Information technology and Accounting private factors influencing the performance of accountants: The case of Accounting service companies in Hanoi

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Abstract

This study is conducted to investigate the impact levels of the Information Technology and the Accountants private factors determinant on performance of accountants. Data were collected from surveying Accounting service companies doing business in Hanoi from 2017 to 2018. Based on the collected data, we employ both qualitative and quantitative methodology along with some tools such as summarizing information relating to the Information Technology determinant and the Accountants private factors determinant influencing performance of accountants, Cronbach's Alpha, EFA and run regression model to analysis, evaluate and measure the impact levels of each determinant. The results show that there are two determinants having positive relationships with accountant performance at different levels. Based on the findings, some recommendations are given for improving accountant performance of Accounting service companys doing business in Hanoi.

Keywords: performance, accountant, Accounting service companies, factor influencing

1. Introduction

Beside management results, individual performance and evaluating staff's performances are also important. A highly effective individual performance not only brings firm with a better business result but also increases the retention rate of employees (Ambrose et al., 2008), increases employee's satisfaction (Tsai and Huang, 2008). Evaluating individual performance is to create incentive for employees to devote and to provide managers necessary information in making decisions process (Geogre et al., 1999).

Accounting is understood as the collection, processing, examination, analysis and supply of economic and financial information in the form of value, kind and time of work (National Assembly, 2015). Do and Nguyen (2016) pointed out two determinants of Vietnamese accounting standards and tax law affecting performance of accountants at the businesses in the context of Vietnam. They assert that the quality of accounting information available to the manager depends on many factors including performance of accountants. Although they used exploratory factor analysis to determine and quantify the impact of two determinants on performance of accountants at the businesses, this has not quantified the impact of the two determinants and limited research on the sample.

The Accounting service companies in Hanoi provide accounting services. These companies play an important role in assisting and advising investors and firms on the laws, regimes and financial and accounting institutions of State; guiding firms to make vouchers, bookkeeping, tax calculation and financial statements. However, The Accounting service companies in Hanoi faced many difficulties, such as: increasingly fierce competition, the quality of human resources did not meet the requirements… Therefore, performance of accountants in the Accounting service companies in Hanoi need to be advanced, it is necessary to assess, measure and explain through understanding the reasons as well as the factors affecting this result.

Based on the results of qualitative research and the inheritance of previous studies, we design the model of determinants influencing performance of accountants in the Accounting service companies. Moreover, we develop and validate the scales of the Information Technology and the Accountants private factors influencing performance of accountants in the Accounting service companies, thus providing some recommendations to improve the results of the work done by the accountant at the Accounting service companies.

2. Literature Review

In the world, there have been studies on factors affecting the performance of individual, notably:

Yavas et al. (2013) asserted that support from firms and job satisfaction all had direct positive effects on staff's performance, in which support from firms is the factor that has a huge impact on banks' performance. Gibbs et al. (2013) showed that training orientation, support from firms and leadership example are determinants affecting positively on employees' job satisfaction and their commitment to banks. The authors point out that while job satisfaction has positive effect on bankers' performance, commitment to firms has no effect on their performance. Job performance is an important index measuring the success of an information system (Sykes et al., 2014).

Besides, typical studies in Vietnam are: Do et al. (2018) use the qualitative research methodology through experts interviewing and model analyzing. In addition, they combined with the inductive method to verify and based on qualitative research results, they adjusted and added observation variables to the questionnaire for conducting quantitative research. The authors proposed the research model, analyzing and measuring four determinants: accounting framework, job satisfaction, support from firms and confidence of accountants. The result indicates that all four determinants have positive effects on accountants' performance.

Truong et al. (2018) after conducting interview approach to experts in accounting surveyed accountants in enterprises and other departments in enterprises such as Board of Directors, Personnel Department, Production Department, Sale Department, Technique Department. They then used qualitative research method to analysis, evaluate accountants' performance. The result concluded four characteristics of accountants' performance: (i) the fulfilment of accounting tasks assigned under under Accounting Law; (ii) Compliance with rules, processes of the organization; (iii) Strong organizational commitment; (iv) Low resignation rate.

Thus, no research has conducted analysis and measurement the influence of the factors on the performance in the Accounting service companies accountants in Hanoi. By inheriting previous studies, this study analyzes

and measures the influence of the Information Technology and the Accountants private factors on the performance of the Accounting service companies' accountants in Hanoi with a wide range of research methods and research samples accountants in the Accounting service companies in Hanoi.

3. Research Methodology

Based on the prior studies and results of qualitative research through expert interviews, we conduct inductive method to verify, adjust and add attributes in questionnaires for collecting final data of the research.

Inheriting the results conducted by Yavas et al. (2013), Gibbs et al. (2013), Sykes et al. (2014), Do and Nguyen (2016), Do et al. (2018) and using qualitative research methodology through interviews with experts, we identify Information Technology and the Accountants private factors on the performance of accountants in the Accounting service companies accountants in Hanoi.

Then, we conducted a questionnaire consisting of 9 variables with a 5-point Likert scale from 1 "without effect" to 5 "strongly" (see Table 1). The method of data collection was done through the survey and subjects are accountants in the Accounting service companies doing business in Hanoi.

We sent 175 questionnaires and received the feedback of 150. After checking the information on the votes, there are 125 questionnaires with full information for data entry and analysis, the size of this sample is consistent with study of Hair et al. (2006) (n = 50 + 8 x m = 50 + 8 x 9 = 122). Participants mostly have Bachelor degree or higher (100%). As can be seen, all participants are at high quality of accounting knowledge, and this makes surveys' answer are reliable.

We use the EFA analysis and regression model analysis to determine the influence of the Information Technology and the Accountants private factors on the performance of accountants in the Accounting service companies' accountants in Hanoi.

Dependent variable: Performance of accountants in the Accounting service companies accountants in Hanoi (PA).

Independent variables: The independent variables are described in Table 1.

Table 1: Determinants and Its Coding

Code	Variables
Information Technology (IT)	
IT1	Information technology plays a leading role in the accounting information system.
IT2	Information technology has automated traditional accounting books.
IT3	Companies often use accounting software at work
IT4	Companies often use tax declaration software at work
Accounting private factors (PF)	
PF1	Education Background
PF2	Professional qualification
PF3	Experience
PF4	Ability
PF5	Confidence

Research Model

From the above analysis, we design a research model:
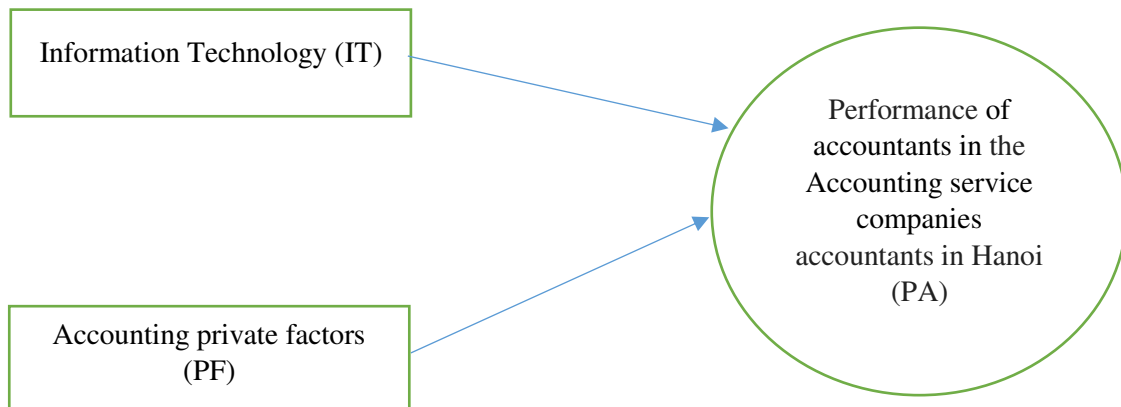

Figure 1: Research model

4. Results and Discussions

4.1. Results

Quality scale analysis result

By using scale analysis, it can eliminate inconsonant variables and reduce errors in the research model. Therefore, only variables which have total correlation coefficients (Corrected Item – Total Correlation) greater than 0.3 and Cronbach's Alpha coefficients equal or greater than 0.6 are accepted (Hoang & Chu, 2008). By analyzing Cronbach's Alpha analysis of factors have an influence on the performance of accountants in the Accounting service companies accountants in Hanoi (2 factors with 9 observed variables), the result is presented in Table 2.

Table 2: Results of analysis of Factors Confidence of Scales in the Model

Determinants	n	Cronbach's Alpha	Corrected Item-Total Correlation
Information Technology (IT)	4	0.658	0.330
Accounting private factors (PF)	5	0.659	0.317

The result shows that, all Cronbach's Alpha coefficients of population are above 0.6; all Corrected Item – Total Correlation of observed variables are above 0.3. So all variables of research model are suitable for next analyses (Hair et al, 2006).

Exploratory Factor Analysis

EFA were conducted, we used the method of extracting coefficients were Component Alalysis and Varimax, Analyzes of result: 9 observed variables of independent variable.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.657
Bartlett's Test of Sphericity	Approx. Chi-Square	437.697
	Df	36
	Sig.	0.000

The results of factor analysis in Table 3 show that 0.5<KMO = 0.657 < 1. Barlett's testimony shows sig. = 0.000 < 0.05. It means variables in the whole are interrelated.

After implementing the rotation matrix, 2 determinants with factor load factor are greater than 0.5; Eigenvalues are greater than 1; the variance explained is 53.31%. It demonstrates that research data analyzing factor discovery is appropriate.

Through the quality assurance of the scale and the test of the EFA model, identify 2 factors influencing the performance of accountants in the Accounting service companies' accountants in Hanoi.

Regression Model Analysis Result

Based on adjusted model after the exploratory factor analysis, we have a multiple regression model:

$$PA = \alpha + \beta_1 IT + \beta_2 PF$$

Table 4: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.569[a]	.528	.543	.633	1.590

a. Predictors (Constant): PF, IT
b. Dependent Variable: PA

Table 5: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	1.430	2	0.715	1.786	.012[b]
	Residual	48.858	122	0.400		
	Total	50.288	124			

a. Dependent Variable: PA
b. Predictors: (Constant): PF, IT

Table 6: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.399	.446		6.815	.000		
IT	.224	.131	.392	1.707	.010	.629	1.579
PF	.501	.126	.448	0.398	.007	.633	1.591

a.   Dependent Variable: PA

Results of Table 4, 5 and 6 show that:

Multicollinearity testing: all variance inflation factor (VIF) of independent variables are under 2, so multicollinearity of model is low (Hoang & Chu, 2008). Therefore, this regression model does not have any violation of the CLRM basic assumption.

Durbin – Watson statistic which is used to test the autocorrelation of residuals presents the model does not violate when using multiple regression method because Durbin – Watson value is 1.590 (in the interval of 1 and 3). In other words, the model is indicated no autocorrelation of residuals (Hoang & Chu, 2008).

ANOVA testing result: Level of significant (Sig.) = 0.012 implies that multiple regression model is suitable with data.

Coefficient of R^2 (R Square) = 0.528, which means 52.8% of the total variation in the performance of accountants in the Accounting service companies accountants in Hanoi will be explained by the regression model.

Research model result indicates that all independent variables Information Technology (IT), Accounting private factors (PF) are significant (because Sig. < 0.05) to the performance of accountants in the Accounting service companies accountants in Hanoi.

Factors have influences on the performance of accountants in the Accounting service companies accountants in Hanoi are presented in the following standardized regression model:

PA = 0.392 x IT + 0.448 x PF

Research model result indicates that all independent variables Information Technology (IT), Accounting private factors (PF) are significant (because Sig. < 0.05) to the performance of accountants in the Accounting service companies accountants in Hanoi.

4.2. Discussion
Information Technology
Mr. Vu Ngoc Hoang - Oracle Vietnam Solution Architect said that, digital accounting will become the pillar to support commercial activities with customers, and connect more essential department of the business. The digital breakthrough in accounting will create new trends, specifically, about 66% of small and medium firms will replace the services that accountants are currently performing with cloud services. 50% of small and medium firms will replace accountants if they do not adapt to cloud technology. Jobs that are easy to automate and replace with the most software include: Manual accounting entry, bookkeeping, year-end financial reporting, business activity report, salary, financial analysis main.

Information technology for accountants: Information technology plays a leading role in the accounting information system. The application of information technology to the accounting work has three levels: Semi-manual processing level; level of automation of accounting work; level of management automation. Regarding the automation level of accounting: This level is popular among enterprises in Vietnam, in this form, enterprises do accounting with accounting software, information technology has penetrated into many fields. Traditional accounting practices have been completely altered, particularly the way accounting data is handled by the role of information technology. In fact, IT has automated traditional accounting books. The accounting software package can come with a wide range of specialized features or a generic program that can be customized to suit the business operation of the business. Businesses often choose accounting software based on the scale of their operations and the number of users accessing the Accounts System.

Accounting private factors
The level of the accountants and the capacity of them depend on the accountants themselves. In addition, it depends on the enterprise that the accountant is working in. Education level of accountants in the research

sample has university degree or higher, accounting qualification. Accountants trained by the training program of the universities, including knowledge of general education, Professional education knowledge including basic knowledge of the sector, Basic knowledge industry, industry knowledge.

In addition, soft skills such as application skills, development skills ... accountants are also shared and discussed. Being able to define Industry knowledge is one of the factors that helps accountants at work. Accountants have access to both corporate finance accounting, tax accounting, international financial reporting standards (IFRS), machine accounting, management accounting, career administrative accounting, and information systems. These courses are regularly updated, in accordance with current conditions.

However, accountants also have limitations such as: The weaknesses of accountants are the knowledge of temporary theory but the application is weak and lacking in general ability; do not know how to apply knowledge to solve systematic problems; group work is ineffective; lack of ability to manage and organize work.

The ability of accountants to work independently is quite good because it is one of the basic skills they have learned. However, there should be a combination of both independent and teamwork skills to handle your work well. Although working as a group of accountants still has some time when independence is needed to complete their work. Working independently is a skill that many employers mention when learning about an accountant. Accounting work requires both working in harmony and working independently to achieve good results. Accountants need to learn how to work focused, constantly seeking knowledge and interacting regularly with other colleagues.

Confidence of accountants: Confidence is a virtue, a quality that is needed in every human being. It is the key to success in life. Confidence helps people create a stable business. Self-confidence helps people to be brave in life, express themselves. Confidence will help to train their working skills, be assertive in every situation in life, help accumulate knowledge and experience. Confidence creates the opportunity for us to discover, delve deeper into the qualities and potentialities for self-improvement. Self-confidence helps people to have more strength, energy and creativity to make a great career. Confidence is always attractive to the trust of others. Your confidence will inevitably be showed in any job.

The experience of the accountants is to ensure whether the employees can meet the requirements of the job, this is the ability to complete work and real job skills. Experienced accountants have mamy positive impacts on new or inexperienced accountants. The experienced accountants are the teacher for the new accountant entering the job.

5. Recommendations

Recommendations for Information Technology factor

Apply information technology to data processing. Currently, many Accounting services companies have not used a unified management software system, but only apply accounting software, so the data collection only stop in using resources from financial accounting, and there is no link between the different parts. Therefore, Accounting services companies need to apply information technology in the departments in the enterprise. In addition, companies use accounting software primarily for the purchase of software, so it also depends on firms that provide accounting software. To overcome this situation, companies should aim to build and self-design accounting software.

Establishing an accounting information system within a company - an information system consists of a small set of systems or material and non-material components, linked and coordinated harmoniously to deal with transaction data related to finance to give financial information. The accounting information system covers financial accounting, management accounting and taxation.

Recommendations for accountants

Accountants need to pay attention to, basic skills such as foreign language skills, soft skills such as communication skills, organization and accounting apparatus…Those are the necessary requirements that influence on the performance of accountants (Huynh and La, 2011).

Accountants must cultivate basic and specialized skills, accurately assess financial information. Prior to the application of the industrial revolution 4.0 and the explosion of information technology, accountants need to change the methods and ways to adapt to new changes in order to perform well the work assigned.

Accountants must lear more to improve their qualifications, master accounting policies and laws applicable to accounting service companies, presentation financial statement with high result.

The above measures are closely related to the accounting service companies and universities... Because, without the coordination of organizations, the accountants themselves can not be accomplished. Therefore, the accounting service companies should pay attention to the training of accountants, improve staff qualifications, since then, improve the quality of financial accounting information and management accounting of the company.

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