FACTORS AFFECTING THE STRATEGY OF RESPONSIBILITY ACCOUNTING IMPLEMENTATION IN MANUFACTURING ENTERPRISES

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Abstract

The purpose of this article is to suggest a model to research, identify, and measure the effects of various factors on the application of responsibility accounting, to study the impact of factors regulating business scale on the relationships between legal regulations and organizational structure on responsibility accounting (RA) in manufacturing firms in Vietnam. Quantitative research methods were used to measure the scale and impact level of each factor. The convenience sampling method was used to select 350 manufacturing firms to conduct the survey. The results show that the factors in the research model all had a certain impact on the employment of RA in such firms, wherein the business scale was the factor that affected the relationship between the decentralization of management, organizational structure, and the adoption of RA. The research results are consistent with the study of Tran et al. (2022). The research helps managers and accountants raise awareness of the application of RA through factors such as organizational structure, decentralization of management, accounting qualifications, business scale, competitive advantage, organizational costs, and managers' perception of utilizing RA.

Keywords: Responsibility Accounting, Factors, Manufacturing Enterprises, Vietnam

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1. INTRODUCTION

Responsibility accounting (RA) is a method of dividing the structure of an organization into different responsibility centers to measure its performance. In other words, it is a tool to measure the efficiency of a certain area in the organization, thereby helping administrators control and evaluate responsibilities at each different level of management. These centers are divided based on the characteristics of the organizational structure, management decentralization, and administrative goals. RA can only be implemented in enterprises with clearly decentralized structures. Managers believe that this system works most effectively in companies where decision-making authority is distributed throughout the organization. Different levels of management are empowered to make decisions corresponding to the scope of their responsibilities.

In Vietnam, the processing and manufacturing industry continues to be the growth driver with

an increase rate of 8.10%, contributing 2.09% to the growth rate of total added value of the entire economy (General Statistics Office, 2022). Regarding the economic structure in 2022, the industrial and construction sector accounts for 38.26%. Results of the investigation of factors affecting enterprises in the processing and manufacturing industry in the fourth quarter of 2022 show that: 47.5% of enterprises believe that the high competitiveness of domestic goods influences the production and business activities of enterprises. In Vietnam, RA is not mandatory, and enterprises can freely implement it whenever they want to boost competitiveness and efficiency. In order to prepare for said implementation, they need to research factors affecting RA.

RA brings certain benefits to businesses, being a tool for administrators to see the performance results of each department in the business. In manufacturing enterprises in Vietnam, production, revenue, and cost reports are established for departments and divisions in large companies. Responsibility centers in enterprises are understood as departments and member units. There is not much attention and investment in building RA. Research on factors affecting the application of RA helps administrators see whether the application of RA in businesses is appropriate as well as determine the factors required for application. RA enables management to control and coordinate the activities of different responsibility centers through periodically submitted reports (Trisnaningsih & Fitria, 2024). RA contributes to improving business efficiency.

The operation of each business is like a giant machine, with each department functioning as its part. The malfunction of one single part can potentially bring down the entire system. When implemented right, RA should be able to clearly assign responsibilities to all departments (Rugby, 2004). To improve overall operational efficiency, each department must operate effectively and coordinate smoothly with each other to achieve common goals. To do so, administrators must be provided with a system of management tools to supervise performance, thereby promoting positive factors and limiting weak areas. In said system, RA is highly appreciated by administrators and is indispensable in modern economic management. RA is also an effective method to evaluate the performance of departments within the organization (Fowzia, 2011). However, applying it and promoting its effectiveness is not simple, especially for companies with large scale, wide scope of operations, and organizational structures associated with responsibilities of numerous organizations and individuals.

There have been several studies on the aspects of multiple-choice accounting. Research by Al-Htaybat and von Alberti-Alhtaybat (2013) has emphasized the significant influence of the educational background and skills of accountants and managers on the accounting process. Studies have examined the impact of independent factors on RA but have not analyzed in-depth the impact of its implementation costs. What factors affect the application of RA in manufacturing enterprises in Vietnam? No research has studied the factors affecting RA in manufacturing enterprises, as well as studied the impact of the regulating variable of business size on the relationship between management decentralization and organizational structure to RA in these firms. This is the gap that will be discussed in this study. This research will help manufacturing firms identify factors influencing the implementation of RA, thereby promoting the application of RA in manufacturing firms in Vietnam.

The purpose of this study is to determine and measure the influence of the factors affecting the implementation of RA, analyze the impact of the regulatory variable of organizational size on the relationship between organizational structure, management decentralization, and RA, making managers and accountants raise awareness and responsibility in organizing and operating RA. The quantitative research method used includes exploratory factor analysis (EFA), moderator impact analysis, and regression analysis to determine the factors affecting RA.

The remainder of this paper is structured as follows. Section 2 explains the theoretical basis and literature review. Section 3 presents a research model and research method, Section 4 demonstrates the results of the study, Section 5 elaborates on the discussion, and Section 6 presents the conclusion.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

RA is designed as a corporate tool to manage costs and activities (Higgins, 1952). The control of RA is based on the principle of decentralization and assignment of responsibilities. RA provides upper-level managers with information based on responsibility reports to evaluate the efficiency of managers of each responsibility center (Belkaoui,1981), and on that basis, upper-level managers control each management department. RA is a tool to manage incurred costs and profits.

RA measures and controls the results of each department based on the classification of the organizational structure, which is divided into smaller divisions called responsibility centers for effective management (Freeman, 2004). Responsibility centers are further divided into specific functions by department. Managers of each responsibility center have control and decision power within the scope of management (Pajrok, 2014) and are held accountable (Lindkvist & Llewellyn, 2003). Different responsibility centers are evaluated based on different responsibility reports. Based on economic and organizational theories, Gordon (1963) argued that RA consists of core aspects: cost and profit, based on specific operating principles and associated with management responsibilities, and timely rewards for managers at all levels. Garrison et al. (2008) argued that RA consists of four core aspects: cost, revenue, profit, and investment. However, there is also an opinion that organizational structure is designed with three specific aspects: cost, revenue, and investment or cost, profit, and investment (Melumad et al., 1992). Implementing RA helps manage costs, assess managers' responsibilities, and collect information which will then be processed and distributed to managers to assist in making decisions.

2.1. Management decentralization

RA is an integral part of the responsibility center; responsibility centers are formed after the organizational structure has been decentralized (Amiri et al., 2013) on the basis of the clear distribution of responsibilities to each management department (Fetus et al., 2020) Decentralization of management is the authorization of managers at all

levels with appropriate authority related to their position and responsibilities (Garrison et al., 2008). Central managers are decentralized in accordance with manager responsibilities (Ramadan, 2016), and assigned responsibility and accountability (Fakir & Islam, 2014). Decentralization allows senior managers time to implement strategies, and corporate policies, and evaluate low-level managers through RA effectiveness (Okoye et al., 2009). According to researchers Al Hanini (2013) and Ramadan (2016), a certain amount of time is required for junior managers to perform their work before upper managers can evaluate whether their performance is satisfactory or not. This also means that decentralization is related to the division of powers and responsibilities. Therefore, it can be expected that management decentralization will promote Vietnamese manufacturing enterprises to implement RA, which is proposed in the following hypothesis:

H1: Management decentralization has a positive impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

2.2. Competitive advantage

Competition promotes the development of enterprises. When there exists competition, enterprises need to innovate their activities, apply science and technology into production to boost productivity, and best meet the needs and tastes of consumers. Competition causes enterprises to work out and implement solutions to make better use of resources. Competition in the market includes competition for raw materials, human resources, price, product quality, product diversity, and distribution. Competition is growing fiercer as Vietnam integrates into the global economy. In order to survive and thrive in the market economy, enterprises should learn to rely on the information provided by RA to make decisions, as RA plays an important role in accumulating data to assist managers in the decision-making process. Competition is the factor that drives businesses to implement RA. On that basis, the following hypothesis is built:

H2: Competitive advantage has a positive impact on private sector transportation of Vietnamese manufacturing enterprises.

2.3. Managers' awareness of responsibility accounting

When managers understand the value of RA, they are more likely to apply RA. RA is influenced by human factors during performance evaluation, including qualification, understanding, reasoning, and judgment of managers and employees (Pajrok, 2014). The level of awareness of staff helps to improve competence and plays an important role in implementing RA (Belkaoui, 1981). When managers realize the benefits of RA in performance evaluation and management responsibility assessment, there may arise the need to adopt RA. Understanding the benefits of applying technical tools of management accounting encourages managers to implement management accounting (Ismail & King, 2007). RA is a part of management accounting, and thus the manager's awareness is a factor affecting its implementation in enterprises. Therefore, the following hypothesis is proposed:

H3: Managers' awareness of responsibility accounting has a positive impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

2.4. Organizational structure

RA is used as a measurement tool to ensure that all activities are conducted as planned based on the establishment of an organizational chart with the rights and functions clearly distributed to each department (Rugby, 2004). Organizational structure and efficiency are important factors affecting the implementation of RA (Mohmed et al., 2015). RA can be implemented when there is an organizational structure and division of responsibilities. Organizational structure is the backbone of RA in enterprises (Higgins, 1952). It is necessary to have close coordination among all centers in order to improve the operational efficiency of firms (Al Hanini, 2013). In the case of Vietnamese manufacturing enterprises, operational efficiency requires departments and divisions to be organized into responsibility centers. Therefore, it is possible that the organizational structure motivates manufacturing enterprises to implement RA, and the following hypothesis is proposed:

H4: Organizational structure has a positive impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

2.5. Ability of accounting staff

The presence of qualified accounting staff is associated with a high degree of responsibility for accounting implementation. Research by McChlery et al. (2005) argued that qualified accountants promote the development of RA in enterprises. To be able to implement RA, accountants must have at least intermediate, college, or higher qualifications (Ismail & King, 2007; McChlery et al., 2005). The qualification of accountants would have a positive impact on the application of social responsibility accounting (SRA) in plastic enterprises (Hang et al., 2024). However, in order for accountants to understand the benefits of implementing RA, it is required that accountants have the ability to research and acquire relevant knowledge, so accountants must have bachelor's degrees or higher (Ismail & King, 2007; McChlery et al., 2005). Therefore, the ability of accounting staff is one of the factors affecting the implementation of RA, which is proposed in the following hypothesis:

H5: The ability of accounting staff has a positive impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

2.6. Cost of implementing responsibility accounting

To implement accounting tools in an organization, resources must be taken into account. In order to have adequate resources for such implementation, enterprises must bear numerous expenses such as consulting fees from organizations and experts, costs of training, hiring and maintaining human resources to handle RA, etc. If the investment costs are low, it will increase the feasibility of implementing management accounting (Tran, 2016). Therefore, when implementing RA, enterprises will have to carefully consider its costs and benefits. A hypothesis is built on this view as follows:

H6: The cost of implementing responsibility accounting has a negative impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

2.7. Organizational size

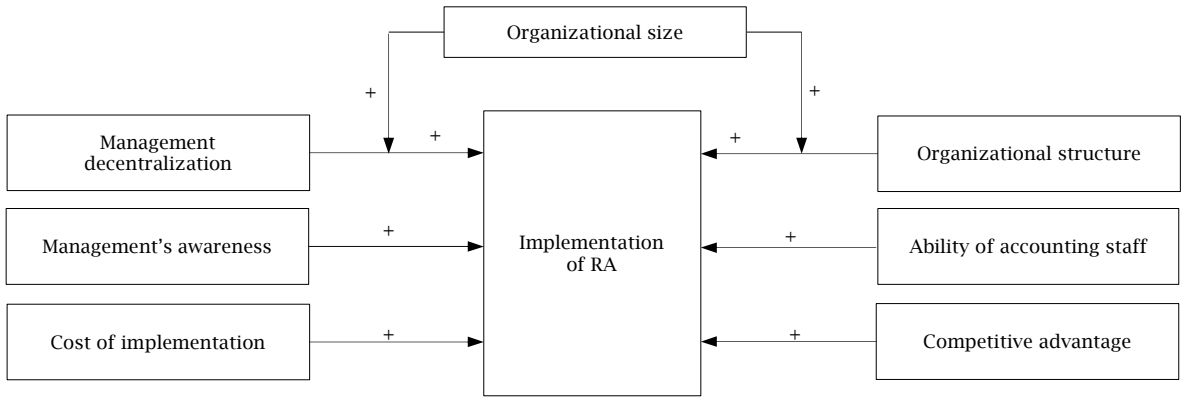
According to the framework of contingency theory, the organizational size of firms has a proportional relationship with RA, as large enterprises often place more emphasis on its implementation. According to Patel (2013), organizational size affects the implementation of RA, and RA is applied in large-scale enterprises with complex organizational structures (Mojgan, 2012) which gives them advantages in specialization, human resources, numerous hierarchical departments, and branches. As large-scale enterprises have more complex organizational structures, appropriate decentralization is required. Organizational size is measured by capital and the number of departments and branches of the enterprise (Ahmad, 2012). Therefore, the size of the enterprise affects the relationship between organizational structure, decentralization, and the implementation of RA. The following hypothesis is established:

H7: Organizational size has a positive impact on the implementation of responsibility accounting in Vietnamese manufacturing enterprises.

As enterprises grow, the demand for the control of information increases (Merchant, 1981). As the size of the enterprise expands, processing the growing volume of information means that high-level managers need to conduct classification and decentralization more extensively (Pugh et al., 1969). Organizational size affects the implementation of RA (Patel, 2013). RA is applied in large-scale enterprises with complex organizational structures.

Research model. Through basic theories, along with international and Vietnamese studies on the factors affecting the application of RA, the authors proposed the following research model:

Figure 1. Proposed research model



3. RESEARCH METHODOLOGY

3.1. Variables and measures

The scales of the variables in this study are built based on the scales of existing studies in the world and in Vietnam. A summary of the variable scales is given in Table 1.

3.2. Research data

The authors selected random samples of Vietnamese manufacturing enterprises while ensuring that all sectors are included, taking into account those such as textile, food, construction, etc. A questionnaire was designed with 31 observations including one dependent variable and six independent variables. The survey used a Likert scale ranging from one to five to analyze and evaluate the data, 350 survey forms were distributed, and 205 valid forms were collected. However, in order to ensure the reliability of the results, the study omitted submissions from respondents who did not have a certain understanding of RA. The remaining 151 questionnaires were included to compile and process data.

According to Tabachnick and Fidell (2007), when using multiple regression, the sample size should be calculated using the following formula: $n \geq 50 + 8p$ (p: number of independent variables); the number of samples selected in this study, 151, is thus appropriate. The research model of factors affecting RA in Vietnamese manufacturing enterprises includes the following eight factors:

- *KTTN* — implementation of RA;
- *QMDN* — organizational size;
- *CPTC* — cost of implementation;
- *LTCT* — competitive advantage;
- *NTQL* — management's awareness;
- *CCTC* — organizational structure;
- *TDKT* — ability of accounting staff;
- *PQQL* — management decentralization.

The dependent variable is the implementation of RA (*KTTN*). Independent variables affect the dependent variable, in other words, the dependent variable is determined by the independent variable. In this research, there are seven variables considered seven factors that are *QMDN*, *CPTC*, *LTCT*, *NTQL*, *CCTC*, *TDKT,* and *PQQL*. The scales of the variable are inherited from previous studies.

Table 1. Multi-item variable measurement

Factors	*Scales of variables*	*Reference*
Organizational size (*QMDN*)	Average capital	Hutaibat (2005), Ahmad (2012), Halbouni and Nour (2014)
	Number of departments, branches	
	Revenue	
	Number of employees	
Organizational structure (*CCTC*)	Enterprise divides administrative departments according to the nature of activities	Al Hanini (2013), Ramadan (2016)
	Enterprise has a clear division of work	
	Centers in the enterprise have close coordination and clear connection	
	Each responsibility center has a specialist manager on-site	
Management decentralization (*PQQL*)	Managers have adequate authority to perform tasks	
	Managers have sufficient time to perform tasks	
	Managers have appropriate professional qualifications	
	Employees' accountability is proportional to their responsibilities	
Manager's awareness at all levels (*NTQL*)	Managers acknowledge the value of RA	Ismail and King (2007), Abdel-Kader and Luther (2008), Tran, (2016), Ahmad (2012), Halbouni and Nour (2014)
	Managers understand the technical tools of RA	
	Managers need the implement RA	
	Managers accept the cost of investing in RA	
Ability of accounting staff (*TDKT*)	Accounting degree from intermediate to higher	Ismail and King (2007), McChlery et al. (2005), Tran, (2016), Ahmad (2012)
	Understanding the process of designing and implementing RA	
	Having domestic certificates of professional accounting	
	Having international certificates of professional accounting	
Competitive advantage (*LTCT*)	Competitive advantage in materialistic	Hoque and James (2000)
	Competitive advantage in human resources	
	Competitive advantage in product quality and service	
	Competitive advantage in product/service diversity	
Cost of implementing RA (*CPTC*)	Technology investment to implement RA	Tran (2016)
	Consulting fees from organizations/experts on the implementation of RA	
	Cost of training human resources to implement RA	
Implementation of RA (*KTTN*)	Enterprises are assisted in operation control	Abdel-Kader and Luther (2008)
	Enterprises are provided with data for responsibility assessment	
	Enterprises are able to evaluate the efficiency of each department	

4. RESEARCH RESULTS

4.1. Evaluate the reliability of the scale

We used The Cronbach alpha method to evaluate the reliability of the scale and the EFA method was used to evaluate the convergent validity and group scale. Cronbach alpha results show that the scales meet reliability requirements. We performed a reliability test of the scale using Cronbach's alpha; variables are accepted if the reliability coefficient > 0, details are presented in Table 2. The Cronbach's alpha coefficient for each variable is as follows: organizational structure has a value of 0.776; management decentralization has a value of 0.868; management's awareness has a value of 0.753; competitive advantage has a value of 0.908; accounting staff's ability has a value of 0.914; cost of implementation has a value of 0.891. Together, these seven factors ensure that the regression model is up to standard to assess the degree of influence of each factor on RA in Vietnamese manufacturing enterprises.

Table 2. Cronbach's alpha coefficient and factor loading of variables in each factor (Part 1)

Variables	*Component*								*Cronbach's alpha*	*No. of categories*
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*		
CCTC1	0.641								0.776	4
CCTC2	0.769									
CCTC3	0.758									
CCTC4	0.699									
PQQL1		0.852							0.868	4
PQQL2		0.802								
PQQL3		0.816								
PQQL4		0.845								
LTCT1			0.899						0.908	4
LTCT2			0.854							
LTCT3			0.877							
LTCT4			0.892							
TDKT1				0.864					0.914	3
TDKT2				0.901						
TDKT3				0.863						
CPTC1					0.730				0.891	3
CPTC2					0.878					
CPTC3					0.891					

Table 2. Cronbach's alpha coefficient and factor loading of variables in each factor (Part 2)

Variables	Component								Cronbach's alpha	No. of categories
	1	2	3	4	5	6	7	8		
QMDN1						0.873			0.913	4
QMDN2						0.896				
QMDN3						0.899				
QMDN4						0.880				
NTQL1							0.609		0.753	4
NTQL2							0.752			
NTQL3							0.778			
NTQL4							0.692			
KTTN1								0.892	0.905	4
KTTN2								0.827		
KTTN3								0.896		
KTTN4								0.884		

4.2. Exploratory factor analysis

According to Table 3, the Kaiser-Meyer-Olkin (KMO) of the variables is < 1 and > 0.5, therefore, factor analysis can be deemed as appropriate. With Bartlett's test with sig. < 0.000. The variance of the total explained variance is > 50%. EFA results have removed observed variables with a loading coefficient < 0.5. Thus, the scales achieve convergence and divergence.

Table 3. EFA factor analysis results

EFA	KMO coefficient	p-value	Extracted variance	Loading factor	Conclusion
The dependent variables	0.745	0.000	66.099	All > 0.5	Ensure analysis requirements
The independent variable	0.832	0.000	70.322	All > 0.5	Ensure analysis requirements
The variable	0.695	0.000	59.183	All > 0.5	Ensure analysis requirements

Table 4. Rotation matrix in EFA analysis

Variable	Component					
	1	2	3	4	5	6
PQQL4	0.856					
PQQL2	0.740					
PQQL1	0.664					
PQQL3	0.600					
NTQL1		0.833				
NTQL3		0.710				
NTQL4		0.644				
NTQL2		0.630				
CPTC2			0.784			
CPTC1			0.773			
CPTC3			0.728			
LTCT4				0.749		
LTCT1				0.646		
LTCT3				0.639		
LTCT2				0.628		
TDKT2					0.715	
TDKT1					0.713	
TDKT3					0.694	
TDKT4					0.524	
CCTC2						0.674
CCTC1						0.634
CCTC4						0.606

4.3. Testing for direct effect

After assessing the reliability of the measurement scales of independent and dependent variables, the authors evaluated the appropriateness of the linear regression model as follows:

Table 5. Evaluation of the appropriateness of the multivariable linear regression model via the F-test

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	949.250	6	158.208	74.173	0.000[a]
	Residual	307.147	144	2.133		
	Total	1256.397	150			

Note: Dependent variable: KTTN. [a] Predictors: Constant, PQQL, LTCT, TDKT, CPTC, NTQL, CCTC.

The analysis of the variance (ANOVA) table shows us the result of the F-test to evaluate the appropriateness of the regression model. The Sig. value of the F-test is 0.000 < 0.05, and thus, the regression model is appropriate.

Table 6. Evaluation of the appropriateness of the multivariable linear regression model via the R^2 coefficient

Model	R	R^2	Adjusted R^2	Std. error of the estimate	Durbin-Watson
1	0.869[a]	0.756	0.745	1.460	0.476

Note: [a]. Predictors: Constant, PQQL, LTCT, TDKT, CPTC, NTQL, CCTC. Dependent variable: KTTN.

Table 7. Hypothesis test results

Hypothesis	*Standardized path coefficient (β)*	*t-value*	*Test result*
H1: RA ← PQQL	0.142	2.666**	Supported
H2: RA ← LTCT	0.304	6.048***	Supported
H3: RA ← NTQL	0.112	2.081**	Supported
H4: RA ← CCTC	0.248	4.314***	Supported
H5: RA ← TDKT	0.557	11.890***	Supported
H6: RA ← CPTC	-0.524	-10.077***	Supported

*Note: ** p-value < 0.05, *** p-value < 0.001. Significant at the 0.05 level.*

The table above shows the coefficient value $R^2 = 0.756 > 0.5$. This model is suitable for use in evaluating the relationship between the dependent variable and the independent variables. The adjusted R^2 value of 0.745 shows that the independent variables included in the regression analysis affect 74.5% of the variation in the dependent variable, the remaining 25.5% is due to variables outside the model and random errors. All independent variables of the model have Sig. test $t < 0.05$, so these variables are all statistically significant, and they all affect the dependent variable of RA.

The results of the path analysis show that the impact of the interaction variable on RA is statistically significant because $p < 0.05$ (see Table 8). Thus, the size of the enterprise plays a role in regulating the impact of management decentralization on RA. The regression coefficient of 0.0806 has a positive sign, which shows that when decentralization increases, the impact of decentralization of management on RA will increase. The analysis results also show that business size plays a role in regulating the impact of organizational structure on RA. The regression coefficient equal to 0.1307 has a positive sign, which shows that when the organizational structure changes with a higher level of complexity, the impact of organizational structure on RA will increase.

Table 8. Test results of regulatory variables

Relationship	*Standardized path coefficient (β)*	*t-value*	*Test result*
KTTN ← CCTC_x_QMDN	0.1307	2.9288**	Supported
KTTN ← PQQL_x_QMDN	0.0806	2.5068**	Supported

*Note: ** p-value < 0.05, *** p-value < 0.001. Significant at the 0.05 level.*

5. DISCUSSION

This study examines the factors affecting the application of RA by manufacturers in thecontext of modern Vietnam. The first variable to be identified is management decentralization. The results show that this variable has a proportional relationship with the implementation of RA. Management decentralization is the case when managers are given authority within their scope of management, and managers are responsible for their decisions. The research findings are consistent with the study of Al Hanini (2013), Ramadan (2016), and Tran et al. (2022).

Competitive advantage is the ability of enterprises to create jobs and higher incomes in the current situation of international competition. The four factors that constitute competitive advantage are efficiency, quality, innovation, and customer responsiveness. With this information, managers can make decisions to reduce costs or improve revenue, which directly affects the responsibility center. In Vietnamese manufacturing enterprises, competitive advantage affects the implementation of RA. This finding has been supported by previous studies (Hoque & James, 2000).

The second variable affecting the application of RA is the awareness of managers. Managers' awareness of RA and its implementation can bring numerous benefits to the organization. Those benefits include increased management authority, reduced costs, increased revenue, productivity, employee satisfaction, and guest satisfaction. The benefits of increased profits, employee satisfaction, and customer satisfaction should be provided to managers. When managers are clearly aware of these benefits, the ability to apply RA in businesses increases. This finding is supported by previous studies (Nawaiseh et al., 2014).

The ability of accounting staff has a positive impact on the implementation of RA. To apply RA in manufacturing enterprises, accountants must have in-depth professional knowledge to perform complex tasks. Accountants with the capacity to set up reports for departments, instructions on how to set up reporting targets, data sources to prepare reports as well as analysis reports will help operate RA. Being in business just got easier. For manufacturing enterprises, production cost reports in each department need to have specific and detailed targets. In addition, based on production cost norms, accountants make production cost estimates. Qualified accountants will help manufacturing businesses have complete, timely, and accurate detailed information about production costs, revenue, and profits of departments. The results are consistent with previous studies (Ismail & King, 2017; McChlery et al., 2005; Tran, 2016).

Organizational structure has a positive impact on the implementation of RA in Vietnamese manufacturing enterprises. The results are consistent with the study of Al Hanini (2013), and Ramadan (2016). The manufacturing firm divides its workforce into divisions in association with specific functions and tasks. The responsibility center is overseen by an assigned administrator.

As the organization's size grows, enterprises pay more attention to RA to meet management's demand for information and increase business performance. Firm size is a regulatory factor affecting the relationship between organizational structure and management decentralization in manufacturing enterprises in central Vietnam.

The cost of RA is a factor that has a negative impact on its implementation in Vietnamese manufacturing enterprises. This cost includes technology investment, consulting fees from organizations/experts, human resource training

costs, and manufacturing enterprises in Vietnam need to carefully consider the costs and benefits of RA. The research results are consistent with the study of Tran (2016).

6. CONCLUSION

This research provides empirical evidence on the factors influencing the application of RA in Vietnamese manufacturing enterprises. The results show that all six independent variables are statistically significant, and all six factors have a positive influence on the implementation of RA in Vietnamese manufacturing enterprises. These factors include the ability of accounting staff, management awareness, competitive advantages, costs of implementation, organizational structure, and management decentralization. The study assessed the effect of the organizational cost factor on the application of RA and the effect of firm size on the relationship between organizational structure and management decentralization in manufacturing enterprises in Vietnam.

Despite the achievements of the findings and remarks, this study still has limitations. Firstly, the surveys were sent to all of the participants via email. Therefore, it was hard to assist responders in describing unclear questions and avoiding unreliable answers. Secondly, the study has only verified six independent factors affecting RA and one moderating factor. Subsequent research can focus on other factors influencing RA, search, and test the impact of moderating variables on the relationship between decentralization of management and organizational structure to RA in manufacturing firms in Vietnam.

Research results on factors affecting RA in manufacturing enterprises in Vietnam have implications for promulgating regulations on the application of RA in manufacturing enterprises. Authorities need to develop and guide specific content on RA. These issues contribute to raising managers' awareness of RA in developing countries.

In summary, the authors' research contributes to promoting the adoption of RA in manufacturing firms in Vietnam through a research model studying influencing factors, helping managers and accountants raise awareness and responsibility in the organization as well as utilize RA via factors such as organizational structure, decentralization of management, competitive advantage, managers' perception, accounting staff qualifications, organizational costs and moderating factors affecting the relationship between management decentralization and organizational structure to the identified RA.

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