



THE RELATIONSHIP BETWEEN ORGANIZATIONAL SUPPORT AND USAGE OF ACCOUNTING INFORMATION SYSTEM IN VIETNAM

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Abstract

The study was conducted to examine the relationship between organizational support (OS) and usage of accounting information system (ASU) via perceived usefulness of accounting information system (PU) and perceived ease of use of accounting information system (PEU) in enterprises in Viet Nam. Research samples of 357 people working in accounting positions in different types of company. Research data were collected primarily through questionnaire survey (April, 2017 – August, 2017) and then it is used to analyze descriptive statistics and perform hypothesis tests. The result shows that OS influences positively and directly PU and PEU, PU influences positively ASU. However, PEU does not affect PU and PEU does not affect ASU.

Keywords: *Organizational support, Perceived usefulness of Accounting Information System, Perceived ease of use of Accounting Information System, Usage of Accounting Information System*

Introduction

In the research field of accounting information system (AIS), the ASU is considered to be a new issue that attracts attention from researchers, following technology acceptance model (Technology Acceptance Model – TAM) by Davis (1989), the behavior of using the information system is understood as the process used by the system users when they realize the usefulness and ease of use of the system or new technology.

Regarding research on the decisions or behavior of usage information system, usage of the ERP system, there is many researches and mainly relies on the TAM. Since it first was introduced in 1989 by Davis, so far, there have been many different versions intended to supplement and enhance the applicability of this model in predicting behavioral use information technology (IT), using information system. Empirical studies have applied different versions of TAM to explore the factors that influence the use of information systems. According to Davis, user motivation can be described through three factors: perceived ease of use, perceived usefulness, and attitude toward usage.

According to the theory of organizational support in the AIS, if the organization provides adequately support to employees, for their work, employees are more likely to enjoy their work and improve efficiency through the use of information system. In addition, when staff use AIS and they feel that the full support and information receive from the organization, such as training and communication, the stress of using the system will be reduced. In this study, OS factor is used because it leads to emotional responses from employees, and thus reduces stress on system use and will make it easier for employees to access and use information system. Thus, OS factor in this study refers to support for the work of staff in the AIS.

Thus, combining the TAM model and organizational support theory will help to see the interaction between OS and the behavior use of the information system through perceived ease of use and perceived usefulness of the information system. In this study,

the author combines the organizational support theory and the TAM model in explaining the relationship between OS and the ASU in the context of no any research related to the ASU in Vietnam.

Therefore, this study was conducted to provide more empirical evidence on the relationship between OS and ASU through the PEU and PU of accountants in Vietnamese enterprises.

Literature review and research model

Theoretical foundation and research hypothesis

Organizational support

Organizational support is arguably an important success factor for improving the performance of any organization (Chung & Lee, 2005) as well as the success of applying the new system (Lee et al, 2006). Organizational support theory considers factors that increase employee satisfaction and evaluate the performance of increased work efforts through their contributions (Rhoades & Eisenberger, 2002). Organizational support is recognized as an important value for improving staff quality, mental strength and job satisfaction as well as business performance (Chung & Lee, 2005). In addition, OS can be viewed as employees' resources in the workplace of any organization (Leung et al, 2008), it can improve the performance of tasks, help employees identify the extent of the damage of stressful situations and support for the employee's belief for against with stress by improving their work. In particular, in organizations with the use of a technical system, OS influences the behavioral intent to use the system (Ajzen & Fishbein, 1975).

Organizational support can be divided into formal and informal support systems (House, 1981). Formal support system includes information support and tool support. Information support is support for management demands or relevant issues, and tool support to assist individuals in working directly. Informal support, including support from friends and supervisors in the workplace, should be added to the formal support systems of an organization (Quick & Quick, 1984). Formal support system may include training and education for new systems, such as business process improvement, new technology or accounting software or ERP system. In that, management support is understood as the willingness of top management, to provide the resources and necessary authority for success of the project. Informal support system may involve methods to provide better communication with colleagues or a better working environment so that staff can learn from peers and supervisors.

Education and training is process that provides managers and employees with logical and general concepts about the system. Enterprise resource planning (ERP) systems or AIS in the enterprise are complex and require training strictly, so training is an important element in the successful use of information systems. The lack of training is one of the important reasons for the failure of ERP (Somers & Nelson, 2001). Training and education will reduce the anxiety and stress of employees on the use of the ERP system and provide a better understanding of the benefits of the system to their tasks (Lee et al, 2010). Training and education affect the user belief in the system, and training programs will increase confidence in the usability of the user. Training also provides managers with a mechanism for disseminating useful and appropriate information about the ERP system and how to it can fits into existing systems (Amoako-Gyiamah & Salam, 2004).

Perceived usefulness of accounting information system

It is belief in improving the performance of their work by using new technology, using specific systems (Davis, 1989; Saade & Bahli, 2005). People believe that using a system can lead to positive results as well as more favorable intentions and attitudes when using that technology and system. Perceived usefulness has two aspects for organization and individual, perceived usefulness for the organization is the economic benefits of choosing new technology such as product quality and cost savings. Perceived usefulness of the individual most likely leads to improved work efficiency and the motivation or behavior of the user.

Perceived ease of use of accounting information system

It is the belief of people when they feel ease, comfortable using new technology (Davis, 1989; Saade & Bahli, 2005). Perceived usefulness and perceived ease of use as defined in the TAM (Davis, 1989) are important influences in the selection and adoption of new technology. The TAM was applied in selection and implementation software, ERP system (Ramayah & Lo 2007; Van Schaik et al, 2004) and extended TAM was developed and used (Amoako-Gyampah & Salam, 2004; Mirchandani & Motwani, 2001). According the TAM, the usefulness and ease of use of new technology has a positive effect on the attitude toward technology and influencing intention to use technology. In the TAM, it is also assumed that perceived of ease to use affect the perceived of usefulness, and many studies have explained the impact of perceived of ease to use to perceived of usefulness, the key goal of TAM is to provide a basis for measuring the impact of external factors on belief, attitudes and intention (Davis, 1989).

Usage of accounting information system

The behavior of usage accounting information system in TAM is influenced by perceived usefulness and perceived ease of use of information system (Davis, 1989). Also in the successful information system model of DeLone and McLean (2003), the use of information systems is influenced by system quality. According to these theories, the use of information system is the behavior of users who manipulate information system in the operation with frequent, repeated, and expected to continue in the future. Viewpoints on the use of information systems are inherited and used in research on the use ERP system. Usage of ERP refers to how users use ERP features to perform operations (Nwankpa & Roumani, 2014). Previous studies have argued that the use of ERP is a factor affecting users or affecting the business performance. If the process of using the AIS is risk or the user is not properly used, the system will cause serious problems, usage of AIS in the enterprise is understood as the user uses the components and tools of the system. It includes the use of software during processing, participation in the use of procedures and processes in the system and be monitored by security control procedures. The author researches ASU and the factors influencing the ASU to explain the usage of AIS in Vietnamese enterprises.

Organizational support and perceived usefulness, perceived ease of use

Accounting information system is a complex information system that provides an integrated accounting process for an organization; the company needs to train employees when implementing the system. Training and education will reduce anxiety

and stress in the use AIS and provide a better understanding of the benefits of the system to their tasks. Formal OS can affect PU and PEU. In addition, communication and a positive working environment where colleagues can help each other for the effective usage of the AIS will allow employees to have benefits from information system.

Effective communication improves the transparency of information flow throughout the organization. An effective environment for sharing information within organizations, especially between system implementers and system users is important (Zhang et al, 2013). Good communication will complement and provide formal management support, reduce contradictions among employees in the AIS and increase their confidence in the work for the benefits of the AIS. Managers should communicate the importance of the AIS to employees prior to the system implementation and maintain system updates within the scope, objectives and related activities. Good communication in the workplace such as support systems, hotline, group conference and meetings will help employees understand the impact of implementing the AIS on their work and work processes, facilitate users to use the system (Lee et al, 2010).

When an organization provides full support for their employees to use the system, staff will ease to use and access the system. In addition, employees with a higher perceived of usefulness and perceived ease of use are more likely to work hard to gain benefits in using the AIS. Therefore, the hypothesis is:

H1: Organizational support impacts positively to perceived usefulness of AIS.

H2: Organizational support impacts positively to perceived ease to use of AIS.

Usage of accounting information system and perceived usefulness of AIS

Starting from the TAM, the perceived of usefulness of information system has been established and studied in most studies on ERP applications in enterprises. Davis (1989) defines perceived usefulness as the degree to which a person believes using a particular system will improve performance. The TAM implicitly recognizes that system usage is determined by an intentional behavior use a system where the intention to use the system is determined by the attitudes toward usage and perceived usefulness of the system, as they perceive the usefulness of the system, leading to improved work efficiency and user motivation (Davis, 1989). Recent ERP application studies, using the TAM model in explaining ERP applications, show the perceived usefulness of ERP that affect the behavior of usage ERP (Amoako -Gyampah, 2007; Amoako-Gyampah & Salam, 2004; Doom et al, 2010). In this paper, we inherit the research applied TAM in ERP research and analyse the specific AIS to test the hypothesis about the effect of PEU to ASU in enterprises.

H3: Perceived usefulness of AIS impacts positively to ASU.

Usage of accounting information system and perceived ease to use of AIS

Perceived usefulness, perceived ease to use of information system are two basic research concepts of TAM, it were applied in research of most different information systems, aiming at explain to the application or use of the corresponding information system. Perceived ease of use is defined as the extent to which one believes that the use of a particular system will not require much effort (Davis, 1989). Based on previous TAM and ERP research, the view points out that on a personal level, if a system is easy to use, users tend to use it and that system is useful (Amoako-Gyampah, 2007). In another

study, if the effect of perceived ease of use on the behavior of using ERP systems was separate; the results suggest that perceived ease of use affect perceived usefulness of ERP (Youngberg et al, 2009). When empirical study on the application of ERP and the impact of this application on the individual in the enterprise. Rajan & Baral (2015); Zhang et al (2013); Lee et al (2010) confirm the impact of perceived ease of use to perceived usefulness and impact to behavior of usage system. Applying the TAM and results of the studies mentioned above, in this research, we test the relationship between the concepts: PEU, PU and ASU

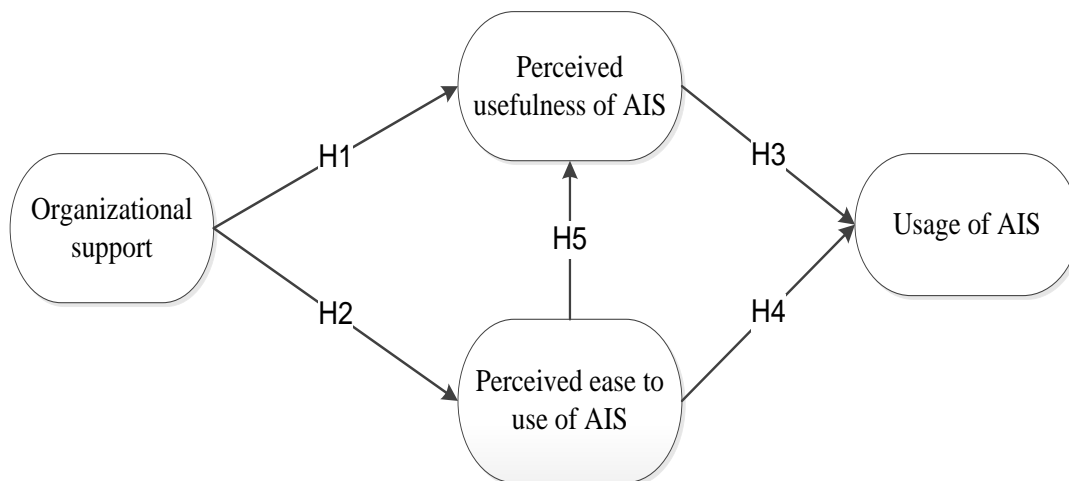
H4: Perceived ease to use of AIS impact positively to ASU.

H5: Perceived ease to use of AIS impact positively to perceived usefulness of AIS.

Research model and research hypothesis

The research model was set up based on the assumptions that OS affects PU and PEU, and PEU, PU will affect the ASU.

Figure 1: Research model



Research methodology

Research design and collection data

The author uses the quantitative research methods to test hypotheses. The author collects data by sending questionnaires to accountants working in companies, mainly in Ho Chi Minh City, regardless of the size of the enterprise, the area of operation, type of enterprise and form of ownership. In particular, the main object surveyed in the enterprise is the person in charge of accounting or accountants directly using the AIS. The survey time is from April, 2017 to August, 2017. The number of questionnaires is 400 and the number of collected questionnaires is 357.

The content of the quantitative study was a questionnaire with the main content is PU and PEU scales of Davis, 1989; Calisir et al, 2009; Rajan & Baral, 2015. In particular, the PU scale consists of 6 observation variables (PU1 to PU6). The PEU consists of 6 observation variables (PEU1 to PEU6). ASU scales consists of 3 observation variables (ASU 1 to ASU3) by Davis, 1989; Rajan & Baral, 2015; Elkhani et al, 2014. The scale of OS

measured through three components consists of: (1) Education and training (TRE1 to TRE4), (2) Working environment (WE1 to WE3), (3) Communication (CO1 to CO4), in which the education and training component consists of 4 observation variables (Amoako-Gyampah & Salam, 2004; Zhang et al, 2013; Lee et al, 2010; Rajan & Baral, 2015), working environment component including 3 observation variables (Amoako-Gyampah & Salam, 2004; Lee et al, 2010), the communication component consists of 4 observation variables (Amoako-Gyampah & Salam, 2004; Lee et al, 2010; Zhang et al, 2013). These observational variables were measured using a 5-point Likert scale (1: strongly disagree, 5: strongly agree).

Description statistics and data analysis method

The research sample of 357 individuals included 157 men (44%) and 200 women (56%). The number of respondents under 30 years old is 278 (77.9%). Professional qualification account for the highest proportion of colleges (63%), followed by university (33.9%) and post-graduate (3.1%). These people are working in accounting position at a variety of enterprises including 223 limited liability companies (62.5%), 89 joint-stock companies (24.9%), 31 private enterprises (8.7%), the remaining 14 enterprises including state-owned enterprises, joint ventures and cooperatives (4%). Regarding business activities of the enterprise, the author classifies 6 cases, the first is the trade and service with 62.1%, the second is the production with the rate of 19.5 %, the third is the construction with the rate of 9.6%, the fourth is financial investment accounted for 4.9%, the last is the field of education and training and other fields with 3.9%. The size of enterprises is also different; with the majority are small enterprises with the rate of 42.3%, medium enterprises (26.1%), large enterprises accounting for 21.6%, and finally, microenterprise with a rate of 10.1%. Regarding the application of IT in accounting, the largest number of accounting software applications was conducted with 275 enterprises (77%). Excel in accounting with 50 enterprises (14%) and finally, ERP software (9%) corresponding to 32 enterprises using ERP.

The research sample (n=357) was assessed by Cronbach's Alpha coefficient, coefficient of correlation and factorial analysis with the following criteria: Cronbach's Alpha coefficient greater than 0.6 (Hair & 2006), the correlation coefficient of total variance is greater than 0.3 (Nunnally & Bernstein, 1994), the KMO coefficient is greater than 0.5, Bartlett's test has P-value <0.05, explanation variance greater than 50%. Then, research hypotheses and research model were validated with CFA analysis and the SEM model by supporting of SPSS 22 and AMOS 20 software.

Result and discussion

The research results are presented in three parts: (1) test the scale, (2) test theoretical model with SEM, (3) test estimated reliability with bootstrap.

Result of test the scales

After complete data collection and input into SPSS 22 software, the Cronbach's Alpha coefficient was performed to exclude unreliable variables. The results of the analysis show that the concepts reached the internal consistency, the coefficient Cronbach's Alpha > 0.6.

Table 1: Result of Cronbach's Alpha coefficient

Variables	Cronbach's Alpha	Result of eliminate variable
TRE	0,802	No
WE	0,687	No
CO	0,75	No
PU	0,91	No
PEU	0.847	No
ASU	0,902	No

The results of factor analysis for OS variable showed that the KMO = 0.879 (> 0.5) and (< 1), so the factor analysis was consistent with the sample data. The result shows that there are two factors that are extracted with the total variance explained by two factors greater than 50% (53.54%). The result also eliminates 3 observation variables as WE1, WE2, WE3 because of having a factor loading < 0.5 .

Table 2: The results of factor analysis for OS

Observed variables	Factor	
	1	2
CO2	.695	
CO4	.679	
CO1	.669	
CO3	.593	
TRE2		.944
TRE3		.655
TRE4		.591
TRE1		.555

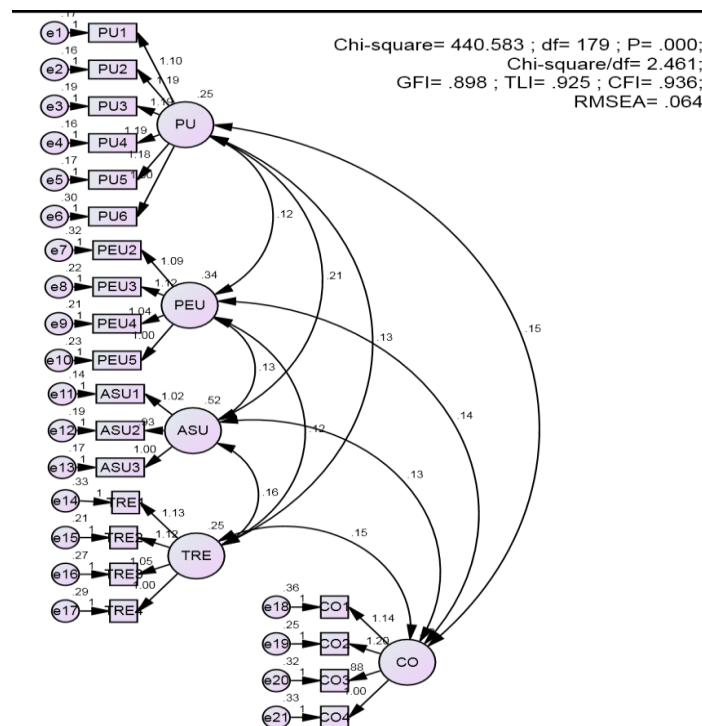
The results of the factorial analysis of the variables show that the KMO = 0.888 (> 0.5) and (< 1), so the factor analysis is consistent with the sample data. Result shows that there are three factors were extracted with the total variance explained by 3 factors greater than 50% (69,19%). The result also eliminates the two observed variables as PEU1 and PEU6 because they have a factor loading < 0.5 .

Table 3: The results of factor analysis for others

Observed variables	Factor		
	1	2	3
PU2	.879		
PU4	.877		
PU3	.847		
PU1	.804		
PU5	.803		
PU6	.504		
PEU4		.846	
PEU3		.813	
PEU5		.797	
PEU2		.742	
ASU1			.908
ASU2			.874
ASU3			.869

The scale components were further evaluated by the critical model, with 179 degrees of freedom and the model was suitable for market data with suitable indexes Chi-square / df = 2.461 <3; CFI = 0.936 > 0.9; TLI = 0.925 > 0.9 and RMSEA = 0.064 <0.08. In addition, there is no correlation between the measurement errors so the observed variables in this study are unidimensionality. Weights ranged from 0.58 to 0.89, all of which were good and statistically significant so these variables are convergent. These scales meet the reliability requirement (>0.5) and the correlation coefficient of each pair of concepts is different from one, so the components are discriminative.

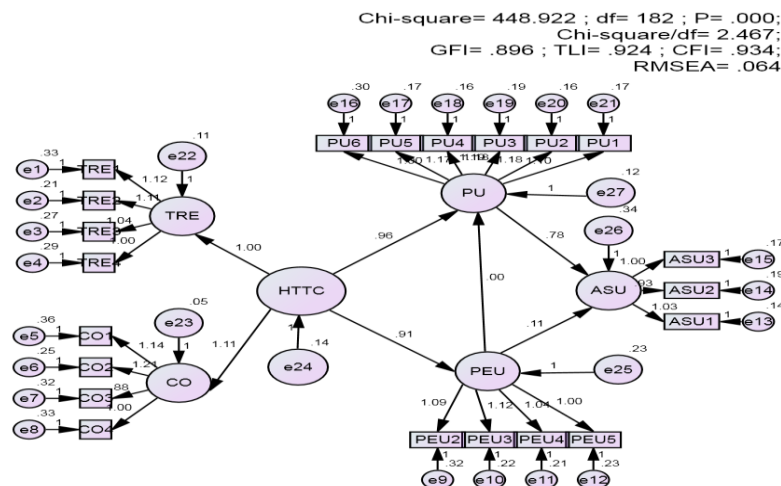
Figure 2. CFA model



Test theoretical model with SEM

Figure 3 shows a structural equation modeling (SEM) with 182 degrees of freedom with $p\text{-value} = 0.000 < 0.05$. Indicators are consistent with market data (Chi-square / df = 2,467 < 3; CFI, TLI > 0.9 and RMSEA < 0.08).

Figure 3. The results of the SEM model analysis



The estimated results of the parameters show that the relationships are statistically significant, having two relationships are PEU and ASU; PEU and PU are not statistically significant. Thus, hypotheses H1, H2, H3 are accepted, hypotheses H4, H5 are rejected.

Table 4. The relationship of hypotheses in the model

Relationship	Unstandardized Estimate	Standardized Estimate	SE	CR	P-value
PEU <--- HTTC	0,912	0,58	0,134	6,817	***
PU <--- PEU	0,003	0,004	0,066	0,051	0,959
PU <--- HTTC	0,963	0,711	0,152	6,317	***
ASU <--- PU	0,783	0,546	0,094	8,347	***
ASU <--- PEU	0,114	0,092	0,07	1,620	0.105

Test estimated reliability with Bootstrap.

The author uses the Bootstrap method with a repeated sample size of N = 100. The result shows that the absolute value CR less than 2, so it can conclude that the deviation is small and no statistically significant at 95%. Therefore, the estimations in model are reliable.

Table 5. Analysis result with Bootstrap

Relationship	Estimate	SE	SE-SE	Mean	Bias	SE-Bias	CR
PEU <--- HTTC	0.58	0.06	0.00	0.59	0.01	0.01	1.50
PU <--- PEU	0.004	0.09	0.01	(0.01)	(0.01)	0.01	(1.22)
PU <--- HTTC	0.71	0.09	0.01	0.72	0.01	0.01	0.56
ASU <--- PU	0.55	0.06	0.00	0.54	(0.00)	0.01	(0.33)
ASU <--- PEU	0.09	0.06	0.00	0.10	0.01	0.01	0.83

Conclusions and implication of research

Conclusions

From the previous studies on organizational support and behavior of usage information system, applied the combination of organizational support theory and TAM, the author has modeled the relationship between OS, PU, PEU and ASU. The result shows that the scale of the research concepts is highly reliable. In addition, OS affects directly PU and PEU, PU influences directly to ASU, PEU does not affect ASU and PEU does not affect PU.

Implication for research

Previous researchs has suggested that the perceived usefulness and perceived ease to use of information system or technology will affect the usage of information system and IT, and most of the previous studies were considered in the ERP system. These studies all show that perceived usefulness and perceived ease to use have an effect on usage of system. However, when test these relationships in the AIS in Vietnamese enterprises, only the PU influences the ASU, while PEU is not affected to ASU, and PEU have no affect the PU.

Regarding organizational support, there is no study analyzing the relationship between OS and PEU and PU, studies by Lee et al (2010); Rajan & Baral (2015), Amoaka-Gyampah & Salam (2004), Zhang et al (2013) have mentioned factor OS affecting perceived usefulness and perceived ease to use of ERP system, thereby affecting the usage of ERP. Therefore, compared to the result of previous research, the author's research result is also relevant because the AIS is also an information system that has the characteristics as the information system and in the current enterprises, there are many enterprises applying ERP system in the AIS.

Research result also shows that businesses need to pay attention to training and create communication environment in enterprises, as these factors affect the process of using the AIS. It can be said that training is a regular and important task in any business in the context of integration and competition. During the operation of the AIS, it is impacted by various factors such as the legal environment, business environment, IT environment, and management and control requirements. Therefore, it is very important to enhance knowledge and the assessing the AIS of accountants, specific need to focus:

- Create channels of information and communication in updating legal documents related to accounting, guidance, practice and effective application in the implementation of accounting work at the enterprise.
- Regularly training and updating knowledge on IT applied in accounting, enhancing the ability to use IT in accounting, especially accounting software because according to statistical data, the application of accounting software in AIS is mainly.
- Connect and support each other between the IT department, the data management department and the department of using direct the AIS in the enterprise to create a favorable environment to help employees have more knowledge and confidence in using AIS.
- Improving the communication environment, sharing knowledge and willingness to support each other in work, this will help staff feel comfortable and peace of mind when using AIS for their work.

Improving ASU will affect the efficiency work of staff in the AIS and support for the operation and management of the enterprise because the function of the AIS is to help the business implement and management operations, helping businesses achieve their business goals and strategies.

Limitations and future research

Although the initial purpose was to assess the impact of OS on ASU via PU and PEU, however, the study also is some limitations.

Firstly, the author has only conducted a survey in Ho Chi Minh City, so the generality of the study is not high and can be limited. In addition, the study used a convenient sampling method by sending questionnaires to the participants. Therefore, further researchs should be conducted in different regions of Vietnam.

Second, according to the TAM, it is able to have many factors that affect the PU and PEU of information system. Further research needs to develop factors that influence the PU and PEU of AIS such as individual characteristics, subjective norms, quality of information system, and other factors in the operation of AIS.

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