DETERMINANTS INFLUENCING THE QUALITY OF ACCOUNTING INFORMATION SYSTEMS: A CASE STUDY OF SMALL AND MEDIUM ENTERPRISES IN HO CHI MINH CITY

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ABSTRACT

Accounting information systems play a significant role in providing accounting information for the management and administration of enterprises, which is the basis for making business owners' economic and executive decisions as well as related subjects such as State management agencies, business partners, and investors. Therefore, this paper's main objective is to research critical factors that were influencing the quality of accounting information systems at small and medium enterprises in Ho Chi Minh City (HCMC). The authors surveyed 800 accountants who are working at 400 small and medium enterprises (SMEs) in HCMC; each enterprise has two accountants surveyed, and Data surveyed from January 2020 to May 2020. The authors used a random sampling technique, tested Cronbach's Alpha, and Structural Equation Modelling (SEM). The study used items on a 5-point Likert scale. Research results showed four factors influencing the quality of accounting information systems at the SMEs in HCMC with significance at 1.0 percent.

Keywords: Quality, Accounting, Information, Systems, SMEs, and SGU.

INTRODUCTION

The accounting information system is a subsystem of the management information system. It has the primary function of recording and handling arising economic operations and providing information for the management of production and business performance of enterprises for exciting subjects. This information got from the accounting information system and served the business decision making of internal and external entities (Budiarto, 2015). In particular, accounting information is necessary information for managers to make decisions. This information is regulations on business plans, selection of investment projects. Besides, accounting information also helps business leaders organize the implementation, evaluate the results of the departments' implementation, and inform the management about the actual situation. Accounting information helped managers present plans, adjust plans to suit the business situation for small-sized enterprises with limited resources. Accounting information systems play an essential role in business managers' financial and business consulting (Budiarto, & Prabowo, 2015). Authors studied the issues of evaluating the quality of the accounting

information system (AIS) and the factors affecting the quality of the AIS is urgent, both theoretical and practical. (1) From the academic perspective: the quality of accounting information, which helps to apply information technology in the field of accounting, actively has required the quality of accounting information to improve. (2) From a practical perspective, small and medium enterprises account for more than 95% of the number of enterprises in Vietnam. In particular, big cities like Ho Chi Minh City (HCMC) is still the focus and attracts many small and medium enterprises operating in HCMC ranks first in the number of SMEs in the country. Both the theoretical and practical requirements, it is necessary to have more research and comprehensive evaluation of the accounting information system quality and identify the factors affecting the system quality accounting information to propose appropriate recommendations for the sustainable development of SMEs in HCMC. Therefore, the authors chose the implementation of the topic "Determinants influencing the quality of accounting information systems: a case study of small and medium enterprises in Ho Chi Minh City" is very urgent.

LITERATURE REVIEW

The quality of accounting information systems (QAIS)

The quality of the accounting information system plays very important in supplying pieces of information, such as information, user satisfaction, system quality (Susanto, 2017). These studies may use single criteria or a combination of multiple approaches. However, the research results show that the current trend, the authors often use multi-criteria scales to measure the quality of accounting information systems. Using the multi-scale criteria helps to regulate the multifaceted and complete aspects of the accounting information system quality. However, an essential issue in the study is determining which evaluation criteria are suitable for the accounting information system (Fardinal, 2013).

An accounting information system's quality is the perception of users about the output information, business process, management reports, and estimation system available to them. There are Decision making and meeting management requirements for coordination and control throughout the enterprise (Wuriasih, 2017). The accounting information system's quality is the synchronization and consolidation of components, including hardware, software, processor, telecommunication network, database quality, quality of work, and user (Fitriati, & Susanto, 2017). The quality of the accounting information system in this study measured by two criteria: system quality and information quality, in which system quality shows the synchronous interaction between 4 components. The method in process management of transactions and the quality of information reflect outputs that meet user needs.

System Quality (SQ): System quality is an essential criterion in evaluating the quality of accounting information systems. System quality used in the process of assessing the contribution of information systems to businesses. System quality measures the process of information processing of the system itself, evaluating the software and its data from a technical perspective, reflecting the processing system. The processor must process the data to produce the requested information (Martusa, & Meythi, 2013). System quality is closely related to the absence of "errors" in the system, user interface consistency, ease of use, document quality, and sometimes, the quality and maintainability of coding. With this criterion, the quality accounting information system needs to have the superiority in meeting technical standards, suitability, and requirements of users in the enterprise.

Quality of Information (QI): The quality of information is concerned with the process's output quality, which is accounting information. The accounting information system's output quality is the quality of information generated from the system through reporting forms. Information quality criteria refer to information content issues such as the accuracy, suitability, and timeliness of information generated from information systems, and the formality (Omran Ahmad Mohammad Al-Ibbini, 2017). Information such as beautiful form and format, easy comparison with previous periods or data provided by other departments, and reports presented in an easy-to-understand format. Thus, information quality criteria measure the quality of information output generated from data processing and presented in accounting reports that meet the requirements of those who need it.

Information Technology (IT)

In the process of international integration and global competition, the active exploitation of IT tools enhances the business administration's ability and improves competitiveness and creates new opportunities for enterprise. But currently, IT application is limited, besides the linkage between businesses and IT groups is not close; this causes a situation where companies have many difficulties in finding solutions (Omran Ahmad Mohammad Al-Ibbini, 2017). IT applied in its production and business activities. Information technology, including computers and other electronic devices, is used to store, retrieve, transfer, and manipulate data. There is information technology, like all forms of technology used to create, store, exchange, and use information in various ways (Ramdany, 2015). Studies showed that that information technology improvement is a top business concern today. Studies had divided information technology into three main components: Information technology related to networks (networks), the technology associated with the transaction processing system, and infrastructure related to information technology. (Vu Thi Thanh Binh, 2020) studied the factors affecting the quality of accounting information systems in small and medium-sized enterprises in Hanoi, such as information technology affecting QAIS. Therefore, the following hypothesis built.

H_1:   Information technology influences the system quality of small and medium enterprises in HCMC.

H_2:   Information technology influencing the quality of information at small and medium enterprises in HCMC.

Organizational Structure (OS)

The organization's structure retains and responds to information about how the business feels for the business environment. According to the backup theory, enterprise structure is a natural element, belonging to the business's available mechanism and very popular in management accounting theory. (Rapina, 2014) studied the factors influencing the quality of the accounting information system and its implications on the quality of accounting information. The structure of a business reflects the distribution of responsibility, authority, and accountability throughout the organization. Enterprise structure is the arrangement of components and divisions within the enterprise. The business structure shows the division of labor and shows how the functions of the activities of these departments are different, how they merge and work together to achieve goals set. Muhamad Khalil Omar (2016) showed that factors Influencing Quality Accounting Information Systems among Malaysian Private Organizations. Therefore, the following hypothesis built.

H_3:   Organizational structure influences the system quality of small and medium enterprises in HCMC.

H_4:   Organizational structure influencing the quality of information at small and medium enterprises in HCMC.

Administrator Involvement (AI)

The administrator plays a leading role and is the leader in leading employees to perform the business's tasks and tasks. The range of management's leadership is wide-ranging from hiring, training, remuneration, evaluation, commendation, and termination of labor contracts. Administrator involvement defined as the duties and behaviors that the administrator exhibits, as well as the psychological state of the administrator involved in the project or system implementation process (Sačer & Oluić 2013). Business owners play a crucial role in business owners in implementing the accounting information system. To successfully implement an information system at an enterprise, the involvement of the head of the business in implementing the system is an important influencing factor. Management commitment, such as in the form of participating in an accounting information system project, can make the accounting information system aligned with the goals and strategies of companies. (Meiryani, 2014) studied the factors that affect the quality of the accounting information system and empirical testing in state-owned enterprises. Therefore, the following hypothesis built.

H_5:   Administrator involvement influencing system quality at small and medium enterprises in HCMC.

H_6:   Administrator involvement influencing the quality of information at small and medium enterprises in HCMC.

Accounting Team (AT)

The accountant is the person who directly handles the system's operations and is also a user of information from the system for daily goals. Studies had confirmed that the human element is one of the elements of the accounting information system (Ramli, 2013). This approach shows the role of human factors, and in particular, the accounting team plays an essential role in improving the quality of accounting information systems. Accounting as a user, who designs and controls the business accounting information system, is responsible for sharing with computer experts to develop applications in the accounting information system. Accounting is strict management and monitoring tool; effectively all economic and financial activities providing sufficient, timely, honest, public, and transparent information; meeting the requirements of organization and management of state agencies and enterprises; organizations and individuals. (Vu Thi Thanh Binh, 2020) studied the factors affecting the quality of accounting information systems in small and medium-sized enterprises in Hanoi, such as the accounting team changing QAIS. Therefore, the following hypothesis built.
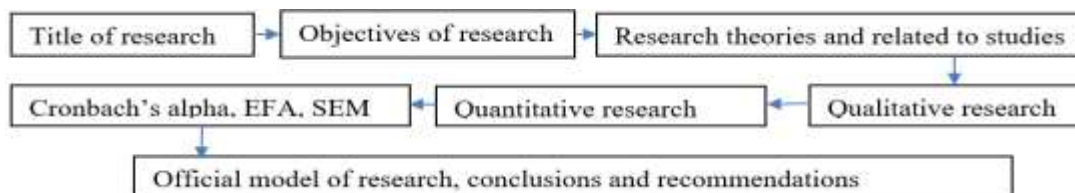
H_7:   Accounting team influencing system quality at small and medium enterprises in HCMC.

H8:   Accounting team influencing the quality of information at small and medium enterprises in HCMC.

H₉: System quality has a positive impact on the quality of information at small and medium enterprises in HCMC.

METHODS OF RESEARCH

Factors influencing the quality of accounting information systems at the SMEs in HCMC that had many stages following Figure 1:

Source: authors proposed

FIGURE 1
THE RESEARCH PROCESS FOR FACTORS INFLUENCING THE QUALITY OF ACCOUNTING INFORMATION SYSTEMS AT THE SMEs IN HCMC

Stage 1: Title of research: the authors identified the research title. The title is a vital factor that influencing the quality of accounting information systems of the SMEs in HCMC. This study is usually chosen based on experience, accumulated knowledge, and practical needs of SMEs in HCMC. Stage 2: Objectives of research: the authors found the objectives of the research. The study's goal is to test critical factors that influence the quality of accounting information systems of SMEs in HCMC. Stage 3: Research theories and related to studies: the authors found the research theories and related to studies. This stage helped the authors build a model of the quality of accounting information systems. Stage 4: Qualitative research: Based on the mentioned theories and related to studies. The authors built preliminary scales and the preliminary model for factors influencing the SMEs' quality of accounting information systems in HCMC. The authors interviewed experts in accounting subjects. The authors did preliminary scales based on 10 experts' ideas about accounting and information systems to improve the scale and design of the surveying of questions. The authors asked ten experts, and all open them had an agreement that all factors are influencing the quality of accounting information systems of the SMEs in HCMC.

The authors adjusted the research model. This stage made a better model. The authors had an adjustment and refined scale by testing a reliability scale with Cronbach's Alpha coefficient and exploratory factor analysis. The authors surveyed 200 accountants working for 100 SMEs in HCMC. This stage made preliminary Data, and the research results improved the questionnaire for quantitative research of 800 persons related to accounting) (Hair, et al., 1998). Stage 5: Quantitative analysis (n = 800 accountants): the authors continued to survey 800 accountants working for 400 SMEs in HCMC. The authors tested the reliability scale with Cronbach's Alpha coefficient and exploratory factor analysis. Each SME had two accountants surveyed. There are 23 items and 792 accountants answered and data collected from May 2020 to August 2020 at 400 SMEs in HCMC.

Stage 6: Cronbach's alpha, EFA, SEM: the authors used a random sampling technique and spent 35 minutes for a survey. Reliability scale with Cronbach's Alpha coefficient and exploratory factor analysis testing. Next, the authors continued to confirmatory factor analysis

(CFA). CFA showed to clarify: Chi-square testing is P-value > 5 percent; CMIN/df ≤ 2, some cases CMIN/df maybe ≤ 3.0 or < 5.0 (Hair et al., 1998); GFI, TLI, CFI ≥ 0.9. Besides, RMSEA ≤ 0.08. Stage 7: Official model of research: the authors tested the SEM model based on stage 6. Besides, the authors had conclusions and recommendations to enhance the quality of accounting information systems of the SMEs in HCMC.

RESEARCH RESULTS

The authors proposed the research results of the scale reliability testing for factors influencing the quality of accounting information systems of the SMEs in HCMC.

| Items	Content	Cronbach's Alpha if Item Deleted
Table 1 THE SCALE RELIABILITY TESTS FOR FACTORS INFLUENCING THE QUALITY OF ACCOUNTING INFORMATION SYSTEMS OF THE SMEs IN HCMC		
SQ1	Applying new and modern technologies	0.937
SQ2	Very well integrated with systems of rooms, other boards like sales, production	0.891
SQ3	Organize the system of vouchers and documents very well and Respond to online requests very quickly	0.939
Cronbach's Alpha for system quality (SQ)		**0.947**
QI1	Information output is instrumental in daily work	0.861
QI2	Accounting information is comparable to information on periods before or of other parts	0.800
QI3	The output is helpful in daily work	0.852
QI4	The output is very accurate, complete and precise in daily work	0.813
Cronbach's Alpha for quality of information (QI)		**0.869**
IT1	The degree of computerization of applications in the accounting department	0.929
IT2	The level of automation of applications to track production and business activities	0.954
IT3	The level of automation of management control applications	0.949
IT4	Computerization of applications associated with the external environment such as internet	0.933
Cronbach's Alpha for information technology (IT)		**0.956**
OS1	Hiring and firing managers	0.803
OS2	Investment options, shopping for great value	0.813
OS3	Business budget allocation	0.846
OS4	The decision on the pricing of products and goods	0.800
Cronbach's Alpha for organizational structure (OS)		**0.855**
AI1	Affirm the accounting system needs of the company	0.926
AI2	Deploying an accounting information system based on hardware and software	0.938
AI3	Solving problems arising in the implementation of the accounting information system	0.935
AI4	Planning for further system development	0.925
Cronbach's Alpha for administrator involvement (AI)		**0.947**
AT1	The accounting team is attached, working with the company for a long time	0.942
AT2	Capable of performing accounting services following the law	0.960
AT3	Capable of conducting business consulting services for the company	0.951
AT4	The accounting team has been professionally trained and developed at the company	0.937
Cronbach's Alpha for accounting team (AT)		**0.960**
The KMO coefficient is 0.829 and the level of significance with 0.000		
The variance coefficient is 82.982%		

(Source: The authors' processing data and SPSS 20.0)

Table 1 showed that all of the 23 variables surveyed and all of Cronbach's Alpha are greater than 0.6. Twenty-three variables divided into six components, such as Cronbach's Alpha for system quality (SQ), system quality (SQ), information technology (IT), organizational structure (OS), administrator involvement (AI), and accounting team (AT) are higher 6.0.

Table 2 COEFFICIENTS FROM STRUCTURAL EQUATION MODELING (SEM)								
Relationships			Coefficient	Standardized Coefficient	S.E.	C.R.	P	Conclusion
System quality	<---	Information technology	0.067	0.081	0.024	2.766	0.006	H1: Supported
System quality	<---	Organizational structure	0.168	0.153	0.034	4.948	***	H3: Supported
System quality	<---	Administrator involvement	0.080	0.082	0.029	2.812	0.005	H5: Supported
System quality	<---	Accounting team	0.471	0.536	0.029	16.432	***	H7: Supported
Quality information	<---	Information technology	0.041	0.095	0.013	3.127	0.002	H2: Supported
Quality information	<---	Organizational structure	0.067	0.116	0.019	3.580	***	H4: Supported
Quality information	<---	Administrator involvement	0.043	0.084	0.015	2.792	0.005	H6: Supported
Quality information	<---	Accounting team	0.135	0.293	0.018	7.396	***	H8: Supported
Quality information	<---	System quality	0.178	0.339	0.022	8.202	***	H9: Supported

Note: Significant at 1.0 percent (All t-tests are one-tailed)
(Source: The authors' processing data and SPSS 20.0)

Table 2 showed that column "P" < 0.01 with significance level 0.01 and column "Conclusion" all of hypotheses supported. These results showed that four factors that are affecting the system quality and the quality information. Besides, system quality affecting the quality information with a significance level of 0.01. These results are science evident for managerial implications to enhance the quality of accounting information systems of the SMEs in HCMC. Chi-square = 859.080; df = 203; p = 0.000; Chi-square/df = 4.232; GFI = 0.918; TLI = 0.956; CFI = 0.965; RMSEA = 0.064 (Figure 2).
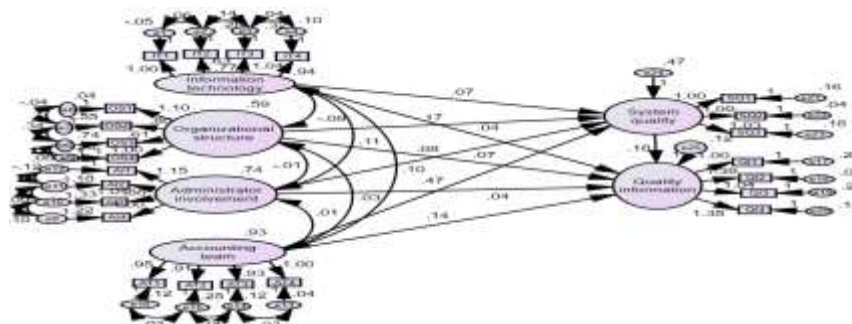
(Source: The authors' processing data and Amos)
FIGURE 2
THE STRUCTURAL MODEL TESTING THE STRUCTURAL LINKAGE BETWEEN COMPONENTS

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Conclusions

The quality of accounting information systems is increasingly playing an important role in enterprises, especially in small and medium enterprises, with limited resources to seek outside consulting services. So, the accounting information system plays an essential role in connecting information for the entire business. The accountant acts as a consultant for corporate governance. The output information generated from the accounting information system is the basis for accounting consulting for managers. The authors surveyed 800 accountants who are working at 400 small and medium enterprises (SMEs) in HCMC, and each enterprise has two accountants surveyed, and Data surveyed from January 2020 to May 2020. The authors used a random sampling technique, tested Cronbach's Alpha, and Structural Equation Modelling (SEM). The study used items on a 5-point Likert scale. The research results showed that four factors that are affecting the system quality and quality information. Besides, system quality affecting the quality information of SMEs in HCMC with asignificance level of 0.01. Based on the things mentioned above, the authors had the managerial implications following:

Managerial Implications

The role of small and medium enterprises is critical in Vietnam's economy. To help small and medium enterprises grow, SMEs need to improve their accounting information systems. Therefore, it is necessary to have recommendations for improving the quality of accounting information systems in SMEs. These recommendations based on empirical evidence on the influence of factors affecting the quality of accounting information systems.

The managerial implication for the accounting team ($\beta = 0.536$) is the most substantial impact on the system quality and the quality information of SMEs in HCMC with a significance level of 0.01. Small and medium enterprises need to enhance the capacity of the accounting team and adherence to the business. The research results showed the influence of the accounting team on the quality of information. The accounting team of enterprises is long-term and capable of providing accounting services, the capacity of helping business consulting services improve the quality of information generated from the accounting information system. Therefore, the study has recommendations on the business side to enhance the accounting team's capacity and accounting engagement with the company. Besides, small and medium enterprises need to have a competent team of accounting services, business consulting services, SMEs need to perform right from the recruitment stage. SMEs often have a streamlined accounting system, so new accountants often get little guidance. Therefore, if the business does not perform well in recruitment, selecting potential candidates to undertake the accounting job is challenging. Finally, small and medium enterprises need to research, develop, and issue incentive policies suitable for workers' working capacity. Income is a critical factor for workers; remuneration commensurate with workers' ability is an excellent solution to retain workers.

The managerial implication for organizational structure ($\beta = 0.153$) is the other impact on the system quality and the quality information of SMEs in HCMC with a significance level of 0.01. Small and medium enterprises need to implement effective decentralization in the management of SMEs. There are decentralizations to subordinates in product development activities, recruitment, and dismissal of employees, investment procurement options, budget allocation, product price decision of SMEs in HCMC. They are decentralizing implementation

help senior management to divide responsibilities among subordinates so that they can focus on the main goals and towards specialization—besides, decentralization based on the functions of each department to allocate power and responsibility to each department. However, SMEs need to avoid overlapping and to minimize liability. It is necessary to establish internal controls within the enterprise, such as the company's charter, operating regulations, and company rules. It clearly defined the functions and duties of the departments and the coordination of the departments in the enterprise management system.

The managerial implication for administrator involvement (β=0.082) is the third impact on the system quality and the quality information of SMEs in HCMC with a significance level of 0.01. Small and medium enterprises continue increasing the management's participation in the implementation of the accounting information system. The involvement of business administrators has the most impact on improving the quality of information and significantly affecting the quality system's improvement. The results showed that business executives participate considerably from the system implementation stage, solving arising problems. Besides, Business administrators need to have a plan to deploy and develop an accounting information system. Implementing the system is not only from the beginning of the application of the system, but it also starts with the affirmative activity of the need for setting up accounting information systems in the enterprise. The administrators' involvement does not stop when the accounting information system set up, but also the planning activities to continue developing the system.

The managerial implication for information technology (β=0.081) is the least impact on the system quality and the quality information of SMEs in HCMC with a significance level of 0.01. Small and medium enterprises continue worthy investment in information technology: Information technology is the factor that affecting the improvement of system quality. Equipping information technology should pay attention to updating modern technology applications, compatibility among applications throughout the enterprise, building a sound system of documents and documents, and responding quickly to online requests. The process of information technology application should pay attention to compatibility under the capacity of the users. Besides, SMEs can consult experts from inside and outside the enterprise about information technology applications that implemented at enterprises. This factor helps improves the efficiency of information technology equipment. Information technology (IT) is present and plays an essential role in the administration, production, and business activities of each enterprise. The development and application of the Internet have changed the business model and way of doing business, the gradual shift from traditional transactions to electronic transactions has affected the position, role and the demand stakeholders such as customers, suppliers, investors. IT investment activities in the enterprise serve the business's objectives, such as supporting operational activities, supporting management decisions, supporting the development of strategies to gain benefits, and competitive advantage.

Finally, based on the results of analyzing the research model, the author proposes many recommendations for both SMEs and the next researchers to improve the system quality and improve the information quality. The following studies should apply probability sampling methods because they ensure a higher degree of representativeness and increase the sample size for more accurate analysis results. Besides, further studies should increase the observed variables such as business environment, accounting laws, corporate culture. New research should improve the comparison of this research result with previous studies and expand the data survey in provinces and cities.

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