

Available online at www.foura.org



Factors Affecting the Application of Management Accounting in State Universities Implementing Financial Autonomy Mechanism in Vietnam

Le Quoc Diem^{*}, Hoang Cao Thien

University of Labour and Social Affairs (Campus II), Viet Nam

Abstract

This study aims to evaluate the influence of factors on the application of management accounting in state universities implementing the financial autonomy mechanism in Vietnam. The 181 members consisting of the board of directors, accounting department leaders, and leaders of other departments, institutes, and centers were surveyed. The results show that six representative factors are ranked in descending order of influence consisting of Organizational culture (CULT), scale (SIZE), leader's awareness of management accounting (PERC), costs for the organization of management accounting (COST), the organization's strategy (STRA), and the accounting staff qualifications (QUAL) which have positive influences on the ability to apply management accounting in these organizations. The research provides empirical evidence on factors affecting the ability to use management accounting in these universities in our country. It is a necessary source of information for them to design and use management accounting to help improve their operational efficiency and development.

Keywords: Management accounting, State universities, financial autonomy.

1. INTRODUCTION

Management accounting has seen numerous changes in tandem with the growth and transformation of the economy, yet these changes have not occurred consistently. Research indicates that internal (organizational) and external (environmental) elements impact modifications to new technical tools or management accounting systems. As a result, a large body of research has been done on the variables that influence the application of management accounting in businesses. These include Guilding (1999); Guilding và McManus (2002); Hoque (2004); Cadez and Guilding (2008); Tuan Mat (2010); Cinquini and Tennuci (2010); Ahmad (2012); Erserim (2012); Ojua (2016); Tran Ngoc Hung (2016); Nguyen Phong Nguyen and Đoan Ngọc Que (2016).

A review of the documents shows that management accounting at state universities implementing the financial autonomy mechanism in Vietnam today still does not meet the requirements. However, it has received more or less attention from the universities. The demands set by managers need to continue to be improved. Up to now, most of the research has been published focusing on factors affecting the application of management accounting in businesses worldwide and in Vietnam. Based on a questionnaire survey, this study has learned more about the internal factors of state universities that affect the application of management accounting to build a system of solutions to enhance the ability to apply management accounting. This helps improve the operational efficiency and management of universities and those implementing autonomy mechanisms.

2. THEORETICAL BASIS

2.1 Overview of public non-business units

2.1.1 Concept of public non-business unit

*Corresponding author. Tel.: 0909 24 26 28 E-mail: diemlq@ldxh.edu.vn A public non-business unit is a term used to refer to a unit and an organization performing public services to meet the essential needs of society. According to Clause 1, Article 9 of the 2010 official law: "Public non-business unit is an organization established by competent authorities of the state, political organizations, and socio-political organizations by the provisions of law which have legal status, provides public services, and serve state management."

2.1.2 The financial management mechanism of public non-business units implementing the financial autonomy mechanism

The Financial management mechanism in both public non-business units in general and those implementing the financial autonomy mechanism, in particular, impacts the state's mechanisms and policies. As a management entity, the state uses legal documents to manage financial activities at public non-business units under particular circumstances to accomplish specified objectives. In order to achieve high efficiency in financial management and enhance the performance efficiency of the entire unit, public non-business units, based on state regulations, plan financial management mechanisms and policies appropriate to the specific conditions of their units.

2.2 Management accounting concepts

According to Accounting Law No. 88/2015/QH13, "Management accounting is a way to collect, process, analyze, and provide economic and financial information based on management requirements and economic and financial decisions within the internal accounting unit."

2.3. Factors affecting the application of management accounting2.3.1. Research on factors which affect the application of management accounting

The purpose of researching the factors affecting the application of management accounting is to serve as a premise for providing conditions for implementing solutions to perfect management accounting at public non-business units implementing the financial autonomy mechanism.

The economy's evolution has brought about numerous changes in management accounting as well, albeit these changes have not all occurred similarly. Research indicates that internal (organizational) and external (environmental) elements impact modifications to new technical tools or management accounting systems. As a result, table 1.1 summarizes numerous studies on the factors influencing the use of management accounting in businesses. These factors include the following:

1 Scale, competitive strategy and strategic mission Guilding (1999) 2 Market orientation, competitive intensity Guilding & Mc Manus (2002) 3 Business strategy, Uncertain environmental awareness and organizational performance. Hoque (2004) 4 Uncertain environmental awareness, business strategy, market orientation, business structure and organizational performance measurement. Hwang (2005) 5 Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. Cadez& Guilding (2008). 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational change, and performance Tuan Mat (2010) 9 Size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy. scale, tech	No.	Factor	Author
3 Business strategy, Uncertain environmental awareness and organizational performance. Hoque (2004) 4 Uncertain environmental awareness, business strategy, market orientation, business structure and organizational performance measurement. Hwang (2005) 5 Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. Addel-Kader và Luther (2008). 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Cinquini & Tennuci (2010) 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the Ojra (2014) enterprise and its achievements	1	Scale, competitive strategy and strategic mission	Guilding (1999)
performance. 4 Uncertain environmental awareness, business strategy, market orientation, business structure and organizational performance measurement. Hwang (2005) 5 Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. Abdel-Kader và Luther (2008) 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements Ojra (2014)	2	Market orientation, competitive intensity	Guilding & Mc Manus (2002)
4 Uncertain environmental awareness, business strategy, market orientation, business structure and organizational performance measurement. Hwang (2005) 5 Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. Abdel-Kader và Luther (2008) 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahsoylu & Aykan (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements	3	Business strategy, Uncertain environmental awareness and organizational	Hoque (2004)
business structure and organizational performance measurement.Abdel-Kader và Luther (2008)5Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods.Abdel-Kader và Luther (2008)6Market orientation, business strategy, size of the enterprise, and organizational performanceCadez& Guilding (2008).7Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performanceTuan Mat (2010)8Business strategy, size of the enterpriseCinquini & Tennuci (2010).9Size of the enterprise, business strategyFowzia (2011)10Scale, level of competition, participation of owners, advanced production techniquesAhmad (2012)11Cultural factors and the level of formality of the business.Erserim (2012)12Competitive strategy and performance of the business.Aksoylu & Aykan (2013)13Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievementsOjra (2014)			
5 Enterprise awareness of environmental instability, organizational design of the enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. Abdel-Kader và Luther (2008) 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the original context of the enterprise and its achievements	4	Uncertain environmental awareness, business strategy, market orientation,	Hwang (2005)
enterprise, size of the enterprise, complexity of the processing system, advanced manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the original and the anterprise and its achievements			
manufacturing techniques (AMT), total quality management (TQM), Just in Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. 6 Market orientation, business strategy, size of the enterprise, and organizational Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the Tuan Mat (2010) enterprise, organizational change, and performance Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the original contained of the enterprise and its achievements	5		Abdel-Kader và Luther (2008)
Time management (JIT), enterprise strategy, strength of customer resources, perishability of goods. 6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the original context of the enterprise and its achievements			
perishability of goods. 6 Market orientation, business strategy, size of the enterprise, and organizational cadez& Guilding (2008). performance 7 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the Ojra (2014)			
6 Market orientation, business strategy, size of the enterprise, and organizational performance Cadez& Guilding (2008). 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the original contains of the enterprise and its achievements			
performance 7 Strategy, organizational structure, environment, technology, size of the enterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements Ojra (2014)			
7 Strategy, organizational structure, environment, technology, size of the neterprise, organizational change, and performance Tuan Mat (2010) 8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business. Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the Ojra (2014)	6		Cadez& Guilding (2008).
enterprise, organizational change, and performance 8 Business strategy, size of the enterprise 9 Size of the enterprise, business strategy 10 Scale, level of competition, participation of owners, advanced production 11 Cultural factors and the level of formality of the business 12 Competitive strategy and performance of the business. 13 Environmental uncertainty, business strategy, scale, technology, structure of the organ (2014) enterprise and its achievements Cinquini & Tennuci (2010).			
8 Business strategy, size of the enterprise Cinquini & Tennuci (2010). 9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements Ojra (2014)	7		Tuan Mat (2010)
9 Size of the enterprise, business strategy Fowzia (2011) 10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements Ojra (2014)			
10 Scale, level of competition, participation of owners, advanced production techniques Ahmad (2012) 11 Cultural factors and the level of formality of the business Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievements Ojra (2014)			
techniques 11 Cultural factors and the level of formality of the business Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the ojra (2014) enterprise and its achievements	9	Size of the enterprise, business strategy	Fowzia (2011)
11 Cultural factors and the level of formality of the business Erserim (2012) 12 Competitive strategy and performance of the business. Aksoylu & Aykan (2013) 13 Environmental uncertainty, business strategy, scale, technology, structure of the ojra (2014) enterprise and its achievements Ojra (2014)	10		Ahmad (2012)
12Competitive strategy and performance of the business.Aksoylu & Aykan (2013)13Environmental uncertainty, business strategy, scale, technology, structure of the enterprise and its achievementsOjra (2014)		1	
13 Environmental uncertainty, business strategy, scale, technology, structure of the Ojra (2014) enterprise and its achievements	11	Cultural factors and the level of formality of the business	
enterprise and its achievements	12		Aksoylu & Aykan (2013)
	13		Ојга (2014)
14Market Orientation and Environmental Uncertainty.Al-Mawali (2015)			
	14	Market Orientation and Environmental Uncertainty.	Al-Mawali (2015)

Table 1.1: Summary table of some typical domestic and foreign publications researching factors that affect the application of management accounting

Proceedings of the 21st Asian Academic Accounting Association (FourA) Annual Conference 2024 24-26 November 2024, Hanoi, Vietnam

No.	Factor	Author		
15	Business strategy and customer achievement.	Alsoboa (2015)		
16	Budget, understanding of administrative accounting applications, characteristics of the business, activities of other departments, attitude of administrators, fear of change	Ojua (2016)		
17	Business strategy, customer orientation, customer performance, Client's financial performance, result of hotel operations.	Michael et al. (2017)		
18	Characteristics of CEO, performance of operation, CEO involvement in global business networks.	Abolfazl et al. (2017)		
19	Compete, management decentralization, performance of operation.	Đoan Ngoc Phi Anh (2012)		
20	Level of market competition, awareness of business owners/executives, business strategy, business culture, scale, cost of organizing management accounting	Tran Ngoc Hung (2016)		
21	Market orientation, competitive factors, and operating results	Nguyen Phong Nguyen và Đoan Ngoc Que, (2016)		
22	Operational results and intellectual capital	Trinh Hiep Thien (2019)		

There are also many other studies on the impact of different factors on the application of management accounting in businesses, such as qualifications of private accountants and government support (Kamilah Ahmad, 2012; Ismail and King, 2007; McChlery et al., 2004). From the above summary results, the author summarizes several factors that are believed to have an impact on the application of management accounting in businesses, which have been tested through research around the world as follows:

Firstly, the scale of the enterprise is a significant component that is thought to impact both the structure and control arrangements. Compared to small businesses, large firms possess the means to implement management accounting at a higher level of complexity. There is little doubt that the sophistication and complexity of the accounting unit are directly correlated with the organization's size (Guilding, 1999). As a company grows, it faces greater communication and control challenges, making control and management procedures crucial and requiring more sophisticated implementation (Libby & Waterhouse, 1996). Since then, the need for information to fulfill management and control requirements has grown, necessitating new, more efficient systems for supplying the required information. Among these options, applying management accounting is the most necessary element. Moreover, the larger the businesses, the higher the information processing expenses (Guilding, 1999). In addition, the complexity of decentralization within the organization or the volume of information may need administrators and accountants in large-scale organizations to handle more data than in smaller ones. Large production lines also contribute to the fact that, compared to small-scale businesses, large-scale organizations often implement management accounting more frequently and at a more complex level.

Secondly, the factor of market competition is also mentioned by many researchers, although the results are contradictory. According to Ezzamel (1990), Gordon and Miller (1976), the environment is a key factor determining the design of a management accounting system in an organization as businesses have to deal with raw material sources, services, and price, distribution channels, product quality, product diversification, human resources, with their competitors. The higher the competition is, the greater the levels of competition are (Ezzamel, 1990). In compliance with Khaled Abed Hutaibat (2005), the author pointed out that businesses will be forced to direct their attention to efficiency, profits, and customer satisfaction when there is high competition in the domestic or international market and higher demands on the opportuneness and accuracy of management accounting information are required. Furthermore, increased competition and product quality standards will require businesses to use more technical management accounting tools. In other words, there is a close connection between the level of market competition and the application of management accounting in businesses.

Thirdly, the factor of management decentralization tested demonstrates how the application of management accounting is affected, with decentralized organizations choosing more sophisticated technical tools for management accounting than organizations with centralized authority. The impact of management decentralization elements on the application of management accounting in Nigerian manufacturing businesses has been empirically demonstrated by Michael Olusegun Ojua (2016). Fifty business managers and professional accountants from ten manufacturing companies participated in the survey that was used for the study. Survey questionnaires were used to collect data from interviewers, and multiple regression analysis and the Pearson correlation coefficient were used to assess the results. The results of the study concluded that management decentralization impacts the application of management accounting.

The authors also affirmed the need for managers to use management accounting to identify, accumulate, and manage costs for activities to ensure accuracy in decision-making. Research results on the influence of management decentralization on the application of management accounting are still not consistent. In the empirical research on management accounting in businesses of Abdel Kader & Luther (2008) and Soobaroyen & Pourundersing (2008) in South Africa and the UK, they believe that management decentralization has an impact on the implementation of management accounting, while Williams & Seaman (2001) believe that management decentralization does not affect the application of management accounting research in Singapore. This is elucidated by the fact that businesses assigning greater authority to managers at all levels to organize, carry out, and oversee relevant tasks must also assume greater accountability.

Fourthly, according to random theory, business industry and advanced technical manufacturing factors (ATM), total quality management (TQM), and "Just in Time" management techniques... are the essential factors affecting the application of management accounting. Input raw materials in some specific industries, such as pharmaceuticals, chemicals, etc., are often costly, and inventory must be continuously rotated so that businesses will use much more technical accounting management tools than businesses in other industries. Besides, the government's stabilization policy somewhat controls the price of some specific products. Therefore, the businesses in these industries need to use more technical management accounting tools to evaluate and control costs and measure both profits and performance of each type of product line to make timely decisions, such as expanding or suspending production. It helps achieve the company's expected profit (Khaled Abed Hutaibat, 2005; Tuan Zainun Tuan Mat, 2010; Abdel-Kaderand Luther, R., 2008).

Fifthly, the awareness factor of environmental instability affects the application of management accounting in the sense that businesses tend to apply organizational decentralization when they face high environmental instability. As a result, they must apply management accounting at a more complex level. More detailed and complex reports from management accounting systems will assist in reducing uncertainty and improving the decision-making process (Chong and Chong, 1997; Khaled Abed Hutaibat, 2005).

Sixthly, Alper Erserim (2012) pointed out that the types of corporate culture, including supportive, improving, and target-based management cultures, impact the application of management accounting when researching the impact of corporate cultural factors on it.

Seventhly, many authors demonstrated that business strategy factors affect how management accounting is applied when studying them. Three priority organizational strategies (defensive, analytical, and offensive) were found to be most effective by Miles and Snow (1978). They also observed that a fourth type, reactive strategies, was deemed inconsistent. Organizations continuously seek out not only potential customers and business prospects but also product and market opportunities, from which they also become a leaders in the industry's innovation. Conversely, those pursuing a defensive strategy are often less dynamic. The key to their success is focus. They aim to produce products that cater to specific market niches and maintain market stability. With an analytical strategy, organizations frequently examine novel concepts for business before formally entering the market. Miles and Snow (1978) contended that management accounting approaches would be more commonly used in organizations executing offensive strategies than adopting defensive strategies since environmental and future orientation are significant factors in offensive strategy. This outcome is homologous to Guilding's discovery (1999). Additionally, Cadez and Guilding (2012) also offered empirical support for the hypothesis that business strategy and the use of management accounting in businesses are positively correlated.

Finally, based on the current situation of applying management accounting in small and medium-sized enterprises in Vietnam, which have hesitated and said no to applying it is the cost factor, according to Tran Ngoc Hung (2016). Investing in a specialized management accounting department is costly in terms of human resources, machinery, equipment, and other related costs, such as costs from operating companies, consulting organizations, increasing salary costs, and so on.

2.3.2. Some fundamental theories related to factors affecting the application of management accounting

In recent decades, there have been many studies around the world based on theories built to describe the relationships among the factors affecting the application of management accounting in businesses. Some typical theories include Contingency theory, Cost-benefit theory, Human relations theory (Mayo, 1993; Lewin, 1948), Social psychology of organization theory (MC Gregor, 1960; Likert, 1961; Vroom, 1964), Contingency theory of organizations (Burns and Stalker, 1961; Lawrence and Lorsch, 1967; Thompson, 1967; Galbrith, 1973); Information economics and agency theory (Marschak and Radner, 1972; Holmstrom, 1979), Social psychology (Taylor et al, 2003).

Most of these theories' relationships and effects on the process of applying management accounting have been demonstrated, ranging from how these theories affect the application of technical management accounting tools like estimates being tools to assess the efficacy of individuals and businesses (responsibility accounting) to explain how the changes are in the process of applying management accounting in businesses. In this study, we, the authors, have chosen several theories as the foundation for this research, including uncertainty theory (or random theory), agency theory, and cost-benefit theory to serve the review and assessment of the impacts of factors on the application of management accounting in state universities implementing financial autonomy.

As shown in this theory, the effectiveness of the management accounting system depends entirely on factors inside and outside the enterprise. The operating environment, technology, strategy, organizational structure, and culture will determine an organization's choice of accounting system. In other words, no general accounting system is suitable for all organizations. According to Mullins (2013), an organization's effectiveness depends on the appropriate degree of its organizational structure to previous random events.

Uncertainty theory is chosen to study the uncertain factors affecting the application and deployment of technical management accounting in organizations by many researchers (Gordon and Miller, 1976; Hayes, 1977; Waterhouse and Tiessen, 1978; Otley, 1980; Nicolaou, 2000; Gerdin and Greve, 2004). Research results show that no management accounting model is suitable for all organizations that exist through different periods. Factors affecting the implementation of technical management accounting can be divided into internal and external factors (Walker, 1996; Haldma and Lddts, 2002).

With the understanding that the management control system is created and chosen to accomplish the established targets and goals of the business, Chenhall (2003) went on to explain the uncertainty theory framework based on the functional element with the assumption that the management control system is developed and selected for the purpose of achieving the proposed targets and goals of the enterprise. The management accounting system is ambiguous in terms of factors like the external business environment, technology, company structure, scale, strategy, and organizational culture, which is the management accounting system in this instance.

This helps us create ideas about the impact of factors such as organizational strategy, competitive environment, information needs, legal regulations, accounting staff qualifications, and IT applications. Public organizations, in general, and state universities implementing financial autonomy, in particular, are strongly influenced by state legal documents, so it is necessary to choose appropriate methods of organizing and executing the contents of appropriate international accounting to the specific operations of the organization.

2.3.2.2. Representation theory

Jensen and Meckling (1976) presented representation theory by studying the relationship between managers and shareholders, which is understood as the representation relationship. This relationship is also shown among high-level, middle-level, and low-level managers, as well as between managers and users of resources. The relationship between the owner and the executive of an organization is agreed upon by the contract expressing the contents of remuneration and bonuses that were paid, and the solutions reconciled the interests of organizational administrators with the interests of external investors. Organizations use data from the management accounting system, such as resource allocation, budget estimation, and cost control, to help the owners assess the honor agreements made in contracts and the administrators' ability to manage the company's resources to ensure the interests of owners (Healy and Palepu, 2001).

The representation theory is applied to explain influencing factors consisting of decentralization, managers' understanding and awareness of management accounting, and accounting staff qualifications. With the way of organizing, qualifications, and the capacity of the administrator, the organizational culture will impact the need for management accounting information. The content of responsibility in each department is different; the content of reports from departments and levels is different, but they are all directed towards the common management goals of the organization.

2.3.2.3. Benefit-cost relationship theory

The theory states that the benefits derived from accounting information must be considered in relation to the costs of creating and providing that information. Therefore, this relationship must always be considered and balanced to ensure that the costs do not exceed the benefits (Vu Huu Duc, 2010).

The benefit-cost relationship theory influences the application of management accounting in two factors: the level of investment costs for organizing management accounting and the benefits brought by management accounting information applied.

The purpose of management accounting is to provide information to serve management needs. Each organization has different information needs, which must ensure the general purpose is to provide information for administrators in management activities: planning, implementing, administrating, controlling, and making decisions, so the requirements for designing management accounting information systems are also different. As a result, the authors apply this theory to explain "the costs for organizing management accounting," which affects the application of management accounting.

2.3.3. Comparison of contents, conditions, and factors affecting the application of management accounting in businesses with those of state universities

2.3.3.1. Comparing the contents and the conditions

The activities of state universities are to provide services, particularly in the areas of education and training, science research, and other services. Nonetheless, their services resemble those of companies in many ways when state universities are operating under complete autonomy. State universities implementing financial autonomy are endowed with the ability to make self-determinations regarding the exploitation, the identification of revenue resources, the prudent use of financial resources and assets already in place, and the balance between revenue and expenditure with a view to maintaining transparency of asset and finance within legal bounds.

State universities that have the authority to anticipate their financial revenue and expenses proactively are also in charge of overseeing and planning financial management strategies as well as managing revenue and expenses. In order to control and assess the outcomes of estimate implementation, they structure the estimating process to select an efficient and trustworthy estimation technique. They will also expand their service offerings explore and develop non-business revenue streams in order to boost their revenue sources. According to their own vision and orientation, state universities are autonomous and proactive in building, establishing, restructuring their organizational structures, or dissolving affiliated organizations. They recruit, appoint, dismiss, and reward staff and build their development strategies at the same time.

In the process of operating activities, universities must maximize revenue to maintain operations, in which tuition fees are the primary source of revenue, so they must ensure the number of enrolled students. In the context of integration and competition, as it is today, to ensure and gradually increase the number of enrolled students with the right to autonomy, they both increase investment in facilities and attract high-quality human resources proactively to meet the requirements of the increasing training scale. There is a wide range of functional departments, faculties, institutes, disciplines, and centers in the organizational structure of public universities that implement financial autonomy. Some of those even construct branches to broaden the scope of their educational programs.

2.3.3.2. Comparison of factors affecting the application of management accounting

The authors realize factors that need to be tested include size, corporate culture, organizational strategy, leaders' level of interest in management accounting work, and expenditures to organize management accounting when examining the internal factors affecting the application of management accounting in these institutions. This is because there are many similarities in the conditions and contents of applying management accounting among businesses compared to public universities implementing financial autonomy.

3. RESEARCH MODEL AND HYPOTHESIS

From the results of the general research on factors affecting the application of management accounting, the author team conducted consultation with experts to determine a research model on these in public universities, according to Figure 1.

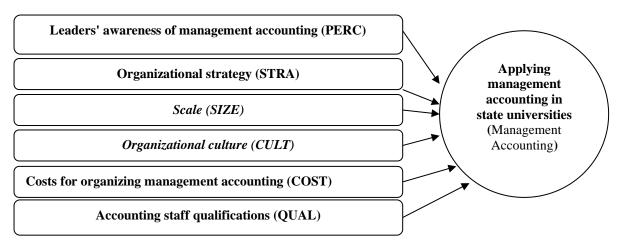


Figure 1. Research model

(Source: Self-developed by the authors)

Look at the following regression model:

The authors chose a multivariate regression model to test the hypothesis:

Management Acounting = $\beta_0 + \beta_1 PERC + \beta_2 STRA + \beta_3 SIZE + \beta_4 CULT + \beta_5 COST + \beta_6 QUAL + \epsilon$

When we built research hypotheses, we proposed six hypotheses that need to be tested from the official research model above, including:

H1: Leaders' awareness has a positive impact (+) on the organization of management accounting in public universities with financial autonomy.

H2: The organization's strategy has a positive impact (+) on the management accounting organization in public universities with financial autonomy.

H3: Scale has a positive impact (+) on the organization of management accounting in public universities with financial autonomy.

H4: Organizational culture has a positive impact (+) on the organization of management accounting in public universities with financial autonomy.

H5: Costs for organizing management accounting have a positive (+) impact on the organization of management accounting in public universities with financial autonomy.

H6: Accounting staff qualifications have a positive impact (+) on the organization of management accounting in public universities with financial autonomy.

4. METHODOLOGY

The study used qualitative research methods to build a scale. After having an official scale to explore the relationships proposed in the above hypotheses, the research team developed a questionnaire to survey 181 surveyed members, who are the university boards, leaders of the accounting department, and other departments, institutes, and centers working at 23 public universities and we also used a multivariate regression model to test the hypothesis. The authors use a five-point Likert scale designed to evaluate the level of observed variables corresponding to the items asked on the survey.

5. RESULTS

5.1 Checking the reliability of the measurement scales

Calculating Cronbach's alpha is to evaluate the reliability of the scales of the independent and dependent variables. The authors decided to use the value 0.6 as the minimum value to measure the reliability of the scale in the scope of the study. In addition, the measurement variable STRA5 was removed from the model because removing this variable made Cronbach's Alpha increase to 0.808.

Factor	Variable	Cronbach's Alpha
Leader awareness	PERC1, PERC2, PERC3, PERC4	0.867
Organizational strategy	STRA1, STRA2, STRA3, STRA4	0.808
Scale	SIZE1, SIZE2, SIZE3, SIZE4	0.821
Organizational culture	CULT1, CULT2, CULT3, CULT4, CULT5	0.848
Accounting staff qualifications	QUAL1, QUAL2, QUAL3, QUAL4	0.775
Costs for management accounting organizations	COST1, COST2, COST3, COST4	0.855
Apply management accounting	KTQT1, KTQT2, KTQT3, KTQT4	0.715

Table 3. Assessing the reliability of the scales

(Source: Statistical results from SPSS)

5.2 EFA exploratory factor analysis

Exploratory factor analysis is appropriate for survey data when the result of KMO = 0.775 satisfies the condition of 0.5 < KMO < 1 and the Barlett test with Sig. = 0.000 < 0.05. This shows that the scales of 6 factors: leader awareness, organizational strategy, scale, organizational culture, accounting staff qualifications, and costs for the management accounting organization are eligible to analyze EFA. The extracted variance value is 67.372%, which means 67.372% of the changes in the factors are explained by the observed variables.

5.3. Evaluating the scale value of the dependent variable

The result of KMO = 0.742, which also satisfies the condition 0.5 < KMO < 1, so exploratory factor analysis is appropriate for survey data and Barlett test with Sig. =0.000< 0.05. Thus, using the EFA model to evaluate the value of the management accounting organization scale in public universities with financial autonomy is appropriate. The changes in extracted variance value are 53.999% or 53.999% of the factors explained by the observed variables. In conclusion, the factor analysis model (EFA) is suitable, and the scale is accepted.

5.4. Multivariate regression analysis

The results of the regression coefficient test showed that all independent variables had a Sig value of less than 0.05, from which the authors summarize that the independent variables are correlated and meaningful with organizing management accounting in public universities with financial autonomy.

Model	No standardized Coefficients	Normalization coefficient	Verification Mean t level	Meaning level	ing Multicollinearity statistics		Important positions of	Contribution level (%)	
	В	Standard error	Beta	_	of Sig	Variable acceptability	Variance magnification factor	factors	
(Constant)	1.564	0.185		8.453	0.000				
PERC	0.083	0.017	0.258	4.757	0.000	0.921	1.085	3	18,3
STRA	0.065	0.018	0.192	3.599	0.000	0.958	1.044	5	13,6
SIZE	0.132	0.029	0.275	4.611	0.000	0.761	1.314	2	19,5
CULT	0.195	0.045	0.285	4.310	0.000	0.621	1.610	1	20,2
QUAL	0.069	0.022	0.186	3.147	0.002	0.774	1.292	6	13,2
COST	0.067	0.017	0.213	3.922	0.000	0.923	1.083	4	15,1

	• •		· · · · · · · · · · · · · · · · · · ·
Table 6. Analysis of factors influencing	organizing managemen	it accounting at state universities	with financial autonomy

(Source: SPSS analysis results)

From the results in the regression weight table, the regression equation can be determined as follows:

Management Accounting = 0.258 PERC + 0.192 STRA + 0.275 SIZE + 0.285 CULT + 0.186 QUAL + 0.213 COST

There are six variables consisting of PERC, STRA, SIZE, CULT, QUAL, and COST in the model, which have Sig.<0.01, so these variables are significantly correlated with the variable of organizing management accounting with 99% confidence. The results of testing the cause-and-effect relationship between concepts in the standardized theoretical model show that six representative factors are ranked in descending order of influence, including Organizational culture (CULT), scale (SIZE), leaders' awareness of management accounting (PERC), costs for organizing management accounting (COST), organizational strategy (STRA), accounting staff qualifications (QUAL) which contributed 20.2%, 19.5%, 18.3%, 15.1%, 13.6% and 13.2% respectively to the impact of increasing the feasibility when applying management accounting in state universities with financial autonomy. Therefore, solutions to enhance feasibility when applying management accounting should be based on the results of testing influencing factors.

6. Implications for improving the feasibility of applying management accounting in public universities implementing financial autonomy

6.1 The state and authority

Management accounting guidelines should be issued in each field of activity for public non-business units in general and state universities implementing the financial autonomy mechanism, in particular, to refer to and apply. Encouraging public accounting services consisting of management accounting services that the companies are able to know and use in case the companies' human resources are not available. It can also be noticed that public universities with financial autonomy mechanisms can effectively apply management accounting in planning, management, and optimal use of financial resources during their operations. Besides the mentioned issues, the writers claim that governmental authorities should take into account the following challenges:

According to the autonomy mechanism, public universities can decide on tuition fees, but they are still subject to be controlled according to the ceiling prescribed by the policymakers. Meanwhile, training costs are influenced by market prices and the average living standard of a country, which also need to be calculated fully and fairly. There is no reason why they should be accounted for in a different spirit and division when expenses for operations from electricity and water to purchasing equipment and so on are all the same as those of other professions and fields. Therefore, decree 86/2015/ND-CP should be amended to remove regulations on tuition ceilings in the direction of raising tuition ceilings and applying many tuition ceilings to different types of universities in the immediate future. Accordingly, it is necessary to develop a roadmap to fully include the cost of university training and tuition fees, which creates conditions for public university institutions to fully recover necessary training costs.

In addition, the use of university assets is also governed by land law, construction law, bidding law, law on management and use of public assets, etc. The provisions of these relevant laws, in general, do not have specific characteristics for higher education. Consequently, They still conflict with the law on higher education (amended), leading to problems and difficulties in activities related to equipment procurement, public investment, and basic construction in higher education institutions. Therefore, the state needs to have documents regulating the specific activities of the field of higher education, which will help universities to be truly "autonomous."

6.2 Public universities with financial autonomy

Building organizational culture is also a factor that has a significant impact on management accounting at the organization. A university with a strong culture means there is high consensus among members of the organization about common goals, from strategy to sharing and recognizing short-term goals. It will increase the likelihood of success when applying management accounting technical tools from there. Regarding the size of universities, it is necessary to expand the scale of universities in conditions that are suitable to current higher education development, such as expanding international cooperation to train highly qualified human resources and attracting investment from businesses and production and business establishments. It is also necessary to foster management capacity for leaders and people performing tasks so that they can evaluate the results when implementing different plans and solutions. The university board needs to pay special attention and support to the accounting department. In addition, the accounting system needs to be restructured to integrate financial and management accounting. Nonetheless, every department's role in gathering, analyzing, and disseminating data must be clearly defined.

Furthermore, public universities with financial autonomy also need to develop a suitable financial campaign for both short- and long-term facility investments. They also need to prioritize, actively seek out, and attract financial resources from project sources and foreign aid capital. Last but not least, public universities with financial autonomy encourage staff to improve their qualifications through regular funding for management accounting staff to participate in training and fostering courses to improve their professional qualifications.

7. SUMMARY

The six factors that affect the ability to apply management accounting at public universities, consisting of organizational culture, scale, leaders' awareness of management accounting, costs for organizing management accounting, organizational strategy, and accounting staff qualifications, were discovered. This study also has certain limitations, although the objectives have been met. First of all, this research will have the common

limitations of survey-based research, which is that respondents answer on a Likert scale, so it may not be objective. These assessments may have individual biases and judgments. Secondly, other factors need to be researched to develop research models in the context of other types of universities.

REFERENCES

Cadez, S., & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. Accounting, organizations and society, 33(7-8), 836-863.

Erserim, A. (2012). The impacts of organizational culture, firm's characteristics and external environment of firms on management accounting practices: empirical research on industrial firms in Turkey. *Procedia-Social and Behavioral Sciences*, 62, 372-376.

Guilding, C. (1999). Competitor-focused accounting: an exploratory note. Accounting, Organizations and Society, 24(7), 583-595.

Guilding, C., & McManus, L. (2002). The incidence, perceived merit and antecedents of customer accounting: an exploratory note. *Accounting, Organizations and Society*, 27(1-2), 45-59.

Hoque, Z. (2004). A contingency model of the association between strategy, environmental uncertainty and performance measurement: impact on organizational performance. *International Business Review*, 13(4), 485-502.

Jin, J. (2023). Thoughts on the Application of Management Accounting in Financial Management of Colleges and Universities. *International Journal of New Developments in Education*, 5(11).

Nguyen, P. N., & Doan, N. Q. (2016). Motivate the direction of the market and improve performance to the extent of using accounting and statistical information to improve the results of operational activities. It's in the southern part of the country. *Economic Development Journal*, No. 27(11), 98-123.

Ojua, O. M. (2016). Application of strategic management accounting techniques in combating small business failures in Nigeria. *International Journal of Innovative Research studies and advances studies*, 3(7), 19-25.

Tuan Mat, T. (2010). Management accounting and organizational change: impact of alignment of management accounting system, structure and strategy on performance.

Tran, N. H. (2016). Factors affecting the application of management accounting in SMEs in Vietnam. PhD thesis. Ho Chi Minh City University of Economy, Vietnam.

Trinh, H. T. (2019). "The medial impact of managerial accounting in the relationship between intellectual capital and results in the business activities. The evidence in Vietnam"