

## Factors affecting the application of management accounting in small and medium enterprises in Hanoi, Vietnam

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### ABSTRACT

This article evaluates the factors affecting the use of management accounting in small and medium enterprises (SMEs) in Hanoi, Vietnam. The factors include: Production and business characteristics; Competitiveness; Business strategy; CEO of awareness management; Human resource quality. The study is conducted on 238 SMEs in Hanoi and the results show that CEO's awareness of management accounting had the strongest impact on the ability to apply management accounting of enterprises while competition level factor had the weakest effect. At the same time, the study also examines the significant role of mediating factor of firm size on the relationship between the characteristics of the production and business process and the application of management accounting, age and professional qualifications. The results indicate that enterprise size plays a significant role on regulating the impact of business characteristics of enterprises on management accounting application. For smaller enterprises, management accounting is less used and vice versa. Next, the younger the managers are, the higher the impact of their awareness on management accounting application, which means management accounting will be used more if managers are younger.

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## 1. Introduction

In the context of globalization and increasingly competitive business environment nowadays, it is challenging for an enterprise to maintain its operating efficiency (Burns et al., 1999). The success of an enterprise depends on a great deal of managerial decisions which are based on accounting information, particularly management accounting (Burns & Scapens, 2000). Therefore, it can be stated that quality and efficiency of accounting exert direct impact on quality and efficiency of organization's operations management for the achievement of planned goals (Bruggeman et al., 1996; Bhimani, 2002). Due to differences in requirements and the nature of information for internal and external subjects of the organization, accounting information is divided into financial accounting information and management accounting information (Burns & Vaivio, 2001). Management accounting has recently been recommended by many studies and its necessity and importance to the operations management of organizations and

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enterprises have already been proved (Pierce & O'Dea, 1998; Hyvönen, 2007; Matt et al., 2007). Management accounting has steadily become a scientific tool for managers to carry out operations, controls and decision making in a satisfactory manner (Bhattacharya, 2002; Horngren et al., 2007; Kaplan & Norton, 1996).

In spite of different perceptions of the benefits offered by management accounting for enterprises' business development plans of each country, the majority of countries have recognized the significance of management accounting for the estimation and planning of production and business operations; control of resources, people and production & business operations of enterprises; management accounting is also a tool to analyze and evaluate the realization of expenses, revenue and profit (Baines & Langfield-Smith, 2003; Askarany & Smith, 2008; Waweru et al., 2004). Management accounting plays its biggest role as a tool for the management board to make decisions, partially enhancing enterprises' competitiveness (Albright & Lee, 1995). Hanoi is now a city with a tremendous speed of economic development (Abdul-Rahman, 1993; Abdul-Rahman et al., 2002; Moores & Yuen, 2001). This makes management accounting information increasingly necessary for small and medium-sized enterprises (SMEs) in this city. SMEs make a significant contribution to total social investment, economic growth, budget revenue increase, job creation, hunger eradication & poverty reduction and social security assurance, etc. (Ezzamel et al., 2007). As reported by People's Committee of Hanoi City, in 2018, SMEs provided jobs for more than half of the labor force, contributing to the increase of city budget over the years, with a ratio of about 40% to the city GDP.

At this time, there are many authors conducting researches on factors affecting the application of management accounting (Andon et al., 2007). However, having no empirical evidence in Vietnam is the major limitation to foreign studies, while for domestic researches, there has been no research using mixed methods to both study factors affecting the application of management accounting in Hanoi and indicate how much such factors impact on the way management accounting is applied. The application of management accounting in SMEs in Hanoi is subject to many factors which may enhance the feasibility of management accounting application in SMEs in Hanoi, improving operating efficiency, ensuring the completion of objectives set by such enterprises

## **2. Research overview and hypotheses**

### *2.1 Production and business characteristics*

Production and business characteristics are an important factor which is thought to have impacts on both structure and control arrangements of enterprises (Chenhall, 2003; Chenhall & Euske, 2007; Chenhall & Langfield-Smith, 2003). Large enterprises have resources to choose to apply management accounting at a more complex level than small enterprises. For example, Reid and Roitberg (1995) provided evidence indicating the impact of enterprise's size on control techniques, tools during researches on the role of management accounting system in acquisition and merger processes. In addition, Haldma and Laats (2002) also pointed out that the complexity of cost accounting and estimation system tends to increase, corresponding to the size of enterprises. A large enterprise often has larger total resources, as well as a better internal communication system, which makes communication regarding the application of management accounting easier. Moreover, a larger enterprise owns a more complex system and copes with more difficult problems. As a result, it is required for such enterprise to have more control over its activities and more information to rely on; therefore, it is important for enterprises to apply management accounting more overall and complicatedly (Luther & Longden, 2001; Abdel-Kader & Luther, 2008; Clay Dibrell & Miller, 2002). According to Hutaibat (2005), there is a close relationship between the size of the enterprise (measured by the number of employees and revenue) with the management accounting application. Accordingly, with the increase in the size of enterprises, the application of management accounting techniques and tools are also enhanced and extended. It can be explained that large enterprises often possess better financial resources to cover accounting information costs, compared to small-sized enterprises. Moreover, the amount of information managers and accountants of large enterprises have to deal with is bigger than that in small enterprises (Ling-ye & Ogunmokun, 2008). The

complexity of decentralization in enterprises or of a great number of production lines, etc. also set a tendency for large enterprises to apply management accounting at a more complex level than small-sized enterprises. Therefore, the following hypotheses are developed:

*H1: Production and business characteristics positively affect the application of management accounting in SMEs in Hanoi.*

*H2: The size of enterprises regulates the impact of production and business characteristics on the application of management accounting in SMEs in Hanoi.*

Despite contrary results, market competition is also mentioned by many researchers. When talking about competitive market, some researchers believe the competitive market has created chaos, pressure, risk and instability for enterprises. Therefore, for enterprises operate in a more competitive environment, it is much more necessary to have complicated cost systems to obtain more accurate information regarding product costs, because competitors will take advantage of enterprises' mistakes to gain competitive advantage if enterprises make decisions based on inaccurate information (Drury & Tayles, 1995). Drury and Tayles (1995) also affirmed that it is required for enterprises to consider their customer's satisfaction as one of the top priorities to be successful, as well as to achieve competitive effectiveness in a globalized and increasingly competitive environment. As a consequence, it is required for enterprises to go for new management methods, change their production systems, invest in new techniques and tools, etc. Moreover, management accounting techniques and tools, a part of the enterprise system, are also seriously affected by these changes. In accounting theory, occasionalism theorists acknowledge competitive environment as a decisive factor in the structure and intensity of management accounting application in enterprises (Anderson & Young, 2001). Finally, when the competition becomes more and more severe, enterprises should operate extremely effectively to achieve satisfaction about their viability (Laitinen, 2001). H<sub>3</sub> hypothesis is given as:

*H3: Market competition positively affects the application of management accounting in SMEs in Hanoi.*

## 2.2 Quality of human resources

In SMEs, the presence of employees, particularly qualified accounting staff, is an important factor affecting the management accounting application. Commonly, large enterprises often have specialized accounting/finance departments, so they tend to recruit accountants who are qualified enough to make reports, as well as offer professional advices. On the contrary, there is a doubt that not all small-sized enterprises employ qualified accounting staff (Ahmad, 2012). Previous researches have also shown that there is a compatibility between the presence of professional accountants with a high level of knowledge about management accounting application in enterprises (Ismail & King, 2007); or the presence of professional accountants in SMEs enables the development of management accounting application in SMEs (McChlery & Rolfe, 2004). H<sub>4</sub> hypothesis is given as:

*H4: Quality of human resources positively affects the application of management accounting in SMEs in Hanoi.*

## 2.3 Business strategy

During their researches on business strategy, many authors have indicated the impact of this factor on management accounting application (Choe, 2004). This can be interpreted that when pursuing competitive advantage, enterprises often apply management accounting systems to support specially prioritized strategies. For example, enterprises can use management accounting tools and techniques such as quality improvement or benchmarking programs to support differentiation strategies. Consequently, the enterprise's option or change in business strategies will lead to different management accounting applications. H<sub>5</sub> hypothesis is given as:

*H5: Business strategy positively affects the application of management accounting in SMEs in Hanoi*

#### 2.4 Awareness of management accounting of enterprise operators

Most SMEs are not familiar with management accounting and only focus on financial accounting as required and ordered by management agencies rather than their actual management needs (Ahmad, 2012). Therefore, it is difficult to succeed in management accounting application or it is even impossible to apply management accounting if the enterprise owner/operator is not aware of benefits of using management accounting techniques and tools. Moreover, it is the understanding of new management accounting techniques and tools that generates demand of the owner/operator for management accounting application in their enterprises, making them highly appreciate the usefulness of management accounting tools and techniques, thus not hesitate to invest in management accounting application. The hypothesis is given as:

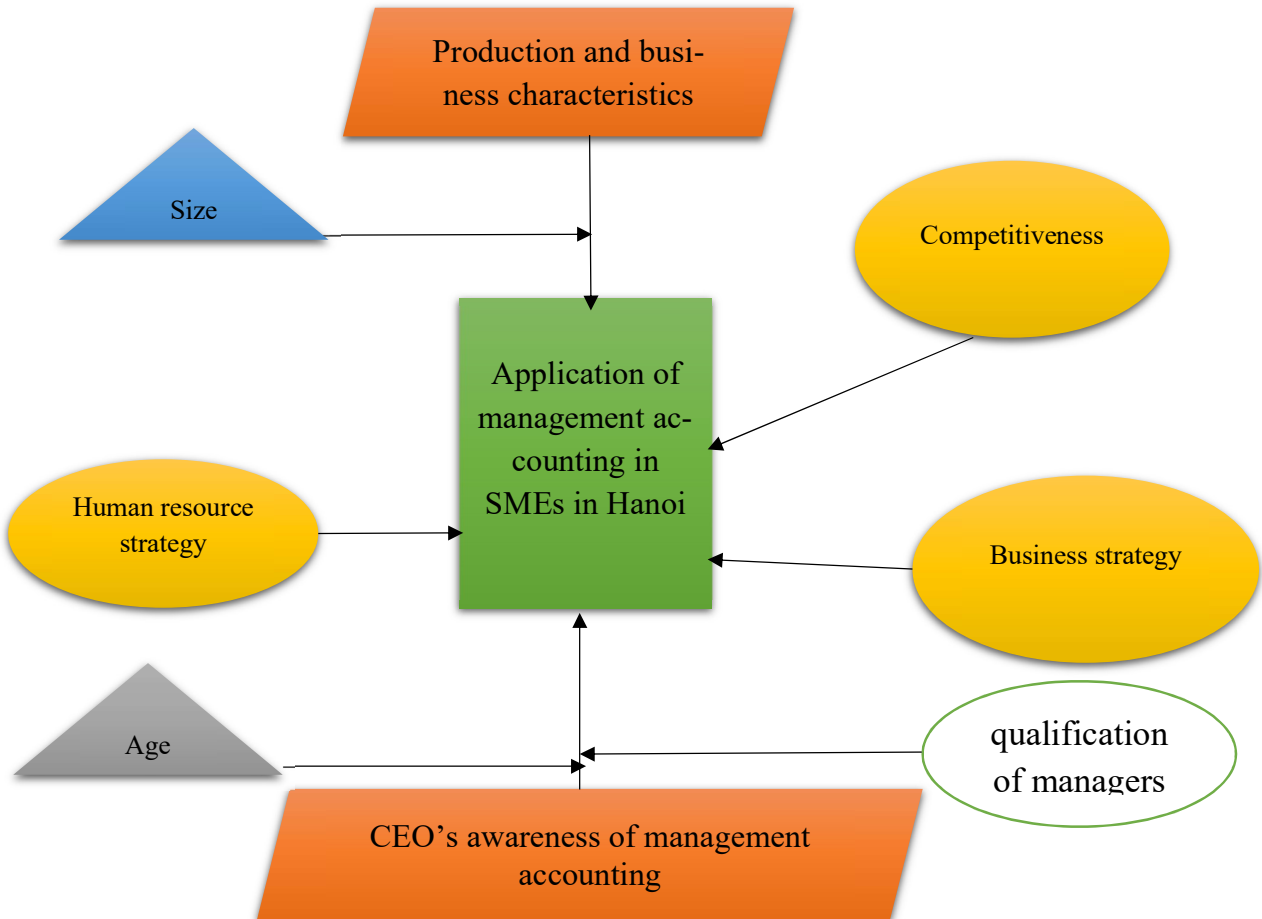
*H<sub>6</sub>: Awareness of management accounting of enterprise operators positively affects the application of management accounting in SMEs in Hanoi.*

*H<sub>7</sub>: CEO's age regulates the influence of managers' awareness on management accounting application in SMEs in Hanoi*

*H<sub>8</sub>: CEO's level regulates the influence of managers' awareness on management accounting application in SMEs in Hanoi*

### 3. Research design

On the basis of factors affecting the application of management accounting in SMEs in Hanoi city, the following research design is proposed:



**Fig. 1.** Research design

With the above-mentioned research design, a survey questionnaire with observable variables measured by Likert scale with 5 points used for core content of the questionnaire has been made: 1 - Strongly disagree, 2 - disagree, 3 - neither disagree nor agree, 4 - agree, 5 - Strongly agree with independent variables that are used to measure the extent of agreement of research samples regarding the impact of each factor on the application of management accounting in SMEs in Hanoi.

*a) Scale for production and business characteristics of enterprises*

The scale for production and business characteristics of enterprises is based on characteristics pertaining size, as well as effects of size to the establishment and application of management accounting in SMEs to be appropriate for SMEs in Hanoi to apply management accounting. Accordingly, the production and business characteristics of enterprises will be denoted as ES and measured by 5 observed variables (inherited from researches of Flacke and Segbers (2005) and Hutaibat (2005)).

ES 1: Enough employees for enterprises' activities to be carried out.

ES 2: Sufficient financial capacity for the development of products and services and the expansion of operating market are provided.

ES 3: A prestigious and reputable enterprise in the industry or field in which such enterprise operates.

ES 4: Large network system of supply and distribution of products and services.

ES 5: Proper investment in technology for enterprises concerning management accounting.

*b) Scale for market competition*

The market competition is denoted as MC and measured by 5 observed variables. The establishment of this scale is inherited from the research of Tuan Mat (2010).

MC 1: New competitors always emerge.

MC 2: There are often replacement products and services on the market.

MC 3: Pressure from big customers.

MC 4: Pressure from big suppliers.

MC 5: Pressure from current competitors in the industry.

*c) Scale for human resource quality.*

The Human resource quality is denoted as HRQ. According to Ismail and King (2007) and McChlery and Rolfe (2004), this variable scale will be measured by the 6 following observed variables:

HRQ 1: Great support from managers for employees in the enterprise.

HRQ 2: Mutual support between employees in departments of the enterprise.

HRQ 3: Consensus on general development goals of the enterprise.

HRQ 4: It is required for accountants to have national professional accounting certificates (chief accountant, chief financial director).

HRQ 5: Management accountants have occupational ethics, provide accurate information.

HRQ 6: Management accountants works with high sense of responsibility.

*d) Scale for business strategy*

Tuan Mat (2010) mentioned the business strategy variable during the implementation of his research was related to management accounting in enterprises. Therefore, Tuan Mat's research will be a basis to

build a scale for business strategy variable. Business strategy is denoted as BS and measured by 5 following observed variables:

BS 1: Enterprises define goals, set strategies and develop policies to achieve that goal.

BS 2: Management accounting information plays an important role in the direction of establishing business strategy of enterprises.

BS 3: Besides traditional products and services, enterprises conduct researches and development of new products and services.

BS 4: Enterprises regularly reevaluate their business strategies depending on the change of competitors.

BS 5: Enterprises consider pricing policy an important business strategy.

*e) Scale for enterprise operator's awareness of management accounting*

The enterprise operator's awareness of management accounting is denoted as EOAMA. According to Ismail and King (2007) and McChlery and Rolfe (2004), this variable will be measured by the 4 following observed variables:

EOAMA 1: The enterprise owner/operator highly appreciates the usefulness of management accounting tools and techniques.

EOAMA 2: The enterprise owner/operator is aware of management accounting tools and techniques.

EOAMA 3: The enterprise owner/operator has a high demand for management accounting application.

EOAMA 4: The enterprise owner/operator accepts high cost of investment to apply management accounting.

*f. Scale for the application of management accounting in SMEs in Hanoi*

The application of management accounting in SMEs in Ha Noi is denoted as AMA and measured by 5 observed variables obtained by five-point Likert scale, with 1 being "completely unused" to 5 being "well used".

AMA 1: Ability to apply management accounting techniques for costs.

AMA 2: Ability to apply management accounting techniques for estimation.

AMA 3: Ability to apply management accounting techniques for performance evaluation.

AMA 4: Ability to apply management accounting techniques for decision-making process.

AMA 5: Ability to apply management accounting techniques or strategies.

*g. Research sample and techniques of data collection and analysis*

The sample is 238 small and medium-sized enterprises in Hanoi, collected through direct surveys or copy via email. Survey questionnaires were collected in VCCI conferences held for SMEs. The survey respondents are enterprise leaders.

*Data analysis techniques*

Collected questionnaires were sorted, selected and imported into Excel software, then entered in SPSS 22 software to test the scale reliability and test EFA with satisfactory scales and latent variables imported in Smart PLS software version 3.0 to test hypotheses and verify the regulatory role of factors.

Hanoi is the national capital and the leading city in Vietnam in terms of area and second city in term of population. It is also the economic-political-cultural-social center of the country. Hanoi borders many

provinces in the Red River Delta such as Bac Ninh, Ha Nam, Vinh Phuc, etc. After the expansion in August 2008, Hanoi became one of 17 capitals with the largest area in the world. Hanoi's population is currently over 9 million, of which: urban areas account for 41.1% and rural areas account for 58.1%. Hanoi residents are mainly Kinh people (98.73%), Muong people (0.76%) and Tay people (0.23%). Since 2010, Hanoi City has achieved positive results in economic development: in 2017: GDP growth reached 11%, income per capita was USD3000, in 2018: GDP growth reached 8.8%, income per capital was nearly USD4000/year.

#### 4. Research results

##### 4.1. Results of reliability test of scale with Cronbach's Alpha coefficient

###### *Competition*

After 2 items MC1 and MC3 are removed, the reliability of the scale for market competition is as follows: With the overall Cronbach's Alpha coefficient being 0.924 and greater than 0.6 for each scale, and total correlation  $> 0.3$ , no failed scale is retained for further research.

###### *Production and business characteristics*

After 2 scales ES1 and ES4 are removed, Cronbach's Alpha coefficient is 0.838, total correlation is greater than 0.3 so no scale is removed.

###### *Application of management accounting*

Cronbach's Alpha coefficient is 0.918, total correlation is greater than 0.3 so no scale is removed.

###### *Managers' awareness of management accounting*

Cronbach's Alpha coefficient is 0.932, total correlation is greater than 0.3 so no scale is removed.

###### *Business strategy*

Cronbach's Alpha coefficient is 0.944, total correlation is greater than 0.3 so no scale is removed.

###### *Human resource quality*

After one scale with Cronbach's Alpha coefficient  $< 0.7$  and total correlation  $< 0.3$  is removed, the author runs the test again. Cronbach's Alpha coefficient is 0.871, total correlation is greater than 0.3 so no scale is removed.

#### Table 1

##### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.946
Bartlett's Test of Sphericity	Approx. Chi-Square	22870.310
	df	1653
	Sig.	.000

It can be seen that KMO coefficient is greater than 0.5, meaning sufficient number of observed variables to form a factor. With the level of significance of 0.000, all observed variables are correlated with each other in the overall. Therefore, conditions for further analysis are satisfied. EFA analysis results are satisfied and separated into 6 factors as expected design.

##### 4.2. Results of design measurement and hypothesis testing

Results of composite reliability are as follows:

**Table 2**

## Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
BS	0.898	0.898	0.898	0.638
HRQ	0.928	0.928	0.928	0.682
MC	0.872	0.8.72	0.8.72	0.694
EOAMA	0.910	0.911	0.910	0.629
ES	0.911	0.911	0.911	0.672
AMA	0.982	0.983	0.982	0.666

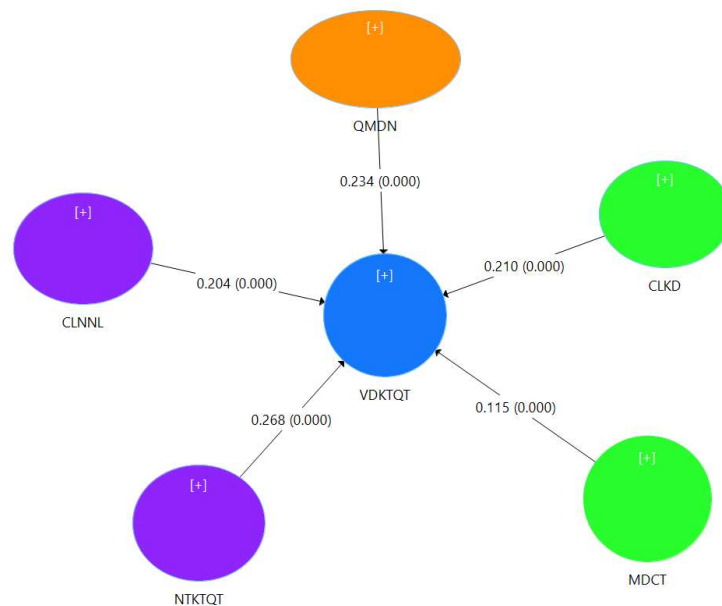
**Table 3**

## Discriminant Validity Fornell-Larcker Criterion

	BS	HRQ	MC	EOAMA	ES	AMA
BS	0.799					
HRQ	0.026	0.826				
MC	0.022	0.294	0.833			
EOAMA	0.049	0.030	0.037	0.793		
ES	0.010	0.388	0.167	0.020	0.820	
AMA	0.036	0.015	0.012	0.040	0.014	0.816

It can be seen from the above results that the data are consistent with the research design and satisfy conditions to verify research hypotheses.

The hypothesis testing results are as follows:

**Fig. 2.** Results of research hypothesis testing

It can be seen from the above results that managers' awareness of management accounting affecting the application of management accounting in SMEs in Hanoi the most, with an impact coefficient of 0.268 at 1% level of significance. (P-value = 0.000). Next, the production and business characteristics averagely make an effect on management accounting application in SMEs in Hanoi, with an impact factor of 0.234 at 1% level of significance (P-value = 0.000). The weakest impact factor is the level of competition, because for enterprises in Hanoi, especially SMEs, the level of competition has not affected much



on the extent of application of management accounting in such enterprises. The human resource quality and business strategy both positively impact the management accounting application at the impact level of 0.204 and 0.210, respectively, at 1% level of significance.

Thus, the hypothesis testing results are as follows:

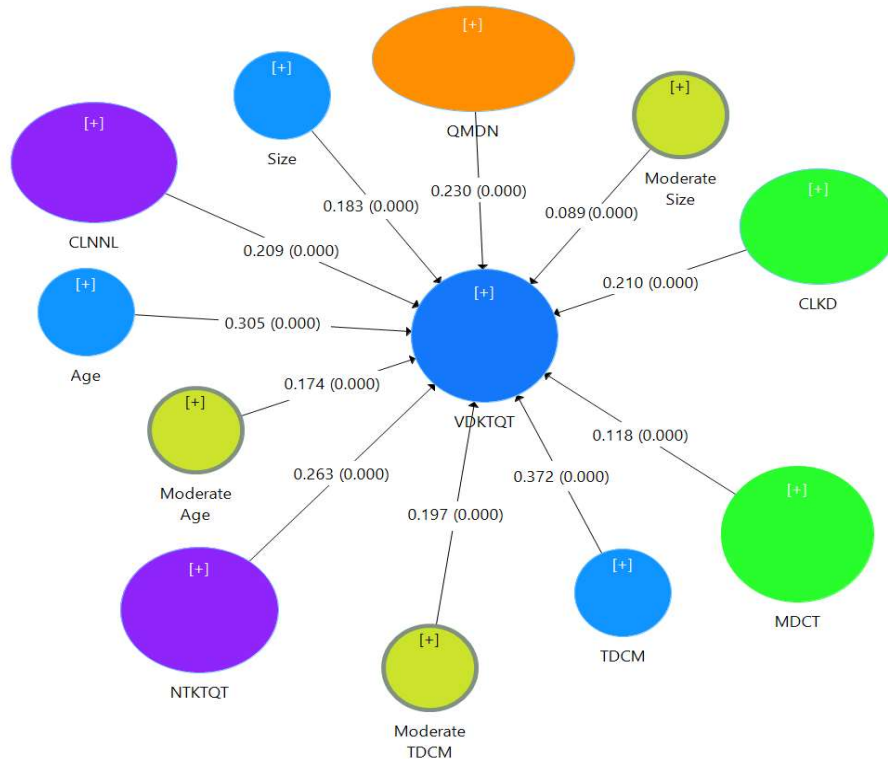
**Table 4**

Results of hypothesis testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
BS→AMA	0.210	0.212	0.022	9.378	0.000
HRQ→AMA	0.204	0.211	0.020	10.206	0.000
MC→AMA	0.115	0.115	0.014	8.179	0.000
EOAMA→AMA	0.268	0.264	0.031	8.684	0.000
ES→AMA	0.234	0.228	0.017	13.429	0.000

In general, all hypotheses are accepted. After that, the regulatory role of enterprise size, the age and professional level of managers are tested.

Results of regulatory role testing are as follows:



**Fig. 3.** Results of regulatory role testing\*

(\*) Notice: QMDN → ES; NTKTQT → EOAMA; VDKTQT→AMA; CLNNT→HRQ; CLKD→ BS; MDCT→ MC; TDCM: the level of qualification of managers (post-graduate).

It can be seen from the above results that enterprise size plays a significant role in regulating the impact of business characteristics of enterprises on management accounting application. For smaller enterprises, management accounting is less used and vice versa. Next, the younger the managers are, the higher the impact of their awareness on management accounting application, which means management accounting will be used more if managers are younger. Finally, the higher the level of qualification of managers

(post-graduate), the higher the impact of the managers' awareness on management accounting application.

## 5. Conclusion

Research results have shown that business characteristics of enterprises had positive impacts on management accounting application in small and medium-sized enterprises in Hanoi. This result is completely consistent with the research results of Laitinen (2003), Hutaibat, (2005) and Abdel-Kader and Luther (2006). In fact, larger enterprises have resources to choose and apply management accounting at a more complex level than smaller enterprises. Accordingly, with the increase in the size of enterprises, the application of management accounting techniques and tools are also enhanced and extended.

Laitinen (2003), Hutaibat, (2005), Abdel-Kader and Luther (2006) believe that the competitive market has an impact on the application of management accounting in enterprises. In this research, the level of impact of the market competition variable on the application of management accounting in SMEs in Hanoi has been determined as 0.115. This result is completely consistent with previous studies presented in the topic. In the context of globalization and increasingly competitive business environment nowadays, it is challenging for an enterprise to maintain its operating efficiency. The success of an enterprise depends a great deal on managerial decisions which are based on accounting information, particularly management accounting. As such, if the market competition increases, the demand for management accounting use also increases.

In this research, the level of impact of the human resource quality variable on the application of management accounting in SMEs in Hanoi has been determined as 0.204, so the human resource quality has a positive impact on the application of management accounting in SMEs in Hanoi. This result is entirely consistent with Laitinen's research (2003). People are those who actively participate in and create management accounting information. Accountants who meet the qualifications and techniques for management accounting work will ensure successful application of management accounting in providing quality information to users, facilitating economic decisions, improving operating efficiency of the unit.

During their researches on business strategy, many authors have indicated the impact of this factor on management accounting application (Scarborough, et al., 1991; Laitinen, 2003, 2006; Kober et al., 2007; Tuan Mat, 2010). In this research, similar results have been indicated by quantitative methods. In fact, for each business strategy, managers will need different management accounting information. Based on an established business strategy, the enterprise will translate it into action, develop general and specific plans for each department and each period to ensure the achievement of planned goals. This will be ensured thanks to the application of management accounting in the enterprise.

## References

- Abdul-Rahman, I. K. (1993). *Privatisation in Malaysia with special reference to changes in accounting system*. Unpublished PhD, University of Hull.
- Abdul-Rahman, I. K., Omar, N., & Taylor, D. W. (2002), The migration of a government trading enterprise's accounting system during privatisation with reference to Japanese management accounting, *Asian Review of Accounting*, 10(1), 22-48.
- Abdel-Kader, M., & Luther, R. (2006). Management accounting practices in the British food and drinks industry. *British Food Journal*, 108(5), 336-357.
- Abdel-Kader, M., & Luther, R. (2008). The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review*, 40(1), 2-27.
- Ahmad, K. (2012). The use of management accounting practices in Malaysian SMEs.
- Albright, T. L., & Lee, T. A. (1995). A case study of the organizational effects of accounting information within a manufacturing environment. *Advances in Management Accounting*, 4, 27-43.
- Anderson, S. W., & Young, S. M. (2001). *Implementing management innovations*. Kluwer Academic Publishers, Massachusetts.

- Andon, P., Baxter, J., & Chua, W. F. (2007). Accounting change as relational drifting: A field study of experiments with performance measurement. *Management Accounting Research*, 18(2), 273-308.
- Askarany, D., & Smith, M. (2008). Diffusion of innovation and business size: A longitudinal study of PACIA. *Managerial Auditing Journal*, 23(9), 900-916.
- Bhimani, A., (2002). *Management Accounting and Organizational Excellence*. Management Press International LTD, United Kingdom.
- Baines, A., & Langfield-Smith, K. (2003), Antecedents to management accounting change: a structural equation approach, *Accounting, Organizations and Society*, 28(7,8), 675-698.
- Bhattacharya, M. (2002). Industrial concentration and competition in Malaysian manufacturing, *Applied Economics*, 34(17), 2127-2141.
- Burns, J., Ezzamel, M., & Scapens, R. W. (1999). Management accounting change in the UK, *Management Accounting*, 77(3), 28- 30.
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: An institutional framework. *Management Accounting Research*, 11(1) 3-25.
- Burns, J., & Vaivio, J. (2001). Management accounting change. *Management Accounting Research*, 12(4), 389-402.
- Bruggeman, W., Slagmulder, R., & Waeytens, D. (1996). Management accounting: the Belgian experience. In *Management Accounting: European Perspectives* (pp. 1-30). Oxford University Press.
- 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.
- Chenhall, R. H., & Euske, K. J. (2007). The role of management control systems in planned organizational change: An analysis of two organizations. *Accounting, Organizations and Society*, 32(7-8), 601-637.
- Chenhall, R. H., & Langfield-Smith, K. (2003). Performance measurement and reward systems, trust, and strategic change. *Journal of management accounting research*, 15(1), 117-143.
- Choe, J. M. (2004). Impact of management accounting information and AMT on organizational performance. *Journal of Information Technology*, 19(3), 203-214.
- Clay Dibrell, C., & Miller, T. R. (2002). Organization design: the continuing influence of information technology. *Management Decision*, 40(6), 620-627.
- Drury, C., & Tayles, M. (1995). Issues arising from surveys of management accounting practice. *Management Accounting Research*, 6(3), 267-280.
- Ezzamel, M., Robson, K., Stapleton, P., & McLean, C. (2007). Discourse and institutional change: 'Giving accounts' and accountability. *Management Accounting Research*, 18(2), 150-171.
- Flacke, K., & Segbers, K. (2005). *Does managerial accounting follow entrepreneurial characteristics? Results of an empirical analysis of German SME* (No. 8-1). Arbeitspapier, Lehrstuhl für Betriebswirtschaftslehre, insb. Controlling, Westfälische Wilhelms-Universität Münster.
- Haldma, T., & Lääts, K. (2002). Contingencies influencing the management accounting practices of Estonian manufacturing companies. *Management Accounting Research*, 13(4), 379-400.
- Hutaibat, A.K., (2005). *Management Accounting Practices in Jordan – A Contingency Approach*. Ph.D thesis. University of Bristol, United Kingdom.
- Hyvönen, J. (2007). Strategy, performance measurement techniques and information technology of the firm and their links to organizational performance. *Management Accounting Research*, 18(3), 343-366.
- Hoque, Z. (2005). Linking environmental uncertainty to non-financial performance measures and performance: a research note. *The British Accounting Review*, 37(4), 471-481.
- Horngren, C., Sundem, G., Stratton, W., Burgstahler, D., & Schatzberg, J. (2007). *Introduction to Management Accounting* (14th ed.), Pearson Prentice Hall, New Jersey.
- Ismail, N. A., & King, M. (2014). Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firms. *Journal of Information Systems and Small Business*, 1(1-2), 1-20.

- Kaplan, R. S., & Norton, D. P. (1996). *The Balance Scorecard: Translating Strategy into Action*. Harvard Business School Publishing, Boston.
- Kober, R., Ng, J., & Paul, B. J. (2007). The interrelationship between management control mechanisms and strategy. *Management Accounting Research*, 18(4), 425-452.
- Laitinen, E. K. (2001). Management accounting change in small technology companies: towards a mathematical model of the technology firm. *Management Accounting Research*, 12(4), 507-541.
- Laitinen, E. K. (2003). Future-based management accounting: a new approach with survey evidence. *Critical Perspectives on Accounting*, 14(3), 293-323.
- Laitinen, E. K. (2006). Explaining management accounting change: evidence from Finland. *International Journal of Accounting, Auditing and Performance Evaluation*, 3(2), 252-281.
- Ling-ye, L., & Ogunmokun, G. O. (2008). An empirical study of manufacturing flexibility of exporting firms in China: how do strategic and organizational contexts matter?. *Industrial Marketing Management*, 37(6), 738-751.
- Luther, R. G., & Longden, S. (2001). Management accounting in companies adapting to structural change and volatility in transition economies: a South African study. *Management Accounting Research*, 12(3), 299-320.
- Matt, B., Chenhall, R. H., & Euske, K. J. (2007). Management control systems as a tool for planned organizational change. *Cost Management*, 21(5), 15-25.
- McChlery, S., & Rolfe, T. (2004). University costing systems: a case study on value management. *Journal of Finance and Management in Public Services*, 1(4), 67-87.
- Moores, K., & Yuen, S. (2001). Management accounting systems and organizational configuration: a life-cycle perspective. *Accounting, Organizations and Society*, 26(4-5), 351-389.
- Pierce, B. & O'Dea, T. (1998). *Management accounting practices in Ireland – The preparers' perspective*. Research Paper Series Paper. 34.
- Reid, M. L., & Roitberg, B. D. (1995). Effects of body size on investment in individual broods by male pine engravers (Coleoptera: Scolytidae). *Canadian Journal of Zoology*, 73(8), 1396-1401.
- Scarborough, P., Nanni Jr, A. J., & Sakurai, M. (1991). Japanese management accounting practices and the effects of assembly and process automation. *Management Accounting Research*, 2(1), 27-46.
- Tuan Mat, T. (2010). Management accounting and organizational change: impact of alignment of management accounting system, structure and strategy on performance.
- Waweru, N. M., Hoque, Z., & Uliana, E. (2004). Management Accounting Change in South Africa. *Accounting, Auditing and Accountability Journal*, 17(5), 675-704.

