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FACTORS INFLUENCING ACCOUNTING INFORMATION SYSTEM EFFECTIVENESS AMONG SMALL AND MEDIUM-SIZED ENTERPRISES IN VIETNAM

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ABSTRACT

Accounting Information System (AIS) is a crucial part of Management Information System. Along with the advancement of science and technology, the important role of AIS among enterprises is becoming more and more recognized. This article aims to present the study of factors influencing AIS effectiveness among small and medium-sized enterprises (SMEs) in Vietnam. Based on the inheritance of previous studies, the research team suggests that there are five main factors that affect AIS effectiveness, including: IT Sophistication, Manager Knowledge, and Manager Participation in AIS Implementation, Accountant Knowledge and Training for Accountant. The researchers conducted a survey on 135 respondents form SMEs via questionnaires presented on Google Forms and Google Docs. With the assistance of SPSS, the research team concluded that the aforementioned factors have impacts on AIS effectiveness. Based on this result, the research team proposed a number of recommendations for the improvement of AIS effectiveness among SMEs in Vietnam.

KEYWORDS: Accounting Information System (AIS), Accounting Information System Effectiveness, Small and Medium-sized Enterprises (SMEs).

1. INTRODUCTION

Nowadays, the development of information technology has helped enhance management efficiency and speed. AIS play a crucial role in providing information to managers and equipping them with a comprehensive foundation to review and examine the operational situation of businesses. Consequently, they can make necessary changes promptly. Studying the factors that influence the AIS effectiveness is one of the highly concerned issues among scientists. Research on the AIS effectiveness in Vietnam is still limited, and the research results lack consensus, mainly focusing on specific factors.

In Vietnam, as of the end of 2022, SMEs accounted for 96.7% of the total number of businesses, contributing about 40% to the country's GDP annually. However, the quality of their operations has not yet been fully ensured. AIS are among the leading tools that can help businesses improve and enhance their operational quality and efficiency. This article aims to study the factors affecting the AIS effectiveness in SMEs in Vietnam, thereby proposing improvements and enhancing the AIS effectiveness in such businesses in Vietnam.

2. LITERATURE REVIEW

Starting from practical requirements, there have been numerous scientific studies worldwide related to AIS in businesses. Zsuzsanna Tóth (2012) affirmed that AIS form the framework for practical accounting activities and provide a basis for decision-making by managers. Additionally, they assist managers in developing cost management systems and control reports. Furthermore, through an empirical theoretical approach, Gofwan Hassan (2019) concluded that information technology has the greatest impact on accounting. By using and developing computer systems to monitor and record financial transactions, the application of information technology in AIS facilitates managerial decision-making, internal control, and the quality of financial reporting.

The AIS effectiveness has been explained in previous research based on various perspectives. Salehi et al. (2010) indicated that effective AIS are a system that is successfully applied and meets user requirements. This evaluation criterion has been further researched and expressed as the ability to provide information that meets user requirements, especially in decision-making. On the other hand, Pornpandejwittaya (2012) evaluated the AIS effectiveness based on the quality of information (reliable, relevant, and timely). The emergence of multiple research studies with these multidimensional perspectives has led to diversity in measuring the AIS effectiveness in businesses. In an effort to provide a unified approach to these multidimensional viewpoints on measuring the AIS effectiveness, DeLone and McLean (1992) proposed a six-aspect evaluation model, which includes system quality, information quality, system use, user satisfaction, individual impact, and organizational impact.

In addition to research on AIS and their effectiveness, studying the factors influencing the effectiveness of AIS is essential. Specifically, Ernawati Ningsih and Kepramareni (2019) studied the impact of four employee factors on the effectiveness of AIS, including motivation, education level, experience, and skills. The research results indicated that all four factors have a positive impact on the effectiveness of AIS. Furthermore, Sharinah Puasa, Julia Smith, and Sharifah Milda Amirul (2019) measured the effectiveness of AIS based on user satisfaction, which was evaluated

through specific sub-criteria. The study presented a comprehensive diagram consisting of important factors and additional factors that influence the effectiveness of AIS. These factors were categorized into three major groups: Human, Organization, and Technology.

3. THEORETICAL

3.1. Overview of accounting information systems and the effectiveness of accounting information systems

3.1.1 Accounting Information System

Based on the viewpoint of scientists and the regulations of the American Institute of Certified Public Accountants (AICPA): "An AIS is a subsystem of the enterprise management information system, which combines system components to perform functions of collecting, processing, analyzing, and providing financial and non-financial information to interested parties as well as controlling business activities."

According to Allahverdi (2011), an AIS consists of five main components:

1) System users: Including internal users (managers, accountants, employees, etc.) and external stakeholders (creditors, shareholders, investors).
2) Data sources: Including financial information and non-financial information.
3) Data collection: The initial stage of operations to eliminate data errors before entering the data processing process.
4) Data processing: The process of transforming data into information.
5) Database management: Database management operations include three main functions: storage, retrieval, and deletion of information to optimize the database in the enterprise.

3.1.2 Effectiveness of the accounting information system

Based on previous studies and empirical research, an AIS is considered effective when it achieves and meets four basic objectives as follows: (1) Meeting the information needs of the business; (2) Providing timely and accurate information; (3) Reasonable system development time; and (4) User satisfaction with the system.

E.M Awad (1996) used five criteria to evaluate the AIS effectiveness, including:

1) Quality of output information: Information that is useful for users.
2) Response time for information requirements: The information processing time of the system must be within acceptable limits.
3) Information security and reliability: This refers to the quality aspect of information, where the information provided by the AIS must have an acceptable level of reliability.
4) Ability to handle a large volume of information: Businesses always deal with a large volume of information, so the AIS need to be capable of handling a large volume of information within the enterprise.
5) Specific and clear instructional materials: The AIS of a business should be suitable and user-friendly for various users.

3.2 Foundational Theories

3.2.1 System Theory

System theory serves as the foundation for studying AIS as a subsystem, constituting the information management system of an enterprise. To enhance the managerial effectiveness of a business, it is important to focus on the AIS effectiveness operations and the impact of this system on other departments within the company. System theory provides fundamental knowledge about

selecting factors that influence the effectiveness of AIS in relation to the management information system.

3.2.2 Communication Theory and the Model of Information System Success

Communication theory and the development of communication theory through the model of information system success are suitable theories for identifying quality measurement criteria of AIS. Delone & McLean (1992) state that system quality and information quality are the two best evaluation criteria when considering a single information system. However, if evaluating the success of an information system department, the factor of service quality cannot be ignored. Therefore, this study will approach the construction of evaluation criteria and measurement of AIS quality based on communication theory and the criteria of the model of information system success.

3.2.3 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed in 1985 by scientist Fred Davis. This model is widely referenced and applied in research to assess the influences on the adoption of technology devices, not only for individuals but also for groups. The model states that the usage of an information system is determined by behavioral intention, which, in turn, is influenced by one's attitude towards using the system and their perceived usefulness of it. The model identifies two key factors directly impacting the decision to accept the use of an IT system: perceived usefulness and perceived ease of use.

3.3 Factors influencing the effectiveness of the accounting information system

3.3.1 Information technology level of the enterprise

In the process of providing information, IT plays an important role, as the reception and application of IT facilitate the efficient operation of the accounting information system, thereby providing data that helps businesses gain a competitive advantage in the market (Hajiha & Azizi, 2011). It also helps users to easily access information and improves their satisfaction (Mashhour & Zaatreh, 2008), assisting businesses in making business decisions (Gorry & Morton, 1972). However, when applied in the context of AIS of SMEs, Ismail and King (2007) argue that due to resource constraints, SMEs have limited IT management, so the complexity of IT is only considered in terms of its usage, mainly focusing on the sophistication of technology application and information complexity.

3.3.2 Managerial level

In previous studies on the effectiveness of AIS, the level of managers' knowledge and experience about information technology in general, as well as the specific AIS applied in their businesses, is often considered. According to Ismail (2009), managers who have knowledge about both AIS have an advantage over those who have limited knowledge in accounting. Managers need to accurately understand the information needs of the business and based on that deploy the operation of the AIS in combination with their own knowledge and experience. The research by Hussin et al. (2002) concluded that managerial knowledge of AIS is necessary for the effective implementation and operation of an AIS. This conclusion is similar to the majority of studies conducted by other authors on the same topic.

3.3.3 Managerial involvement in the implementation of the accounting information system

According to Sabherwal et al. (2006), managerial involvement is defined as the tasks and behaviors that manager's exhibit, as well as the psychological state of managers related to the process of designing and operating projects or systems, including AIS. Therefore, in a business, the owner plays a key role in implementing AIS (DeLone, 1988). To achieve success in operating information technology systems in a business, the involvement of the top management is an important influencing factor (Budiarto & Prabowo, 2015).

3.3.4 Level of accountants using accounting information technology

According to Ismail (2009), the knowledge of users of AIS includes understanding of accounting, document processing systems, spreadsheets, databases, as well as computer applications used by businesses. Maditinos et al. (2011) concluded that system users play an important role in contributing their knowledge and expertise to the successful and effective application of information systems in an organization. Therefore, the level of accountants using AIS is one of the important factors that strongly influence the effectiveness of AIS.

3.3.5 Training of accountants using accounting information system

According to the perspective that training accountants to use AIS effectively is an important factor in accounting, it is necessary to update timely knowledge about document processing systems, spreadsheets, databases, as well as computer applications and the current policies being implemented within the company. Training accountants to use AIS should not only focus on data input and output, but also include training on using advanced systems, so that users can understand the impact of technology on business operations. Therefore, training accountants to use accounting information technology is an important factor that directly affects the results of AIS's operation.

4. METHODOLOGY

4.1 Research Framework

The research team has established a research framework consisting of the following steps:

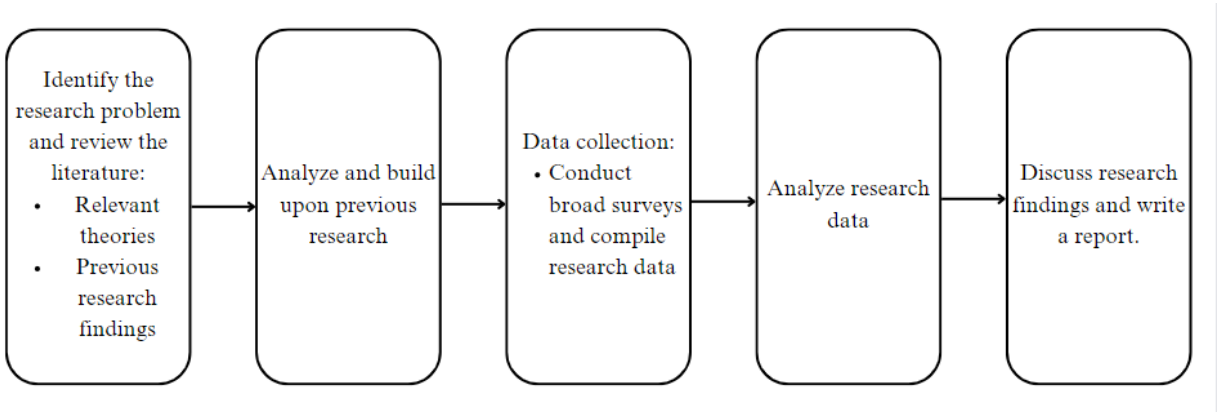

Figure 1: Research Process

4.2 Sample Selection

For this study, the research subjects were identified as registered SMEs in Vietnam, with the research scope covering all 63 provinces. However, due to limitations in data collection and ensuring timeliness and reliability of secondary data on businesses, the research team chose to

conduct the study based on primary data collected from a certain number of representative businesses in the North that use AIS.

According to Tabachnick and Fidell (2017), the formula for calculating sample size is as follows: n ≥ 50 + 8p (where p is the number of independent variables). Therefore, with an expected number of independent variables of 5, the minimum required sample size is determined to be 90 (=50 + 8*5). In general, the authors determined that a minimum sample size of 120 should be collected (following the principle that a larger sample is better, while also satisfying both EFA and MLR).
According to Nguyen Dinh Tho (2013), there are two methods of sample selection: probability sampling and non-probability sampling, also known as convenience sampling. Both methods have their own advantages and disadvantages. However, considering time and cost constraints, non-probability sampling with a convenient sampling technique is a suitable sampling method for this study.

The study conducted a survey of subjects from the selected businesses using a survey questionnaire prepared on Google Forms and Google Docs. The research team then sent the survey link via email and social media platforms or delivered hard copies directly to the survey subjects. The survey sample was collected from December 5, 2022, to February 8, 2023, and consisted of 135 responses.

4.3 Research Methodology

The data processing and analysis method was validated using statistical techniques with the support of SPSS 20 software. The survey data was encoded and entered into the software, and the measurement scale was tested using Cronbach's Alpha coefficient to eliminate inappropriate factors. Exploratory Factor Analysis (EFA) was conducted to evaluate the impact of factors on the effectiveness of the AIS

4.4 Research Models and Hypotheses.

The research paper employs 5 variables for measurement, which are specifically described in Table 1. Each observed variable is measured using a 5-point Likert scale ranging from 1 as "Completely Disagree" to 5 as "Completely Agree." In total, there are 24 observed variables categorized into 5 groups, as detailed for each group below:

Table 1: Summary Table of Measurement Scales for Factors.

No.	Measuring the research variables	Research variables' descriptions	Symbol	Research hypothesis	Sources
1	**Information Technology (IT) proficiency level of the enterprise**	The enterprise applies a system to monitor production and business activities.	TD1	Hypothesis H1: High IT proficiency in a company positively influences the	Ismail, N.A. (2009); Siti Kurnia Rahayu (2012); Binh V.T.T. (2020)
		The enterprise applies a management control system.	TD2		
		The company applies an application system in the	TD3		

		accounting department.		effectiveness of the AIS.	
		The company applies a Local Area Network (LAN).	TD4		
		The company applies an External Network.	TD5		
2	**The participation of managers**	Managers exchange policies regarding the implementation of AIS at different levels of the organization.	TG1	Hypothesis H2: Active participation of managers in the enterprise positively influences the effectiveness of AIS	Ismail, N.A. (2009) Siti Kurnia Rahayu (2012) Binh V.T.T. (2020)
		Managers monitor the progress of implementing AIS.	TG2		
		Managers always ensure the implementation of AIS at all levels.	TG3		
		The manager resolves any issues that arise during the implementation of AIS.	TG4		
		The manager conducts a review of management practices.	TG5		
3	**Manager's proficiency level**	The manager's knowledge and experience in accounting.	QL1	Hypothesis H3: The high level of expertise of managers in a business positively influences the effectiveness of AIS.	Ismail, N.A. (2009);
		The manager's theoretical knowledge of AIS.	QL2		
		The level of understanding and proficiency in using applications within AIS.	QL3		
		The ability to control and manage the operation of AIS	QL4		
		The ability to grasp the trends in applying new technologies in AIS.	QL5		
4	**Training activities for accountants to use AIS**	Professional training in accounting.	DT1	Hypothesis H4: Effective training of accountants in a business positively influences the effectiveness of AIS.	Hieu N.T & Anh N.H (2020) Stair, R.M. & Reynolds, G.W. (2012)
		Training in basic knowledge of AIS.	DT2		
		Training in the use of commonly encountered technologies in AIS.	DT3		
		Training programs that are updated in a timely manner along with the new technologies being implemented in businesses.	DT4		
		Training programs that are evaluated for effectiveness in	DT5		

		order to continue improving them.			
5	**Level of proficiency of accountants in using AIS**	Accountants have a high level of professional expertise in accounting.	KT1	Hypothesis H5: High level of expertise of accountants in a business positively influences the effectiveness of AIS	Ismail, N.A. (2009) Binh V.T.T. (2020)
		Accountants have knowledge of AIS.	KT2		
		Accountants proficiently use various tools.	KT3		
		Accountants have soft skills that support their work.	KT4		

Source: Authors

Research Model

Based on the research findings and the inheritance of results from previous studies on AIS within the context of various types of SMEs across countries, along with the foundational theoretical frameworks presented in the sections above, the author group has consolidated the influencing factors on the AIS effectiveness. These factors are presented in the general research model as follows:

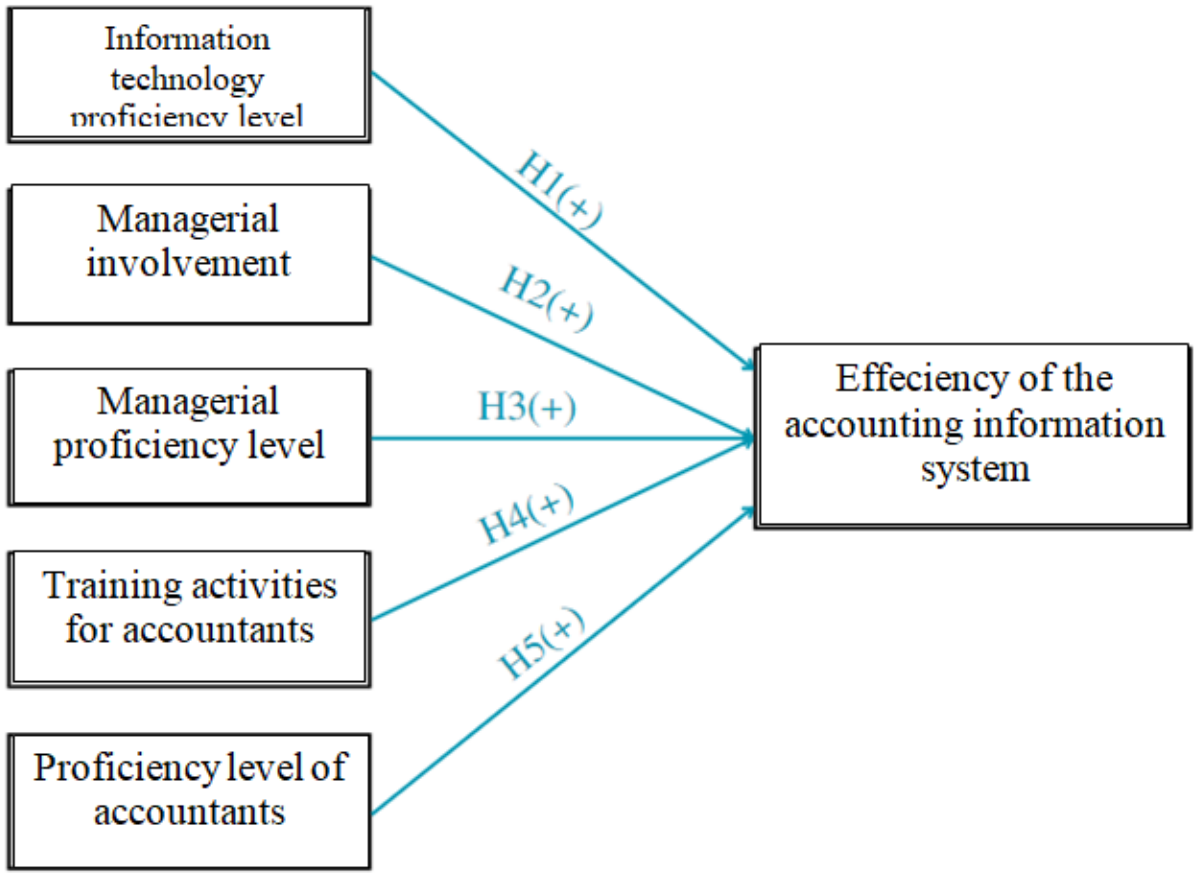

Figure 2. Research Model of Factors Influencing the AIS effectiveness
Source: Authors

Corresponding to the general model constructed, the authors of the group have chosen a regression model to test the impact of 5 factors (acting as independent variables) on the efficiency of AIS (acting as the dependent variable). This choice is appropriate and inherits from previous research models conducted by domestic and international authors. The proposed research model is as follows:

$$(HQ) = \beta 0 + \beta 1(TD) + \beta 2(TG) + \beta 3(QL) + \beta 4(DT) + \beta 5(KT) + ei$$

- Dependent Variable: Efficiency of AIS (HQ)
- Independent Variables: IT Level (TD), Managerial Involvement (TG), Managerial Qualification (QL), Accountant Training (DT), Accountant Qualification (KT)
- Parameters: β0, β1, β2, β3, β4, β5
- Error Term: ei

5. RESEARCH RESULTS

5.1. Descriptive statistical analysis of variables

The authors sent the survey questionnaire to SMEs in Vietnam via email and directly to directors, chief accountants, accountants, and auditors with relevant knowledge working directly in the enterprises. The survey sample results were collected from December 5, 2022, to February 8, 2023, with a total of 135 questionnaires. The sample size of this study, which is suitable for analysis, is n = 120, serving as the minimum sample size. The notable characteristics of the research sample are as follows:

- Regarding positions within the enterprise, the majorities of survey participants were Assistant Accountants (accounting for 40.00%); followed by Chief Accountants/Accounting Managers with 20.00%.
- In terms of educational qualifications, the majority of survey participants had a university degree (accounting for 68.90%); 22.20% had a qualification higher than a university degree, and the remaining 8.90% had a vocational college education level.
- In terms of types of enterprises, the largest proportion of respondents came from limited liability companies, accounting for 42.20%; followed by private enterprises with 28.90% and joint-stock companies with 26.70%.
- In terms of business sectors, 68.90% of respondents were from businesses operating in the trade and services sector; 28.90% were from the industrial and construction sectors.
- In terms of capital scale, the majority of survey participants worked in enterprises with a capital scale ranging from 3 billion to below 20 billion VND, accounting for 57.80% of respondents; followed by companies with capital ranging from 20 billion to below 50 billion VND, accounting for 33.30%; the remaining portion included companies with capital below 3 billion VND and from 50 billion to below 100 billion VND.
- In terms of labor scale, all surveyed enterprises had at least 10 employees, with the largest group being companies with 10 to below 50 employees, accounting for 57.80% of respondents.
- Finally, in terms of operating time, the group of companies operating for 1 to 5 years had the highest number of survey participants, accounting for 44.40%; the group of companies operating for 5 to 10 years accounted for 33.30%.

5.2. Reliability testing of measurement scales

The internal consistency method with Cronbach's Alpha coefficient was used to test the reliability of the measurement scales. The purpose was to eliminate inappropriate variables and those that could create spurious factors (Nguyen Dinh Tho, 2009).

The authors found that all 6 measurement scales in this study (including 1 scale for the dependent variable and 5 scales for independent variables) had Cronbach's Alpha reliability coefficients greater than 0.3. Therefore, all measurement scales ensured reliability

Table 2. Assessment of Measurement Scale Reliability

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha of the variable "IT proficiency level" in the business (TD) = 0,813				
TD1	17,1481	4,709	,522	,799
TD2	17,0889	4,559	,582	,783
TD3	17,3111	4,067	,720	,740
TD4	17,2889	4,058	,618	,772
TD5	17,4148	4,036	,586	,784
Cronbach's Alpha of the variable "Managerial involvement" (TG) = 0,794				
TG1	17,7185	2,935	,486	,788
TG2	17,4370	2,845	,652	,730
TG3	17,6519	2,736	,676	,720
TG4	17,4000	3,003	,601	,748
TG5	17,5556	3,234	,473	,785
Cronbach's Alpha of the variable "Managerial proficiency level" (QL)= 0,853				
QL1	17,5778	3,470	,602	,839
QL2	17,8222	3,058	,742	,802
QL3	17,8000	3,161	,671	,823
QL4	17,6000	3,287	,707	,813

QL5	17,8222	3,505	,615	,836
Cronbach's Alpha of the variable "Training activities for accountants using accounting information systems" (DT) = 0,642				
DT1	17,1407	3,525	,339	,615
DT2	17,0148	3,597	,321	,623
DT3	16,9037	3,744	,308	,626
DT4	17,1926	3,037	,471	,548
DT5	17,4370	3,054	,539	,513
Cronbach's Alpha of the variable "Proficiency level of accountants using AIS" (KT)= 0,892				
KT1	13,3185	2,995	,793	,850
KT2	13,2963	3,046	,817	,840
KT3	13,2074	3,360	,746	,868
KT4	13,4444	3,383	,699	,884

Source: Authors

According to Nunnally & Bernstein (1994), observed variables with a correlation coefficient less than 0.3 will be excluded. Based on the results in Table 2, the authors found that all five measurement scales have good reliability (Cronbach's Alpha coefficient greater than 0.6), and the measured variables all have inter-item correlation coefficients exceeding 0.5. This indicates that the measurement quality of these variables is good.

5.3. Exploratory Factor Analysis (EFA)

The research group continued with an exploratory factor analysis (EFA) to examine the convergent and discriminant validity of each factor. In addition, the authors applied a matrix rotation method to determine the number of extracted factors and potentially discover new factors. According to Meyers (2006), the most commonly used method is a combination of Principal Components Analysis and Varimax rotation, and the authors decided to follow this method.

Table 3. KMO and Bartlett's Test of the Initial 5 Factors

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,609
Bartlett's Test	Approx. Chi – Square	2162,509
	Df	276

	Sig.	0,000

Source: Authors

Table 3 shows the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) values for the factors influencing the effectiveness of AIS adoption in Vietnamese SMEs, which is 0.609 (meeting the condition of 0.5 < KMO < 1). This indicates that the research model is appropriate, suggesting that the variables included in the analysis are meaningful and suitable for the proposed factors. Additionally, the Bartlett's Test has a Sig value of 0.000 < 0.05, demonstrating that the measurement scales for the 5 factors meet the conditions for conducting EFA.

Table 4. Factor Rotation Matrix

Rotated Component Matrixa

	Component				
	1	2	3	4	5
KT2	,896				
KT1	,857				
KT3	,843				
KT4	,817				
TG2		,820			
TG3		,743			
TG4		,681			
TG1		,645			
TG5		,590			
TD2			,854		
TD1			,845		
TD3			,676		
TD4			,625		
TD5			,547		
QL4				,856	
QL1				,849	
QL3				,814	

QL5				,811	
QL2				,509	
DT3					,837
DT2					,865
DT4					,826
DT5					,713
DT1					,593

Source: Authors

With a sample size of 135 and factor loadings of 0.506, Table 4 shows that all factor loading coefficients are greater than 0.506, and there is no evidence of variables loading on both factors with similar loadings. Therefore, all variables meet the criteria, and after the analysis, the number of these independent factors remains the same without increasing or decreasing.

The Bartlett's Test of Sphericity with a Sig value of 0.000 < 0.05 indicates that the null hypothesis H0: "The variables are not correlated with each other" is rejected, meaning that the variables have linear correlations with the representative factors.

Table 5. Total Variance Extracted by the Exploratory Factors

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,366	22,357	22,357	5,366	22,357	22,357	3,385	14,104	14,104
2	3,510	14,625	36,982	3,510	14,625	36,982	2,869	11,955	26,059
3	2,765	11,519	48,501	2,765	11,519	48,501	2,817	11,739	37,798
4	2,048	8,532	57,033	2,048	8,532	57,033	2,618	10,907	48,706
5	1,681	7,005	64,039	1,681	7,005	64,039	2,517	10,486	59,191
6	1,360	5,668	69,706	1,360	5,668	69,706	1,848	7,700	66,892
7	1,248	5,199	74,905	1,248	5,199	74,905	1,609	6,704	73,595
8	1,003	4,180	79,085	1,003	4,180	79,085	1,318	5,490	79,085
9	,892	3,715	82,800						
10	,683	2,848	85,648						
11	,564	2,351	88,000						
12	,448	1,865	89,865						
13	,399	1,662	91,527						
14	,325	1,352	92,879						
15	,283	1,181	94,060						
16	,270	1,123	95,183						
17	,264	1,099	96,282						
18	,216	,901	97,183						
19	,184	,767	97,950						
20	,157	,653	98,603						
21	,111	,461	99,064						
22	,098	,410	99,473						
23	,078	,325	99,798						
24	,048	,202	100,000						

Extraction Method: Principal Component Analysis.

Source: Statistical results from SPSS

The total variance extracted by the 5 extracted factors has a value of 1.003 > 1 and accounts for 79.085% (Table 5). This means that 79.085% of the variance in the factors is explained by the observed variables (components of the factor), and the number of factors identified meets the requirements (Nguyen Dinh Tho, 2013). With the achieved values, it can be concluded that the EFA model of the factors influencing the effectiveness of AIS adoption in Vietnamese SMEs is appropriate.

5.4. Correlation Regression Analysis

Table 6. Independent Variables in the Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,826	,416		-1,987	,049
	TD	,234	,045	,313	5,172	,000
	TG	,262	,060	,291	4,357	,000
	QL	,351	,056	,413	6,296	,000
	DT	,146	,052	,178	2,794	,006
	KT	,184	,038	,285	4,850	,000

a. Dependent Variable: HQ

Source: Statistical results from SPSS

Table 6 provides the results of the t-test to assess the significance of the hypotheses. All variables, including TD, TG, QL, DT, and KT, have Sig values in the t-test that are less than 0.05. Therefore, these variables are all statistically significant and have an impact on the dependent variable HQ. The regression coefficients of these independent variables are all positive, indicating that the independent variables have a positive effect on the dependent variable. Thus, both the dependent and independent variables in the model are statistically significant with a 95% confidence level. As a result, the authors conclude that all variables TD, TG, QL, DT, and KT are suitable and significant for the model.

Hypothesis Conclusion Hypothesis

H1: High level of IT competence in the company (TD) positively affects the effectiveness of AIS adoption. (Accepted) Hypothesis

H2: Active involvement of managers in the company (TG) positively affects the effectiveness of AIS adoption. (Accepted) Hypothesis

H3: High level of managerial competence in the company (QL) positively affects the effectiveness of AIS adoption. (Accepted) Hypothesis

H4: Effective training of accountants in the company (DT) positively affects the effectiveness of AIS adoption. (Accepted) Hypothesis

H5: High level of competence of accountants in the company (KT) positively affects the effectiveness of AIS adoption. (Accepted)

Based on the regression coefficients, the research group has the following regression model:

HQ = -0.826 + 0.234TD + 0.262TG + 0.351QL + 0.146DT + 0.184KT

Table 7: Model Summary Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,756[a]	,571	,555	,25167	1,986

a. Predictors: (Constant), KT, QL, TD, DT, TG

b. Dependent Variable: HQ

Source: Statistical results from SPSS

Table 7 shows the results of R-squared (R Square) and adjusted R-squared to assess the model's goodness-of-fit. The adjusted R-squared value of 0.555 indicates that the independent variables included in the regression analysis account for 69.5% of the variation in the dependent variable, while the remaining 30.5% is attributed to variables outside the model and random error.

This table also provides the Durbin-Watson (DW) statistic to evaluate first-order autocorrelation. The DW value of 1.986 falls within the range of 1.5 to 2.5, indicating that there is no violation of the assumption of first-order autocorrelation.

5.5. Discussion of Research Results

The regression model is as follows:

HQ = -0.826 + 0.234**TD** + 0.262**TG** + 0.351**QL** + 0.146**DT** + 0.184**KT**

The regression coefficients for the independent variables are all positive, indicating that the independent variables have a positive impact on the dependent variable (HQ). Additionally, the regression coefficients reflect the degree of influence of the independent variables on the dependent variable:

Variable QL has the largest regression coefficient (0.351), indicating that the Managerial Competence factor has the most significant impact on the effectiveness of AIS adoption in Vietnamese SMEs. In other words, the higher the competence levels of managers in a company, the higher the effectiveness of AIS adoption in that company.

Variable DT has the smallest regression coefficient (0.146), indicating that the Accountant Training factor has the least impact on the effectiveness of AIS adoption in Vietnamese SMEs.

The remaining variables (TD, TG, KT) all have positive coefficients, indicating that advanced IT competence, active managerial involvement, and high competence of accountants positively affect the effectiveness of AIS adoption in Vietnamese SMEs.

6. RECOMMENDATIONS

- **Recommendations related to managerial personnel:**

To enhance the quality of operations through improved AIS adoption, businesses should focus on developing their management teams at all levels to ensure effective and synchronized positive impacts. The research results also emphasize the significant difference that managerial competence can make in the effectiveness of AIS adoption. Therefore, it is essential for managers in Vietnamese SMEs to continuously improve their knowledge in various fields, including accounting, AIS,

management, legal matters, and IT. This can be achieved by monitoring legal documents and policies through media channels, participating in specialized seminars, and professional training programs.

- **Recommendations related to accounting personnel:**

Businesses should pay more attention to their accounting staff and the recruitment process for accounting positions. In practice, many accountants in Vietnamese SMEs do not have sufficient opportunities for training, monitoring, and professional advice from managers or experts in the field. This is an area where businesses can make improvements from the beginning by building a high-quality accounting team.

- **Recommendations related to AIS:**

The study also demonstrates that the level of AIS competency in a company significantly influences the effectiveness of AIS adoption. Therefore, improving AIS within a company should go hand in hand with continuously enhancing the quality of AIS. This requires adequate investment to ensure that AIS supports the company's goals and enhances its competitive capabilities in the industry. However, it is crucial to choose AIS solutions that are suitable for the competence level of the end-users within the company.

7. CONCLUSION

Building on previous research and addressing the specific context of Vietnamese SMEs, the authors conducted a study of factors influencing the effectiveness of AIS adoption in these businesses. The research proposed a model consisting of five factors: IT Competence, Managerial Involvement, Managerial Competence, Accountant Training, and Accountant Competence. These factors were subjected to reliability testing using Cronbach's Alpha, exploratory factor analysis (EFA), and regression analysis to assess their influence on the effectiveness of AIS adoption in Vietnamese SMEs.

The analysis results indicate that all five selected factors have a positive influence on the effectiveness of AIS adoption in domestic SMEs, with specific degrees of impact. Therefore, the research group affirms the suitability of the proposed research model and finds no rejected hypotheses.

Finally, based on the data analysis conclusions, the authors provide recommendations to enhance the effectiveness of AIS adoption in Vietnamese SMEs. However, it is worth noting that this research still has certain limitations related to the scope, research methods, sample size, and representativeness of the chosen sample population.

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