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# Factors Affecting an Application of Responsibility Center Accounting in Vietnamese Enterprises

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## Abstract

A responsibility center is important for businesses in controlling their business activities. A responsibility center accounting includes a structured system for dividing responsibilities to help assess activities to improve economic efficiency for businesses. The article is based on exploratory factor analysis using the ordinary least squares to test the model of the factors affecting the application of responsibility center accounting in Vietnamese enterprises. The article uses data including 482 samples of 200 Vietnamese enterprises such as CFOs, chief accountants, and accountants. The sample was selected randomly to ensure objectivity in the period 2020–2021. The research results show that there are three factors that have a positive impact on the application of responsibility center accounting of Vietnamese enterprises, including the qualifications and capabilities of managers, decentralization in management, and evaluation tools of the responsibility center accounting. In order to contribute to improving efficiency in the application of the responsibility center accounting for Vietnamese enterprises, leaders of Vietnamese enterprises need to raise awareness and professional qualifications, pay attention to the management level in a transparent and appropriate way to delineate and diversify the tools used to facilitate and achieve business performance.

**Keywords:** Evaluation Tool, Information Accounting, Manufacturing Enterprise, Responsibility Accounting, Responsibility Centre, Vietnam

**JEL Classification Code:** M11, M14, M41

## 1. Introduction

In the ongoing trend of economic integration and development in the region and internationally, enterprises are always seeking to become economically efficient. Increasing competitiveness requires businesses to apply many tools to manage and control economic activities (Lin & Yu, 2002). An evaluation system of the business performance should clearly define the decentralization and responsibility for individuals to measure the production efficiency and performance of each part of the business (Gholami et al., 2012). In the development trend, the above demand requires enterprises to organize measurement systems and reports

to evaluate the performance of activities from all levels on the basis of division of responsibilities (Garrison & Noreen, 2008). Responsibility accounting plays an important role in the economic management of enterprises so that managers can gain useful information in make smart business decisions. The responsibility center accounting will provide useful information to evaluate each center's performance. These centres always create cohesion to actively support managers in making the right decisions (Verschoor, 2012).

The application of the responsibility center accounting (ARCA) in Vietnamese enterprises has not received much attention from leaders. This stems from many reasons including awareness of the importance and effectiveness of responsibility accounting (Nguyen et al., 2019). In the management and operation of business activities of Vietnamese enterprises, the application of tools to evaluate and measure to control the activities of the divisions has not been used effectively (Tran et al., 2020). Even teams of employees do not fully understand the preminent features of responsibility accounting so they are concerned about ARCA (Nguyen, 2020). In addition, the state management agencies of Vietnam are also less interested in the application of cost control activities in enterprises. This state agency

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has issued only one guideline related to the management accounting by Circular 53 TT-BTC. The main and common contents of management accounting in enterprises including cost accounting and product cost management; sales management accounting and business results; analyses the relationship between cost, volume, and profit; select appropriate information for decision making; preparation of production and business budget estimates; management accounting for some other items; accounting for management of fixed assets; accounting for inventory management; labor-management accounting and salary; management accounting of debts (Vietnamese Ministry of Finance, 2006). From that time until now, the state agency has not issued any more instructions or has revised the contents related to the Circular 53 TT-BTC. In order to have a comprehensive view of this issue in Vietnamese enterprises, the article studies the factors that affect ARCA to have satisfactory policy suggestions to help leaders of Vietnamese enterprises to use the right methods and apply it appropriately to improve economic efficiency.

## 2. Literature Review and Hypotheses

### 2.1. Related Concepts

A responsibility accounting is a tool to control costs and evaluate performance for each unit and define manager responsibilities. The control system is designed for all levels of management within the organization (Lin and Yu, 2002). A responsibility accounting is the part of management accounting to control a manager's business activities to run an organization effectively (Gholami et al., 2012). A responsibility accounting is a system of management controls which is based on the principles of decentralization that is assigned to the accountability centres so that the managers make appropriate business decisions (Hansen & Mowen, 2003). A responsibility accounting is a management control system based on the principles of decentralization and the position of responsibility, authority is assigned to responsibility centres. Accordingly, managers make decisions and are responsible for each activity that takes place in that area. A responsibility accounting is a tool to evaluate the performance of departments related to investment, profit, revenue, and expenses (Vietnamese Ministry of Finance, 2006).

A responsibility center accounting (RCA) is an accounting information system used to manage and control an entity's business activities. Centres have a cohesive relationship to support management (Safa, 2012). RCA consists of four basic centres. The cost center is aimed at determining the cost recovery and it is the starting point of the activities. The revenue center is responsible for generating revenue and it is not responsible for profits and

investment. The profit center is responsible for both sales and costs. The investment center is responsible for the return and investment capital used by the entity (Hansen and Mowen, 2003). RCA is an accounting system that is viewed through the different centres of responsibility throughout the organization and reflects the results of each of these centres in terms of indicators and revenues and costs. Verschoor (2012) said that RCA is an accounting system that provides information and performance results and performance of divisions and units in the organization. RCA is a tool to measure and evaluate the performance of the departments related to investment, profit, revenue, and expenses, each with separate rights and responsibilities (Gholami et al., 2012). RCA is a department (factory, production line; a department, department; a company or an entire company) in an organization that the manager of that department has the authority to operate and has responsibility for the number of expenses, income incurred, or the amount of investment capital used in business activities (Vietnamese Ministry of Finance, 2006). There are four types of responsibility centres, which are cost center; revenue center; profit center (business center), and investment center. A cost center is a unit/division of an organization in which managers only have control over the generation of costs. A revenue center is a unit/division of an organization in which the manager is solely responsible for the revenue generated. A profit center (business center) is a unit/division of an organization in which a manager is responsible for both revenue and expenses. An investment center is a unit/division of an organization in which the manager is solely responsible for the profits and investment capital used by that unit/department (Garrison and Noreen, 2008).

### 2.2. Theoretical Perspectives

The agency theory is demonstrated by the relationship between the principal and the attorney. According to this theory, representativeness resolves the conflict of interest relationships that can arise when there is disproportionate information between the subject and the representative in the company (Jensen & Meckling, 1976). Further, bonus and dividend plans are based on accounting information so managers will find ways to influence the accounting data through applying accounting policies to achieve personal benefits. The dichotomy between ownership and management raises concerns about managers pursuing goals for their own interests versus those for shareholders (Fowzia, 2011). This theory is used to explain some variables in the model related to the managers of the enterprise in using ARCA to increase economic benefits through the efficiency indicators of accounting information about responsibility centers.

The useful information theory is used as a fundamental accounting theory to review the usefulness of the

information. The theory of accounting information of statements is provided to objects used in economic decision-making (Ijiri & Jaedicke, 1966). This theory also addresses a balance between benefits and costs, and it is an important aspect to consider when establishing information needs (Okoye, 2009). Useful information applied in the model is significant through economic indicators shown in financial statements in general and management reports in particular. The variables in the model are used to represent the diversity of information by management reports and it will contribute to increasing the usefulness of the information.

### 2.3. Previous Studies

Lin and Yu (2002) studied the effectiveness of cost control systems with cost objectives, responsibility accounting at Han Dan iron and steel company in the People's Republic of China. With the method of interviewing managers, the study shows that in order to effectively control costs, it is necessary to have an ARCA in which the estimation, price determination, evaluation tools, and remuneration have an image that affects the ARCA. This system helps businesses control the cost and thereby increase profits. Okoye (2009) studied the relationship between ARCA and economic performance in manufacturing firms. The article was collected through a structured questionnaire of 12 manufacturing businesses in Anambra. The article applied probability sampling techniques in the period 2005–2009 to use for the study. The results of the analysis show that there is a significant influencing relationship between ARCA and economic performance with factors of influence including managerial ethics and character, and decentralization in management and remuneration. Fowzia (2011) surveyed 88 service organizations in Bangladesh to look at the factors affecting satisfaction levels in ARCA. The article uses regression by ordinary least squares (OLS) to test the model. The survey results show that employee remuneration and assessment tools affect ARCA. Meanwhile, the decentralization in management does not affect ARCA. Verschoor (2012) analyzed more than 3,400 corporate reports from 304 countries including 250 of the largest companies in the world (G250) to evaluate the importance of ARCA in improving economic efficiency for companies. The results show that ARCA focuses on environmental, social responsibility, and sustainable development issues to help businesses in economic development. Gholami (2012) analyzed companies in the United States for the years 2005–2012. The article used the expert interview method to examine ARCA because ethical behaviors will affect the performance of the unit. The results show that many companies in addition to the mission of increasing profits, also meet the expectations of society and social organizations called social responsibility accounting.

Amiri et al. (2013) studied the effectiveness of the ARCA. The article used 240 samples of Kerala companies in 2013. The results indicate that the effectiveness of ARCA adoption is influenced by the organizational structure and authority of the manager.

In Vietnam, a number of studies have been conducted on this issue in the recent times but each studies only discusses a specific content. Nguyen et al. (2019) studied the factors affecting ARCA of food enterprises in Binh Duong province, Vietnam. The authors used the OLS method to test the model. The research results show that the factors positively affect ARCA including income and cost allocation, managerial decentralization, estimations, reality and estimation evaluation, division of the organization into responsibility centres, reporting information, and reward. Tran et al. (2020) examined the factors of economic efficiency that affect the social responsibility accounting of VN100. The article used OLS to examine the model from 2015 to 2019. The results of the study show that these factors have a similar impact on social responsibility accounting. Nguyen (2020) studied the factors influencing the implementation of ARCA in public universities in Vietnam. The article surveyed 130 samples of 154 public universities. The article analyzed the exploratory factor analysis (EFA) and used OLS for testing. The results identify eight groups of factors that influence ARCA implementation including the accountability centers, cost and income allocation, autonomy, decentralization, estimates and facts, reward, and report. Tran et al. (2021) reviewed the social responsibility accounting to the economic efficiency of 18 Vietnamese listed banks from 2015 to 2019. The article used OLS to examine the model. The research results show that social responsibility accounting has a positive effect on the economic efficiency of Vietnamese listed banks. Nguyen (2021) analyzed the impact of ARCA combining balance scorecards on the organizational performance of Vietnamese pharmaceutical companies. The article used 306 questionnaires in 2020. The results show that the factors affecting ARCA include dividing the organizational structure into accountability centres, costs and revenues allocation, analysis report, actual and estimated price, assigning control to managers, and reward. Currently, there are no systematic studies on the factors of enterprise characteristics affecting ARCA. The problem is that research is needed to determine the appropriate model with the factors affecting ARCA for the Vietnamese enterprises.

### 2.4. Research Hypotheses

#### *Qualifications and capabilities of the manager (KNOW)*

The level and the capacity of the managers are shown by their education level. Managers' awareness and knowledge to the effectiveness of ARCA is important. Determining the

right goals to bring success to the business shows the level and capacity of the manager (Belkaoui, 1981). The leader's capacity demonstrates the proficiency of each person when applying leadership understanding in operating practice to achieve the set goals (Jalbert et al., 2002). A good leader requires self-leadership skills, team leadership skills, and organizational leadership skills. Okoye (2009) has also found that manager qualifications have a positive effect on ARCA. From there, the article hypothesizes that:

**H1:** *Qualifications and capabilities of the manager have an impact on ARCA.*

**Ethics and character of the manager (ETHIC)**

Ethics and character have a direct influence on an individual's thoughts, words, and actions. Ethics is a component of a person's character and values, which is derived from socially appropriate codes of conduct (Gholami, 2012). Personality is a subjective trait that seems to be judged by communicative behavior (Hansen & Mowen, 2003). Ethics and personality of managers is a factor which has an effect on ARCA (Okoye, 2009; and Amiri et al., 2013). Therefore, the article proposes the hypothesis that:

**H2:** *Ethics and the character of the managers have an impact on ARCA.*

**Decentralization in management (SHARE)**

Management decentralization means assigning authority to subordinates to organize and run the business activities of the enterprise. Each level is responsible for a specific function and is responsible for a specific work. In each department, there will be individuals responsible for an assigned task (Fowzia, 2011). The clear division of responsibility in management for subordinates is based on the decentralized structure that the administrator has chosen. The decentralization of management aims to control activities in the departments to provide information for managers to make appropriate decisions (Garrison & Noreen, 2008). Some previous studies has also emphasized the influence of management decentralization on ARCA (Okoye, 2009; Amiri et al., 2013; Nguyen et al., 2019; Nguyen, 2020). From there, the hypothesis is formulated as:

**H3:** *Decentralization in management has an impact on ARCA.*

**Remuneration for employees (STAFF)**

Employee compensation is a reward for improving performance and efficiency at work. It motivates employees to push them to be more productive as well as take more initiatives in their area of work. Employees often receive rewards in many forms such as material and spiritual (Hansen & Mowen, 2003). The remuneration policy is often applied

in companies to employees to increase the quality of work to improve business efficiency (Fowzia, 2011). To achieve business goals, the company needs to attract and retain key employees and ensure that the employees are productively engaged with the companies through right compensation policies. Compensation policy and structure of the company should be timely and appropriate. It also means that the employees are entitled to an appropriate level of agreement in recruitment, training, and retraining policies (Garrison & Noreen, 2008). Reward policies will promote dedication and attach it to the business for a long time. According to some previous studies, with various forms of remuneration, companies will achieve ARCA (Lin & Yu, 2002; Okoye, 2009; Fowzia, 2011; Nguyen et al., 2019; Nguyen, 2021). Therefore, it is hypothesized that:

**H4:** *Remuneration for employees has an impact on ARCA.*

**Business size (SIZES)**

Enterprise size is seen in several aspects according to the size of the total assets, capital sources, profits, production and consumption output, or the average number of employees per year (Hansen & Mowen, 2003). Depending on the size and scope of activities, the enterprise will arrange the appropriate organizational structure. Enterprise size also helps to balance costs and benefits to ensure the economic efficiency of the organization (Garrison & Noreen, 2008). Effective governance in an enterprise must be scale-dependent in order for the management model to be appropriate. According to some previous studies, the right business size will be favorable for ARCA (Verschoor, 2012; Nguyen et al., 2019; Nguyen, 2020). From there, the hypothesis is that:

**H5:** *Business size has an impact on ARCA.*

**Evaluation tools of the responsibility center accounting (TOOLS)**

The responsibility center assessment tool can be applied in a number of ways such as for comparing budget and actual, balanced scorecard (BSC), activity-based costing (ABC), or responsibility center models to evaluate the effectiveness of each component (Garrison and Noreen, 2008). Enterprises establish, implement, monitor and measure by a number of assessment tools to achieve the set objectives. Previous studies have acknowledged that the responsibility center assessment tool has an influence on ARCA (Lin and Yu, 2002; Fowzia, 2011; Nguyen et al. 2019; Nguyen, 2020; Nguyen, 2021). From there, the hypothesis is:

**H6:** *Evaluation tools of the responsibility center accounting have an impact on ARCA.*

### 3. Research Design

The article uses EFA and OLS to test the model. The article uses the Likert scale from 1 to 7, specifically: 1: Very low; 2: Low; 3: Poor; 4: Medium; 4: Fair; 6: Good, 7: Very good. The survey includes 33 factors related to 7 variables in the model.

To analyses the EFA, the article uses research data from 600 observations including CFOs, chief accountants, and accountants of 200 Vietnamese enterprises. The results obtained 482 samples (reaching 80.33%). The research sample selected random enterprises of various sizes to ensure the objectivity and comprehensiveness of the research model. The survey data was carried out during the period 2020–2021.

The article inherits the content related to variables from previous studies and the opinions of some experts in Vietnam. Therefore, the article proposes a research model, specifically:

$$ARCA = \beta_0 + \beta_1 * KNOW + \beta_2 * ETHIC + \beta_3 * SHARE + \beta_4 * STAFF + \beta_5 * SIZES + \beta_6 * TOOLS + \varepsilon$$

Where:

The dependent variable

ARCA: The application of the responsibility center accounting

The independent variables include:

KNOW: Qualifications and capabilities of the manager

ETHIC: Ethics and character of the manager

SHARE: Decentralization in management

STAFF: Remuneration for employees

SIZES: Business size

TOOLS: Evaluation tools of the responsibility center accounting

### 4. Results

#### 4.1. KMO and Bartlett’s Test

To perform EFA, the KMO must ensure that the condition is greater than 0.50 and if it is greater than 0.90, the more significant it is sig in the test (Kaiser, 1974). According to the result in Table 1, KMO is 0.941 and it is higher than

**Table 1:** KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.941
Bartlett’s Test of Sphericity	Approx. X <sup>2</sup>	2416.062
	df	402
	Sig.	0.000

0.90 so this result satisfies the conditions to perform EFA. Barlett’s sig is 0.000 and it is less than 5% so it also satisfies the statistical condition. Thus, the data of the study results are suitable for the implementation of EFA.

#### 4.2. Exploratory Factors Analysis

Factor loading is an indicator of the practical significance of EFA. Accordingly, the condition of the factor loading is at least greater than 0.30, and greater than 0.50 is considered more significant (Hair et al., 2009). Table 2 shows the factor loading higher than 0.6. It is the criterion to ensure the practical significance of EFA.

#### 4.3. Reliability of Cronbach’s Alpha

To ensure the reliability of the scale, Cronbach’s Alpha must be 0.60 or higher (Nunnally & Burnstein, 1994). Variables with a confidence level of Cronbach’s Alpha are higher than 0.7 so they satisfy the conditions of the appropriateness and information reliability of the variables in the model (Table 3).

#### 4.4. Suitability of the Model

The higher the R square, the stronger the relationship between the independent variable and the dependent variable is. However, adjusted R square is more often used to assess the fit of the regression model because it does not depend on the magnification bias of R square (Nunnally & Burnstein, 1994). Table 4 shows that there is an adjusted R squared coefficient of 0.682 so the independent variables explained 68.2% of the variation of the dependent variable. This result is quite satisfactory for information.

#### 4.5. Regression Results

On the basis of the six factors analysis of the model, all the conditions are statistically suitable (Table 5). Accordingly, the variables are selected in the model when the significance level is less than 0.05. It helps the data to ensure the high reliability of the information.

The results of the model show that there are three variables that have a positive influence on the ARCA, as follows:

$$ARCA = 0.114 * KNOW + 0.108 * SHARE + 0.084 * TOOLS$$

To consider multicollinearity, Hair et al. (2009) suggested that the variance inflation factor (VIF) must be less than 10 to ensure appropriate information in the regression model. According to Table 5, all coefficients of VIF are quite low, and below 3.0. It shows that there is no multicollinearity phenomenon in the model.

**Table 2:** Rotated Component Matrix

Variables	Component					
	1	2	3	4	5	6
KNOW1	0.741					
KNOW5	0.802					
KNOW2	0.711					
KNOW4	0.750					
KNOW3	0.689					
ETHIC2		0.824				
ETHIC1		0.716				
ETHIC5		0.705				
ETHIC4		0.684				
ETHIC6		0.811				
ETHIC3		0.762				
STAFF3			0.773			
STAFF5			0.704			
STAFF1			0.672			
STAFF2			0.741			
STAFF4			0.712			
SHARE5				0.784		
SHARE1				0.771		
SHARE3				0.702		
SHARE4				0.764		
SHARE2				0.708		
SIZES4					0.728	
SIZES3					0.741	
SIZES2					0.806	
SIZES1					0.719	
TOOLS2						0.749
TOOLS1						0.747
TOOLS4						0.762
TOOLS3						0.701

**Table 3:** Reliability

Variables	Cronbach's Alpha	N of Items
ARCA	0.784	4
KNOW	0.861	5
ETHIC	0.765	6
SHARE	0.712	5
STAFF	0.751	5
SIZES	0.766	4
TOOLS	0.802	4

**Table 4:** Model Summary

Model	R	R Square	Adjusted R Square
ARCA	0.752	0.714	0.682

consistent with the underlying theory related to the agency and useful information theory. Managers of the enterprises are interested in controlling the activities of responsibility centres to enhance benefits through economic indicators. The information through RCA on management reports in particular and financial statements in general is very useful for the enterprises.

The research results show that there are three variables that have a positive impact on the ARCA of Vietnamese enterprises. These variables are the qualifications and capabilities of the managers (KNOW) have the strongest impact, followed by the decentralization in management (SHARE) and finally the evaluation tools of the responsibility center accounting (TOOLS).

The qualifications and capabilities of the manager (KNOW) show managers' awareness of the importance of ARCA. A flexible and diversified ARCA will bring benefits to businesses, and vice versa. The qualification of the managers to control the RCA activities. These centres will be applied effectively when managers have the ability to coordinate activities (Belkaoui, 1981). Managers always have to have in-depth expertise to broaden their horizons. They understand the benefits of management tools to support executive management. Capacity is also a decisive issue for the effective execution and management of business activities. This result is consistent with Okoye (2009).

The decentralization in management (SHARE) will help promote the role of ARCA. The management and control must ensure harmony in the division of management to control effectively and thereby bring high efficiency. Management is effective when there is an appropriate organizational structure on the basis of a clear hierarchy.

## 5. Discussion and Policy Recommendations

### 5.1. Discussion

This result is consistent with some previous studies (Lin & Yu, 2002; Okoye, 2009; Fowzia, 2011; Amiri et al., 2013; Nguyen et al., 2019; and Nguyen, 2021). It is also similar to the views from Vietnamese experts on the ARCA of the Vietnamese enterprises. The research results are also

**Table 5: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	0.904	0.006		2.548	0.000		
KNOW	2.241	0.137	0.114	2.971	0.000	0.251	1.801
ETHIC	0.347	0.041	0.032	1.201	0.692	0.316	2.453
SHARE	1.462	0.104	0.108	3.746	0.000	0.302	2.064
STAFF	0.601	0.090	0.042	0.641	0.451	0.336	2.741
SIZES	0.724	0.012	0.061	1.049	0.716	0.286	1.863
TOOLS	1.236	0.089	0.084	3.104	0.000	0.321	2.704

Individual responsibility is clearly expressed in each job position (Fowzia, 2011). Decentralization must ensure consistency and consensus in the organization. It helps to promote coordination and support each other to control activities in a timely and favorable manner. It is a condition to contribute to increasing economic efficiency in the organization. This result is similar to some related previous studies by Okoye (2009); Amiri et al. (2013); Nguyen et al. (2019); and Nguyen (2020).

The evaluation tools of the responsibility center accounting (TOOLS) plays an important role in ARCA. The tools need to be used flexibly and diversely to contribute to increasing the usefulness in the management and control of business operations of enterprises. Managers often use a number of tools to evaluate the business performance of the enterprise. Tools are evaluated based on certain criteria relevant to each activity. These tools are active support for managers in controlling all activities (Garrison & Noreen, 2008). Flexible change or adjustment of these tools to facilitate the assessment to suit each specific situation. This result is similar to Lin and Yu (2002); Fowzia (2011); Nguyen et al. (2019); Nguyen (2020); and Nguyen (2021).

## 5.2. Policy Recommendations

In order to contribute to improving efficiency in ARCA for Vietnamese enterprises, some policy suggestions are needed for leaders of the enterprises to implement, specifically:

- The qualifications and capabilities of the manager (KNOW): leaders need to regularly improve their professional qualifications. It is an opportunity to grasp new knowledge to apply in business activities of the enterprise including the responsible accounting system. It is important to continuously update the knowledge of leaders to get the right awareness which

suits the business situation. Moreover, the leaders will raise the level of thinking in management and operations in the business. Leaders will also have the right and appropriate strategies to develop the business in the right direction. With the trend of economic globalization, knowledge always requires constant access. It is a matter of concern that the trend of industrialization by the development of the industrial revolution 4.0. Leaders must have a quick and timely approach to develop and apply modern techniques and methods in business management. It is an opportunity and also a challenge to increase the qualifications and capacity of managers because of the increasingly complex business competition.

- The decentralization in management (SHARE): leaders should consider decentralizing management in the enterprise. The decentralization helps improve responsibility at work and helps control activities effectively. In addition, leaders should note that the decentralization must be clear, transparent, and appropriate for the executor to know the responsibility to manage the business smoothly. Decentralization must ensure consensus within the organization. The unity and consensus of all parts of the organization will create synergy to promote the potential and unique advantages to the organization. The appropriate attention and adjustment in the hierarchy to create flexibility and adapt to the change and development of the business. Decentralization will help in effective management of different activities and will create positive effects and will bring economic efficiency to businesses.
- The evaluation tools of the responsibility center accounting (TOOLS): leaders should use a number of metrics from basics to advance depending on business characteristics, management model, and employee qualifications. The diversification of tools used makes

the activities under control, smooth and efficient. In addition, leaders also need to consider adjusting the tools to suit each business area to ensure application and suit the actual situation of businesses. Leaders need to consider changes in the use of tools to match the growth trends and flexibility in businesses. The problem to note is that the use of assessment tools should be in harmony with the goals and development strategy of the business.

In addition, for the effective use of ARCA, the state management agencies of Vietnam need to pay more attention to provide additional guidance for its smooth application. There should be publicity to raise awareness for managers of enterprises about management accounting in general and RCA in particular. It will improve regulators' approach to ARCA. Moreover, a number of guiding circulars on management accounting also needs to be updated and promulgated to diversify information for managers of enterprises to use ARCA effectively. Moreover, the accounting professional organizations of Vietnam need to regularly update their in-depth knowledge of management accounting including RCA. In addition, some implementation guidelines related to ARCA should be widely disseminated to business leaders. Some successful and effective application models of ARCA need to be shared in order to learn from experience and make appropriate improvements in the application.

## 6. Conclusion

The responsibility accounting system is important in controlling activities for businesses. It has contributed a great deal in reducing costs, improving capital use, and increasing market share to promote economic efficiency. Increasing competition demands that ARCA be used appropriately. A study was conducted on the basis of factor discovery analysis to test regression model of factors affecting ARCA including 482 samples of 200 Vietnamese enterprises. The research results show that there are three factors that have a positive impact on the ARCA of Vietnamese enterprises including the qualifications and capabilities of the manager (KNOW), the decentralization in management (SHARE), and the evaluation tools of the responsibility center accounting (TOOLS). It is interesting to note that KNOW has the strongest impact on ARCA. On that basis, the leaders of Vietnamese enterprises need to raise their awareness and expertise to have a correct and appropriate awareness of management to apply in business activities of the enterprises including ARCA. At the same time, leaders should be concerned with the transparent and appropriate decentralization of management to clearly delineate responsibilities at work. Leaders should diversify

the tools used depending on the characteristics of the business, the management model, and the qualifications of the employees to facilitate and effectively control the business activities.

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