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# ORGANIZATIONAL KNOWLEDGE, IT MANAGEMENT, AND CULTURAL DRIVERS OF ACCOUNTING INFORMATION SYSTEM EFFECTIVENESS AND FINANCIAL REPORTING QUALITY IN THAI ENERGY SECTOR ENTERPRISES

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## ABSTRACT

*This study examines how organizational-level enablers – namely knowledge and understanding of accounting information, enterprise IT management, and organizational culture – influence the effectiveness of accounting information systems (AIS) and, in turn, affect the quality of financial reporting in Thailand’s state energy enterprises. Positioned within the framework of strategic information communication and digital governance, the study highlights the communicative and technological conditions underpinning reliable financial information environments. Data were collected through structured questionnaires from 420 accounting professionals. Results show that all three factors significantly impact AIS effectiveness. However, only the indirect effects of enterprise IT management and accounting knowledge – mediated through AIS performance – positively influence financial reporting quality. The findings suggest that fostering a knowledge-sharing culture and aligning IT practices with information quality goals are essential for public enterprises operating in data-intensive sectors. This research contributes to the literature on communicative infrastructures in financial reporting and offers practical insights for improving digital accountability and transparency in public organizations.*

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**KEYWORDS:** Accounting Information Systems, Digital Governance, Organizational Culture, Financial Reporting, Public Communication, Energy Sector, Information Quality, Thailand

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## 1. INTRODUCTION

The state enterprise was the government's organization or business sector owned by the government as an organization responsible for public services in industry and commerce. State enterprises sought revenue. It had to earn itself from commerce and was a unit producing and distributing goods or services as the public service and the large-scale public utilities, or it was some part of the government's work that was important for the security and the economic development of the country, or the activities affecting the people's quality of life that the only government needed to control and operate, or it was working which the private sectors were not ready to invent; or it was the businesses that the government needed the market intervention so that that service met the standard in terms of quality, amount, expense, and others. To review the state enterprise performance, the State Enterprise Policy Office (SEPO), under the Ministry of Finance according to the Memorandum of Understanding (MoU) of the State Enterprise Performance Evaluation (Performance Agreement), prioritized the control, and it became a policy regarding the accounting finance and personnel management of state enterprises. Its state enterprise performance measurement forms also differed, as some were listed on the Stock Exchange of Thailand (SET). Under the laws of the Stock Exchange of Thailand (SET), regulations and procedures govern performance assessments. Hence, guiding principles that outline a performance agreement were established. In the case of state-owned enterprises within the Stock Exchange of Thailand (Listed SOEs), the Ministry of Finance reviews the performance of state enterprises listed on the Stock Exchange of Thailand by identifying the indicators and goals of state enterprise activity performance. They would bring the indicators of the two finance and non-finance.

The qualitative financial report came from making the correct accountancy under the laws and meeting the standard of the accountancy reflecting the performance of the financial business, including having good governance in business operations. The state-owned electric utility organizations in Thailand used services from the auditors for preparing accounts and financial statements. Therefore, accounting offices had an important role in supporting the business by providing accounting and financial statement services that were complete, and correct under the laws and the accountancy, including supporting for causing good governance in the business sectors which caused the economic

benefit for business and created the reliance for users of financial statements. The accounting information system (AIS) was developed to be analyzed in terms of the financial data being useful to decide users. It provides an overview of the collection, structural organization, data evaluation, and accounting information reports. The convenience of entering the accounting information system recording entries gave not only knowledge in professional expertise to the accountants but also the information field in the accounting operation area. They should be able to utilize the information system to maximize the welfare of the organization. Knowledge and understanding of the accounting information system, organizational culture, and enterprise information technology management at the managerial level was the information to run the accounting information system that rendered financial reporting using tools of internal auditing applying the internal control on a frame of COSO. This was a fair approach and was implemented as one of the components of the internal control system for government activities. The Institute of Internal Auditors (IIA) and the Institute of Internal Auditors of Thailand (IIAT) proposed the internal control, in which the agencies were to follow under the umbrella of the Committee of Sponsoring Organization of the Treadway Commission or commonly known as COSO. Therefore, this study examines how a well-structured accounting information system influences the quality of financial reports in Thailand's state-owned energy enterprises, aiming to increase their financial reporting standards.

## 2. RESEARCH OBJECTIVES

1. To study factors of knowledge and understanding of accounting information, organizational culture and enterprise information technology management at the organizational level affect the system of good accounting information.
2. To study the knowledge and understanding of accounting information, enterprise information technology management at the organizational level, and the system of good accounting information affects the quality of financial reports.
3. To study how knowledge and understanding of accounting information, organizational culture, and enterprise information technology management at the organizational level affect the quality of financial reports through a system of good accounting information.

## 3. CONCEPTUAL FRAMEWORK

Disruptive Innovation. KNOW = Accounting Information Systems Literacy, CULTURE = Organizational Culture, COBIT = Enterprise

Governance of Information Technology, AIS = Good Accounting Information Systems, REPORT = Financial Report of Quality, as shown in Figure 1.

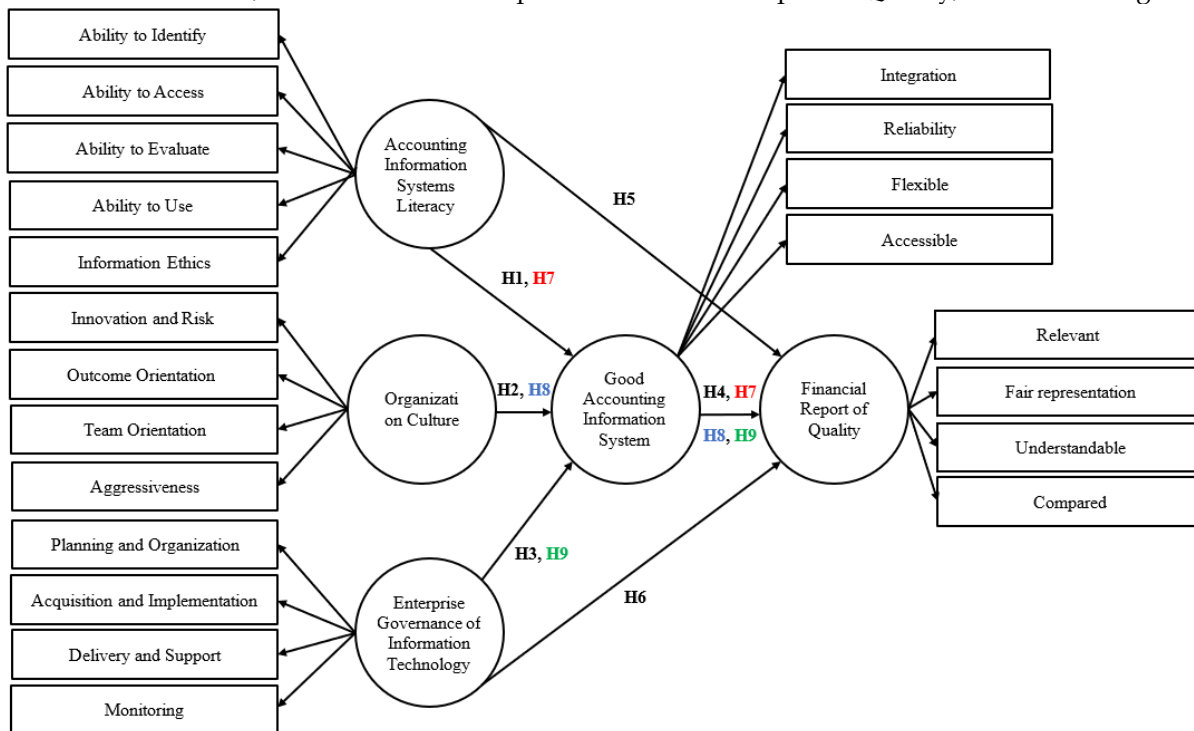


Figure 1: Conceptual Framework of the Research.

## 4. RELATED WORKS

### 4.1. The Research Relates to the Knowledge and Understanding of Accounting Information and Good Accounting Information Systems.

In the information era, accounting practitioners must learn about the progress of information technology, making news and information quickly transfer. The accounting operation was developed and adjusted to include professional knowledge, professional skills, professional values, and information skills for having more quality so that they increased the opportunity to compete with other countries, including preserving and protecting rightful benefits while promoting and developing the accounting profession in Thailand to enhance professional standards by promoting the use of international professional standards. This meant that Thailand was encouraged to adopt standards aligned with or close to international practices. The accounting information system is a crucial resource for decision-making. This system was designed to process financial data into useful information for decision making. Therefore, knowledge and understanding the accounting information system are essential for increasing the quality of accounting information and improving decision-making efficiency. Moreover, the factors

related to knowledge and understanding of the accounting information system include defining the variety and framework of the information (Ability to Identify), the ability to access the information, the ability to evaluate the information and information source, the ability to use the information, and the understanding of information ethics. Wu (2019) found that the perception of self-ability determines the data needed, the perception of self-ability evaluating data, and the perception of self-ability using data were able to positively and significantly affect creativity. Creativity has a positive and significant influence on performance efficiency. Creativity connects the perception of self-ability to information and performance efficiency. Corresponding to the research of Soongsombat (2021), it was found that data quality and knowledge and understanding of accounting information affect the efficiency of executives in Small and Medium-Sized Enterprises (SMEs). Additionally, the sample group had the highest level of opinion regarding knowledge and understanding of accounting information. When considering each aspect, their opinions remained high across all the dimensions. However, knowledge and understanding of the ability to use accounting information had the highest mean score.

**H1:** Knowledge and understanding of accounting information has a direct and positive influence on a good accounting information system.

#### **4.2. The Research Relating to the Organizational Culture and the System of Good Accounting Information**

The culture was to share an understanding of the principles and assumptions. The group was composed of principles and assumptions that were not noted within the organization and shared the practices. This was the practice system, shared values, and beliefs. Organizational culture develops the organization and leads members' behaviors; the dimension of organizational culture is composed of innovation and risk assignment. Attention to detail was the level at which staff expected to show accuracy in analysis and attention to detail, the focus on work outcomes, the number of initiators, the focus on teamwork, and proactive work (Wisna, 2015). Corresponding to the research of Napitupulu (2018), for the organizational culture on the accounting information system management surveying the State-Owned Indonesian enterprises have used accounting information as a key component in the structure of the organization, and the outcomes were that the organizational culture influenced the building of the information system leading to integration with business processes, decreasing complexities so that the organization could be competitive, and enhancing the adaptability of the information system. The performance information system might depend on achieving organizational goals and providing a speedy response. According to Setyaningsih et al. (2020), the accounting information system, internal controls, and organizational culture determine the quality of financial information based on their operation and efficiency. Moreover, the use of accounting information systems, internal controls, and organizational culture had a predominant impact on the quality of financial reports and operations. Nevertheless, the organization possessed indicators in terms of innovation and risk-taking, emphasis on work results, team efforts, and proactive work.

**H2:** Organizational culture directly and positively influences the good accounting information system.

#### **4.3. The Research Relating to Information Technology Management at the Organizational Level and Good Accounting Information Systems**

The COBIT Framework had the processes of taking

care of information technology and management. They were classified according to their activities and five processes: governance (EDM), Planning and Organization, Building Acquisition and Implementation, Delivery and Support, and Monitoring. The executives would establish the practices corresponding to the agencies' objectives in terms of information technology to be successful and achieve the determined objectives under the principles of the Ministry of Finance, which stated that standards and guidelines for internal control practices for government organizations (2018) was a guideline for managing the internal control to be effective and help reduce the risk of mistakes, damage such as wastefulness and waste of assets, prevent concealment, lack transparency in the report, and make the correct report. These adhered to practices and evaluation guidelines based on the concept of the Committee of Sponsoring Organizations Treadway Commission (COSO) to build a reasonable reliance on which the organization achieved three internal control objectives: operational efficiency; reliability of the financial report; and practices under laws, regulations, rules, and cabinet resolution (Mistry et al., 2018). The Ministry of Finance determined the guidelines of practices regarding the internal control system for government service sectors by using the internal control system in terms of the information technology of COBIT to use in the management, causing the use of the government's sources efficiently and leading to good governance. Shoaee, Bagherinejad, and Nour (2022) studied the governance of information technology under the framework of COBIT in the electronic banking system to increase electronic banking performance and found that the governance of information technology within the COBIT framework in the electronic banking system increased outcomes, efficiency, and overall effectiveness. Corresponding to the research of Manoppo (2023), it was found that, at present, the academic business process was aided by the existence of several information systems, but academics were not applied properly. For this reason, each agency should have some responsibility for IT. This was assigned to the IT sector because it was not controlled by standard operating procedures. Therefore, it is necessary to have governance forms that could overcome these problems by applying the COBIT framework.

**H3:** Information technology management at the organizational level directly and positively affects a good accounting information system.

#### **4.4. The Study Which Connects the Good**

### ***Accounting Information Systems to the Quality of Financial Report***

The system allows executives to use data to analyze and make decisions on effective planning and management. In addition, it performs definite operations by reducing the number of steps and processing time. It was intended to control and preserve data security because the technology was continuously developed. Therefore, the business must apply the technology with the business so that the financial report is more reliant and that the financial report was managed more quickly Buakeaw & Penvutikul (2023). Applying the information system increased the efficiency of financial reporting without causing any mistakes or distortions. This led to reliability in regards to the transaction, such as the financial report process that influences the reliability of the data and quality of the proper financial reports as per the adoption of the standard, timely to maintain sustainable competency to compete and to expose the information to the people who are concerned and add value to the officers of the organization so that they can interpret business performance. Rashedi and Dargahi (2019) researched the internal control of the accounting information system, which harnessed the quality of the financial report in response to financial scandals, corporate collapses, governance, and internal control. The analysis revealed that there was a sensible reliability of effective internal controls in the company and the executive sector that could enable the company to achieve its goals in line with the practices within the rules. One can say that the correct design and implementation of an internal control system can minimize errors or fraud, making organizations perform as expected. In line with the study by Sunarta *et al.* (2023), which aimed to test the quality of accounting reports in relation to the quality of accounting information systems with the performance of organizations in banks in rural areas of Bali, Indonesia. The results provide empirical support that the quality of the accounting information system has a significant and positive effect on the operations of the organization and the quality of accounting data. Additionally, it is noted that the accounting information system favorably affects the organization. Moreover, the quality of the accounting data mediates the link between the accounting information system and quality, as well as business operations in the organization.

**H:4** Quality of financial reports is directly and positively affected by the information system of good accounting.

### ***4.5. The Study That Concerns the Knowledge and Awareness of Good Accounting Information Systems with Quality of the Financial Report***

The system was accountants' ability to assign operations and responsibility based on their experiences and skills. They could understand the accounting logic and failure of accountants, especially in the government. To understand and apply accounting logic, the prepared financial statements and non-compliance with reporting standards determined by the government. This has an impact on the quality of financial reporting. In findings by Ifada and Komara (2023) regarding the role of technology application, it was discovered that digital knowledge was helpful and significant in transitioning to digital knowledge in the accounting professional field. Digital knowledge is essential for technology application. Additionally, technology application is crucial in transitioning to digital practices in the accounting profession. Through technology application, accountants are expected to enhance their digital knowledge to ensure effective, accurate, and responsible accounting practices. O'Callaghan *et al.* (2021) investigated digital and accounting knowledge and its impact on students in the profession. College students must have online knowledge to succeed in an online environment. At present, accounting students perceive the ability digitally to be the same as students in other fields. The results showed that the students who were not accounting students self-perceived a better ability to 1) analyze data and understand it in the context of the content; 2) evaluate the quality and credibility of the content; 3) use effective search strategies; and 4) develop creative multimedia. On the contrary, the findings suggest that the respondents who identified themselves as accounting students believed they possess a much better capability than finance students in the following aspects: 1) using the Internet to meet other people with common interests, 2) using the power of communication as an advocacy tool, 3) understanding what copyright means to them, and 4) applying social responsibility and ethical considerations to communication behaviors.

**H5:** Informational system knowledge and understanding of good accounting system directly and positively affect the quality of compromised financial reports.

### ***4.6. The Research Which Correlates the Quality of Financial Report with Information Technology Management***

The quality of accounting information arose from good internal control, which must control and make a plan to be successful according to the objectives and goals determined by the organization. When the organization became larger, executives could not take care and manage all operations. It was necessary to build an internal control system so that users could apply the data to make economic decisions correctly and appropriately for analyzing and planning to improve the operation. The accounting information must be prepared for presentation, including sufficient data disclosure. The executives of the organization, including financial and accounting executives, must certify the accuracy under the accounting principles being generally certified. According to Azzali and Mazza (2013), the internal control of the quality of the financial report and the framework of controlling information technology found that the practices according to COSO in the manufacturing and service industries, including COBIT and COBOT, for the framework of SOX in the financial industries, had positive relationships with the quality of financial reporting (ICFR). Corresponding to the research of Haouam (2020), they studied the effect of applying the governance of IT(COBIT) with the quality of financial reports, and found that they had a relationship between the governance of IT and COBIT. The framework in 4 dimensions in terms of the quality of the financial report showed that they had positive relationships between the management framework of 4 sides of COBIT with the quality of the financial report, the relevance to decision-making, the fair representation, and the comparability.

**H6:** Managing information technology at the organizational scale has a direct and positive impact on the quality of the financial reports.

#### ***4.7. The Knowledge and Understanding of The Accounting Information System Influenced the Quality of The Financial Reports Since It Had the Good Accounting Information System***

Accountants' ability was the ability of the assigned operation and responsibility with sufficient experience and skills. Accountants can understand accounting logic well. Understanding and applying accounting logic and the ability of the accounting information system of accountants affected the quality of the prepared financial statements. In the information era, the demand of state-owned enterprises from accounting officers was not limited only to professional ethics and fundamental accounting knowledge, but also to IT knowledge, familiarity with business data, accounting

information, data retrieval skills, and the sensitivity of accounting data. Therefore, it is necessary to practice accounting professionals in terms of IT (Li, M., 2021). Corresponding to Gray et al. (2018), they studied the knowledge of fundamental data structure. The latest report from the United Nations stated that the data knowledge around the world for realizing the opportunity from the data evolution had specific characteristics in terms of the combination of numerical, statistical, and technical skills. It was found that the accounting ability can access the application of technology. This evaluation ability helped in the flexibility of the collection system, which was easier to access.

**H7:** Knowledge and understanding of the accounting information system indirectly and positively influence the quality of financial reports through a good accounting information system.

#### ***4.8. The Research About the Organizational Culture Involved the Quality of the Financial Reports Using Good Accounting Information System***

Digital transformation was an easy access to technology that people could use by themselves, which caused the development of innovation encouraging business organizations to have a competitive advantage. This caused the organizational culture to transform quickly. This resulted in the business sector and government agencies needing to adapt the organizational structure, including adapting the organizational culture to have more management that relies on information systems. According to Setyaningsih et al. (2021), the operation and effectiveness of the accounting information system, internal controls, and organizational culture in terms of the quality of financial data results indicated that the application of accounting information, internal controls, and organizational culture had a significant influence on financial statements and performance outcomes. Organizational culture was separated by indicators such as innovation and risk-taking, focus on operational success, teamwork, and proactive work. This is consistent with Binh, Tran, and Vu (2022), who analyzed how organizational culture influences the quality of accounting information systems in Vietnamese companies. The implementation of an innovative organizational culture not only enhances the system and data quality in the accounting information system but also ensures the availability of adequate accounting information to support decision-making. This aligns with the study by Van

Dung (2019) on the impact of organizational culture on accounting information systems and the performance of SMEs in Ho Chi Minh City. The findings suggest that participation and consistency in the organizational culture mission positively affect the accounting information systems of SMEs in Vietnam. Essentially, the mission of participation, adaptation, and consistency in organizational culture was also found to have a positive impact on company performance. Another key finding is that accounting information systems positively influence the performance of SMEs in Vietnam.

**H8:** Organizational culture indirectly and positively influences financial report quality through a good accounting information system.

#### 4.9. The Study Concerning Information Technology Management at Organizational Level Came in To Influence Quality of the Financial Reports Based on the Good Accounting Information System

This system plays an important role in running a business. It is considered to be one of the main systems in cases of disruptions or emergencies. These affect the operation of entrepreneurs and investors and the reliability of the overall capital market. The high level of executives played an important role in the management of applying information technology in the business, including transferring the business goal under the missions, strategies, policies, and organizational-level plans to the goals related to IT under the governance of the Board of Directors to build the reliability that the mentioned IT in the business would help entrepreneurs achieve the determined goal by using the source properly and by

managing the risk-taking efficiently and properly. Rashedi and Dargahi (2019) found that the quality of the accounting information system of internal controls influenced the quality of financial reports in response to financial scandals and corporate collapse. For business governance, especially internal control, it was found that internal control influenced organizational scope. The management sector had reasonable reliability in that it could help the business achieve its objectives by following practices under the rules. In other words, the internal control machinery being designed and applied appropriately could reduce the chance of mistakes or fraud and could make other organizations operate as expected.

**H9:** Information technology management at the organizational level directly and positively influences the quality of financial reports through a good accounting information system.

## 5. METHODOLOGY

### 5.1. Population And Sample Group

The sample for the present research included 3,522 state-owned enterprises in the energy sector of Thailand with accounting practitioners (Data from December 2023). These figures excluded the Petroleum Authority of Thailand (PTT), which was a state-owned company operating as a publicly limited company. The accounting practices in this industry were different from other energy sectors. The purposive sample was determined based on the criteria outlined by Hair et al. (2012, p. 414-433).

**The estimated sample size determined by the agencies is as follows:**

*Table 1: The Number of Population and the Sample Classified by Agencies.*

Agencies	Population			Sample Group		
	Accounting officers	Accountants	Total	Accounting officers	Accountants	Total
1. Electricity Generating Authority of Thailand (EGAT)	-	468	468	-	56	56
2. Metropolitan Electricity Authority (MEA)	37	135	172	4	16	20
3. Provincial Electricity Authority (PEA)	2,342	540	2,882	280	64	344
<b>SUM</b>	<b>2,379</b>	<b>1,143</b>	<b>3,522</b>	<b>284</b>	<b>136</b>	<b>420</b>

"Source: Employee Data from the Electricity Generating Authority of Thailand (EGAT), Metropolitan Electricity Authority (MEA), And Provincial Electricity Authority (PEA) For 2023."

### 5.2. Data Collection

This study collected data through online questionnaires and emails. Online surveys and emails were chosen as they are effective in gathering large amounts of data from various geographical locations (Dillman et al., 2014). The researchers distributed 420 questionnaires online and via email

to accounting practitioners at the Electricity Generating Authority of Thailand (EGAT), the Metropolitan Electricity Authority (MEA), and the Provincial Electricity Authority (PEA).

Data collection and monitoring took a total of 8 weeks, resulting in 420 completed questionnaires. This represented a response rate of 23.55%. Malhotra

and Grover (1998) reported a minimum acceptable response rate of 20% for mail surveys, making the response rate in this study acceptable. Additionally, Kline (2005) recommended using a sample size of 100 to 200 individuals for analyzing structural equation modeling (SEM) items.

### **5.3. Research Tools**

Each variable was assessed using a Likert scale ranging from 1 to 5, where 1 = strongly disagree and 5 = strongly agree. The questionnaire was divided into five sections. Knowledge and understanding consist of five aspects (Demczuk et al., 2009) that determine the type and scope of the desired information, finding the desired information more efficiently and effectively, critical evaluation of information and source of information, and usability of information to meet the intended objectives. To apply the information armed with an awareness of matters related to ethics, law, economics, and society. There are four elements of organizational culture (Binh et al., 2022). The use of innovative organizations enhances the quality of the system and information, which is useful in the accounting information system and can provide adequate accounting information needed to support decision-making. Manoppo (2023) comprises four elements that make up information technology management at the organizational level. Currently, the business transaction process in an academically based environment is facilitated through the availability of several information systems, although the current academic practice is no longer optimally utilized. According to Fitrius et al. (2022), the elements constituting a good accounting information system

comprise four components. The system may utilize the current source of financial and non-financial management by data integration, flexibility, reliability, understandability, and good quality of financial reports created by four components of Sutriani et al. (2019) thus investigating the quality of the accounting data on the relations between the quality of the accounting data and the organizational performance.

### **5.4. Data Analysis**

The basic statistical analyses of the variables used in this research were the mean, standard deviation, skewness, and kurtosis (Suphamas Angsusocho and Chuchat Piwongsamjit, 2011, pages 1-99). Pearson's correlation coefficient analysis was used to analyze the relationships between variables (Puangrat Taweerat, 2000, page 144).

For the structural equation modeling (SEM) analysis, the researcher used the structural equation model to analyze the relationships between exogenous variables, which were the variables not relying on any variables, and exogenous variables, which were the values of variables relying on other variables (Suchart Prasitratsinth, 2015, page 100).

## **6. RESULTS**

The researchers considered the following issues: whether the structural equation model that was developed was consistent with the concept, whether the theory was consistent with empirical data, and whether the relationship path of the model was explored in detail to analyze the value of the influence of independent variables on dependent variables. These are explained as follows.

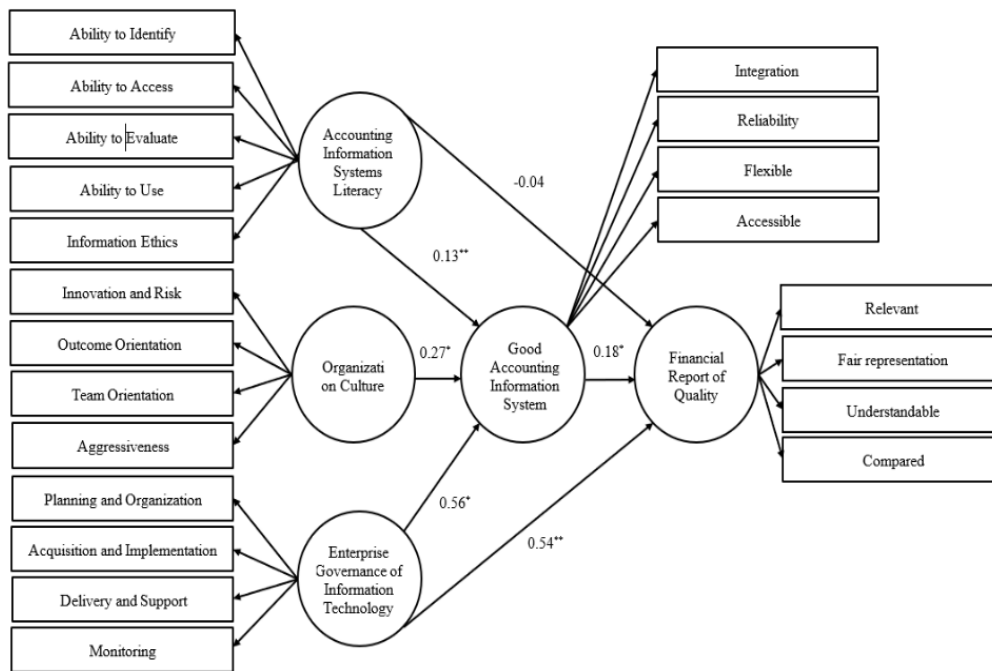


Figure 2: Influence Coefficient And Hypothesis Testing.

Table 2: The Result of The Hypothesis.

	Hypothesis	Direct Effect	Indirect Effect	Total Effect	T-values	P-values	Results
H1	KNOW--->AIS	0.13	-	0.13**	2.128	0.00	Accept
H2	CULTURE--->AIS	0.27	-	0.27*	2.015	0.03	Accept
H3	COBIT--->AIS	0.56	-	0.56*	3.219	0.02	Accept
H4	AIS--->REPORT	0.18	-	0.18*	1.292	0.05	Accept
H5	KNOW---> REPORT	-0.04	-	-0.04	1.038	0.06	Deny
H6	COBIT ---> REPORT	0.54	-	0.54**	2.197	0.01	Accept
H7	KNOW--->AIS---> REPORT	-	0.02	0.02*	3.187	0.02	Accept
H8	CULTURE--->AIS---> REPORT	-	0.05	0.05**	3.207	0.00	Accept
H9	COBIT--->AIS---> REPORT	-	0.10	0.10*	4.107	0.02	Accept

Remark : \* Mean The Statistics Significance Of 0.05 (P ≤ 0.05)  
 \*\* Mean The Statistics Significance Of 0.01 (P ≤ 0.01)

7. DISCUSSION

The findings discovered in the study met the objectives and hypotheses. The study revealed significant issues such as:

1. Factors influencing the quality of financial reports, including knowledge and understanding of accounting information, organizational culture, and enterprise information technology management at the organizational level.
2. The impact of knowledge and understanding of accounting information, organizational culture, and enterprise information technology management on the quality of financial reports of state-owned enterprises in the energy sector in Thailand.

Analysis by Kuek and Hakkennes (2020) suggests

that good accounting information systems have a direct and positive effect on knowledge and understanding of the accounting information system. They examined the digital knowledge level of officers and its impact on their work and attitude towards information systems. Digital knowledge refers to the use of technology in various aspects of life, including social interactions, culture, politics, and the modern economy. The study found that health experts reported that information systems helped them at work by improving security, patient management quality, data flexibility, reducing redundancy, facilitating access, decision-making, and enhancing efficiency. However, the study did not find a direct effect of knowledge and understanding of accounting information on the quality of financial reports of state-owned enterprises in the energy sector of Thailand, which

contradicted previous research findings by O'Callaghan et al. (2021) and Ifada and Komara (2023).

Good accounting information systems were positively and directly affected by organizational culture, as revealed in the research by Binh et al. (2022). They examined how organizational culture influences the quality of accounting information systems. In Vietnam, the evidence showed that organizational culture helped enhance the quality of accounting information systems in Vietnamese companies. This positive impact on system quality is due to the integration, reliability, flexibility, harmony of data, and quality of accounting data that provide sufficient information for decision-making. Additionally, the accounting information system and the quality of accounting information final data are good, which aligns with the findings of Al-Fatlawi et al. (2021). They studied the application of the governance mechanism of COBIT 5 for IT and minimized the risk of data processing while enhancing the security of automatic accounting data systems. The findings indicated that the Trade Bank of Iraq successfully implemented COBIT 5. The accounting systems used in the banks incorporated IT features to ensure total governance, reliability in maintaining customer data confidentiality, and protection against system intrusions.

The quality of financial reporting was directly and positively affected by a good accounting information system, as reflected in Buakeaw and Penvutikul (2023). The information system was used to enhance the effectiveness of financial reports without errors and distortions, resulting in reliability in operations, including the management of financial reports themselves, which affected data reliability and the quality of accurate financial reports. Adhering to standards and timeliness is essential to maintain the ability to compete continuously. Moreover, the information became known to the individuals involved, which was beneficial as the organization's officers could examine how their business performs (Setyaningsih et al., 2021). In operations, effective accounting information systems, internal control of risk, organizational culture, and quality financial reports free of errors were key factors in the quality of financial statements and operating results. The quality of financial reports was indirectly and positively affected by the knowledge and understanding of the accounting information system through a good accounting information system, as seen in Li (2021). The operation and responsibility given to accountants relied on their experience and skills. Accountants should also understand

accounting logic. The knowledge and application of accounting logic and the proficiency of accountants in using accounting information systems affected the quality of prepared financial statements. In the information era, professional ethics and basic accounting knowledge were not the only requirements for accounting officers in state-owned enterprises. The demands in the information era included IT knowledge, awareness of business data, information on accounting, data retrieval skills, and sensitivity to accounting data. Therefore, IT should be practiced among accounting professionals.

The quality of financial reports is positively affected by the organizational culture in terms of a good accounting information system, according to Binh et al. (2022) study. The organizational culture impacts the evidence of the quality of the accounting system data in Vietnam. In their study, the researchers established that organizational culture plays a significant role in enhancing the quality of data in the accounting systems of companies in Vietnam. The use of innovative organizational culture would enhance the system quality in terms of integration, reliability, flexibility, data harmony, and accounting data quality, ensuring that there is sufficient accounting data to make decisions (Astuty et al., 2022). They investigated the impact of the introduction of management accounting data and management accounting information systems. The driving force behind the research was the integration of management accounting information systems, yet the generated data were not validated, such as business environment uncertainty, ethics, and organizational culture. The findings indicate that the influence of business environment variables, ethics, and organizational culture influences the quality of accounting data through the application of the accounting information system. A good accounting information system is positively but indirectly influenced by information technology management conducted at the organizational level, which is in line with Al Natour (2021). They researched the impact of IT on the quality of accounting information. Technology has been noted to compel many enterprises to adopt a changing culture by evolving with the development of newer and more efficient technology. This was the focus of the research, which aimed to investigate the impact of IT (speed, accuracy, flexibility, consideration) on the quality of accounting data in accordance with SFAC NO 8, 2010 (relevance, faithful representation, comparability, verifiability, timeliness, and understandability). The study demonstrated that speed and flexibility influenced accounting practices and the faithful

representation of financial information (Hani Al-Dmour, 2018). The research analyzed the internal control of the effective accounting information process and its impact on the quality of financial reports. The objective was to assess the impact of implementing an accounting information system based on the COBIT internal control model. The evaluation of the reliability of accounting information systems on business performance focused on planning, procurement, delivery, and monitoring. The variables examined the quality of financial reports of businesses listed on the Jordan Stock Exchange. The empirical findings indicated that the trustworthiness of AIS depended on practices aligned with the SysTrust framework, which had a significant and positive effect on business performance. The quality of financial reports served as a key mediator in these relationships.

## 8. CONCLUSION

The aim of this research was to develop a quantitative model to test the factors that affect a good accounting information system, including knowledge and understanding of accounting information, organizational culture, and information technology management at the organizational level. The study also aimed to examine how knowledge and understanding of accounting information, organizational culture, and enterprise information technology management impact the quality of financial reports. A quantitative study was conducted using 420 questionnaires to collect data, and the data analysis was performed using a structural equation model.

The results showed that knowledge and understanding of the accounting information system have a direct and positive impact on a good accounting information system. At the organizational level, a good accounting information system is positively influenced by information technology management. An efficient accounting information system directly contributes to the quality of financial reports. The quality of financial reports is also positively affected by knowledge and understanding of the accounting information system. Information technology management at the organizational level has a direct and positive impact on the quality of financial reports of state-owned enterprises in the energy sector in Thailand. The experience and skills of accountants play a crucial role in ensuring the knowledge and awareness of the accounting information system. They should be well-versed in accounting logic and capable of

implementing accounting information systems for accountants, which would impact the quality of prepared financial statements. In the information age, the requirements for accounting officers in state-owned enterprises extended beyond financial ethics and basic accounting skills to include IT expertise, understanding of business data, awareness of accounting information, data retrieval skills, and sensitivity to accounting information. This necessitated accounting professionals to be well-versed and familiar with accounting information systems in the context of IT. The effectiveness of measuring accounting information systems using user ability factors was analyzed based on an integrated reporting information system. The users of the accounting system should be knowledgeable, understanding, and skilled. They should be familiar with computers and information systems, evaluation processes, and the ability to determine the scope of the system, leading to a flexible, easily accessible, and reliable information system in the accounting model mentioned.

Accounting for information system factors, organizational culture, and the management of information technology at the internal level influence the quality of the financial reports of state-owned enterprises in Thailand's energy sector through an effective accounting information system. Knowledge and understanding of the accounting information system has an indirect and positive relationship with the quality of financial reports by way of a good accounting information system. A good accounting information system indirectly and positively impacts the quality of financial reports because of the effect of organizational culture. Indirectly, information technology management at the organizational level had a positive effect on the quality of financial reports via the good accounting information system of state-owned enterprises in the energy sector in Thailand. Understanding and applying AIS technology gives executives the chance to interpret data to make decisions on effective planning and management. An accounting information system will facilitate fewer steps and times to be taken during operation. It can restrain and maintain information security because technology always exists. Companies should use this technology to obtain credible financial statements. This makes financial reporting more convenient. When information systems are implemented in an organization, the accuracy of financial reporting can be enhanced without errors or manipulations. It was credible in regard to operation and process of preparing the financial report, which influenced data credibility

and the quality of an accurate financial report, the standard and timeliness to maintain the sustained competitive capacity, by reporting the data to the concerned individuals and helpful to the officers of the organization in the analysis of the business performance.

## 9. SUGGESTIONS

For the suggestion for further research, causal factors should be studied for other causes affecting

the quality of financial reports of state-owned energy enterprises, such as internal control and risk management, so that the study is more comprehensive. The research scope should be expanded to include state-owned enterprises in other sectors to cover sample groups from various industries. This will help in comparing the data between state-owned enterprises in different sectors, allowing us to identify the factors affecting the accounting information system and the quality of financial reports in several companies.

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