

The Effect of Organizational Culture on the Quality of Accounting Information Systems: Evidence From Vietnam

SAGE Open
July-September 2022: 1–12
© The Author(s) 2022
DOI: 10.1177/21582440221121599
journals.sagepub.com/home/sgo


Vu Thi Thanh Binh¹ , Nhat-Minh Tran² ,
and Manh-Chien Vu³

Abstract

One of the approaches to assessing the organizational culture is to understand its effect on management functions, including the quality of accounting information systems. However, empirical studies about the influences of organizational culture on accounting information system quality, especially in the context of emerging countries like Vietnam, where accounting information is not reliable enough for decision making, have not yet provided enough evidence to confirm this relationship. This paper aims to investigate the effect of innovative organizational culture on the quality of accounting information systems by using the Structural Equation Model. A questionnaire was sent to the CEO, CFO, managers, and accounting staff of non-financial enterprises in Vietnam. With 649 valid respondents, the two-step approach was carried out, including exploratory factor analysis and confirmatory factor analysis and examining the significance of the coefficient through a path analysis. Our findings identified that organizational culture is an essential factor in enhancing the quality of accounting information systems of Vietnamese firms. Implementing an innovative corporate culture will improve system quality and information quality of the accounting information systems that help accounting information more sufficient for making decisions.

Keywords

accounting information system quality, information quality, organizational culture, system quality, SEM

Introduction

Accounting information system is known as a tool for enhancing firm performance. The accounting information system is an interconnection of physical and non-physical subsystems to convert data of financial transactions into information (Azhar, 2008). Accounting information systems generate information by processing data resources with the essential components comprising people, data, hardware, software, and network resources (Hall, 2011). Accounting information benefits managers in planning, decision-making, and controlling (Saganuwan et al., 2013). The fact shows that businesses, in particular small and medium-sized enterprises, in several developing countries often suffer from the problem of “a little formal management mode” or lack of accounting transparency (Chapellier & Ben Hamadi, 2012; Ghorbel, 2019). An unintegrated information system can cause these problems. It means that the quality of accounting information systems may be inaccurate and inflexible in recording transactions, leading to low accounting information quality (Susanto, 2017b). To solve these challenges and meet the needs of managers, Ghorbel (2019) argued that firms should have an appropriate accounting information system.

Culture is a crucial motivator of performance and effectiveness that is always an issue of concern to practitioners and researchers. Organizational culture is an effective and well-integrated group of beliefs, values, and behaviors (Sørensen, 2002) in which a central component of corporate culture is how an enterprise encourages the creation and innovation of new ideas among staff to support business processes and firm performance (Menon et al., 1999). Organizational culture is a potential asset of firms with four functions that illustrate an organization’s identity, facilitate reciprocal engagements, reinforce the stability of an organization, and establish members’ behavior by helping them to know their work environment (Wagner & Hollenbeck, 2005). The ways firms look for and use information like management accounting information will have some influence on

¹Hanoi University of Industry, Vietnam

²National Economics University, Hanoi, Vietnam

³Thuongmai University, Hanoi, Vietnam

Corresponding Author:

Vu Thi Thanh Binh, Faculty of Accounting and Auditing, Hanoi University of Industry, 298 Cau Dien Street, Minh Khai Ward, Bac Tu Liem District, Hanoi 100000, Vietnam.
Email: vuthithanhbinh@hau.edu.vn



the link between culture and performance (Stoica et al., 2004), so managers need to spread the organizational motto to staff members and encourage them to work better to increase their creativity values (Susanto, 2017a). The researchers have postulated the effect of organizational culture on the implementation of accounting information systems (Ha, 2020; Kwarteng & Aveh, 2018) and the quality of accounting information systems (Carolina, 2014; H. T. Nguyen & Nguyen, 2020; Nusa, 2015; Susanto, 2017a; Wisna, 2015). Evidence from previous studies reveals that further development of organizational culture will be able to enhance the quality of accounting information systems. Several studies have focused on the instrumental value of culture (Barley et al., 1988); however, there is still a lack of comprehensive theory demonstrating the influence of organizational culture traits on accounting information systems quality and little supporting evidence for this relationship (Kotter & Heskett, 1992; Kwarteng & Aveh, 2018).

Besides, in previous studies on the relationship between organizational culture and the quality of accounting information systems, the authors used single measures, while recent studies indicate that the multi-dimension measurement fully reflects the quality aspects (Chalu, 2012; Delone & McLean, 2003). The gap in theory and empirical is even more prevalent in emerging countries. A few studies in developing countries such as Turkey, Ghana, and Indonesia have given evidence that the development of institutions and structures is not excellent and well-documented effects on organizational culture on the accounting information system (Kwarteng & Aveh, 2018; Uz Kurt et al., 2013; Wisna, 2015). In Vietnam, the cultural structure is complicated with a long and traditional history, and Vietnamese employees accept tasks, adhere to the organizational rules, and try to do effectively at work (Tran, 2020). Traditional Vietnamese culture leads to the difference in organizational culture and quality of accounting information systems from developed countries. The accounting information in Vietnam is insufficient for making decisions (B. N. Nguyen, 2018) because the system quality and information quality are not excellent (Binh, Tran, Thanh, & Pham, 2020). Firm managers pay more attention to enhancing the quality of accounting information systems due to a firm's dependence on information systems (Gorla et al., 2010). The Vietnamese Government implements supportive policies to help businesses grow, including organizational culture development policies, for example, Decision No. 1846/QĐ-TTg (Vietnamese Prime Minister, 2016). And firm managers in Vietnam recognize the importance of adopting an organizational culture to its environment (Vo & Nguyen, 2011), so the firms create a culture with its own identity, but not yet outstanding and clear (Do, 2015). There is a need to understand and identify the meanings, power, and norms of organizational culture in enterprises to successfully implement an accounting information system (Indeje & Zheng, 2010). However, there is a paucity of research on Vietnam's private corporate culture (Vo &

Nguyen, 2011), especially the shortage of empirical studies on the influence of innovative organizational culture on the quality of accounting information systems.

The motivation of this study is rooted in these aspects. This paper employs the multi-dimensional constructs of accounting information systems quality and innovative organizational culture. Generally, our article can help fill the research gaps by providing empirical evidence to reinforce a comprehensive framework for the effect of organizational culture on the quality of accounting information systems. Our research aims to explore the effect of corporate culture on system quality and information quality of the accounting information system in Vietnam. The main research question is: *What is the effect of organizational culture on the quality of accounting information systems?* Notably, the quality of accounting information systems comprises two components: system quality and information quality. These two components are not independent but interactive. Thus, this study will examine the effect of innovative organizational culture on information quality through the mediating role of system quality.

The current study contributes via empirical research that adds to the scarce body of study on the link between organizational culture and accounting information systems quality, especially in an emerging economy. The remainder of the research is organized as below. The second section shows a literature review on organizational culture and its effect on the quality of accounting information systems. The next section issues the study's methodology, followed by the result and discussion section. And the last section overviews the conclusion and limitations of the research.

Literature Review

Organizational Culture

Organizational culture is a big motivator of firms' innovation, productivity, and financial performance. Many different concepts of culture come from two separate areas: anthropology and sociology. From anthropology to the study of business management, organizational culture is an emergent result of the continuing negotiations about meanings, values, and proprieties among the organization's members (Douglas, 1985). Anthropology considered the explanation view to define organizations as a culture, while sociology, with a functional viewpoint, considered culture as something businesses own. Deshpandé and Webster (1989) defined organizational culture as "the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them with the norms for behavior in the organization" (p. 4). It means that organizational culture is a structure of shared critical assumptions that the members in a group learn to deal with problems of internal integration and external adaptation and work well enough to be considered valid. Hence, organizational culture guides the behavior of

new members in organizations to solve problems (Schein, 2010). These two fields contribute greatly to the theories and different frameworks of organizational culture in academic literature; however, the notion that organizational culture is an asset of the business seems to be more common. Therefore, researchers and practitioners try to understand the role and function of culture so that they can manage and develop an organizational culture to help bring benefits to businesses.

Several researchers categorize organizational culture as one that aims to assist individuals in knowing how organization functions (Deshpandé & Webster, 1989). Quinn and Spreitzer (1991) develop a framework to classify organizational culture into four groups: developmental culture, group culture, rational culture, and hierarchical culture. This typology is based on two dimensions comprising the control/flexibility orientations and the internal/external orientations. In the same vein, with two key classifying dimensions, organizational culture is categorized into clan/consensual culture, adhocracy/entrepreneurial culture, hierarchy/bureaucratic culture, and market/competitive culture (Boggs, 2004; Deshpandé & Farley, 2004). Based on the four cultural traits of an effective organization, organizational culture is categorized into four types: mission, adaptability, consistency, and involvement (Denison et al., 2004; Kwarteng & Aveh, 2018). Another classification of S. E. Chang and Lin (2007) classifies organizational culture into four types: consistency, innovativeness, cooperativeness, and effectiveness. In this aspect, *cooperativeness* focuses on internal and flexibility orientation with information sharing, empowerment, trust, and teamwork; *innovativeness* focuses on external and flexibility orientation with creativity, entrepreneurship, dynamism, and adaptability; *consistency* reflects compliance with rules, order, and regulations focusing on internal and control orientation; and *effectiveness* reflects goal achievement, benefit-oriented measures, and competitiveness. Menon et al. (1999) believe a central component of organizational culture is the way a firm encourages innovation of new ideas among employees, hence innovative organizational culture has a positive effect on the development of business processes and firm performance (Toaldo et al., 2013).

This paper adopted the trait of an innovative culture approach examining the effect of organizational culture on the quality of accounting information systems. Martins (1987) studied socio-physical aspects that lead to an innovative organization's culture consisting of mission and vision, leadership, interpersonal relationships, employee needs, and objectives means to obtain the objectives, management processes, organization image, and external environment. Meanwhile, Uz Kurt et al. (2013) adopted the traits of innovativeness of organizational culture measure developed by S. E. Chang and Lin (2007). The innovative organizational culture used in this research emphasizes the external and flexibility orientations focused on dynamism, entrepreneurship adaptability, and creativity.

Quality of Accounting Information System

Accounting performs economic events for stakeholders to decide and judge knowingly is known as an information system. Accounting information systems as a logical intersection between accounting and information systems (Manteghi & Jahromi, 2012) is a component of the organization that suggests decision-making opinions for users through processing financial transactions and alerting information (Kieso et al., 2010). Romney and Steinbart (2015) define that an accounting information system gathers, records, stores, and compiles financial and non-financial data to generate information for decision-makers. Accounting data may be optional or mandatory, and historical or forecast that is structured by the accounting information system and then used by managers to run their business (Chapellier et al., 2013). Accounting information systems play roles in formulating and calculating organizational strategies to enhance financial control in firms (Chenhall, 2003). Thus, the effectiveness of the accounting information systems will benefit the decision-making process, accounting information quality, internal controls, facilitating transactions, and performance assessment (Sajady et al., 2008). Quality is a non-financial measure that captures the performance of the accounting information system in this study. According to Whitten and Bentley (2007), the quality of accounting information systems shows the system performance by the amount of work accomplished in a period meeting user requirements. In other words, Meiryani (2015) defines the quality of accounting information systems as integrating interrelated elements of the accounting information systems that work in harmony with each other to compile financial data into useful information for stakeholders.

The measurement of accounting information systems quality is widely investigated throughout the information system scholar community. There are a plethora of quality constructs in the extensive business literature; however, scholars are still debating which constructs are the best measure (Rai et al., 2002; Wang & Liao, 2008). Delone and McLean (1992) synthesize a taxonomy of information system (IS) success measures, including six interdependent constructs called the IS success model. Six constructs in the IS success model are broadly used in information systems evaluation studies. In these six constructs of the IS success model, system quality and information quality reflect the quality of an information system (Seddon, 1997) that are the best measures for all types of information systems (Delone & McLean, 2002). These two components are independent and interact with the rest of the IS success model. However, in the context of accounting information systems, Gorla et al. (2010) and Binh, Tran, Thanh, and Nga (2020) explore that system quality has a positive relationship with information quality. Gorla et al. (2010) explain that a system with poor hardware and software can trigger poor information accounting. In this study, a multi-dimension of quality measures

combining system quality and information quality is employed to reflect the overall quality of accounting information systems. System quality refers to the quality of the accounting information system processing itself, which consists of software, hardware, and data elements, and it is a measure of the technical level of a system (Delone & McLean, 1992; Gorla et al., 2010). Meanwhile, information quality presents the quality of the accounting information system outputs (Delone & McLean, 1992), which can be in the online screens or printed reports form.

Hypotheses Development

Regarding its role in businesses, organizational culture is a critical factor, significantly influencing information resources (S. E. Chang & Lin, 2007). Cultural traits (consistency, adaptability, involvement, and mission) relate to organizational effectiveness that are predictors of profitability, innovation, and sales growth (Denison et al., 2004). In organizing activities, it is necessary to consider the organizational culture factor to achieve the highest efficiency. The accounting information system is an organization's subsystem, so organizational culture has an effect on its quality.

Petter et al. (2013) identify information system success determinants and categorize organizational characteristics as independent variables associated with aspects of the organization such as management support and management processes. Culture is a management process variable that affects information system success, including system quality and information quality. Culture is integral to implementing business processes, and specific culture traits can effectively predict firm performance (Denison & Mishra, 1995). According to Kotler and Keller (2009), organizational culture makes coherence between organization and staff like a control in the firm in implementing information systems, and cultural organizations provide instruction for developing information systems in the organization (Martin, 2002). Kieso et al. (2010) agree that implementing accounting information systems is deeply relative to organizational culture. Carolina (2014) and Wisna (2015) have also confirmed the effect of organizational culture on the quality of accounting information systems in the line the higher organizational culture and the higher accounting information system quality will be. If inadequate human resources and organizational culture support an accounting information system, it will not run accurately to be a good system (Nusa, 2015). Stoica et al. (2004) investigate the influence of culture on information processing patterns and show a significant effect of organizational culture on several aspects of information processing, for instance, the scope, flexibility, formality, and responsiveness of information search. Corporate culture with problems related to innovation in the organization, the relationship among staff, and the identification organization can cause no integration in system quality, untimely reporting, and poor information quality of accounting information systems (Nusa, 2015). Furthermore, firm managers who enhance an

organizational culture by encouraging employee creativity improve the transaction processing system and components integration of the accounting information system (Susanto, 2017a). These imply that a firm's environment where norms, beliefs, and values are geared toward encouraging innovation, here understood as new ideas, new practices, and innovative actions fulfilling decisions made in the accounting information system, can lead to higher system quality as well as accounting information quality.

The quality of accounting information systems in this study consists of system quality and information quality. Following the line of logic above, we propose two hypotheses:

H1: Innovative organizational culture is positively associated with information quality.

H2: Innovative organizational culture is positively associated with system quality.

System quality and information quality are two components of the IS success model that reflect the information system quality (Seddon, 1997). In the original model, Delone and McLean (1992) propose independence between these two variables; however, the authors also call for further research to examine the link between these constructs. Gorla et al. (2010) confirm that two constructs, system quality and information quality, are suitable measures of accounting information system quality that are interrelated. It means that an inadequate system quality probably results in low output quality, putting organizations in a less competitive position. And a system with useful tools, functions, and features can facilitate its process to reduce information overload phenomena (Zheng et al., 2013). Enhancing system quality in the accounting information system context can lead to accurate reporting time and easy-to-understand accounting information (Gorla et al., 2010; Susanto, 2017b). Thus, there is a linkage between system quality and information quality (Binh, Tran, Thanh, & Nga, 2020; Fitriati & Susanto, 2017; Gorla et al., 2010). We propose a hypothesis:

H3: System quality is positively related to information quality.

From these hypotheses above, we propose a research model in Figure 1. In this model, organizational culture is an independent variable, two constructs, including system quality and information quality, represent the quality of accounting information systems. In which system quality is both a mediator and an independent variable.

Methodology

Instrument Development

This study used the instruments which were first developed by Uzkurt et al. (2013) and Gorla et al. (2010).

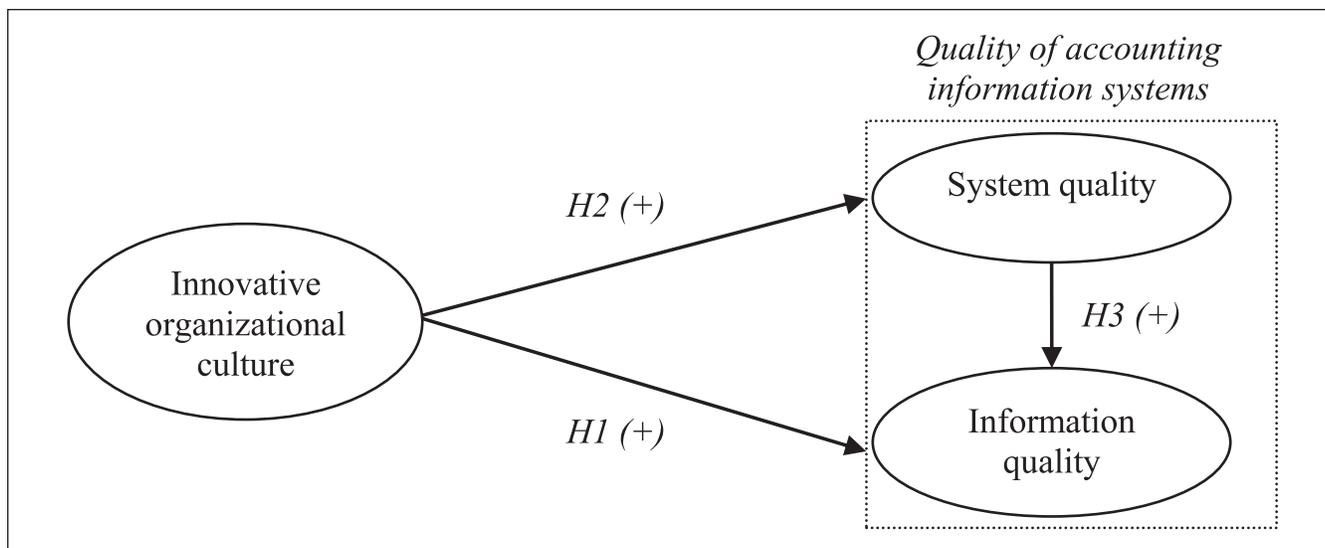


Figure 1. The research model.

Organizational culture. In the first section of the questionnaire, an innovative organizational culture scale developed by Uz Kurt et al. (2013) was used to measure organizational culture. Uz Kurt et al. (2013) based on previous studies (Boggs, 2004; S. E. Chang & Lin, 2007; Denison et al., 2004) to construct the organizational culture scale. Six items of organizational culture assess managers, employees, and companies are willing to encourage innovation, take risks, and face challenges. In this study, the items of the organizational culture scale include six questions, which use a 7-point Likert scale: from 1 = strongly disagree to 7 = strongly agree.

System quality. System quality is the desirable attribute of an accounting information system. The system quality scale developed by Gorla et al. (2010) was used to measure system quality. According to the authors, system quality represents the quality of the information system processing, which assesses whether the system operates efficiently and effectively. System quality measures attribute consisting of easy to learn, useful features and functions, flexible to make changes, applied modern technology, integrated, user-friendly, good documentation, response time, and time-lag between data input and output (Binh, Tran, Thanh, & Pham, 2020; Gorla et al., 2010).

Information quality: The next part of the questionnaire included questions about information quality. Information quality was measured using the previous study of Gorla et al. (2010) and Binh, Tran, Thanh, and Pham (2020), consisting of items: accurate, complete, concise, useful, relevant for decision making, good appearance, and format, comparable to other outputs and easy to understand.

A Likert scale questions ranging from 1 = strongly disagree to 7 = strongly agree were used for both the system quality and information quality constructs.

Demographic variables. The last part of the questionnaire included questions about demographic factors.

Data Collection and Analysis

We adopted measures from several studies intending to reduce the common method variance (CMV) phenomenon (S. J. Chang et al., 2010). The sample emphasized non-financial firms because financial firms in Vietnam have different accounting regulations. The survey focused on the Chief executive officer (CEO), head of the department, chief accountant or chief financial officer (CFO), general accountant, and accounting staff. Because English was not the official language in Vietnam, we translated all items into Vietnamese. To improve content validity, we interviewed an accounting professor to reverse-translate the questionnaire into English that aimed to test the psychometric properties of construct items. After that, we continued pretesting by interviewing five people consisting of one CEO, two chief accountants, and two accountants to guarantee the articulation of the questionnaire. The pretest result is a basis for correcting the questionnaire (Tsang et al., 2017). We then took a pilot study with 50 responses to examine the data collection and processing procedure. The return rate of the pilot test via email was not high at 50 respondents per 165 emails sent, and the result showed that all scales obtained reliabilities using SPSS 20 above 0.80.

Based on the result of the pilot test, we decided to expand our data collection methods. The primary way was sending questionnaires via online surveys due to the popularity of the internet (Bhattacharjee, 2001) and the low missing value rate of online surveys (Hanscom et al., 2002). The respondents were sure that their responses and personality would remain private and that only aggregate information would be

Table 1. Demographic Features of Respondents.

	Frequency	Valid (%)
Business sectors		
Manufacturing and construction sector	223	34
Services and trading sector	410	63
Agriculture sector	16	2
Position		
CEO	95	15
Heads of departments	26	4
Chief accountant and CFO	94	14
General accountant	155	24
Accounting staff	279	43
Experience		
Above 10 years	86	13
5–10 years	130	20
3–5 years	147	23
Less than 3 years	286	44
Total	649	

published to reduce potential biases. The survey link was sent randomly via email from the contact email list with tax authorities. The survey also was sent to members of The Facebook group “Gia đình kế toán” (Accountant Family). Besides, we sent paper surveys to the accounting department through students interning in the companies. The survey was closed after 1 month. One month is widely accepted as the time required to gather data via online surveys (Batagelj & Vehovar, 1998). The link was closed after 1 month, and we received 649 respondents. Because we showed clearly the requirement for our survey by giving a list of work positions we need in the introduction section of the questionnaire, if the respondents do not belong to this list, they can ignore our survey. And we used a closed survey and applied some techniques in our online questionnaire including multiple choice mode with demographic section and linear scale mode with all items of constructs. Furthermore, we managed how responses are collected by requiring respondents to sign in their account to limit to one response and have to fill out all items before sumitting the form. These techniques helped us control outliers and duplicates in online survey. Thus, all questionnaire with total 649 respondents were valid.

The analysis was conducted with SPSS 20 and Amos version 20. The two-step approach includes confirming the measurement through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) and testing the significance of the coefficient through the path analysis in the structural model (Anderson & Gerbing, 1988). For more details, the CFA verified the measurement model through reliability, convergent values, and discriminant values. The structural equation modeling (SEM) analysis established the links between the constructs (Götz et al., 2010) and examined theoretical models and research hypotheses using maximum likelihood estimation. The visual tools illustrated the conceptual model in Amos (Figure 1).

Results and Discussion

Table 1 shows the demographic characteristics of respondents. Three business sectors (i.e., manufacturing and construction, services and trading, and agriculture) participated in the survey, with the service and trading sector being the most popular (accounting for 63%). The respondent positions mix CEOs, heads of departments, chief accountants and CFOs, general accountants, and accounting staff in the various enterprises. The respondents in the group below 3 years of experience are dominated by 44%. The group with 3 to 5 years of experience accounts for 23%, the group with 5 to 10 years of experience accounts for 20%, and the rest with more than 10 years experience is 13%.

Measurement Model

Table 2 shows the means and standard deviations of the items, which measure the dimensions of the quality of accounting information systems, including system quality, information quality, and innovative organizational culture. The quality of accounting information systems ranges from 5.10 to 5.61, which is lower than the means of innovative organizational culture, with mean values ranging from 5.28 to 5.75.

The study evaluates preliminarily construct reliability and validity of the research instrument by EFA and CFA. The measurement model has three constructs: innovative organizational culture, system quality, and information quality. For reliabilities, the study employs both Cronbach’s alpha and composite reliability. Cronbach’s alpha value is calculated to examine the internal construct consistency and its reliability that is sensitive to the number of items in each construct. Hair et al. (2014) recommend that the value of Cronbach alpha above .60 and .70 are deemed appropriate in exploratory research, while composite reliability (CR) values of .70 and .90 are considered suitable for confirmatory. The value of Cronbach’s alpha is affected by the number of inter-relatedness, items, and dimensionality, the popular range of acceptance value of alpha for each construct is from .70 to .95 (Bland & Altman, 1997; Nunnally, 1978). And the maximum alpha value of .90 is recommended to assure no items redundancy (Tavakol & Dennick, 2011; Ursachi et al., 2015). The reliability results met the popular range as Cronbach’s alpha of organizational culture, system quality, and information quality are .890, .934, and .942, respectively. And the CR values in Table 2 are greater than .9, with .924 for system quality, .932 for information quality, and .922 for innovative organizational culture. The EFA utilized the KMO and Bartlett’s test of sphericity, principal axis factoring, and Promax rotation. Kaiser (1974) recommends a bare minimum KMO value of 0.5, while some scholars suggest that the KMO value between 0.5 and 0.7 is medium, the value between 0.7 and 0.8 is good, the value between 0.8 and 0.9 is great, and the value above 0.9 is excellent (Hutcheson &

Table 2. The Results of Descriptives and CFA.

	Items	M	SD	CR	AVE
	System quality				
	Our information systems are. . .				
SQ1	Easy to learn	5.25	1.387	.924	.606
SQ2	Useful features and functions	5.18	1.327		
SQ3	Flexible to make changes easily	5.1	1.303		
SQ4	Applied modern technology	5.18	1.379		
SQ5	Well-integrated	5.22	1.423		
SQ6	User friendly	5.35	1.248		
SQ7	Good documentation	5.44	1.301		
SQ8	Short response time for online inquiry	5.16	1.4		
SQ9	Short time-lag between data input and output for bach processing ^a	5.1	1.358		
	Information quality:				
	Our information outputs are. . .				
IQ1	Accurate	5.55	1.255	.932	.634
IQ2	Complete	5.57	1.193		
IQ3	Concise	5.42	1.274		
IQ4	Useful for daily jobs	5.61	1.188		
IQ5	Relevant for decision making	5.51	1.234		
IQ6	Good appearance and format	5.37	1.271		
IQ7	Comparable to other outputs	5.5	1.227		
IQ8	Easily to understand	5.56	1.243		
	Innovative organizational culture				
CUL1	Managers dare to make innovations and take risk	5.58	1.238	.922	.698
CUL2	Managers actively lead the staff to grow and innovate ^a	5.33	1.572		
CUL3	Managers have vision and insights to create new business opportunities	5.28	1.423		
CUL4	Employees always have to face challenges, and they can learn and grow from the challenges	5.4	1.366		
CUL5	Your company pays attention to the uniqueness of employees and encourages innovation from employees	5.56	1.334		
CUL6	Your company is willing to take risks, and it is indeed an ambitious and energetic organization	5.75	1.187		

Note. Scale 1—strong disagree; 7—strong agree.

^aItems are eliminated due to low communality value in EFA (communalities <0.5).

Sofroniou, 1999; Tabachnick & Fidell, 2007). For these data, the KMO value was 0.939, which fell into the excellent area, so the sample size was satisfactory for factor analysis. The communality values are referenced by Hair et al. (2014) with the cut-off point of 0.5, so two items, SQ9 and CUL2, were eliminated (Table 2).

The goodness of fit indices is based on the following “rule of thumb” ($\chi^2/df \leq 5$, AGFI = >0.8, GFI = >0.9, CFI = >0.9, TLI = >0.9, RMSEA = <0.08; Gunzler & Morris, 2015; Pham et al., 2019). The results indicated that constructs were appropriate conceptual model fit ($\chi^2/df = 4.446$, AGFI = 0.870, GFI = 0.904, CFI = 0.950, TLI = 0.939, RMSEA = <0.073). The squared multiple correlations and the standardized loadings were greater than 0.5, surpassing the suggested convergent validity (Bollen, 1989). Moreover, the discriminant validity of constructs evaluated the independence of the constructs with the criteria of average variance extracted (AVE) values being greater than .50 (Hair et al., 2014; Henseler et al., 2009). The results in Table 2 were satisfied with the required level of AVE.

Structural Model

The goodness of fit indices of the structural model showed a great fit with observed data with $\chi^2/df = 4.446$, GFI = 0.904, AGFI = 0.870, CFI = 0.950, TLI = 0.939, RMSEA = 0.073 (Gunzler & Morris, 2015). Overall, these results indicated a strong predictive validity. Table 3 reveals the standardized estimation results with associated *t*-values for three relationships in SEM. This research aimed to examine the influence of organizational culture on information quality (H1) and system quality (H2), and system quality on information quality (H3). According to standardized path coefficients in Table 3, all three hypotheses were supported at a significant level of $p < .001$. As predicted in H1, organizational culture positively and significantly influenced information quality (H1: $\beta = .195$, $p = .000$). Similarly, organizational culture was positively associated with system quality (H2: $\beta = .546$, $p = .000$). System quality positively influenced information quality (H3: $\beta = .646$, $p = .000$), providing support for H3.

Table 3. The Results of the Structural Model.

Hypothesized paths	β coefficient	t-value	Result
H1: Organizational culture \rightarrow information quality	.195	5.486***	Supported
H2: Organizational culture \rightarrow system quality	.546	13.808***	Supported
H3: System quality \rightarrow information quality	.646	15.686***	Supported

Significant at *** $p < .001$.

Information quality was determined by system quality and organizational culture, which is calculated by direct and indirect influence through system quality. This result indicated that system quality contributed to the highest percentage of information quality in the model, followed by organizational culture. The total effects of organizational culture and system quality on information quality were calculated by the direct effect of system quality on information quality (0.195) and indirect effects of organizational culture on information quality through the mediator system quality ($0.546 \times 0.646 = 0.353$).

Moreover, Figure 2 depicts that system quality was predicted by organizational culture, which explained 30% of the variance in system quality. Taken together, organizational culture and system quality predicted 59% of the variance of information quality.

Discussion

This study focuses on investigating the effect of innovative organizational culture on system quality and information quality as well as the relationship between system quality and information quality of the accounting information system within the emerging economy context of Vietnam. All three hypotheses were verified and supported. Innovative organizational culture explains 30% of the variance of system quality ($R^2 = .3$), while the interaction among them explains 59% of the change of information quality of the accounting information system ($R^2 = .59$). The explanation of our model ($R^2 = .3$ with system quality and $R^2 = .59$ with information quality) is consistent with and a little bit higher than the previous results of Carolina (2014) ($R^2 = .5545$), ($R^2 = .243$), and Wisna (2015) ($R^2 = .247$), which demonstrates our model can be better explain the variance of the endogenous variables. The presence of organizational culture (a motivator variable) and system quality (a mediator variable) can be reasons.

Regarding hypothesis H1 and hypothesis H2, these findings are in line with the studies of Carolina (2014), Nusa (2015), Wisna (2015), Susanto (2017a), and Kwarteng and Aveh (2018). The acceptance of H1 and H2 demonstrates that innovative organizational culture considerably affects the quality of accounting information systems. Organizational culture positively influences information quality because it supports the development as well as the accuracy of information quality (Martin, 2002). The troubles of corporate culture

can cause low information quality and inaccurate reporting time phenomena (Nusa, 2015). Similarly, in terms of H2, the result showed that the organizational culture positively influenced the quality of accounting information systems. According to Nusa (2015), organizational culture is a factor that results in the un-integration of information systems.

This study's findings reinforce the influence of organizational culture on the quality of accounting information systems in the context of emerging economies. The case of Vietnam enriches the research context of emerging economies that is not excellent development of structure and document of organizational culture. However, the influence of organizational culture on the accounting information system quality is undeniable. To enhance the quality of the accounting information system, firm managers need to pay more attention to the traits of organizational culture (Carolina, 2014; Wisna, 2015). An innovative organizational culture is a crucial catalyst to help improve the quality of accounting information systems; thus, firm managers should cultivate an innovative culture so that every employee can contribute to helping the firm reach its goals. In the context of Vietnam, organizational culture with its own identity but not yet outstanding and clear (Do, 2015), which can be a reason for the phenomenon of not excellent quality accounting information systems (Binh, Tran, Thanh, & Pham, 2020). As a result, they can lead to insufficient accounting information for decision-making, as B. N. Nguyen (2018) has shown. Firm managers in Vietnam should encourage an innovative work environment within teams or staff, such as making innovations and taking risks, having insights and vision to create new business opportunities, keeping an eye on the uniqueness of staff members, and giving them chances to face challenges. Vietnam has an "open" economy and participates in many world economic agreements, but the Vietnamese cultural structure with traditional history feeds into the organizational culture (L. D. Nguyen et al., 2012). The blending between traditional and innovative cultures leads to a complicated organization's culture that requires an appreciation of traditional values and creativity, and adaptability to the dynamics of the business environment. Thus, managers of multinational companies and policy-makers should identify these traits of corporate culture to have suitable policies and decisions.

The acceptance of hypothesis H₃ agrees with the previous studies and confirms the positive effect of system quality on information quality (Binh, Tran, Thanh, & Nga, 2020; Fitriati

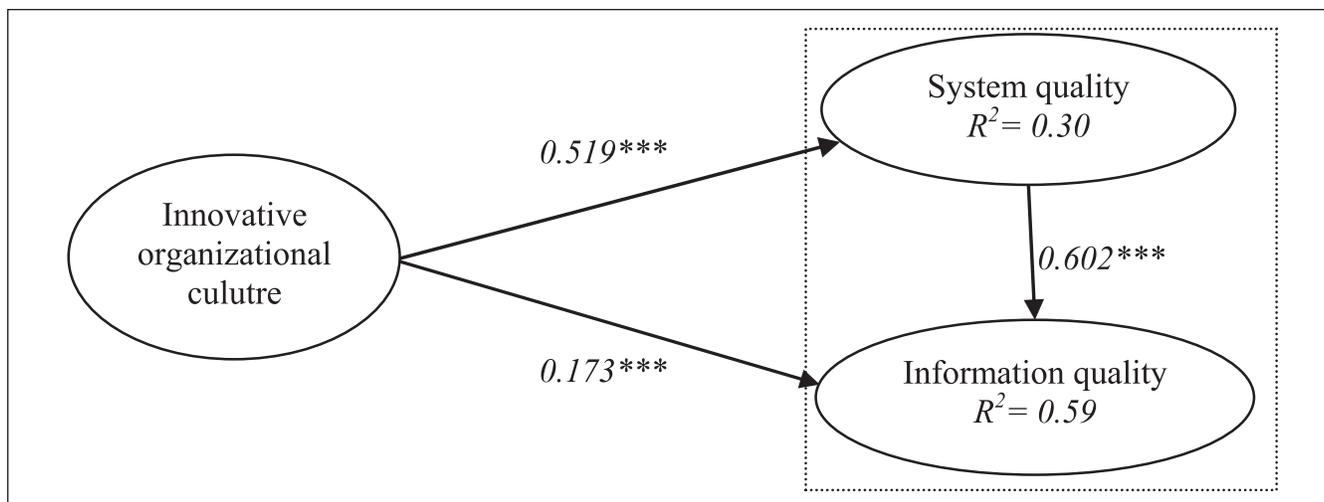


Figure 2. The result of hypotheses.
 Note. Significant at $***p$ -value < 0.001.

& Susanto, 2017; Gorla et al., 2010). An accounting information system with features such as easy to learn, equipped with useful functions, flexible to make changes, applied modern technology, well-integrated, user-friendly, good documentation, and short response time for online inquiry can generate high output quality, on-time report, and easy-to-understand accounting information (Gorla et al., 2010). This result makes sense with the efforts of the Vietnamese government to promote e-government and digital transformation. In the IS success model of Delone and McLean (2003), system quality and information quality are two important components to evaluate the information system quality that are independent of each other. But this research confirms and strengthens the relationship between system quality and information quality that Gorla et al. (2010) and Binh, Tran, Thanh, and Nga (2020) have shown. Moreover, the effect of organizational culture on information quality is $\beta = .173$ but through system quality, organizational culture has a strong effect on information quality (total effect = $0.173 + 0.353 = 0.526$). From there, it is necessary to have measures to implement organizational culture to improve the quality of accounting information systems.

These results reveal that organizational culture is an essential factor in enhancing the quality of accounting information systems of Vietnamese firms. Implementing corporate culture will improve system quality and information quality of the accounting information system that help accounting information more sufficient for making decisions. The government needs to issue more policies to support firms in implementing organizational culture.

Conclusion

The effects of organizational culture on the quality of accounting information systems in emerging economies are

inconclusive in the literature. These effects are found positive and able to enhance the quality of accounting information systems. However, single measures are generally used to represent the quality of accounting information systems, while recent studies indicate that the multi-dimension measurement fully reflects the quality aspects (Chalu, 2012; Delone & McLean, 2003). In Vietnam, like other emerging economies such as Indonesia or Ghana, the structure and document of organizational culture are not well, causing the low quality of the accounting information system. Thus, firms also pay more attention to resource allocation for corporate culture implementation and harmonious development of traditional culture and innovative culture in organizations. Hence it is our academic interest to investigate the effect of the innovative organizational culture on system quality and information quality

To this end, we used a unique and large sample of 649 respondents (CEO, CFO, managers, and accounting staff of non-financial enterprises in Vietnam). We found a positive relationship between organizational culture and system quality, organizational culture and information quality, and system quality and information quality. Our findings are consistent with those obtained by Gorla et al. (2010) and Binh, Tran, Thanh, and Nga (2020) and qualify the findings of Delone and McLean (2002). Our results are robust, regardless of the measure of the quality of accounting information systems used (system quality and information quality). Our findings support and hypothesis that system quality and information quality are the two best measures for all information systems, in which accounting information system is no exception. The use of multi-dimensional measurement depicts full quality aspects of accounting information systems, especially since these dimensions are not independent because a high system quality can enhance information quality.

Our finding suggests practical implications that firms should focus on the enlargement of system quality and information quality of accounting information systems. Improving system quality, such as using effective functions and features, applying modern technology, and well-integrating, can lead to higher accounting information quality. Then, all these improvements benefit the firms and users involved. For example, the accounting staff can work with a suitable processing system, and the internal and external end-users can have accounting information with relevance, accuracy, completeness, etc.

Our study is not without limitations. This study emphasizes one trait of organizational culture, innovativeness of organizational culture, and the results confirm the importance of innovative organizational culture in explaining the quality of accounting information systems. Because specific cultural traits can be effective predictors of effectiveness and firm performance (Denison & Mishra, 1995), further research could be carried out on other organizational culture traits and their effect on accounting information system quality. Additionally, this paper does not investigate the moderating effect of firm size on the nexus between organizational culture and the quality of accounting information systems. Firm size is a critical variable that significantly affects organizational culture (Prajogo & McDermott, 2011; Zeng & Luo, 2013). Firm size should be considered in organizational culture research because, for example, small and medium-sized enterprises may undergo the situation of accounting transparency shortage (Chapellier & Ben Hamadi, 2012; Ghorbel, 2019). We also suggest further studies may investigate the effect of organizational culture traits on the quality of accounting information systems under the moderating effect of firm size. This might be an interesting avenue for future research.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Vu Thi Thanh Binh  <https://orcid.org/0000-0001-5139-5776>

Nhat-Minh Tran  <https://orcid.org/0000-0002-7797-5696>

References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Azhar, S. (2008). *Sistem Informasi Akuntansi: Struktur Pengendalian Risiko Pengembangan*. Lingga Jaya, Edisi Perdana.
- Barley, S. R., Meyer, G. W., & Gash, D. C. (1988). Cultures of culture: Academics, practitioners and the pragmatics of normative control. *Administrative Science Quarterly*, *33*(1), 24–60. <https://doi.org/10.2307/2392854>
- Batagelj, Z., & Vehovar, V. (1998, May 14–17). *Technical and methodological issues in WWW surveys* [Conference session]. In 53rd Annual Conference of the American Association for Public Opinion Research (AAPOR), St. Louis, MO, United States.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, *25*(3), 351–370. <https://doi.org/10.2307/3250921>
- Binh, V. T. T., Tran, N.-M., Thanh, D. M., & Nga, N. T. H. (2020). Impact of accountant resource on quality of accounting information system: Evidence from Vietnamese small and medium enterprises. *ACRN Journal of Finance and Risk Perspectives*, *9*, 1–14. <https://doi.org/10.35944/jofrp.2020.9.1.001>
- Binh, V. T. T., Tran, N.-M., Thanh, D. M., & Pham, H.-H. (2020). Firm size, business sector and quality of accounting information systems: Evidence from Vietnam. *Accounting*, *6*(3), 327–334. <https://doi.org/10.5267/j.ac.2020.2.002>
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *BMJ*, *314*(7080), 572–572. <https://doi.org/10.1136/bmj.314.7080.572>
- Boggs, W. B. (2004). TQM and organizational culture: A case study. *Quality Management Journal*, *11*(2), 42–52. <https://doi.org/10.1080/10686967.2004.11919110>
- Bollen, K. A. (1989). *Structural equations with latent variables*. Wiley.
- Carolina, Y. (2014). Organizational factors and accounting information system quality (empiric evidence from manufacturing firms in Bandung Indonesia). *Research Journal of Finance and Accounting*, *5*(5), 192–199.
- Chalu, H. (2012). Analysis of stakeholder factors influencing the effectiveness of accounting information systems in Tanzania's local authorities. *Business Management Review*, *16*(1), 1–32.
- Chang, S. E., & Lin, C. S. (2007). Exploring organizational culture for information security management. *Industrial Management & Data Systems*, *107*(3), 438–458. <https://doi.org/10.1108/02635570710734316>
- Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, *41*(2), 178–184. <https://doi.org/10.1057/jibs.2009.88>
- Chapellier, P., & Ben Hamadi, Z. (2012). Le système de données comptables des dirigeants de PME tunisiennes: complexité et déterminants [The accounting data system of Tunisian SME managers: Complexity and determinant]. *Gestión Internacional*, *16*(4), 151–167.
- Chapellier, P., Mohammed, A., & Teller, R. (2013). Le système d'information comptable des dirigeants de PME syriennes: complexité et contingences [The accounting information system of Syrian SME managers: Complexity and contingencies]. *Management & Avenir*, *65*(7), 48–72. <https://doi.org/10.3917/mav.065.0048>
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, *28*(2–3), 127–168. [https://doi.org/10.1016/S0361-3682\(01\)00027-7](https://doi.org/10.1016/S0361-3682(01)00027-7)

- Delone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60–95. <https://doi.org/10.1287/isre.3.1.60>
- Delone, W. H., & McLean, E. R. (2002, January 10). *Information systems success revisited* [Conference session]. System Sciences, 2002. HICSS. Proceedings of the 35th Annual Hawaii International Conference on, Big Island, HI, United States.
- Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Denison, D. R., Haaland, S., & Goelzer, P. (2004). Corporate culture and organizational effectiveness: Is Asia different from the rest of the world? *Organizational dynamics*, 33(1), 98–109. <https://doi.org/10.1016/j.orgdyn.2003.11.008>
- Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204–223. <https://doi.org/10.1287/orsc.6.2.204>
- Deshpandé, R., & Farley, J. U. (2004). Organizational culture, market orientation, innovativeness, and firm performance: An international research odyssey. *International Journal of Research in Marketing*, 21(1), 3–22. <https://doi.org/10.1016/j.ijresmar.2003.04.002>
- Deshpandé, R., & Webster, F. E. J. (1989). Organizational culture and marketing: Defining the research agenda. *The Journal of Marketing*, 53(1), 3–15. <https://doi.org/10.2307/1251521>
- Do, T. L. (2015). Đánh giá văn hóa doanh nghiệp trong doanh nghiệp nhỏ và vừa Việt Nam [Evaluate organizational culture in Vietnamese small and medium enterprises]. *Tạp chí Khoa học ĐHQGHN: Kinh tế và kinh doanh*, 31(1), 22–30.
- Douglas, M. (1985). *Measuring culture: A paradigm for the analysis of social organization*. Columbia University Press.
- Fitriati, A., & Susanto, A. (2017). The accounting information system quality improvement through internal control and top management support effectiveness. *Journal of Theoretical & Applied Information Technology*, 95(19), 5003–5011.
- Ghorbel, J. (2019). A study of contingency factors of accounting information system design in Tunisian SMIs. *Journal of the Knowledge Economy*, 10, 74–103. <https://doi.org/10.1007/s13132-016-0439-8>
- Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *Journal of Strategic Information Systems*, 19, 207–228. <https://doi.org/10.1016/j.jsis.2010.05.001>
- Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In V. Esposito Vinzi, W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares* (pp. 691–711). Springer.
- Gunzler, D. D., & Morris, N. (2015). A tutorial on structural equation modeling for analysis of overlapping symptoms in co-occurring conditions using MPlus. *Statistics in Medicine*, 34(24), 3246–3280. <https://doi.org/10.1002/sim.6541>
- Ha, V. D. (2020). Impact of organizational culture on the accounting information system and operational performance of small and medium sized enterprises in Ho Chi Minh City. *The Journal of Asian Finance, Economics, and Business*, 7(2), 301–308. <https://doi.org/10.13106/jafeb.2020.vol7.no2.301>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Pearson Education Limited.
- Hall, J. A. (2011). *Accounting information system*. Western Publishing Co.
- Hanscom, B., Lurie, J. D., Homa, K., & Weinstein, J. N. (2002). Computerized questionnaires and the quality of survey data. *Spine*, 27(16), 1797–1801.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Ed.), *New challenges to international marketing* (pp. 277–319). Emerald Group Publishing Limited.
- Hutcheson, G. D., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. SAGE.
- Indeje, W. G., & Zheng, Q. (2010, September 17–19). *Organizational culture and information systems implementation: A Structuration Theory perspective* [Conference session]. Information and Financial Engineering (ICIFE), 2010 2nd IEEE International Conference on, Chongqing, China.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2010). *Intermediate accounting: IFRS edition* (Vol. 2). John Wiley & Sons.
- Kotler, P., & Keller, K. L. (2009). *Marketing management*. Pearson Education Inc, Upper Saddle River.
- Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. Macmillan.
- Kwarteng, A., & Aveh, F. (2018). Empirical examination of organizational culture on accounting information system and corporate performance. *Meditari Accountancy Research*, 26(4), 675–698. <https://doi.org/10.1108/MEDAR-01-2018-0264>
- Manteghi, N., & Jahromi, S. K. (2012). Designing accounting information system using SSADM1 case study: South fars power generation management company (SFPGMC). *Procedia Technology*, 1, 308–312.
- Martin, J. (2002). *Organizational culture: Mapping the terrain*. SAGE.
- Martins, N. (1987). *Organisasiekultuur in 'n finansiele instelling* [Organizational culture in a financial institution] [DPhil thesis]. University of Pretoria.
- Meiryani. (2015). Influence business strategy on the quality of accounting information system. *International Journal of Scientific & Technology Research*, 4(2), 80–86.
- Menon, A., Bharadwaj, S. G., Adidam, P. T., & Edison, S. W. (1999). Antecedents and consequences of marketing strategy making: A model and a test. *Journal of Marketing*, 63(2), 18–40. <https://doi.org/10.1177/002224299906300202>
- Nguyen, B. N. (2018). Báo cáo tài chính của doanh nghiệp nhỏ và vừa - đối tượng sử dụng và chất lượng thông tin trên báo cáo tài chính [Financial reporting of small and medium enterprises: Users and information quality]. *Tạp chí Khoa học & Đào tạo Ngân hàng*, 192(tháng 5), 28–34.
- Nguyen, H. T., & Nguyen, A. H. (2020). Determinants of accounting information systems quality: Empirical evidence from Vietnam. *Accounting*, 6, 185–198. <https://doi.org/10.5267/j.ac.2019.10.004>

- Nguyen, L. D., Mujtaba, B. G., & Boehmer, T. (2012). Stress, task, and relationship orientations across German and Vietnamese cultures. *International Business and Management*, 5(1), 10–20. <https://doi.org/10.3968/j.ibm.1923842820120501.1060>
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Nusa, I. B. S. (2015). Influence of organizational culture and structure on quality of accounting information system. *International Journal of Scientific & Technology Research*, 4(5), 257–267.
- Petter, S., DeLone, W. H., & McLean, E. R. (2013). Information systems success: The quest for the independent variables. *Journal of Management Information Systems*, 29(4), 7–62. <https://doi.org/10.2753/MIS0742-1222290401>
- Pham, H.-H., Lai, S. L., & Vuong, Q.-H. (2019). The role of subjective task value in forming satisfaction and loyalty among Vietnamese international students: A structural equation model. *The Asia-Pacific Education Researcher*, 28(12), 399–409. <https://doi.org/10.1007/s40299-019-00439-3>
- Prajogo, D. I., & McDermott, C. M. (2011). The relationship between multidimensional organizational culture and performance. *International Journal of Operations & Production Management*, 31(7), 712–735. <https://doi.org/10.1108/01443571111144823>
- Quinn, R. E., & Spreitzer, G. M. (1991). The psychometrics of the competing values culture instrument and an analysis of the impact of organizational culture on quality of life. *Research in Organizational Change and Development*, 5, 115–142.
- Rai, A., Lang, S. S., & Welker, R. B. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information Systems Research*, 13(1), 5–69.
- Romney, M. B., & Steinbart, P. J. (2015). *Accounting information systems*. Pearson.
- Saganuwan, M. U., Ismail, W. K. W., & Ahmad, U. N. U. (2013). Technostress: Mediating accounting information system performance. *Information Management and Business Review*, 5(6), 270–277.
- Sajady, H., Dastgir, M., & Nejad, H. H. (2008). Evaluation of the effectiveness of accounting information systems. *International Journal of Information Science and Technology*, 6(2), 49–59.
- Schein, E. H. (2010). *Organizational culture and leadership*. Jossey-Bass.
- Seddon, P. B. (1997). A respecification and extension of the DeLone and McLean model of IS success. *Information Systems Research*, 8(3), 240–253. <https://doi.org/10.1287/isre.8.3.240>
- Sørensen, J. B. (2002). The strength of corporate culture and the reliability of firm performance. *Administrative Science Quarterly*, 47(1), 70–91. <https://doi.org/10.2307/3094891>
- Stoica, M., Liao, J., & Welsch, H. (2004). Organizational culture and patterns of information processing: The case of small and medium-sized enterprises. *Journal of Developmental Entrepreneurship*, 9(3), 251.
- Susanto, A. (2017a). Empirical Testing of the quality of accounting information systems that are influenced by the culture of the organization research at the hospital in Riau-Indonesia. *Journal of Engineering and Applied Sciences*, 12(12), 3156–3162. <https://doi.org/10.3923/jeasci.2017.3156.3162>
- Susanto, A. (2017b). How the quality of accounting information system impact on accounting information quality (research on higher education in Bandung). *Journal of Engineering and Applied Sciences*, 12(14), 3672–3677.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Pearson Education. Inc.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Toaldo, A. M. M., Didonet, S. R., & Luce, F. B. (2013). The influence of innovative organizational culture on marketing strategy formulation and results. *Latin American Business Review*, 14(3–4), 251–269. <https://doi.org/10.1080/10978526.2013.833475>
- Tran, Q. H. N. (2020). The organisational culture of vietnamese and chinese corporations: Do age and gender make a difference? *Public Organization Review*, 20, 549–562. <https://doi.org/10.1007/s11115-019-00458-0>
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anaesthesia*, 11(1), S80–S89. https://doi.org/10.4103/sja.SJA_203_17
- Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance*, 20, 679–686. [https://doi.org/10.1016/S2212-5671\(15\)00123-9](https://doi.org/10.1016/S2212-5671(15)00123-9)
- Uzkurt, C., Kumar, R., Semih Kimzan, H., & Eminoğlu, G. (2013). Role of innovation in the relationship between organizational culture and firm performance: A study of the banking sector in Turkey. *European Journal of Innovation Management*, 16(1), 92–117. <https://doi.org/10.1108/14601061311292878>
- Vietnamese Prime Minister. (2016). *Decision No. 1846 / QĐ-TTg, dated September 26, 2016 of the Prime Minister on Vietnam corporate culture day*. Author.
- Vo, T. Q., & Nguyen, D. K. (2011). Corporate ownership structure and organizational culture in a transition economy: The case of Vietnam. *International Journal of Economics and Finance*, 3(4), 36–47. <https://doi.org/10.5539/ijef.v3n4p36>
- Wagner, J. A., & Hollenbeck, J. R. (2005). *Organizational behavior: Securing competitive advantage*. Thomson/South-Western.
- Wang, Y. S., & Liao, Y. W. (2008). Assessing eGovernment systems success: A validation of the DeLone and McLean model of information systems success. *Government Information Quarterly*, 25(4), 717–733.
- Whitten, J. L., & Bentley, L. D. (2007). *Systems analysis and design methods*. McGraw-Hill.
- Wisna, N. (2015). Organizational culture and its impact on the quality of accounting information systems. *Journal of Theoretical and Applied Information Technology*, 82(2), 266–272.
- Zeng, K., & Luo, X. (2013). Impact of ownership type and firm size on organizational culture and on the organizational culture-effectiveness linkage. *Journal of Business Economics and Management*, 14(1), S96–S111. <https://doi.org/10.3846/16111699.2012.754373>
- Zheng, Y., Zhao, K., & Stylianou, A. (2013). The impacts of information quality and system quality on users' continuance intention in information-exchange virtual communities: An empirical investigation. *Decision Support Systems*, 56, 513–524. <https://doi.org/10.1016/j.dss.2012.11.008>