adequate user training help ensure the smooth operation of AIS and enhance users' confidence in utilizing the system.

From a theoretical perspective, service quality contributes to system success by facilitating system usage and reducing disruptions in daily operations. Users are more likely to perceive an information system as effective when technical issues are addressed promptly and when adequate support is available.

Previous studies have provided evidence of the positive role of service quality in determining information system success. DeLone and McLean (2003) identified service quality as a key dimension of IS success. In the healthcare sector, Rahayu and Rifandi (2023) reported that technical support services significantly improve AIS performance and user satisfaction. Given the increasing complexity of digital healthcare systems, high-quality support services are expected to enhance AIS effectiveness in public hospitals.

H3: Service quality has a positive impact on AIS effectiveness in public hospitals.

2.4.4. User Competence and AIS Effectiveness

User competence refers to the knowledge, skills, and abilities required to effectively operate and utilize an accounting information system. According to socio-technical systems theory, information system success depends not only on technological factors but also on users' capabilities to exploit system functionalities and transform information into meaningful decisions.

Competent users are more likely to understand system features, utilize information effectively, and adapt to technological changes. Consequently, higher levels of user competence contribute to greater system utilization and improved system outcomes.

Prior empirical studies have highlighted the importance of user competence in AIS effectiveness. Ifinedo (2007) found that users' technical and professional capabilities significantly influence information system success. Similar findings were reported by Lê (2024) and Rahayu and Rifandi (2023), who concluded that employee competence positively affects AIS quality and performance. In public hospitals, where accounting staff are increasingly required to work with integrated digital platforms, user competence is expected to be a critical determinant of AIS effectiveness.

H4: User competence positively affects AIS effectiveness in public hospitals.

2.4.5. Top Management Support and AIS Effectiveness

Top management support refers to the extent to which senior management provides resources, encouragement, and strategic commitment to the implementation and operation of information systems. Organizational support theory suggests that management commitment is essential for the successful adoption and utilization of information systems because it facilitates resource allocation, organizational coordination, and user motivation.

In the context of AIS implementation, top management support can enhance system effectiveness by ensuring adequate financial investment, promoting system usage, and creating a supportive organizational environment. Strong managerial commitment also encourages employees to embrace technological changes and comply with system requirements.

Previous studies have consistently identified top management support as a significant predictor of information system success. Ifinedo (2007) reported that management commitment positively influences ERP and information system performance. More recently, Nguyễn and Trần (2024) found that leadership support significantly contributes to AIS quality in public hospitals in Vietnam. As public hospitals continue to undergo digital transformation and financial autonomy reforms, top management support is expected to play a crucial role in enhancing AIS effectiveness.

H5: Top management support has a positive impact on AIS effectiveness in public hospitals.

Based on the Information Systems Success Model (DeLone & McLean, 2003) and prior empirical evidence, the study proposes that system quality, information quality, service quality, user competence, and top management support positively influence AIS effectiveness in public hospitals. Figure 1 presents the proposed research model.

3. Research Methodology

3.1. Research Model

Synthesizing the DeLone and McLean (2003) model with the literature review, this study establishes an empirical model to evaluate AIS effectiveness in public hospitals in Hue City. The

dependent variable, AIS Effectiveness (AISE), is hypothesized to be driven by five independent factors: (1) System Quality (SQ), (2) Information Quality (IQ), (3) Service Quality (SVQ), (4) User Competence (UC), and (5) Top Management Support (TMS).



Fig. 1. Research Model

3.2. Measurement Scales

Measurement items were adopted and adapted from validated instruments in literature to fit the public hospital context in Vietnam. All items were measured using a 5-point Likert scale (ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree"). The scale for System Quality was adapted from DeLone and McLean (2003), Ifinedo (2007), and Rahayu and Rifandi (2023), capturing stability, ease of use, speed, and integration. Information Quality items were derived from DeLone and McLean (2003) and Soudani (2012), focusing on accuracy, completeness, timeliness, and information utility. Service Quality item lines measured technical responsiveness, troubleshooting capability, and advisory quality. User Competence assessed accounting knowledge, IT proficiency, and functional mastery. Top Management Support reflected executive dedication toward capital funding, system maintenance, and expansion. The dependent variable, AIS Effectiveness, was operationalized through items evaluating information demand fulfillment, decision-making utility, operational efficiency gains, and hospital financial management optimization.

3.3. Data Collection

The target population for this study comprised individuals directly utilizing or extracting data from AIS platforms across public hospitals in Hue City. This cohort included accounting staff, chief/deputy chiefs of financial-accounting departments, financial controllers, clinical/functional department heads, and senior administrators who rely on accounting outputs for operational governance.

Primary data were gathered via a structured questionnaire. Prior to full-scale administration, a pre-test was executed with accounting experts and hospital administrators to refine question clarity and contextual alignment.

Per Hair et al. (2022), the minimum sample size should ideally range between 5 to 10 times the number of observed variables. Given the 27 observed indicators in this study, the minimum acceptable sample size ranges from 150 to 300 observations (Hair et al., 2022). To ensure adequate statistical power, 292 questionnaires were administered. After filtering out 12 invalid responses due to incomplete data, a final sample of 280 valid observations was retained for structural analysis.

3.4. Analytical Approach

The research framework comprised 6 latent constructs operationalized via 27 observed indicators, as synthesized in Table 1.

Table 1. Summary of measurement scales and references

Latent Construct	Code	Number of Items	References
System Quality	SQ	5	DeLone & McLean (2003); Ifinedo (2007)
Information Quality	IQ	5	DeLone & McLean (2003); Soudani (2012)
Service Quality	SVQ	4	DeLone & McLean (2003)
User Competence	UC	4	Ifinedo (2007); Nguyen and Tran (2024)
Top Management Support	TMS	4	Ifinedo (2007); Nguyen and Tran (2024)
AIS Effectiveness	AISE	5	DeLone & McLean (2003); Pratiwi et al. (2025)
Total items		27	

The equation of research model: $AISE = \beta_0 + \beta_1 * SQ + \beta_2 * IQ + \beta_3 * SVQ + \beta_4 * UC + \beta_5 * TMS + \varepsilon$

Collected data were processed using SPSS 22.0 and AMOS software through a multi-stage statistical procedure. First, internal consistency was evaluated via Cronbach's Alpha, with an item-total correlation threshold of > 0.30 and a construct reliability threshold of > 0.70 . Second, Exploratory Factor Analysis (EFA) was performed to explore initial factor structures, requiring a Kaiser-Meyer-Olkin (KMO) value > 0.50 , a statistically significant Bartlett's test, and factor loadings > 0.50 . Third, Confirmatory Factor Analysis (CFA) was conducted to evaluate the measurement model's fit using standard indices: χ^2/df , CFI, TLI, GFI, and RMSEA. Finally, Structural Equation Modeling (SEM) was deployed to simultaneously estimate parameter paths, test hypotheses, and determine the relative effect sizes of the independent variables on AIS effectiveness.

4. Empirical Results and Discussion

4.1. Descriptive Statistics

The demographic characteristic of the sample ($n = 280$) is detailed in Table 2.

Table 2. Profile of the survey sample (N=280)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	104	37.1
	Female	176	62.9
Age	< 30	52	18.6
	30–40	115	41.1
	41–50	81	28.9
	> 50	32	11.4
Education Level	Bachelor's degree	196	70.0

Demographic Variable	Category	Frequency	Percentage (%)
Job Position	Postgraduate degree	84	30.0
	Staff Accountant	157	56.1
	Chief/Deputy Chief Accountant	48	17.1
AIS Experience	Departmental Manager /Administrator	75	26.8
	Under 5 years	74	26.4
	5–10 years	129	46.1
	Over 10 years	77	27.5

The sample distribution reflects typical employment characteristics within hospital accounting departments in Vietnam, with a female predominance (62.9%). The 30–40 age bracket accounted for the largest share (41.1%), indicating a professionally mature respondent base. Crucially, 73.6% of the participants possessed over 5 years of hands-on experience utilizing AIS platforms, reinforcing the perceptual validity and reliability of the survey responses.

4.2. Scale Reliability and Validity Assessment

Reliability testing via Cronbach's Alpha is presented in Table 3.

Table 3. Results of Cronbach's Alpha Test

Construct Scale	Number of Items	Cronbach's Alpha
SQ	5	0.881
IQ	5	0.904
SVQ	4	0.867
UC	4	0.853
TMS	4	0.889
AISE	5	0.912

All constructs exhibited Cronbach's Alpha coefficients well above the recommended 0.70 baseline (Hair et al., 2022), signaling strong internal consistency. The AISE scale recorded the highest coefficient (0.912). No individual indicators were deleted since all met the item-total correlation requirements.

EFA and CFA diagnostics are synthesized in Tables below

Table 4. Construct reliability and validity: EFA and CFA results

Analysis	Indicator	Value	Cut-off Value
EFA	KMO Measure	0.912	> 0.50
	Bartlett's Test (Sig.)	0.000	< 0.01
	Cumulative Variance	71.46%	> 50.0%
	Minimum Eigenvalue	1.328	> 1.00

CFA	χ^2/df	1.842	< 3.00
	CFI	0.951	> 0.90
	TLI	0.944	> 0.90
	GFI	0.903	> 0.90
	RMSEA	0.055	< 0.08

Construct	Composite Reliability (CR)	Average Variance Extracted (AVE)
SQ	0.89	0.62
IQ	0.91	0.67
SVQ	0.87	0.63
UC	0.85	0.59
TMS	0.89	0.66
AISE	0.92	0.70

Convergent validity was confirmed as all constructs exhibited Composite Reliability (CR) values above 0.70 and Average Variance Extracted (AVE) values above 0.50.

4.3. Structural Model Estimation and Hypothesis Testing

Structural Equation Modeling (SEM) was performed to test hypotheses H1 through H5. The structural estimates are detailed in Table 5.

Table 5. Hypothesis testing and Structural Equation Modeling (SEM)

Hypothesis	Hypothesized Path	Standardized Coefficient (β)	<i>p</i> -value	Result
H1	System Quality $\rightarrow$ AISE	0.241	< 0.001	Supported
H2	Information Quality $\rightarrow$ AISE	0.352	< 0.001	Supported
H3	Service Quality $\rightarrow$ AISE	0.142	0.014	Supported
H4	User Competence $\rightarrow$ AISE	0.188	0.002	Supported
H5	Top Management Support $\rightarrow$ AISE	0.279	< 0.001	Supported

Note: R^2 (AIS Effectiveness) = 0.684

The SEM estimation demonstrates that all five research hypotheses are supported at a minimum significance level of 5%. The model explains 68.4% of the variance in AIS effectiveness ($R^2 = 0.684$), indicating robust explanatory power for organizational behavior studies.

Among the predictors, Information Quality ($\beta = 0.352$) exerts the strongest impact on AIS effectiveness. This underscores the core tenet of the DeLone and McLean (2003) framework, reinforcing that the value of an information system centers on the quality of its output. This is followed by Top Management Support ($\beta = 0.279$) and System Quality ($\beta = 0.241$). This indicates that

beyond technical performance, executive leadership commitment is critical to ensure optimal system exploitation. Furthermore, User Competence ($\beta = 0.188$) and Service Quality ($\beta = 0.142$) demonstrate positive, statistically significant path coefficients. These findings emphasize that system success depends not only on hardware or software architecture but also on human capacities and operational support systems.

4.4. Discussion and Comparative Analysis

To ground these findings within the broader academic literature, a comparative analysis against prior empirical research is synthesized in Table 6.

Table 6. Comparison of empirical findings with prior studies

Latent Construct	Current Study (β)	Prior Studies	Interpretation
Information Quality (IQ)	0.352	DeLone & McLean (2003); Soudani (2012); Pratiwi et al. (2025)	Consistent; reconfirms IQ as the most critical determinant.
Top Management Support (TMS)	0.279	Ifinedo (2007); Nguyen and Tran (2024)	Consistent with both domestic and international findings.
System Quality (SQ)	0.241	Grande et al. (2011); Rahayu & Reich (2023)	Aligns with established information systems literature.
User Competence (UC)	0.188	Ifinedo (2007); Le (2024)	Reaffirms the critical role of human resource capabilities.
Service Quality (SVQ)	0.142	DeLone & McLean (2003); Rahayu & Rifandi (2023)	Lower relative magnitude but remains statistically significant.

The comparative assessment confirms that this study is highly consistent with international and domestic literature. Mirroring DeLone and McLean (2003), Soudani (2012), and Pratiwi et al. (2025), information quality remains the most critical determinant of system success. This indicates that whether applied in corporate environments or public hospitals, the core objective of an AIS is to provide reliable data for management and decision-making. Additionally, the study confirms the vital role of top management support, aligning with Ifinedo (2007) and Nguyen and Tran (2024). This holds relevance as Vietnamese public hospitals actively navigate financial autonomy and digital transformation mandates.

The findings reveal that information quality is the most influential factor affecting AIS effectiveness ($\beta = 0.352$, $p < 0.001$). This result suggests that accurate, timely, and reliable accounting information is essential for supporting financial management and decision-making in public hospitals. The finding is consistent with previous studies by DeLone and McLean (2003) and Soudani (2012), highlighting the central role of information quality in information system success.

Top management support is identified as the second strongest determinant of AIS effectiveness ($\beta = 0.279$, $p < 0.001$). The result indicates that leadership commitment facilitates

resource allocation, promotes system utilization, and supports digital transformation initiatives. This finding is in line with the studies of Ifinedo (2007) and Nguyễn and Trần (2024).

System quality also has a significant positive impact on AIS effectiveness ($\beta = 0.241$, $p < 0.001$). A reliable, user-friendly, and secure system enables users to process accounting information efficiently and accurately. This result supports the Information Systems Success Model proposed by DeLone and McLean (2003) and the findings of Grande et al. (2011).

User competence positively influences AIS effectiveness ($\beta = 0.188$, $p = 0.002$). Users with adequate accounting knowledge and information technology skills are more capable of utilizing system functions and generating useful information for decision-making. This finding is consistent with previous studies conducted by Ifinedo (2007) and Lê (2024).

Finally, service quality has a positive effect on AIS effectiveness ($\beta = 0.142$, $p = 0.014$). Effective technical support and timely problem resolution help ensure the stable operation of AIS and improve user satisfaction. This result is consistent with the findings of DeLone and McLean (2003) and Rahayu and Rifandi (2023).

A key contribution of this study is the production of localized empirical evidence from public hospitals in Hue City, a context previously underrepresented in AIS literature. The model's explanatory power ($R^2 = 0.684$) is robust relative to antecedent information systems research. These findings validate the Information Systems Success Model and expand empirical evidence on AIS within the public healthcare frameworks of emerging economies.

5. Conclusion, Managerial Implications, and Limitations

5.1. Conclusion

This study evaluated the effectiveness of Accounting Information Systems (AIS) in public hospitals across Hue City and identified its key drivers. Drawing on a structural sample of 280 accounting professionals and administrative users, SEM analysis supported all five proposed hypotheses. System quality, information quality, service quality, user competence, and top management support all exert significant positive impacts on AIS effectiveness.

The findings reveal that information quality is the primary driver of AIS effectiveness, followed by top management support and system quality. This underscores that the core objective of an AIS in public hospitals is to deliver accurate, complete, timely, and reliable data to support financial administration and decision-making. Concurrently, executive commitment and system quality serve as vital prerequisites for optimizing public IT investments. The research framework successfully accounts for 68.4% of the variance in AIS effectiveness.

From a theoretical standpoint, this study contributes empirical evidence regarding AIS performance in the Vietnamese public health sector. Furthermore, it validates the applicability of the DeLone and McLean (2003) model within public medical organizations operating in an emerging economy.

5.2. Managerial Implications

Based on the empirical findings, several targeted managerial implications are proposed to enhance AIS effectiveness in the public hospitals of Hue City:

- First, hospital administrators must prioritize the integrity and timeliness of accounting outputs, given that information quality is the most critical driver of system effectiveness. Practically, this requires standardizing data-entry protocols, institutionalizing rigorous internal control mechanisms, and implementing automated validation routines to minimize accounting discrepancies.

- Hospital leadership should increase their direct guidance and long-term commitment to AIS development. Top management support emerged as the second most influential factor, mirroring the findings of Ifinedo (2007) and Nguyen and Tran (2024), which position leadership commitment as a prerequisite for IT project success. Hospital executives should proactively allocate financial resources to IT developments, align AIS strategies with broader digital transformation goals, and systematically audit system performance against institutional benchmarks.

- Sustained capital commitment in system quality is required to ensure system stability, security, and integration capacity. As noted by DeLone and McLean (2003) and Grande et al. (2011), stable systems with robust data processing capabilities directly improve productivity and governance quality. In the current digital healthcare landscape, an AIS must be seamlessly integrated with Hospital Information Systems (HIS), Electronic Medical Records (EMR), and other financial governance platforms to optimize data sharing and utilize cross-functional analytics.

- Developing user competence should be treated as a strategic priority. The positive impact of user capability matches evidence from Ifinedo (2007), Rahayu and Rifandi (2023), and Le (2024), demonstrating that technical performance is bounded by human capability. Public hospitals should establish systematic training programs focused on digital accounting, financial data analytics, and specialized software functionalities to enhance staff competencies.

- Technical support mechanisms must be improved to ensure uninterrupted AIS operations. Consistent with DeLone and McLean (2003) and Rahayu and Rifandi (2023), responsive technical assistance enhances user satisfaction and minimizes system downtime. Hospitals should establish dedicated internal IT support units or create structured service-level agreements (SLAs) with software vendors to ensure rapid troubleshooting.

5.3. Limitations and Future Research Directions

Despite achieving its objectives, this study has limitations that suggest future research paths. First, the geographical scope was restricted to public hospitals in Hue City, which limits the generalizability of the findings to the entire public healthcare system of Vietnam. Future studies could expand the survey scope to other provinces and municipalities to increase sample representativeness. Second, this study relied on cross-sectional data collected at a single point in time, which cannot capture fluctuations in AIS effectiveness over time. Future research could utilize a longitudinal design to monitor how these determinants evolve across different stages of digital transformation maturity. Third, the proposed model focused on five specific factors. In practice, AIS effectiveness may be shaped by other variables, such as organizational culture, institutional digital maturity, technological innovation capacity, institutional environmental pressures, or varying levels of hospital financial autonomy. Future research could expand the conceptual framework to provide a more comprehensive view of the determinants of AIS success in the public healthcare sector.

Ultimately, these findings contribute to the theoretical literature on accounting information systems while offering a practical foundation for hospital administrators seeking to improve financial governance and advance digital transformation across public healthcare institutions.

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