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**THE EVOLUTION OF MANAGEMENT ACCOUNTING
PRACTICES IN VIETNAM: EMPIRICAL EVIDENCE FROM
VIETNAMESE FOOD AND BEVERAGE ENTERPRISES**

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A dissertation submitted for the degree of Doctor of Philosophy in
Accounting

by

NGUYEN THI PHUONG DUNG

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ABSTRACT

The objective of this study is to investigate the evolution of management accounting practices in Vietnam, a Southeast Asian developing country, referring to the management accounting evolution models proposed by IFAC (1998) and Nishimura (2003).

This study focuses on Vietnamese food and beverage enterprises because this sector has been considered as the largest in the Vietnamese manufacturing industry for many years. A questionnaire survey was used to study the extent to which these enterprises have adopted certain traditional and modern management accounting practices. I received a total of 54 questionnaires which were officially authorized by enterprises. This denotes the usable response rate of 37.2%. The survey results show that traditional management accounting practices of initial evolutionary stages are widely adopted in the enterprises. However, I find noteworthy signals to indicate that some large enterprises have already reached the highest evolutionary stage of management accounting practices. My study also provides characteristics of costing, budgeting, and product pricing systems in the Vietnamese food and beverage enterprises.

Moreover, I attempt to explore factors influencing the evolution of management accounting practices in the Vietnamese food and beverage enterprises. I apply statistical analysis to the survey data. Based on the results of this analysis, I examine the management accounting practices in Vietnam referring to academic publications, Vietnamese regulations on accounting, and other related studies. I discover that size of enterprises, age of enterprises and the attributes of management accounting innovations are significant internal factors. I also find that two external factors, namely, the political, social, and economic environment and the history of costing system in Vietnam influence the evolution of management accounting practices in the Vietnamese food and beverage enterprises.

The significant contribution of my study is that it reveals empirical evidence on the evolution of management accounting practices in the Vietnamese food and beverage enterprises. It helps to cover the severe lack of studies about management accounting practices in Vietnamese manufacturing enterprises, particularly, Vietnamese food and beverage enterprises. My study, however, contains given limitations like other empirical studies in the field of management accounting. I therefore indicate that further research on this topic should be a fruitful way in the future.

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Chapter 1

INTRODUCTION

1.1 Research background

Accounting plays an important role in the management system of any business. Based on its main function of providing information, accounting is classified into financial accounting and management accounting. Financial accounting provides accounting information for external users such as governmental agencies, shareholders, creditors, suppliers and so on. Because these parties have different needs, financial accounting is required to be regulated and subject to laws and accounting standards. Management accounting provides accounting information for internal users within the enterprises and thus, it does not need to comply with any set of standards. Internal users use management accounting information to develop, to communicate and implement strategies, to make decisions, and to evaluate enterprise performances (Horngren et al. 2011). Therefore, management accounting has been considered as one of the most important factors contributing to the success of enterprises.

Vietnam is a developing country located in Southeast Asia. It has a territory of about 331,210 km² but a long coastline of approximately 3,440 km excluding islands. The country is the 13th most populous country in the world with an estimated 90 million inhabitants in 2012. Vietnam has carried out economic reforms to transfer from a centrally planned economy to a socialist-oriented market economy since the mid 1980s. The most well-known program is the Doi Moi launched in 1986. The country has become one of the most attractive investment destinations for foreign investors and multi-national corporations in the world till

now. It remained an annual high average GDP growth rate, approximately 7%, for many years. The country also has integrated into the world economy. In 2007, Vietnam joined as the 150th member of the World Trade Organization (WTO).

As a result of the transition to a socialist-oriented market economy and the integration into the world economy, the Vietnamese accounting system has been reformed drastically. Vietnamese Government promulgated new laws, regulations, and standards for accounting systems in enterprises in an aim to make Vietnamese accounting system meet the requirements of international standards. Until now, Vietnam has issued 26 Vietnamese Accounting Standards which are principally based on the international accounting standards.

Since the Doi Moi, Vietnamese Government has encouraged the development of non state-owned enterprises, foreign-invested companies, and all other kinds of enterprises. This open-door policy makes Vietnamese domestic market become more competitive than before. In order to survive in competitive markets, both state-owned and non state-owned enterprises have to enhance their management systems. Management accounting is considered as one of the most important parts in the enterprises' management systems. In the centrally planned economy, there was no need for enterprises to build management accounting systems (Adams and Do 2005). In the socialist-oriented market economy, Vietnamese enterprises have to compete with each other so they need to build the management accounting systems. However, there is severe lack of systematic studies about management accounting practices in Vietnamese enterprises at present. Numerous questions exist such as whether Vietnamese enterprises have management accounting systems, which evolutionary stages of management accounting they belong to, which management accounting practices they are adopting and so on. Therefore this study pursues to investigate the evolution of management accounting practices in Vietnamese enterprises.

1.2 Significance of the research

Management accounting first appeared in the United States during the nineteenth century and then diffused to other developed countries (Johnson and Kaplan 1987). According to the International Federation of Accountants (1998) and Nishimura (2003), the evolution of management accounting practices can be described by a framework of four stages. They also explain the characteristics of management accounting practices which are widely adopted in each stage. Many studies have used this four-stage framework to investigate the evolution of management accounting practices in both developed and developing countries (Nishimura 2003; Mahfar and Omar 2004; Smith et al. 2008; Abdel-Kader and Luther 2006a).

It is assumed that management accounting systems emerged in Vietnamese enterprises after the country undertook critical reforms of accounting regulations in the 1990s (Adams and Do 2005). A definition of management accounting system was officially issued in Accounting Law 2003 (The National Assembly 2003). However, it is difficult to find systematic studies in either Vietnamese or English languages about the evolution of management accounting practices in Vietnamese enterprises at present.

Vietnam has been integrated into the global economy. With the aim to be an industrialized country, manufacturing sector plays the most vital role in Vietnamese economy. Management systems of Vietnamese manufacturing enterprises are newly established compared with those of other countries. To develop in the severe competitive conditions of the market-oriented economy, Vietnamese manufacturing enterprises need to enhance their management systems including management accounting systems.

As an initial step for further research, it is necessary to grasp the current state of the evolution of management accounting practices in Vietnamese manufacturing companies. There are many sectors in the Vietnamese

manufacturing industry. Food and beverage enterprises have been considered as the largest manufacturing sector for many years based on the criteria of their net turnover and gross output. This sector is also an appropriate field that reflects the main characteristics of the Vietnamese economy. Therefore, this study focuses on investigating the evolution of management accounting practices in Vietnamese food and beverage enterprises.

1.3 Research objectives

The main objective of this study is to investigate the evolution of management accounting practices in Vietnamese food and beverage enterprises. I pursue to answer the following research questions (*RQ*):

RQ 1: What is the current evolutionary stage of management accounting practices in Vietnamese food and beverage enterprises?

RQ 2: Which traditional and modern management accounting practices are widely adopted in Vietnamese food and beverage enterprises?

RQ 3: What are the main characteristics of costing, budgeting, and product pricing systems in Vietnamese food and beverage enterprises?

RQ 4: What are the factors influencing the evolution of management accounting practices in Vietnamese food and beverage enterprises?

1.4 Research methods

I analyze two popular management accounting practices evolution models which are proposed respectively by the IFAC (1998) and Nishimura (2003). The Nishimura model provides more details about specific management accounting practices and concepts of control which are widely adopted in each stage of the evolution. In addition, Nishimura model, which is built based on management accounting practices in Japan, may explain Asian countries' management

accounting practices more persuasively than IFAC model. Therefore, I use the model proposed by Nishimura (2003) as a theoretical framework for this study.

I review related research about the evolution of management accounting practices in developed and developing countries and contingent factors that may influence the evolution. I also attempt to find and analyze previous research about management accounting practices in Vietnam.

After considering the methods of collecting empirical data in management accounting research, I employ a questionnaire survey to collect data from Vietnamese food and beverage enterprises. In total, I receive 54 questionnaires which were officially authorized by the enterprises. It denotes the response rate of the survey is 37.2%. From the survey results, I obtain empirical evidence of the evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises. Simultaneously, I find the main characteristics of costing, budgeting, and product pricing system in Vietnamese food and beverage enterprises.

I apply statistical analysis to the survey data. Based on the results of this analysis, I examine the management accounting practices in Vietnam referring to the academic publications, Vietnamese regulations on accounting, and other related studies. Through these methods, I explore internal and external factors influencing the evolution of management accounting practices in the Vietnamese food and beverage enterprises.

1.5 Contribution of the research

The significant contribution of my study is that it reveals empirical evidence on the evolution of management accounting practices in the Vietnamese food and beverage enterprises under the light of international view. In addition, I explore internal and external factors which significantly influence the evolution of

management accounting practices in the enterprises. My study especially helps to cover the severe lack of studies about management accounting practices in Vietnamese manufacturing enterprises, particularly, Vietnamese food and beverage enterprises.

1.6 Structure of the research

This thesis consists of five chapters. Chapter 1 provides the background, significance, objectives, methods, and contribution of the research. Chapter 2 describes two popular models of the evolution of management accounting practices. It reviews related studies using these models to investigate the evolution of management accounting practices and factors influencing the evolution in other countries. This chapter also presents prior research about management accounting practices in Vietnam and the economic context of Vietnamese food and beverage enterprises in order to clarify the significance of my research.

Chapter 3 explains the data collection method, procedure of conducting questionnaire survey, and the main characteristics of the sample. This chapter reveals empirical evidence on the evolutionary stages of management accounting practices and main characteristics of costing, budgeting, and pricing systems in the Vietnamese food and beverage enterprises. It provides comparisons on the adoption rates of management accounting practices between the Vietnamese food and beverage enterprises and those in other countries. It also analyzes the needs of improving management accounting and product pricing systems in the Vietnamese food and beverage enterprises.

Chapter 4 presents the results of statistical analysis to explore internal factors influencing the evolution of management accounting practices in Vietnamese food and beverage enterprises. This chapter also analyzes external

factors affecting the evolution. The final chapter, chapter 5, summarizes the results, denotes the limitations of this research, and states possibilities for future research.

Chapter 2

LITERATURE REVIEW

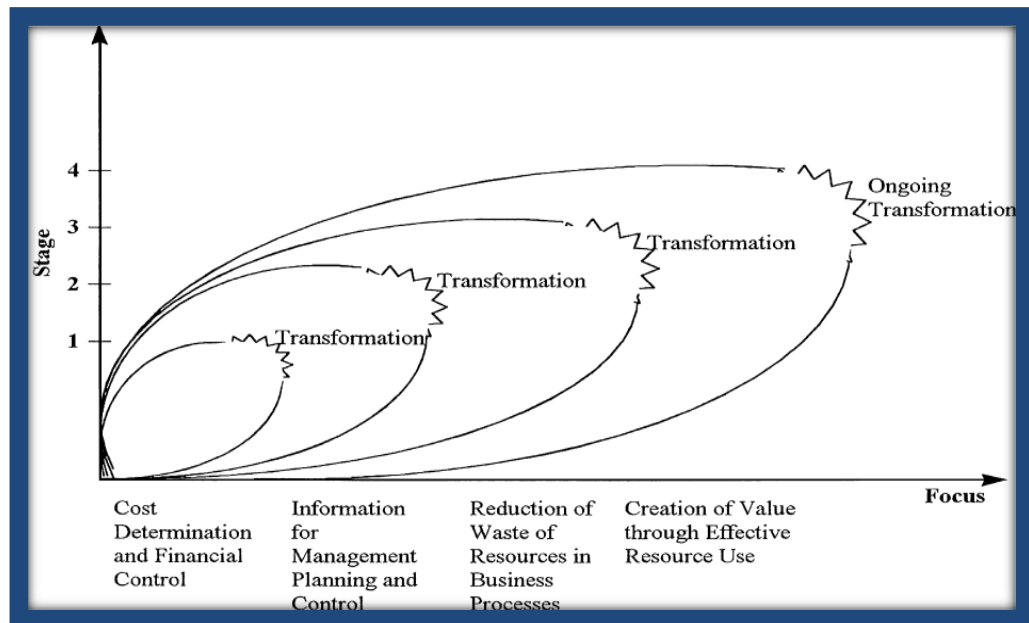
This chapter describes two popular models of the evolution of management accounting practices and makes comparisons between them. It reviews related studies using these models to investigate the evolution of management accounting practices and factors influencing the evolution in developed and developing countries. This chapter also presents previous studies about management accounting practices in Vietnam and the economic context of Vietnamese food and beverage enterprises.

2.1 Literature review on models of the evolution of management accounting practices

2.1.1 International Federation of Accountants (IFAC) model

In March 1998, the International Federation of Accountants (IFAC) released a framework to explain the historical development of management accounting, as shown in Exhibit 2.1. IFAC describes the history of management accounting practices as a four-stage framework. Management accounting first appeared in the United States during the nineteenth century and then diffused to other developed countries (Johnson and Kaplan 1987). Based on this fact, IFAC model focuses on explaining the development of management accounting in US and European countries. The model, therefore, is also considered as a Western or an Anglo-American model by researchers and academics (Mahfar and Omar 2004; Abdel-Kader and Luther 2006a).

Exhibit 2.1: The Evolution of Management Accounting (IFAC 1998)



According to IFAC model, management accounting in the first stage (prior to 1950) primarily focused on the determination of product cost and internal financial control. In this stage, management accounting was considered as a “technical activity” which is necessary for pursuing organizational objectives. Budgeting and cost accounting tools were widely adopted in this period. In the second stage from 1960 to 1965, the attention of management accounting was the provision of information for planning and control purposes. Management accounting in this stage moved from a “technical activity” to a “management activity but in a staff role.” Such techniques as decision analysis and responsibility accounting were widely adopted. Next is the third stage which was from 1965 to 1985. In this stage, the focus of management accounting shifted to waste reduction in using business resources. The widely adopted techniques were process analysis and cost management tools. The fourth stage or the current evolutionary stage of management accounting had been developed by 1995. During this period, the focus of management accounting moved to the value creation through the effective use

of resources and technologies which address customer value, shareholder benefit, and organizational innovation.

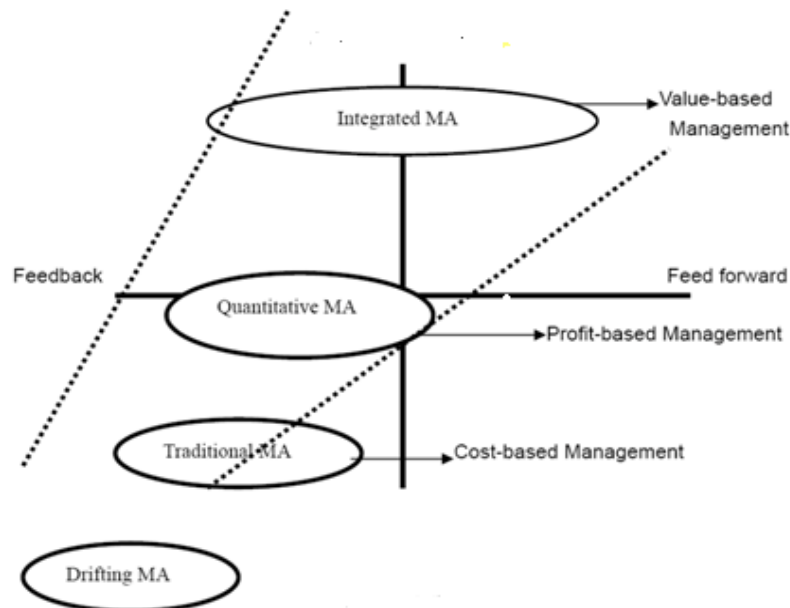
It is necessary to state that the four stages in IFAC model are not mutually exclusive. Each stage successively includes the concepts of previous stages and complements additional characteristics that occurred due to the new requirements of business management. For instance, the emphasis of management accounting on providing information in stage 2 still remains the same but is paraphrased in stage 3 and stage 4 where information becomes an increasingly important resource along with other resources in enterprises. The difference between Stage 2 and Stage 3 is characterized by “waste reduction” and the difference between Stage 3 and Stage 4 is characterized by “value creation.” In other words, there is a clearer focus on the reduction of waste in stage 3 and on the creation of value in stage 4 (Abdel-Kader and Luther 2006a). Therefore, management accounting in stages 3 and 4 are regarded as “an integral part of the management process” and it concentrates on using resources effectively to create value for organizations.

2.1.2 Nishimura model

Apart from IFAC model, Nishimura (2003) proposed another model describing the evolution of management accounting practices in Asian countries. This model is called Nishimura model or Eastern approach which is alternative to IFAC model or the Western approach (Mahfar and Omar 2004; Smith et al. 2008). Exhibit 2.2 depicts Nishimura model. Basically, Nishimura and IFAC models describe the development of management accounting practices as a four-stage framework. However, Nishimura model provides more details about the characteristics of each stage. It also clarifies specific widely-adopted management accounting practices and concepts of control used in each stage. In addition, Nishimura model may explain Asian countries’ management accounting practices more persuasively than

IFAC model because it is built on management accounting practices in Japan, which is the most developed country in Asia and possess common Asian cultures, Asian thinking and so on.

Exhibit 2.2: The Evolution of Management Accounting (Nishimura 2003)



In Nishimura model, the first stage is named “drifting” management accounting. In this stage, there is no independent system of management accounting in organizations. The main focus of the stage is not management accounting itself but is the application of financial accounting information to management and control requirements. Accounting practices widely adopted in this stage are financial ratio analysis and business comparative study (Nishimura 2003).

The second stage is “traditional” management accounting. Nishimura regards this stage as the formative phase of management accounting. The practices, namely, budgeting, standard costing, Cost-Volume-Profit (CVP) analysis, responsibility accounting, and cost variance analysis are dominantly used in this stage. Moreover, the concept of control is an important characteristic of management accounting in this stage. Feedback control is developed and has a strong influence on the whole accounting system. According to this control concept, after actions have been completed, actual performance is compared with the original plans or standards to identify the variances between them. Next, the comparison result is used to revise following plans to make the actual performance of the following period much closer to the plans than the current one. Simultaneously, various methods are used to modify and eliminate the cost variances in following periods. For these reasons, feedback control is also considered as a reactive and reflective control system. The basic contents of management accounting in this stage still have deep influences on today’s management accounting system. Therefore, this stage can be named as “traditional” management accounting (Nishimura 2003).

The third stage is “quantitative information” management accounting. In this stage, management accounting concentrates on how to optimize profit-based management. The fundamental point of this stage is to control the planning process, which depends on manager’s ability, and to make performance evaluation more reliable. There are some dominant management accounting practices such as Economic Order Quantity (EOQ), inventory management, information analysis, behavior science, profit prediction, opportunity cost analysis and so on. Furthermore, both feedback control and feed forward control are used in a management accounting system during this stage. As mentioned above, the feedback control has a strong influence on accounting system in the process of

transferring from the first stage to the second one. This control concept has continuously developed through the second to the third stages. Afterward, feed forward control concept begins to develop in the third stage.

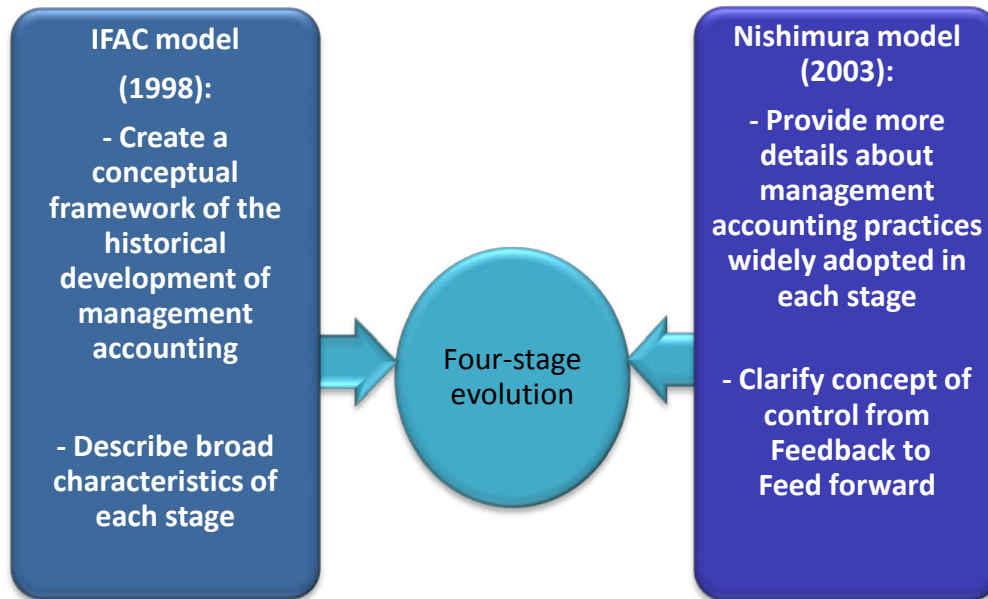
Exhibit 2.3: Comparisons between Feedback and Feed Forward Controls (Nishimura 2006)

Control system	Planned value	Object of sensor	Assessor	Effective device	Result
Feedback	Absolute truth	Actual action	Variance between plan and actual action	Reflective, reactive plan and control	Actual performance close to plan in next period
Feed forward	Relative truth	Virtual action	Variance between plan and virtual action	Proactive, preventive control	Actual performance close to plan at present

The final stage of the evolution is “integrated” management accounting. In this stage, management accounting is integrated with other management mechanisms such as organization management, strategic management, and feed forward concept. Exhibit 2.3 presents detailed comparisons between feedback and feed forward controls. In contrast to feedback control, feed forward control is a preventive and proactive control system. Managers who support this control concept utilize various kinds of methods to frequently adjust original plan and control planning process. The objective of feed forward control is to achieve the targets in current and future periods by adjusting current activities. In other words, feed forward control checks and alters the occurred variances continuously in the light of changing environments. It adopts various proactive methods beforehand to achieve the expected goals without delay. Therefore, to fulfill its functions, feed forward concept has to be integrated into organizational management (Nishimura 2003). Management accounting practices which are widely adopted in this stage

are target costing, kaizen costing, Activity-based management, balanced scorecard, value chain analysis, life cycle analysis, quality costing systems and so on.

Exhibit 2.4: Comparison between IFAC model and Nishimura model (Nguyen and Aoki 2012)



Fundamentally, Nishimura model seems to be consistent with Western model in terms of dividing the development of management accounting into four stages. The degree of sophistication increases with the stages. However, Nishimura model clarifies the management accounting practices widely adopted in each stage and the development of management accounting from a feedback to a feed forward control system (shown in Exhibit 2.4). Therefore, I use Nishimura model as the main theoretical framework of my study.

2.2 Literature review on the evolution of management accounting practices in developed and developing countries

Much research is interested in studying the evolution of management accounting practices in developed and developing countries. There are prior researches focusing on the evolution of management accounting practices in these countries. I would like to examine these studies here.

Chenhall and Langfield-Smith (1998) create a list of 42 traditional and contemporary management accounting practices to examine which of them are adopted and the benefits of adopted practices. They focus on large manufacturing firms in Australia. They attempt to explore which one, traditional or modern management accounting practices, is more widely adopted and will be emphasized in firms in the future. Specifically, Chenhall and Langfield-Smith (1998) classify the 42 practices into five groups based on their functions: product costing, budgeting, decision support, performance evaluation, and strategic analysis. They conduct a questionnaire survey and relevant analysis. They find that the adoption and perceived benefits of traditional management accounting practices are higher than the contemporary practices in the enterprises. They also obtain evidence that the Australian manufacturing firms have intentions to adopt management accounting practices that would focus on non-financial information and strategy in the future. Although Chenhall and Langfield-Smith (1998) do not directly use IFAC or Nishimura models, they describe the evolution of Australian management accounting practices appropriately. Their contribution is that they created a new research idea by investigating the widely adopted management accounting practices to clarify the sophistication degree of management accounting in Australian manufacturing companies. Much research has employed this idea to investigate the adoption rates and perceived benefits of management accounting practices in other developed and developing countries such as India (Joshi 2001),

the United Kingdom (Abdel-Kader and Luther 2006b), China (Wu et al. 2007), Vietnam (Doan et al. 2011) and so on.

Nishimura (2003) studies the evolution of management accounting practices in Asian countries as shown in Exhibit 2.5. He classifies Asian countries into 4 groups, namely, Japan, Newly Industrialized Economies (NIEs), Association of Southeast Asian Nations (ASEAN), and socialist sections (China and Vietnam). He finds that Japan reached the highest stage “integrated management accounting” in Nishimura model. The NIEs were in the second stage “traditional management accounting.” ASEAN and socialist sections were between the first stage “drifting” and the second stage “traditional” management accounting. Furthermore, Nishimura (2003) makes a comparison of the evolution of management accounting practices between Asian countries and the United States.

Exhibit 2.5: Comparisons on the evolution of management accounting practices between Asian and Western countries (Nishimura 2003)

Country	Concept of Control		Evolution Stage
	Feed-forward	Feedback	
Japan	x		4
NIEs		x	2
ASEAN		x	Between 1 and 2
Socialist sections		x	Between 1 and 2
Western countries (U.S.)		x	4

Based on IFAC model, Abdel-Kader and Luther (2006a; 2006b) employ a large scale survey and face to face interview to study the management accounting practices in British food and beverage industry. They find that traditional management accounting practices such as CVP analysis, direct costing, conventional budgets, and product profitability analysis are still widely used in the

enterprises. Meanwhile, innovative management accounting practices such as Activity-based costing (ABC), product life cycle analysis, non-financial performance measures and so forth are supposed to be important but rarely used in the sampled enterprises. Based on the four stages of IFAC model, they also identify the evolutionary stages of management accounting practices in the British food and drinks enterprises.

Mahfar and Omar (2004) and Smith et al. (2008) study the evolutionary stages of management accounting practices in Malaysia based on Nishimura model. They use questionnaire surveys. Mahfar and Omar (2004) indicate that many Malaysian companies utilize management accounting practices classified as the stage 1 and stage 2 in Nishimura model. They find that there are several companies whose management accounting practices have fully reached the stage 3 or already evolved into the stage 4 in Nishimura model. Afterward, Smith et al. (2008) obtain almost the same results that majority of the Malaysian industrial companies are still in the stage 2 “traditional” and stage 3 “quantitative information” management accounting in Nishimura model.

One important notation is that most of the above studies used questionnaire surveys to obtain empirical evidence. The questionnaire survey method has been widely used in the field of management accounting research to date. It is also a method which was suffered considerable critics on the quality. There is a fact that survey method is affected by many factors, which are not all within the control ability of researchers, such as the population characteristics, the data collection process, time pressure (Van der Stede et al. 2005). However, much research shows that the surveys, which are built and conducted appropriately, can provide large-scale and high-quality data (Van der Stede et al. 2005; Diamond 2011). Van der Stede et al. (2005) find that the validity of questionnaire survey research can be improved by applying more effective techniques such as studying the basic

principles of survey method, doing pre-tests, follow-up procedures, non-response bias analysis and so on.

2.3 Literature review on factors influencing the evolution of management accounting practices

As a vital part of studying the evolution of management accounting practices, numerous studies also attempt to identify what factors or barriers influence the evolution (Chenhall and Langfield-Smith 1998; Nishimura 2003; O'Connor et al. 2004; Al-Omiri and Drury 2007; Abdel-Kader and Luther 2008; Smith et al. 2008; Uyar 2010).

Chenhall and Langfield-Smith (1998) explain reasons for the high adoption rates of modern management accounting practices in the Australian large manufacturing firms. According to them, the large enterprises in Australia have a tendency to apply modern practices more frequently than the smaller ones because the increase in organizational size leads to increased sophistication of management mechanisms. The large enterprises apply more advanced management systems including management accounting practices such as Balanced Scorecard, ABC and so on. Also, the large firms have greater resources to test innovations than the smaller ones. One more reason is that the new changes in Australian business and social environment require the large enterprises to compete in the international market.

Nishimura (2003) indicates that the evolution of management accounting practices in the Asian countries has a close relationship with the development levels of their market economies. Nishimura (2003) also analyzes that national culture is a significant factor influencing the adoption of management accounting practices among countries. Much research also indicates the importance of this factor (Joshi 2001; Wu et al. 2007).

O'Connor et al. (2004) investigate the factors influencing adoption of Western management accounting practices in Chinese state-owned enterprises (SOEs). Based on previous research, they hypothesize that the adoption depend on nine factors, namely joint venture experience, limited-term employment, stock exchange listing, the availability of training market competition, the extent of being subject to government influence, size of enterprises, the presence of Chinese management norms, and enterprise age. They conduct in-depth interviews and a large-scale survey to test these hypotheses. The finding is that joint venture experience, limited-term employment, stock exchange listing, the availability of training and age of SOEs had significant influences on the adoption of the management accounting practices in the Chinese SOEs.

As mentioned above, Abdel-Kader and Luther (2006a; 2006b) employ a large scale empirical survey to study the evolution of management accounting practices in British food and drinks industry. They also focus on exploring factors underlying the evolution. In their research published in 2008, Abdel-Kader and Luther (2008) figure out three groups of contingent factors which probably influenced the adoptions of management accounting practices in their sampled enterprises. These groups are external factors (environmental uncertainty and customer's power), organizational factors (competitive strategy, decentralization, and size of firms), and processing factors (complexity of processing system, Total Quality Management, Just-in-Time system and so on). Through empirical data and statistical analysis, Abdel-Kader and Luther (2008) find that environmental uncertainty, customer power, decentralization, size, Total Quality Management, Just-in-Time system are the factors which have significant impacts on management accounting practices in the British enterprises.

Al-Omiri and Drury (2007) conduct a postal questionnaire to study the extent to which contextual factors affect the features of product costing systems in

the United Kingdom organizations. Their research results show that the sophistication level of costing systems is positively associated with the significance of cost information, the adoptions of other innovative accounting practices, intensity of competitive environment, size of enterprises, extent of the use of JIT/lean production techniques, and the category of the business sector.

In all the above mentioned research, the size of enterprises is considered as one of the most critical factors which influence the adoption of management accounting practices. The previous research indicated that larger enterprises had a tendency to apply new management accounting practices more frequently than smaller enterprises. However, there also exist studies which reported that diffusion of innovations in small firms is quicker than in large firms. Nooteboom (1994) claims that small companies have given advantages over large companies in adopting innovations because they have less bureaucracy, greater motivation, better survey of the entirely project, and greater proximity to the market. It has been argued that small enterprises are more innovative than large ones in diffusing changes and innovations (Dana 1994).

Enterprise age is also considered as an important factor influencing the adoption of management accounting practices. O'Connor et al. (2004) hypothesize that the use of Western management accounting in Chinese SOEs decreases with their age. They suppose that older established SOEs may have a tendency of entrenching the existing management accounting practices, in other words, the older enterprises are fearful of changing. They finally find that enterprise age is a significant factor in contrast to their first prediction because the adoption of Western management accounting practices in the older Chinese SOEs is greater than the young SOEs.

Smith et al. (2008) follow the Diffusion of Innovations (DOI) theory of Rogers (2003) to study whether attributes of management accounting innovations

impact on the adoption of them in enterprises. According to DOI theory (Rogers 2003), attributes of an innovation play an important role in explaining the adoption rate of the innovation. Rogers (2003) reports that “most of the variance in the adoption rates of innovations, from 49 to 87 percent, is explained by five attributes: relative advantage, compatibility, complexity, trialability, and observability” (page 221). Among these attributes, Rogers (2003) notes that the relative advantage of an innovation is one of the most important factors influencing its adoption rate. “Relative advantage” is the degree to which an innovation is perceived as being better than the idea it replaces (Rogers 2003). Dimensions of relative advantage embrace profitability, low initial cost, a decrease in discomfort, social reputation, and a saving of time and effort (Rogers 2003). Smith et al. (2008) employ the “relative advantage” part of DOI theory to identify the most common reasons for using management accounting innovations in Malaysian companies. They propose a framework which includes seven reasons of adopting and seven reasons of not adopting management accounting innovations. They collect data from Malaysian industrial companies in the Klang Valley area. After conducting survey research and statistical analysis, Smith et al. (2008), unfortunately, cannot get a clear relationship between attributes of management accounting innovations and either the adoption or non-adoption of them. The reasons probably are due to the disappointingly low questionnaire response rate (19, 6%) and their study is restrained in a small area. However, the research idea of Smith et.al (2008) and DOI theory are suitable for investigating whether attributes of management accounting practices impact on the adoption or non-adoption of them in enterprises.

2.4 Literature review on management accounting practices in Vietnam

Before 1986, a centrally planned economy was applied in Vietnam with the model learned mainly from the former Soviet Union. The Vietnamese accounting system also followed a Soviet-styled accounting model. This accounting system solely focused on management demands of the government and taxation authorities to control over all enterprises in the economy. The word “accounting” almost has the same meaning as “bookkeeping” and there was no term corresponding to “management accounting” in Vietnam during this period (Adams and Do 2005).

Since 1986, Vietnam has carried out its economic reform named Doi Moi (Vietnamese language: *Đổi mới*, English language: Renovation). The goal of Doi Moi is to create a socialist- oriented market economy in Vietnam. New business ownerships such as privately-owned or foreign-owned companies were permitted and encouraged to develop in various fields of the economy. The equitization (Vietnamese language: *Cổ phần hóa*), a Vietnamese English term that denotes the conversion of a state-owned enterprise in Vietnam into a public limited company, joint-stock company or a corporation, has been conducted gradually and consistently in Vietnam. Competitive markets were established in many aspects of the economy. Enterprises were forced to compete with each other in the markets. Accounting information for controlling operations and making decisions became increasingly important in Vietnamese firms. Therefore, it is reasonable to consider that the Doi Moi contributed to the emergence and development of management accounting practices in Vietnam.

Vietnamese accounting on legislation perspective, which may be considered as financial accounting, has been critically reformed since the Doi Moi (Adams and Do 2005; Renault and Nguyen 2007; Doan et al. 2011). Laws and regulations on accounting are promulgated in conformity with international

accounting standards. The Accounting Law¹ issued in 2003, officially recognizes management accounting as a part of the accounting system. The Ministry of Finance released the Circular No.53 on the 12 June 2006 to provide the basic guidance on organizing management accounting system in an enterprise. Moreover, management accounting to date has become one of the subjects included in the exams for candidates who wish to get professional certificates, such as the Auditor Certificate² or the Accounting Practicing Certificate³ (Doan et al. 2011).

I also would like to comment on academic management accounting research in Vietnam. There were a few journal articles discussing modern management accounting practices in Vietnamese enterprises. It is difficult to find Ph.D. dissertations about adoption and benefits of modern management accounting practices in Vietnam. In addition, most of them have been written in the Vietnamese language therefore foreign researchers cannot fully understand Vietnamese management accounting practices.

With regards to teaching management accounting courses, some universities have begun to teach management accounting courses since the early 1990s till now (Doan et al. 2011). Though the curriculums of management

¹The Accounting Law was promulgated by Vietnamese National Assembly in 2003. It contains provisions on accounting work, organizing an accounting system, accountants and professional accounting practices.

² Auditor Certificate is a national-level certificate issued by Vietnamese Ministry of Finance. The certificate is compulsory for practicing as an auditor and providing auditing, accounting and other services in Vietnam. The criteria, conditions and examinations to get this certificate are regulated in the Decree No.105/2004/ND-CP promulgated in March 30th, 2004 by Vietnamese Government.

³ Accounting Practicing Certificate is a national-level certificate issued by Vietnamese Ministry of Finance. The criteria, conditions and examinations to get this certificate are regulated in the Decree No.105/2004/ND-CP promulgated in March 30th, 2004 by Vietnamese Government.

accounting courses have been changed continuously to meet the Vietnamese economy's requirements, they still focus on traditional management accounting practices such as CVP analysis, absorption costing, financial ratios analysis and so on.

In short, there is little research on the evolution of management accounting practices in Vietnamese enterprises till now.

2.5 The economic context of Vietnamese food and beverage enterprises

Vietnam has the aim to become an industrialized country by 2020. Manufacturing industry is considered as one of the most vital sectors in Vietnamese economy (Communist Party of Vietnam 2006). The Government so far has promulgated many policies to encourage the development of Vietnamese manufacturing sectors. During more than 20 years since the Doi Moi, new manufacturing companies with various kinds of ownerships have been established. Parallel to this, the Government has conducted the equitization of State-owned enterprises. Food and beverage enterprises have been excluded from the governmental list of state-owned enterprises.⁴ They have highly developed in a variety of ownerships until now.

According to the system of Vietnamese business issued in the Decision 10/2007/QD-TTg of the Prime Minister dated on 23 January 2007, food manufacturing business includes the enterprises which process, preserve or produce meat and meat products, seafood, fruit and vegetables, coffee, oil, lard, dairy products, flour, sugar, noodles, and other foodstuffs. Beverage business

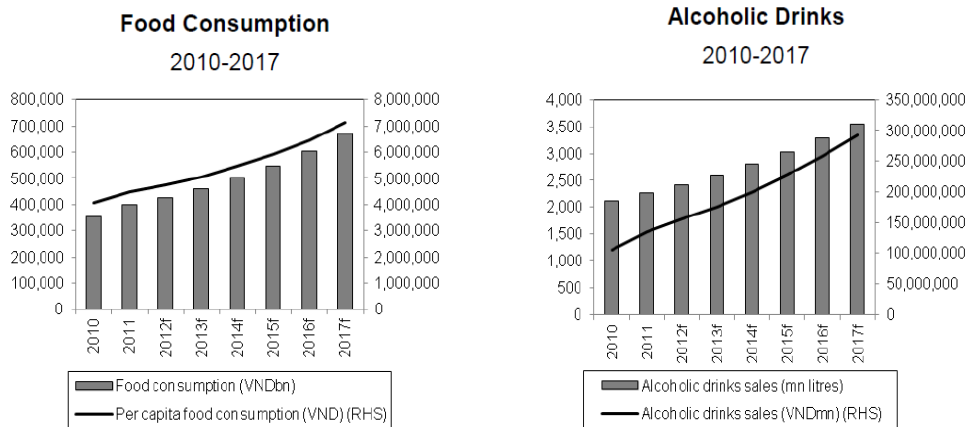
⁴ Decision 14/2011/QD-TTg was issued by the Vietnam Prime Minister on 4 March 2011. The Decision promulgates criteria for identifying sectors which the Government owns wholly or majorly in Vietnamese economy. It also provides a list of classification of state-owned enterprises. Food and beverage sector is not included in this list.

includes the enterprises which produce various types of strong liquor, beer, wine, non-alcoholic beverages, mineral water and so on.

In Vietnam, food and beverage enterprises are considered as the largest manufacturing sector based on the criteria of their net turnover and gross output in many years (shown in Appendix A). According to the up to date statistical data of General Statistics Office of Vietnam (2012), net turnover of food and beverage enterprises in 2010 was 526,654 billion VND (estimated to 27.8 billion USD at exchange rate of 18,932 VND/ USD on 31 December 2010) representing 21.6% of total manufacturing sector. Gross output of food and beverage enterprises in 2010 were 582,719.8 billion VND (estimated to 30.78 billion USD at exchange rate of 18,932 VND/ USD on 31 December 2010) or 22.7% of the whole gross output of manufacturing industry. These enterprises occupy 546,327 employees representing 12.2% of total Vietnamese manufacturing labor.

Moreover, international organizations highly evaluate the considerable room for the growth of food and beverage sector in Vietnam (New Zealand Trade and Enterprise 2011; Business Monitor International 2012). In a report issued in the 1st quarter of 2013, Business Monitor International (BMI) indicates that the food and beverage sector has a long-term potential of development due to the low existing per capita food and drink consumption levels in Vietnam (shown in Exhibit 2.6). Along with increases in income per capita (forecasted to reach US\$4,444 by 2020), the consumption levels of food and beverage products in Vietnam will increase over the coming years.

**Exhibit 2.6: The data of Food and Alcoholic Drinks Consumption in Vietnam
(Business Monitor International 2012)**



NB Excludes beverage consumption. f = BMI forecast.
Source: General Statistics Office of Vietnam, BMI

f = BMI forecast. Source: General Statistics Office, Company information, Trade press, BMI

BMI points out that Vietnam has a large population, of which more than a half is younger than 30 years old. It is a big strength for Vietnamese domestic market. However, Vietnamese food and beverage sector remains largely fragmented and it lacks of significant investment. BMI also indicates that threats for Vietnamese food and beverage area are not small. The WTO membership of Vietnam may make smaller local companies unable to cope with the increased competition from international companies. The trend of rising unemployment levels will affect the purchasing power of customers in food and beverage products in Vietnam.

In conclusion, food and beverage enterprises play an important role in the manufacturing industry of Vietnam. Their long-term potential growth has been expected. However, the enterprises have to cope with severe competition in not only domestic but also international markets in the future. Till now, little is known about management accounting practices in Vietnamese food and beverage enterprises. It is rather difficult to find systematic research on management accounting practices in this sector. Therefore, I focus on studying the evolution of management accounting practices in Vietnamese food and beverage enterprises.

2.6 Summary

There exist two popular models describing the evolution of management accounting practices, namely, IFAC model (1998) and Nishimura model (2003). Both of the models describe the evolution of management accounting practices as a four-stage framework. The IFAC model depicts general characteristics of each stage. Nishimura model explains more details about management accounting practices and concept of control which are widely used in each stage. Moreover, IFAC model focuses on explaining the evolution of management accounting in Western countries while Nishimura model focuses on the evolution of management accounting in Asian countries. Much research applied these two models to study the evolution of management accounting practices in both developed and developing countries. Parallel with this, researchers also attempt to identify what factors influence the evolution of management accounting practices in those countries.

Management accounting systems in Vietnam have just emerged and developed for approximately two decades since Vietnam carried out the Doi Moi to transfer from a centrally planned economy to a socialist-oriented market economy. At present, there are very few studies on the evolution of management accounting practices in Vietnam in both Vietnamese and English languages.

Manufacturing sector plays a vital role in the Vietnamese economy. Food and beverage enterprises are considered as the largest manufacturing sector in Vietnam based on the criteria of their net turnover and gross output for many years. However, little is known about the current state of management accounting practices in these enterprises. Therefore, I use Nishimura model to investigate the evolution of management accounting practices in Vietnamese food and beverage enterprises.

Chapter 3

THE EVOLUTION OF MANAGEMENT ACCOUNTING PRACTICES IN VIETNAMESE FOOD AND BEVERAGE ENTERPRISES⁵

This chapter describes the data collection process and characteristics of the sample. It reveals empirical evidence on the evolution of management accounting practices in Vietnamese food and beverage enterprises. Characteristics of costing, budgeting, and pricing systems of the enterprises are also presented in this chapter. Moreover, the chapter reports the comparisons between the Vietnamese food and beverage enterprises and enterprises in other countries on the adoption rates of management accounting practices. This chapter also indicates the needs of improving management accounting and product pricing systems in the Vietnamese food and beverage enterprises.

3.1 Data collection process

The success of any empirical research depends on the choice of suitable data collection method. There are two common methods to collect empirical evidence in the field of management accounting research, namely, case study and survey (Mondell 2005). Normally, the case study method is applied to a small number of organizations while the survey method is applied to a large number of organizations. The case study emphasizes qualitative analysis through participant-observation, in-depth interviews, and longitudinal studies. It can investigate the

⁵ This chapter is written based on Nguyen, T. P. D and Aoki, M. 2012. Management accounting practices in Vietnamese food and beverage enterprises. *Asia Pacific Management Accounting Association -2012 Annual Conference*. Xiamen, China, 14-17 November 2012.

characteristics of organizations comprehensively. But the findings through case study method may be specific to several organizations and may not be general to other organizations. In contrast, the survey method focuses on quantitative analysis through questionnaires, interviews, published statistical data and so on. By studying a representative sample of organizations, the survey method can find out common characteristics of the whole population.

Among survey methods, mail questionnaire survey is considered as one of the most appropriate methods of collecting data for making statistical generalizations. A mail questionnaire survey is implemented by sending a document of standardized questions to prearranged respondents and receiving completed questionnaires. Mail questionnaire surveys have both advantages and disadvantages. Regarding the advantages, a mail questionnaire survey is an inexpensive way of gathering information from a large number of organizations. It is preferable to other survey methods because it can remove interviewer bias, allows respondents to check records, and can be completed at the respondent's convenience. However, the mail questionnaire survey has given disadvantages that need to be reduced to ensure the reliability of it (Fowler 2009). First, because the questionnaire survey is self-managed by the researchers, respondents cannot ask the researchers directly about clarification when the questionnaire is not well-designed. Second, the accuracy of answers depends on the ability of each respondent. There probably exist a few skipped questions, incomplete answers in the questionnaire form and even illegible responses. Finally, a mail questionnaire survey usually cannot achieve high response rate, which means the collected sample may not represent the typical characteristics of the population. However, several procedures can be used to effectively reduce the disadvantages of mail questionnaire surveys (Van der Stede et al. 2005).

I have examined the advantages and disadvantages of questionnaire survey. I found that there were numerous prior researches in which mail questionnaire surveys were successfully applied to study management accounting practices in many countries (Chenhall and Langfield-Smith 1998; Joshi 2001; Nishimura 2003; O'Connor et al. 2004; Abdel-Kader and Luther 2006b; Al-Omiri and Drury 2007; Smith et al 2008). Therefore, I adopt the questionnaire survey to collect data in this paper. However, before employing a survey, I conducted preliminary interviews and a pilot survey with some companies in Hanoi, one of the two biggest manufacturing centers of Vietnam.

The enterprises were selected from the following sources: the Vietnamese General Statistics Office, the Catalog of enterprises listed in the Hanoi stock market, the Ho Chi Minh stock market and the List of the Vietnam top 500 largest enterprises⁶ ranked by revenue under the model of Fortune500 List published by the Vietnam Report Joint Stock Company. There are three criteria of choosing sampled enterprises in this research. First, the companies listed in the stock markets and have large revenues are in first priority of the selection. Second, non-state owned enterprises are preferred because some researchers find that the adoption rates of management accounting practices in these enterprises are higher than state-owned ones (Wu et al. 2007; Doan et al. 2011). Third, every answer has to be officially stamped by the company, namely, authorized by companies to assure the reliability of data. I select 145 companies from four cities based on these criteria. The cities are Hanoi and Ho Chi Minh City (the two biggest manufacturing centers in Vietnam), Haiphong (a northern major city), and Dongnai

⁶List of the Vietnam top 500 largest enterprises is available at this URL:
<http://vnr500.com.vn/bang-xep-hang?ref=vnr500-top-500-doanh-nghiep-lon-nhat-viet-nam>

(a southern major city). All these cities have well-developed manufacturing infrastructure.

The content of the survey includes two parts, namely, general information (Part I) and management accounting practices (Part II). Part I comprises questions about the general characteristics of the enterprises. It includes the manufacturing field, kind of business, years of establishment, total number of employees, total assets, sales revenues, and current accounting method. Part II consists of questions concerning enterprises' management accounting systems such as accounting units, information technology (IT) application in accounting works, costing system (cost structure, cost classification, product costing and so on), concept of control, budgeting system, pricing system, performance evaluation, decision making, and strategic analysis practices. I wrote both Vietnamese and English names of some modern management accounting practices in the questionnaire form to help the enterprises understand them. Some questions were built based on ideas of previous studies in other countries such as Malaysia (Smith et al. 2008), India (Joshi 2001), China (Wu et al. 2007), and Turkey (Uyar 2010). Regarding important information, I used several questions of various kinds, namely, closed-ended, open-ended, and Likert scale questions to ensure the accuracy of answers.

A pilot survey with three companies was implemented from April 2011 to June 2011 in Hanoi. Then, the initial questionnaires were revised according to the feedback of the pilot survey. Also, it is identified that explaining the purpose of survey plays an extremely important role on the survey quality in prior research (Van der Stede et al. 2005). Therefore, I prepared carefully an invitation letter explaining the purpose of my research and commitment of confidentiality. Finally, packs of a five-page questionnaire, invitation letter and a return-addressed already stamped envelope were sent to the selected enterprises in December 2011.

As Vietnamese enterprises are very busy at the end of year, I gave the enterprises two months for returning the questionnaires. Reminders by mail or fax were sent one month later to the first mailing of non-response enterprises. By the end of February 2012, 59 of the 145 questionnaires were returned. However, 5 questionnaires were incomplete due to lacking of necessary information or stamps of enterprises. As a result, 54 questionnaires, which are authorized by enterprises, are available. This denotes the usable response rate of 37.2 %.

3.2 Results and discussions

3.2.1 Overview of the sample

Table 3.1 represents the type of respondents and size of the enterprises. Majority of respondents (72.2%) are from the accounting departments and 24.1% of enterprises are from the boards of directors. This information is regarded as a significant point to evaluate the quality of the responses.

Table 3.1: The category of respondents and size of enterprises

Respondents	Numbers	%	Size	Numbers	%
Accounting department	39	72.2	Small enterprises	28	51.8
<i>Head of department</i>	<i>19</i>		Medium enterprises	9	16.7
<i>Accountant</i>	<i>20</i>		Large enterprises	17	31.5
Board of director	13	24.1			
Others	2	3.7			
Total	54	100.0	Total	54	100.0

Note: A small enterprise has total asset equal to or less than 20 billion VND (approximately 1 million U.S. dollar). A medium enterprise has total asset in the range of 20 billion VND to 100 billion VND (the range of approximately 1 million US dollar to 5 million U.S. dollar). Total asset equal to 100 billion VND (approximately 5 million U.S. dollar) or over is a large enterprise. The calculations of exchanging from VND to U.S. dollar are referred to the exchange rate of 20,803 VND/USD on 31/ 12/2011.

According to the Decree 56/2009/ND-CP issued on the 30th June 2009 in supporting small and medium enterprises, total asset is the prioritized criterion to identify the size of enterprises. Therefore, I classify the size of the sampled enterprises based on their total assets. As shown in Table 3.1, 31.5 % enterprises are large enterprises and 16.7% are medium enterprises. Half of the enterprises (51.8%) are small enterprises.

Majority of the enterprises (94.6%) are non-state owned. Among them, 9 enterprises (17% of the sample) are listed in Hanoi stock market or Ho Chi Minh stock market (Vietnam). Approximately 62% of the enterprises have been established within 10 years. The oldest enterprise was established at 1975 and the newest one was found at 2009.

Table 3.2: The kinds of management accounting unit

Kinds of management accounting unit	Numbers	%
A management accounting unit separated from financial accounting unit	6	11.1
An accounting unit combined both financial accounting and management accounting	23	42.6
There is only a financial accounting unit	22	40.7
Others	2	3.7
No answer	1	1.9
Total	54	100.0

The survey asked the enterprises whether they have accounting departments or not. Table 3.2 illustrates the result. Majority of the enterprises (94.4%) answer that they have accounting departments in their organizations and 11.1% of the enterprises have independent management accounting units, which are separated from financial accounting units.

The enterprises were requested to evaluate the role of management accounting in their organizations. Table 3.3 shows the result. A significant number of the enterprises (63%) suppose that management accounting practices are necessary for the success of enterprises. This ratio is much higher than the ratio of enterprises which already have management accounting units (11.1%). It implies that many enterprises, which do not have independent management accounting units, regard management accounting as one of the key points to succeed.

Table 3.3: The role of management accounting in enterprises

Evaluation	Numbers	Percentage (%)
Necessary	34	63.0
Not necessary	16	30.0
Ineffective	0	0.0
Others	2	3.7
No answer	2	3.7
Total	54	100.0

In addition, one important characteristic of the enterprises in this sample is the application of information technology (IT) to accounting works. Table 3.4 shows that 92.4% of the enterprises applied IT to their accounting works. Specifically, 13 enterprises (24.5%) use software such as ERP (Enterprise Resource Planning), SAP, ACCSOFT and so on; 36 enterprises (67.9%) used accounting software or MS Excel combined with manual paper ledgers. Only 4 enterprises (7.6%) used exclusively manual paper ledgers. Regarding this characteristic, many researchers have shown that application of IT is a vital condition to develop management accounting system, or in other words, management accounting is no longer feasible without IT (Granlund 2007;

Spraakman 2010; Maria do Céu 2010). Therefore, I conclude that high proportion of IT application is an important characteristic of the enterprises in this sample.

Table 3.4: The rates of IT application in accounting works

IT application in accounting words	Numbers	%
Using only manual paper ledgers	4	7.6
Combining paper ledgers and excel or accounting software	36	67.9
Using only accounting software	13	24.5
Total	53	100.0

3.2.2 Costing system

Table 3.5 denotes the cost structure of the enterprises. Direct material cost is the largest cost item with an average proportion of 69%. This finding is consistent with previous research in other developing countries (Joshi 2001). The second largest cost item (38%) is direct labor cost. Manufacturing overhead cost, administration cost, and selling cost have almost the same proportions in the cost structures of the enterprises. The smallest cost items are customer service cost and R&D cost (below 15%). Table 3.5 also presents the standard deviation of the costs. For each cost, standard deviation measures how much variation exists from the mean. As shown in Table 3.5, majority of the costs have standard deviations over 20%. It indicates that the ratios of these costs are relatively different among the enterprises. However, R&D cost and customer service cost have low standard deviations. This means that the ratios of these costs are not different among the enterprises.

Table 3.5: Cost structure of the enterprises

Costs	< 20%	20% - 40%	40% - 60%	60% - 80%	80% - 100%	N	Mean	STD	Rank
Direct material cost	0	7	10	17	20	54	69%	21%	1
Direct labor cost	18	13	10	8	4	53	38%	26%	2
Direct manufacturing overhead cost	25	9	6	11	1	52	32%	25%	3
Administration cost	29	8	8	6	1	52	28%	23%	4
Indirect manufacturing overhead cost	28	8	7	5	1	49	27%	23%	5
Selling cost, marketing, distribution	28	11	6	5	1	51	26%	22%	6
Research and design cost	37	10	1	0	0	48	15%	10%	7
Customer service cost	41	6	0	0	0	47	13%	7%	8

N: Numbers of enterprises STD: Standard deviation

Cost classification based on cost behavior is a preliminary step to control costs in enterprises (Horngren et al. 2011). Therefore, I also investigate cost classification in this survey. It is found that 41% of the enterprises have already classified costs into variable costs, fixed costs, and mixed costs. In contrast, nearly half of the enterprises (48%) do not adopt this cost classification. The rest of the enterprises (11%) give no answer or use other methods. Regarding another kind of cost classification, majority of the enterprises (76%) classify their production costs into direct and indirect costs. This means they understand the importance of assigning costs to cost objects because the information about cost objects is essential to product costing, product pricing, and profitability analysis and so on.

On the topic of allocating manufacturing overhead cost, more than half of the companies (59.3%) use direct material cost as the only cost allocation base for allocating manufacturing overhead cost. Because direct material cost is considered as the major cost item in the food and beverage industry, it is reasonable to suppose that the occurrence of manufacturing overhead relates to direct material cost. This survey also finds that 24.1% of the enterprises use multiple allocation bases for allocating manufacturing overhead costs. This evidence proves that these companies are aware of the existence of some cost drivers other than the direct material cost and it is necessary to use these cost drivers to calculate accurate product cost.

The survey denotes that 92.6% of the enterprises apply only one method to calculate product cost while 7.4% of the enterprises apply more than two methods. Absorption costing is the most popular practice to calculate product cost with the adoption rate of 83.3% of the enterprises. The other practices such as standard costing or process costing are adopted at low percentages (7.4% and 3.7% respectively). This finding is in contrast with British food and drinks industry, where direct costing is pervasive and plays an important role in product costing (Abdel-Kader and Luther 2006b). However, this finding is consistent with the findings of Doan et al. (2011). They reported that absorption costing is the most widely adopted costing practice among the Vietnamese enterprises. I also agree with the explanation of Doan et al. (2011) in which a method similar to absorption costing was compulsorily used in the former centrally planned economy in Vietnam. Though absorption costing currently has become mandatory solely for tax authorities and external reporting purposes, it is still widely used for internal management purposes by Vietnamese enterprises. However, many researchers have criticized that absorption costing can not accurately measure costs for decision making purposes especially short-term decisions. That is the reason why

modern costing practices, i.e., ABC and target costing have been developed and promoted in many developed and developing countries (Abdel-Kader and Luther 2006b; Horngren et al. 2011).

3.2.3 Application of costs information

My survey asked the enterprises about the relative importance of the purposes in utilizing cost information. A Likert scale question was used with the scale ranging from 1 (Less important) to 5 (Very important). Table 3.6 shows the results. It is found that “to control the costs” is the most important purpose of utilizing costs information. “Product pricing” is the second important purpose. Less important purposes respectively are “to evaluate performance,” “to make short-term decisions” and “to make long-term decisions”. Surprisingly, budgeting is considered as the least important purpose. The Cronbach Alpha for this question is very high (0.8528). If Cronbach Alpha is in a range of 0.8 to 1, the measurement scale is considered as very reliable (Hoang and Chu 2008). Therefore, I suppose that these findings are highly reliable.

Table 3.6: The importance of purposes in utilizing cost information

Purposes	Mean	Std. Dev.
To control the costs	4.07	1.20
Product pricing	3.78	1.24
To evaluate performance	3.59	1.22
To make operation decisions	3.54	1.34
To make short-run manufacturing or investment decisions	3.46	1.30
To make long-run manufacturing or investment decisions	3.31	1.30
Budgeting	3.22	1.33
Others	1.96	1.20
Cronbach Alpha = 0.8528 Standardized item alpha = 0.8521		

3.2.4 Budgeting system

Budgeting has been considered as the most popular management accounting practice in both developed and developing countries (Chenhall and Langfield-Smith 1998; Joshi 2001; Abdel-Kader and Luther 2006b; Wu et al. 2007; Doan et al. 2011). My survey finds that 100% of the enterprises adopt a simple traditional budgeting method. As shown in Table 3.7, this budgeting practice is applied only to some items.

Table 3.7: The kinds of budgets used in enterprises

Budgets	Numbers of enterprises	%
Sales budget	39	72.2
Cost of goods sold budget	32	59.2
Administration cost budget	26	48.1
Production budget	25	46.3
Direct material cost budget	25	46.3
Direct manufacturing labor cost budget	19	35.2
Selling cost budget	17	31.5
Cash budget	17	31.5
Manufacturing overhead cost budget	16	29.6
R&D and design costs budget	4	7.4

The adoption rate of sales budget is the highest (72.2% of the enterprises). Following, cost of goods sold budget, administration cost budget, production budget, and direct material cost budget are used largely with the rates of approximately 50% of the enterprises. The lowest adoption rate budget (7.4% of the enterprises) is R&D and design costs budget. As shown in Table 3.5, R&D and design costs account for a small portion of the cost structure in the enterprises. Therefore, it is reasonable that the enterprises do not pay attention to these budgets.

In addition, despite using budgeting system, only 22.2% of the enterprises answer that their budgets completely satisfy their management requirements. A high rate of the enterprises (72.2%) answers that they partly, not completely, satisfy with their current budgets. Even 5.6% of the enterprises do not satisfy with their current budgets.

The survey also asks the enterprises whether or not they use budgeted costs or cost norms. The result is that 53.7% of the enterprises use budgeted costs or norms as a method of controlling their costs frequently and 20.4% of the companies use budgeted costs or norms but not frequently. Meanwhile, 20.4 % of the enterprises do not use any kinds of budgeted costs or cost norms and the rest of enterprises (5.5%) use other methods or do not answer this question.

For the enterprises that use the budgeted costs, this survey asks them about the efficiency of their budgeted costs. Less than half of the enterprises (47 %) regard their budgeted costs as effective. More than half of the enterprises (53%) consider that their budgeted costs are less effective than they expected.

The survey also asks the enterprises whether or not they use variances analysis between actual costs and the budgeted costs. It is found that 53% of the enterprises conduct variances analysis between actual costs and budgeted costs as well as analyze the causes of them. 23% of the enterprises sometimes, not regularly, conduct the variances analysis because they do not believe much on the results of analyses. A rather high proportion of the enterprises (24%) even does not conduct variance analysis.

According to feedback control concept in Nishimura model, companies compare actual performances with the planned or budgeted values after actions have been completed to find out variances. Through variances analysis, they decide how to modify performances of the next periods' plan. Based on these characteristics of feedback control, I evaluate the control concept approach of the

enterprises. All of them use simple budgeting method. Majority of them use budgeted costs and analyze variances between the actual performances and budgeted costs after the actual performances finished. Hence, these are important signals to indicate that feed back control approach is widely used in the enterprises.

3.2.5 Product pricing system

Table 3.8 presents the product pricing processes of the enterprises. Based on the “important” column, it can be seen that 74.1% of the enterprises consider that cost base combined with expected profit is the most important factor in pricing products. Other significant factors can be listed respectively as selling price of competitors, life cycle of the product, and the kind of product. Surprisingly, only 37.3% of the enterprises consider the price at which customers are willing to pay for the product as an important factor.

Table 3.8: The factors of product pricing processes in the enterprises

Factors	NI	MI	I	N
Cost base + expected profit	5.6%	20.3%	74.1%	54
The selling price of competitors	3.7%	33.3%	63.0%	54
Life cycle of the product	24.5%	24.5%	51%	53
Kind of the product (Ex: a special product which is difficult to produce.)	13.0%	35.2%	51.8%	54
The price at which customers are willing to buy the product	17.6%	45.1%	37.3%	51

Note: N: Numbers of enterprises, NI: Not important, MI: Moderate important, I: Important

Table 3.9 describes more findings about the product pricing approaches of the enterprises. Majority of the enterprises (74.1%) say that after identifying production costs which have been already incurred, they calculate expected profit and combine with production costs to decide the selling price of products. 9.3% of

the enterprises report that they propose production costs and profit margin in R&D and design phases before calculating the selling price of products. These pricing approaches are commonly known as the traditional pricing approach “cost-plus pricing.” In contrast, 13% of the enterprises choose the other pricing approach. First, they determine the selling price and expected profit. Second, they compute a target cost. Finally, they design and manufacture products to achieve the target costs. This way of pricing approach is widely known as “target pricing.” Therefore, this survey result implies that cost-plus pricing is widely used and the adoption rate of target pricing is very low in Vietnamese companies.

Table 3.9: Product pricing approaches in the enterprises

Approaches	Numbers of enterprises	%
Production costs incurred + expected profit → selling price	40	74.1
In R&D and design phases, proposing production costs and profit margin → selling price	5	9.3
Identify the selling price and expected profit → Design and manufacture the product to achieve the targets	7	13.0
Other	1	1.8
No answer	1	1.8
Total	54	100.0

It is necessary to mention that cost plus pricing is a price-setting method under which enterprises accumulate direct material cost, direct labor cost, and overhead costs for a product. Afterwards, they add to it a markup percentage (profit) in order to determine the price of the product. The advantage of cost-plus pricing is that it is simple, easy to calculate and make considerable stability for the price. However, using cost-plus pricing has given limitations. In a competitive environment, it is difficult or even impossible for enterprises to react to market

prices or competitors' prices if they use cost plus pricing. Enterprises have to go back and forth among many factors such as cost plus prices, customer reactions, and even design adjustments to cope with the competition (Horngren et al. 2011).

3.2.6 The evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises

In order to identify the evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises, I first summarize the adoption rates of certain management accounting practices adopted by the enterprises. Then I examine these practices on Nishimura model. Concretely, I also classified the practices based on their functions and their types. Table 3.10 presents the results. As shown in Table 3.10, the majority of the small and medium enterprises (SMEs) adopt the management accounting practices of the stage 1 and the stage 2. There are several medium companies adopt the management accounting practices of the stage 3. Many large enterprises have already adopted the practices of stage 3 and stage 4 such as target costing, ERP, product life cycle analysis and ABC.

I attempt to classify the enterprises into their evolutionary stages based on the criteria of management accounting practices widely adopted in enterprises. The results are shown in Table 3.11. The whole of SMEs adopt practices of the stage 1 and stage 2. There are 3 small, 1 medium and 9 large enterprises adopting management accounting practices of the stage 3. There are 6 large enterprises adopting management accounting practices of the stage 4. Therefore, with regards to Research Question 1, I conclude that majority of SMEs are in the initial stages in Nishimura model while some large enterprises have already reached the highest stage in Nishimura model. There is a clear difference on the evolutionary stages of management accounting practices between large enterprises and the SMEs.

Table 3.10: The adoption rates of management accounting practices in the Vietnamese food and beverage enterprises

Practices	Numbers of enterprises				Adoption rate	Stage	Function	Type
	Small	Medium	Large	Total				
1. Traditional budgeting	28	9	17	54	100.0%	1,2	B&P	T
2. Absorption costing	25	6	14	45	83.3%	2	C	T
3. Classifying costs based on cost behavior	7	2	13	22	40.7%	2	D	T
4. CVP analysis	4	3	13	20	37.0%	2	D	T
5. Product profitability analysis	3	0	8	11	20.4%	3,4	D	T
6. Financial ratios analysis	0	1	9	10	18.5%	1	P	T
7. ABC and ABM	0	0	6	6	11.1%	3	C&D	M
8. Target costing and Target pricing	0	1	3	4	7.4%	3,4	C&D	M
9. Standard costing	2	0	2	4	7.4%	2	C&P	T
10. Benchmarking	0	0	4	4	7.4%	4	D	M
11. Product life cycle analysis	0	0	3	3	5.6%	4	S	M
12. Customer profitability analysis	0	0	2	2	3.7%	4	D	M
13. Process costing	0	1	1	2	3.7%	2	C	T
14. Enterprise resource planning (ERP)	0	0	1	1	1.9%	3	-	M
15. Kaizen costing	0	0	0	0	0.0%	4	C	M
16. Just in time	0	0	0	0	0.0%	4	D	M
17. Value chain analysis	0	0	0	0	0.0%	4	S	M
18. Total quality management	0	0	0	0	0.0%	4	D	M
19. Balanced scorecard	0	0	0	0	0.0%	4	S&P	M

Note: B - Budgeting; C - Costing; D - Decision support; P - Performance valuation; S - Strategic analysis.

T- Traditional management accounting practice; M- Modern management accounting practice.

Table 3.11: The evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises

Evolutionary Stages	Size of enterprises			Total
	Small	Medium	Large	
Stage 1 and Stage 2	28	9	17	54
Stage 3	3	1	9	13
Stage 4			6	6

As shown in Table 3.10 and in the previous section (3.2.4) of this paper, simple traditional budgeting is the most popular management accounting practice in the enterprises with the adoption rate of 100%. This result is not surprising because budgeting is reported as the most widely adopted practice in many developed and developing countries (Chenhall and Langfield-Smith 1998; Joshi 2001; Abdel-Kader and Luther 2006b; Wu et al. 2007; Doan et al. 2011).

On the topic of costing practices, majority of the enterprises (83.3%) adopt absorption costing to calculate product cost. The other practices, i.e., ABC, standard costing, target costing and process costing are also adopted but at very low rates (respectively 11.1%, 7.4%, 7.4%, and 3.7%). These practices are mostly adopted by large enterprises. No enterprise even the large ones adopt kaizen costing.

Regarding decision support practices, CVP analysis has the highest adoption rate (37%). Following is the product profitability analysis with the adoption rate of 20.4%. Especially, I find that CVP analysis and product profitability analysis are adopted by not only large enterprises but also some SMEs. ABC and ABM with the adoption rate 11.1% come after profitability analysis. The other modern management accounting practices such as benchmarking and customer profitability analysis are adopted at very low rates by only a few large enterprises.

Concerning performance evaluation and strategic analysis practices, financial ratios analysis has the highest adoption rate of 18.5%. Standard costing has the second highest adoption rate of 7.4%. Below is product life cycle analysis with the rate of 5.6%. No enterprise even the large ones adopts modern practices such as value chain analysis, Balanced Scorecard and so on.

Therefore, regarding the Research Question 2, I conclude that traditional management accounting practices are more widely adopted than modern management accounting practices in the Vietnamese food and beverage enterprises.

3.2.7 Comparisons on the adoption rates of management accounting practices between the Vietnamese food and beverage enterprises and enterprises in other countries

In this section, I would like to compare the adoption rates of management accounting practices between the Vietnamese food and beverage enterprises and enterprises in other countries. Table 3.12 presents the comparison results.

Regarding the sources of data in Table 3.12, the Australian data is cited from Chenhall and Langfield-Smith (1998). It is an investigation with results of 78 Australian largest manufacturing enterprises in various industries including food and beverage enterprises. The data of Japanese manufacturing firms is taken from Wijewardena and De Zoysa (1999). They collected data from 209 Japanese large manufacturing enterprises in various industries, namely, food and beverage, fabricated metal products, textile, chemical products, machinery and computers, electronic and electric equipment, transportation equipment, furniture and fixtures, miscellaneous. The data of Malaysia, Singapore, and Thailand enterprises are gathered from Nishimura (2003). He collected those data in 2002. Finally, the data of Indian companies is cited from Joshi (2001). He investigated 60 medium and large manufacturing companies located in four metropolitan cities of India. All the

above studies used mail questionnaire surveys to collect the data. I would like to note that there exist several differences among the studies in the contents of surveys, types of enterprises, numbers of enterprises, numbers of management accounting practices surveyed and so on. However, I suppose that the differences do not affect the general comparisons between the above studies. These comparisons are necessary to understand the current evolutionary stages of management accounting practices in Vietnamese food and beverage enterprises in the light of international view.

As shown in Table 3.12, budgeting is the most widely adopted practice in the countries. However, detailed contents of budgeting practices among the studies shown in Table 3.12 are slightly different. In the case of Australian firms, the budgeting practice is budgeting for planning financial position. The budgeting practice used by Indian companies is budgeting to plan day-to-day operations. The budgeting practice used by Japanese companies is operating budgets. The budgeting practice used by the Vietnamese food and beverage enterprises is the simple traditional budgeting such as sales budget, costs budget (further details presented in Part 3.2.4 of this chapter).

Regarding costing practices, the Vietnamese food and beverage companies have the highest adoption rate of absorption costing. However, in terms of all other modern costing practices, i.e., ABC and target costing, they have the lowest adoption rates compared to other countries. For instance, the adoption rate of target costing in the Vietnamese enterprises is 7.4% (2011) but those in Australia, Japan, India, Malaysia, Singapore, and Thailand are respectively 38% (1998), 80% (1988), 35% (2001), 33,3% (2002), 44% (2002), and 35,1% (2002). There is no adoption of kaizen costing in the Vietnamese food and beverage enterprises. Also, the adoption of traditional costing practices such as standard costing and process costing are extremely low in the Vietnamese enterprises.

Table 3.12: Comparisons on the adoption rates of management accounting practices between Vietnamese food and beverage enterprises and enterprises in other countries

Practices	Vietnamese food & beverage enterprises 2011 (n=54)	Australian enterprises 1998 (n=78)	Japanese enterprises 1999 (n=209)	Indian enterprises 2001 (n=60)	Malaysian enterprises 2002 (n=387)	Singapore enterprises 2002 (n=50)	Thai enterprises 2002 (n=80)
Budgeting	100.0%	100%	99%	100%	91.9%	90%	93.8%
Absorption costing	83.3%	80%	27%	50%	-	-	-
CVP analysis	37.0%	88%	-	65%	50.8%	64%	53.8%
Product profitability analysis	20.4%	89%	-	82%	-	-	-
Financial ratios analysis	18.5%	-	-	-	57.7%	66%	78.8%
ABC and ABM	11.1%	56%	2%	20%	32.6%	44%	22.6%
Target costing and Target pricing	7.4%	38%	80% (*)	35%	33.3%	44%	35.1%
Standard costing	7.4%	-	31%	68%	-	-	-
Benchmarking with outside organizations	7.4%	77%	-	32%	-	-	-
Product life cycle analysis	5.6%	70%	13%	45%	-	-	-
Customer profitability analysis	3.7%	88%	-	80%	-	-	-
Process costing	3.7%	-	46%	-	-	-	-
Enterprise resource planning (ERP)	1.9%	-	-	-	-	-	-
Kaizen costing	0.0%	-	-	-	47.3%	6%	47.5%
Just in time	0.0%	-	-	-	41.5%	16%	42.5%
Value chain analysis	0.0%	49%	-	25%	-	-	-
BSC	0.0%	88%	-	40%	15.5%	16%	31.3%

Note: n = Numbers of enterprises

"- ": No available data.

(*): Wijewardena and De Zoysa (1999) cited this data from Sakurai, M. 1988. "Effectiveness of Genka Kikaku under High Technology Environment", *Kigyo Kakei* (□□□□), 40(5):17-23.

Concerning other both traditional and modern management accounting practices, the adoption rates of them in the Vietnamese food and beverage enterprises are very modest compared to the other countries. For instance, the adoption rate of CVP analysis in the Vietnamese enterprises is only 37.0% while the adoption rate of it in other countries respectively are 88% (Australia), 65% (India), 50.8% (Malaysia), 64% (Singapore), and 53.8% (Thailand). For modern practices such as benchmarking, product life cycle analysis, and customer profitability analysis, the Vietnamese enterprises have the lowest adoption rates. There is even no adoption of BSC in the Vietnamese food and beverage enterprises.

In conclusion, the data of Vietnamese food and beverage enterprises is at least 9 years later than those of other countries. However, the adoption rates of both traditional and modern management accounting practices in the Vietnamese enterprises are very low or even lowest in comparison with other countries.

3.3 The needs of improving management accounting and product pricing systems

The survey asks the enterprises about the necessity to improve their management accounting and product pricing systems. All the enterprises answer these questions. Table 3.13 shows the results. Nearly half of 54 enterprises (44.44%) consider that they want to improve their management accounting systems. In detail, majority of large enterprises (64.7%) express their needs to improve management accounting systems while only a small portion of SMEs (small enterprises: 35.71%, medium enterprises: 33.33%) recognizes the importance of improving their systems. Regarding the product pricing systems, 33.33% of the enterprises consider that they need to improve them. While 41.2% of large enterprises consider that they need to improve product pricing systems, the majority of SMEs suppose that they

do not need to improve their product pricing systems. These findings are not surprised because they are completely consistent with previous findings in Part 3.2.6 of Chapter 3. As the evolutionary stages of management accounting practices are different between the large enterprises and the SMEs, the necessity of enhancing management accounting and product pricing systems for large enterprises and SMEs are also different.

Table 3.13: The needs of improving management accounting and product pricing systems

The needs	Answers	Small enterprises		Medium enterprises		Large enterprises		Total	%
		Count	%	Count	%	Count	%		
To improve management accounting system	Yes	10	35.71%	3	33.33%	11	64.7%	24	44.44%
	No	18	64.29%	6	66.67%	6	35.3%	30	55.56%
Total		28	100%	9	100%	17	100%	54	100%
To improve product pricing system	Yes	8	28.57%	3	33.33%	7	41.2%	18	33.33%
	No	20	71.43%	6	66.67%	10	58.8%	36	66.67%
Total		28	100%	9	100%	17	100%	54	100%

The survey also gave the enterprises an open-ended question to express what benefits they want to obtain from their management accounting systems in the future. In total, 32 enterprises answered this question. There are several common answers as follows:

- To reduce unnecessary costs and save costs.
- To have a more effective management accounting system because the current system does not meet the requirements.
- To enhance competitiveness.
- To make correct and timely decisions.

- To identify the accurate product costs and gain more profit.
- To reduce the selling prices.

The enterprises are mainly interested in management accounting practices which have functions of controlling costs, costing, pricing product, and making decisions. Some enterprises consider enhancing management accounting systems to meet their requirements.

In summary, there is a big difference between the large and SMEs in the needs of improving management accounting system. Most of the large enterprises would like to enhance their management accounting and product pricing systems.

3.4 Summary

This chapter reviews methods which are widely used to collect empirical data, namely, case study and survey. After considering advantages and disadvantages of survey method and the objectives of my study, I chose mail questionnaire survey to collect empirical data from Vietnamese food and beverage enterprises. The response rate of the survey is 37.2 %. Half of responses (51.8%) are small enterprises. 31.5 % responses are large enterprises and 16.7% are medium enterprises. Majority of the enterprises (94.6%) are non-state owned. Most of them have accounting departments and apply IT in their accounting works.

With regards to the Research Question 1, I find that majority of the SMEs are in the initial stages of the evolution of management accounting practices. However, several large enterprises have already reached the highest stage of the evolution of management accounting practices. There is a clear difference on the evolutionary stages of management accounting practices between the large enterprises and the SMEs.

Regarding the Research Question 2, I find that traditional management accounting practices are more widely adopted than modern practices in the

enterprises even the large enterprises. Majority of the enterprises (83.3%) adopt absorption costing to calculate product cost. The other modern costing practices, i.e., ABC or target costing are used by some large enterprises at very low rates. Especially, there is no enterprise even the large ones which adopts kaizen costing. Regarding traditional decision support practices, CVP analysis and product profitability analysis are adopted at very modest rates. Meanwhile, modern decision support practices such as ABC and ABM, benchmarking, or customer profitability analysis are adopted by a few large enterprises. Regarding performance evaluation and strategic analysis practices, financial ratios analysis has the highest adoption rate of 18.5%. No enterprise even large ones adopts modern strategic analysis practices such as value chain analysis, Balanced Scorecard and so on.

Concerning the Research Question 3, I find the main characteristics of costing, budgeting, and product pricing systems in the Vietnamese food and beverage enterprises. I summarize significant findings as follows. On the topic of costing system, direct material cost is the largest cost item. Following are direct labor cost, manufacturing overhead cost, administration cost, and selling cost. The smallest cost items are customer service cost and R&D cost. Regarding cost classification methods, 41% of the enterprises classify costs into variable costs, fixed costs and mixed costs. In contrast, nearly half of enterprises (48%) do not adopt this cost classification. Especially, absorption costing is used by most of the enterprises (83.3%). The other costing methods are also used but at very low rates. More than a half of the enterprises (59.3%) use direct material cost as the only cost allocation base for manufacturing overhead cost while only 24.1% of them use multiple allocation bases for allocating manufacturing overhead costs. On the topic of budgeting system, simple traditional budgeting is adopted by 100% of the enterprises. This budgeting practice is applied only for some items such as sales

budget, cost budget and so on. On the topic of product pricing system, traditional pricing approach “cost-plus pricing” is widely adopted in the enterprises. The modern pricing approach “target costing” is adopted at very low rate.

This chapter also provides an international view for the evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises by comparing them with those of other countries. I use data from both developed countries (Australia, Japan) and developing countries (India, Malaysia, and Thailand). I compare the adoption rates of management accounting practices between the Vietnamese enterprises and enterprises in these countries. It is found that the adoption rates of both traditional and modern management accounting practices in the Vietnamese food and beverage enterprises are much lower than the other countries.

Moreover, the needs of improving management accounting and product pricing systems exist in the Vietnamese food and beverage enterprises at present. Majority of the large enterprises would like to enhance their management accounting and product pricing systems, however, few SMEs consider these needs. There is a big difference between the large enterprises and the SMEs in the needs of enhancing management accounting and product pricing systems.

Chapter 4

FACTORS INFLUENCING THE EVOLUTION OF MANAGEMENT ACCOUNTING PRACTICES IN VIETNAMESE FOOD AND BEVERAGE ENTERPRISES

This chapter analyzes internal and external factors influencing the evolution of management accounting practices in Vietnamese food and beverage enterprises. To explore internal factors, I use statistical analyses to examine the data obtained from the questionnaire survey. To find external factors, I use secondary source data such as books, Vietnamese laws and regulations on accounting, previous related studies and so on.

4.1 Internal factors

4.1.1 Size of enterprises

As presented in Chapter 3, I classify the Vietnamese food and beverage enterprises into 3 groups based on the criteria of total assets. There are 17 large, 9 medium and 28 small enterprises in my sample. I found no difference in the evolutionary stages of management accounting practices between the small and medium enterprises. However, I found significant differences in the evolutionary stages of management accounting between the large enterprises and the SMEs. Therefore, I analyze whether or not size of enterprises is a significant factor influencing the evolution of management accounting practices in Vietnamese food and beverage enterprises. To do this, I use some statistical analyses. First, I test the following hypothesis:

H1. H_0 : There is no difference between the large enterprises and SMEs in the numbers of management accounting practices adopted.

H1. H_a : The numbers of management accounting practices adopted in large enterprises are greater than those in SMEs.

The two groups, large enterprises and SMEs, are independent from each other and they have unequal sizes. It is not sure whether the distributions of the two populations are normal or not. The variances of the two populations are unknown. In this case, we should use nonparametric statistical techniques to test hypotheses (Newbold 1995, McClave et al. 2011). However, we can use both nonparametric and parametric statistical techniques to ensure robustness. If both of them release the same results, the reliability of statistical results is high (Hoang and Chu 2008, 2011). Therefore, to test *H1*, I use both nonparametric and parametric techniques, which are Mann-Whitney U and t-test. Table 4.1 and Table 4.2 respectively present the results of Mann-Whitney U and t-test. Both results show that the differences between large enterprises and SMEs in the numbers of management accounting practices adopted are statistically significant (p -value =0.000). As shown in Table 4.1 and Table 4.2, the one-tailed p -value, $p=0.000$, is less than $\alpha=0.05$, leading us to reject the null hypothesis of *H1*. Large Vietnamese food and beverage enterprises tend to adopt more management accounting practices than SMEs.

Second, I would like to address one more question. For adopting specific management accounting practices, whether or not there are statistically significant differences between large enterprises and SMEs. I will test the following hypothesis:

H2. H_0 : There is no difference between the large enterprises and SMEs in the adoption of some specific management accounting practices.

H2. H_a : Large enterprises have more tendencies to adopt some specific management accounting practices than SMEs.

Table 4.1: Mann-Whitney U test for the numbers of management accounting practices adopted

Enterprises		N	Mean Rank	Sum of Ranks
SMEs		37	21.58	798.50
Large enterprises		17	40.38	686.50
Numbers of management accounting practices adopted				
Mann-Whitney U		95.500		
Wilcoxon W		798.500		
Z		-4.221		
p-value (1-tailed)		.000		

Table 4.2: T- test for the numbers of management accounting practices adopted

Enterprises	N	Mean	Standard Deviation	T-value	df	p-value (1-tailed)
SMEs	37	2.49	1.044	- 6.166	52	0.000
Large enterprises	17	5.65	2.737			

I employ both Mann-Whitney U nonparametric and t-test parametric statistical techniques to test H_2 . Table 4.3 presents the results of t-test. The results of Mann-Whitney U test is also the same to those of t-test (see Appendix B). Regarding traditional management accounting practices, namely, classifying cost based on cost behavior, CVP analysis, and financial ratio analysis, there are statistically significant differences between large enterprises and SMEs. Regarding modern management accounting practices, namely, ABC and ABM, product profitability, product life cycle analysis, customer profitability analysis, benchmarking and target costing, there are statistically significant differences between large enterprises and SMEs. Regarding other management accounting practices, there is no statistically significant difference between the two groups. As shown in Table 4.3, with regards to some specific practices, the one-tailed p -values are less than $\alpha=0.05$, leading us to reject H_2 . It can be concluded that large

enterprises have more tendencies to adopt some specific management accounting practices than SMEs.

Table 4.3: T-test for the adoption of specific management accounting practices in large and SMEs

Practices	Enterprises	N	Mean	Std. Deviation	T-value	df	p-value (1-tailed)
Classifying costs based on cost behavior	Large enterprises	17	0.765	0.437	4.085	52	0.000*
	SMEs	37	0.243	0.435			
Absorption costing	Large enterprises	17	0.824	0.393	-0.129	52	0.450
	SMEs	37	0.838	0.374			
Process costing	Large enterprises	17	0.059	0.243	0.566	52	0.314
	SMEs	37	0.027	0.164			
CVP analysis	Large enterprises	17	0.765	0.437	4.793	52	0.000*
	SMEs	37	0.189	0.397			
Financial ratio analysis	Large enterprises	17	0.529	0.514	5.418	52	0.000*
	SMEs	37	0.027	0.164			
ABC and ABM	Large enterprises	17	0.353	0.493	4.408	52	0.000*
	SMEs	37	0.000	0.000			
Target costing	Large enterprises	17	0.176	0.393	1.982	52	0.026*
	SMEs	37	0.027	0.164			
Standard costing	Large enterprises	17	0.118	0.332	0.818	52	0.241
	SMEs	37	0.054	0.229			
Product life cycle analysis	Large enterprises	17	0.176	0.393	2.763	52	0.004*
	SMEs	37	0.000	0.000			
Product profitability analysis	Large enterprises	17	0.471	0.514	3.625	52	0.000*
	SMEs	37	0.081	0.277			
Customer profitability analysis	Large enterprises	17	0.118	0.332	2.180	52	0.017*
	SMEs	37	0.000	0.000			
Benchmarking	Large enterprises	17	0.235	0.437	3.311	52	0.001*
	SMEs	37	0.000	0.000			
ERP	Large enterprises	17	0.059	0.243	1.492	52	0.071
	SMEs	37	0.000	0.000			

* The mean difference is significant at the .05 level.

4.1.2 Age of enterprises

Based on the ages of enterprises, I classify the enterprises into two groups. They are old enterprises which were established more than or equal to 10 years ago and young enterprises which were established within 10 years. Hence, there are 21 old enterprises and 33 young enterprises in my sample.

Table 4.4: The adoption rates of management accounting practices and age of enterprises

Practices	Age of enterprises		Total
	Old (≥10 years)	Young (< 10 years)	
Budgeting	21	33	54
Absorption costing	15	30	45
Classifying costs based on cost behavior	13	9	22
CVP analysis	12	8	20
Product profitability analysis	7	4	11
Financial ratio analysis	8	2	10
ABC and ABM	5	1	6
Target costing	3	1	4
Standard costing	3	1	4
Benchmarking	3	1	4
Product life cycle analysis	2	1	3
Customer profitability analysis	1	1	2
Process costing	2	0	2
ERP	1	0	1
Kaizen costing	0	0	0
Just in Time	0	0	0
Balanced Scorecard	0	0	0
Value chain analysis	0	0	0
Total quality management	0	0	0

As shown in Table 4.4, there are clear differences between the two groups in the adoption rates of management accounting practices. The older enterprises adopt more management accounting practices than the younger ones. Therefore, I analyze the potential effect of enterprise age on the adoption of management accounting practices in Vietnamese food and beverage enterprises. I examine the following hypotheses:

H3. H₀: There is no difference between the old and young enterprises in the numbers of management accounting practices adopted.

H3.H_a: The numbers of management accounting practices adopted in old enterprises are greater than in young enterprises.

H4. H_0 : There is no difference between the old and young enterprises in the adoption of specific management accounting practices.

H4. H_a : Old enterprises have more tendencies to adopt some specific management accounting practices than young enterprises.

The two groups are independent from each other and have uneven size. The equal variances and distributions of the two populations are unknown. Therefore, I use both Mann-Whitney U nonparametric and t-test parametric statistical techniques to test *H3* and *H4*. Table 4.5 and Table 4.6 show respectively the results of Mann-Whitney U and t-test for *H3*. Both results show that the differences between the two groups in the numbers of management accounting practices adopted are statistically significant. The one-tailed *p*-values, respectively $p=0.0085$ and $p=0.002$, are less than $\alpha=0.05$. Therefore, I reject *H3*. H_0 . This finding is consistent with the findings of O'Connor et al. 2004. At first, O'Connor et al. (2004) hypothesized that the use of Western management accounting practices in Chinese state-owned enterprises decreases with their age. However, after conducting qualitative and quantitative researches, they found that older Chinese SOEs had higher adoption rates of Western management accounting practices than younger ones. As presented in Chapter 3, majority of the enterprises (94.6%) in my sample are non-state owned. However, I would like to compare my findings with the research of O'Connor et al (2004) for wider reference. The reason is that Vietnam and China share many common characteristics in economic developments due to applying centrally planned economy model in the past. In conclusion, the old Vietnamese food and beverage enterprises adopt more management accounting practices than the young enterprises.

Table 4.5: Mann-Whitney U test for age of enterprises and the numbers of management accounting practices adopted

Age of enterprises	N	Mean Rank	Sum of Ranks
Old (≥ 10 years)	21	33.67	707.00
Young (< 10 years)	33	23.58	778.00
Total	54		
Numbers of management accounting practices adopted			
Mann-Whitney U		217.000	
Wilcoxon W		778.000	
Z		-2.378	
p-value (1-tailed)		.0085	

Table 4.6: T-test for age of enterprises and numbers of management accounting practices adopted

Age of enterprises	N	Mean	Std. Deviation	T-value	df	p-value (1-tailed)
Old (≥ 10 years)	21	4.57	2.821	3.008	52	0.002
Young (< 10 years)	33	2.79	1.536			

Table 4.7 presents the t-test result for H_4 . The results of Mann-Whitney U test are shown in the Appendix B. Both the two tests release the same results. There exist statistically significant differences between old enterprises and young enterprises in adopting specific management accounting practices, namely, classifying cost based on cost behavior, CVP analysis, financial ratio analysis, ABC and ABM, and product profitability analysis. With regards to the other practices, there are no statistically significant differences between the two groups. Concerning some specific management accounting practices, the one-tailed p -values are less than $\alpha=0.05$, leading us to reject H_4 . Old enterprises have more tendencies to adopt some specific management accounting practices than young enterprises.

Table 4.7: T-test for the adoption of specific management accounting practices in old and young enterprises

Practices	Age of enterprises	N	Mean	Std. Deviation	T-value	df	p-value (1-tailed)
Classifying costs based on cost behavior	Old (≥ 10 years)	21	0.619	0.498	2.638	52	0.007*
	Young (<10 years)	33	0.273	0.452			
Absorption costing	Old (≥ 10 years)	21	0.714	0.463	-1.900	52	0.0475
	Young (<10 years)	33	0.909	0.292			
Process costing	Old (≥ 10 years)	21	0.095	0.301	1.829	52	0.081
	Young (<10 years)	33	0.000	0.000			
CVP analysis	Old (≥ 10 years)	21	0.571	0.507	2.539	52	0.0095*
	Young (<10 years)	33	0.242	0.435			
Financial ratio analysis	Old (≥ 10 years)	21	0.381	0.498	3.166	52	0.0055*
	Young (<10 years)	33	0.061	0.242			
ABC and ABM	Old (≥ 10 years)	21	0.238	0.436	2.455	52	0.024*
	Young (<10 years)	33	0.030	0.174			
Target costing	Old (≥ 10 years)	21	0.143	0.359	1.545	52	0.0955
	Young (<10 years)	33	0.030	0.174			
Standard costing	Old (≥ 10 years)	21	0.143	0.359	1.545	52	0.0955
	Young (<10 years)	33	0.030	0.174			
Product life cycle analysis	Old (≥ 10 years)	21	0.095	0.301	1.006	52	0.1885
	Young (<10 years)	33	0.030	0.174			
Product profitability analysis	Old (≥ 10 years)	21	0.333	0.483	1.916	52	0.0435*
	Young (<10 years)	33	0.121	0.331			
Customer profitability analysis	Old (≥ 10 years)	21	0.048	0.218	0.323	52	0.374
	Young (<10 years)	33	0.030	0.174			
Benchmarking	Old (≥ 10 years)	21	0.143	0.359	1.545	52	0.0955
	Young (<10 years)	33	0.030	0.174			
ERP	Old (≥ 10 years)	21	0.048	0.218	1.261	52	0.1645
	Young (<10 years)	33	0.000	0.000			

* The mean difference is significant at the .05 level.

4.1.3 The attributes of management accounting innovations

As presented in the Chapter 2, Smith et.al (2008) propose a framework which presents seven reasons of adopting and seven reasons of not adopting management accounting practices based on the DOI theory. They aim to find relationships

between attributes of management accounting innovations and the adoption or non-adoption of them. Their research sample includes Malaysian industrial companies which are listed in the Kuala Lumpur Stock Exchange and located in a well-developed manufacturing area named the Klang Valley. Malaysia is also a developing country located in the Southeast Asia like Vietnam. Therefore, I would like to use this research idea in the context of the Vietnamese food and beverage enterprises. In order to find factors influencing the adoption of management accounting practices, I asked the enterprises to indicate reasons why they adopt or do not adopt management accounting innovations in the survey.

Table 4.8: Reasons for the adoption of management accounting innovations

Reasons	Numbers	Percent	Rank	Rank of Malaysian companies
Achieving competitive advantage	17	58.6%	2	5
Saving time	9	31.0%	4	3
Saving cost	21	72.4%	1	2
Using easily	14	48.3%	3	1
Enhancing productivity	7	24.1%	5	4
Required by customers	3	10.3%	6	6
There is no other choice	2	6.9%	7	7
Others	0	0	0	0

As shown in Table 4.8, in the case of Vietnamese food and beverage enterprises, the top reasons of adopting management accounting innovations are, respectively, “Saving cost,” “Achieving competitive advantage against competitors,” “Using easily,” and “Saving time.” In other words, the enterprises prefer management accounting innovations which have attributes such as “Saving cost,” “Achieving competitive advantage against competitors,” “Using easily,” and

“Saving time.” In the case of the Malaysian companies, the top reasons of adopting management accounting innovations are, respectively, “Using easily,” “Saving cost,” “Saving time,” “Enhancing productivity,” and “Achieving competitive advantage against competitors.” Hence, there exist differences in the reasons of adopting management accounting innovations between the Vietnamese food and beverage enterprises and the Malaysian manufacturing companies.

Table 4.9: Reasons for the non-adoption of management accounting innovations

Reasons	Numbers	%	Rank	Rank of Malaysia companies
Expensive	3	16.7%	3	2
Not suitable	9	50.0%	1	1
Never heard of it	1	5.6%	5	6
Too complicated	1	5.6%	5	4
Time consuming	2	11.1%	4	3
No experiences	5	27.8%	2	5
Others	0	0.0%	0	7

With regard to the non-adoption reasons, Table 4.9 shows the responses of the Vietnamese food and beverage enterprises. The reason “Not suitable” is on first rank. The following reasons, respectively, are “No experiences,” “Expensive,” “Time consuming,” and “Never heard of it.” It is necessary to note that the response rate of this question is rather low. This probably affects the reliability of the Vietnamese data in Table 4.9. In case of Malaysian companies, “Not suitable” is also the first ranked reason. Following reasons are “Expensive,” “Time consuming,” and “Too complicated.” Hence, there also exist differences in the non-adoption reasons of management accounting innovations between the

Vietnamese food and beverage enterprises and the Malaysian manufacturing companies.

According to DOI theory (Rogers 2003), the diffusion of an innovation largely depends on the attributes of the innovation. Therefore, in an aim to identify possible factors affecting the adoption of management accounting practices in Vietnamese food and beverage enterprises, I test two hypotheses:

H5. H_0 : There are no associations between the adoption of management accounting innovations and attributes of the innovations in Vietnamese food and beverage enterprises.

H6. H_0 : There are no associations between the non-adoption of management accounting innovations and attributes of the innovations in Vietnamese food and beverage enterprises.

In depth, I examine whether or not there are relationships between attributes of management accounting innovations and the adoption or non-adoption of the practices in Vietnamese food and beverage enterprises. Chi-square test of independence is a widely applied statistical tool to test the relationships between two categorical variables (Field 2000; Levine et al. 2010). There are two normal assumptions in Chi-square test of independence. The first assumption is that two variables should be measured at an ordinal level. The second assumption is that two variables should consist of two or more categorical, independent groups (Hoang and Chu 2011). In my sample, the adoption of management accounting innovations and attributes of the innovations are ordinal variables which include two categories. Therefore, I use Chi-square test of independence for examining the hypotheses H5 and H6. The statistical results are presented in Table 4.10 and Table 4.11.

Table 4.10: Chi-square test for the adoption of management accounting innovations and the attributes of the innovations

Practices	Chi-square Test (χ^2)	Gaining competitive advantage	Save time	Save cost	Using easily	Enhancing productivity	Required by Customers	No other choice
CVP analysis	<i>p</i> -value (2-tailed)	0.000*	0.045*	0.000*	0.002*	0.004*	0.894	0.062
Financial ratio analysis	<i>p</i> -value (2-tailed)	0.003*	0.028*	0.434	0.056	0.004*	0.405	0.251
ABC and ABM	<i>p</i> -value (2-tailed)	0.000*	0.000*	0.001*	0.015*	0.000*	0.538	0.618
Target costing	<i>p</i> -value (2-tailed)	0.053	0.065	0.009*	0.020*	0.022*	0.622	0.690
Standard costing	<i>p</i> -value (2-tailed)	0.002*	0.650	0.009*	0.966	0.466	0.000*	0.690
Product life cycle analysis	<i>p</i> -value (2-tailed)	0.008*	0.000*	0.025*	0.002*	0.000*	0.673	0.733
Product profitability analysis	<i>p</i> -value (2-tailed)	0.001*	0.003*	0.000*	0.386	0.000*	0.575	0.475
Customer profitability analysis	<i>p</i> -value (2-tailed)	0.574	0.205	0.748	0.438	0.116	0.733	0.782
Benchmarking	<i>p</i> -value (2-tailed)	0.053	0.065	0.128	0.262	0.022*	0.622	0.690
ERP	<i>p</i> -value (2-tailed)	0.142	0.024*	0.213	0.091	0.008*	0.811	0.847
Classifying costs based on cost behavior	<i>p</i> -value (2-tailed)	0.000*	0.086	0.052	0.006*	0.079	0.356	0.085
Absorption costing	<i>p</i> -value (2-tailed)	0.898	0.632	0.270	0.587	0.860	0.435	0.528
Process costing	<i>p</i> -value (2-tailed)	0.034*	0.001*	0.073	0.014*	0.116	0.733	0.782

* The relationship is significant at the .05 level.

Table 4.11: Chi-square test for the non-adoption of management accounting innovations and the attributes of the innovations

Practices	Chi-square Test (χ^2)	Expensive	Not suitable	Never heard of it	Too complicated	Time consuming	No experiences or knowledge
CVP analysis	<i>p</i> -value (2-tailed)	0.178	0.224	0.283	0.448	0.278	0.417
Financial ratio analysis	<i>p</i> -value (2-tailed)	0.405	0.098	0.405	0.638	0.501	0.930
ABC and ABM	<i>p</i> -value (2-tailed)	0.538	0.904	0.215	0.727	0.618	0.416
Target costing	<i>p</i> -value (2-tailed)	0.622	0.735	0.080	0.780	0.690	0.267
Standard costing	<i>p</i> -value (2-tailed)	0.622	0.331	0.622	0.780	0.690	0.516
Product life cycle analysis	<i>p</i> -value (2-tailed)	0.673	0.506	0.031*	0.811	0.733	0.578
Product profitability analysis	<i>p</i> -value (2-tailed)	0.377	0.975	0.575	0.618	0.475	0.243
Customer profitability analysis	<i>p</i> -value (2-tailed)	0.733	0.501	0.733	0.847	0.782	0.653
Benchmarking	<i>p</i> -value (2-tailed)	0.622	0.735	0.080	0.780	0.690	0.516
ERP	<i>p</i> -value (2-tailed)	0.811	0.638	0.811	0.892	0.847	0.753
Classifying costs based on cost behavior	<i>p</i> -value (2-tailed)	0.145	0.145	0.356	0.412	0.240	0.972
Absorption costing	<i>p</i> -value (2-tailed)	0.435	0.540	0.435	0.659	0.205	0.838
Process costing	<i>p</i> -value (2-tailed)	0.733	0.251	0.005*	0.847	0.782	0.653

* The relationship is significant at the .05 level.

As shown in Table 4.10, there exist statistically significant relationships between the attributes of the management accounting innovations and the adoption of them in the enterprises. “Gaining competitive advantage,” “Saving time,” “Saving cost,” “Using easily,” and “Enhancing productivity” are the attributes which have statistically significant relationships with the adoption of management accounting innovations, namely, CVP analysis, ABC and ABM, Product life cycle analysis. To explain in detail the statistical results, I analyze the case of CVP analysis. The enterprises adopt CVP analysis because CVP analysis is thought to

gain competitive advantage, to save time, to save cost, to use easily, and to enhance productivity (respectively, $p=0.000$; $p=0.045$; $p=0.000$; $p=0.002$; $p=0.004$). Likewise, “Gaining competitive advantage,” “Saving time,” and “Enhancing productivity” are the attributes which have statistically significant relationships with the adoption of financial ratio analysis. “Saving cost,” “Using easily,” and “Enhancing productivity” are the attributes which have significant relationships with the adoption of target costing. There exist statistically significant relationships between the adoption of product profitability analysis and the attributes, namely, “Gaining competitive advantage,” “Saving time,” “Saving cost,” and “Enhancing productivity”.

The other practices, namely, Financial ratio analysis, Standard costing, Product profitability analysis, benchmarking, ERP, classifying costs based on cost behavior, and process costing have relationships with some attributes while the practices, namely, customer profitability analysis and absorption costing do not have relationships with the attributes. In conclusion, I reject the hypothesis $H5$. There are significant relationships between the adoption of management accounting innovations and the attributes of the innovations in Vietnamese food and beverage enterprises.

Table 4.11 presents the Chi-square test of independence between the attributes of management accounting innovations and the non-adoption of the innovations. There are only relationships between product life cycle analysis, process costing and “Never of heard of it.” Therefore, $H6$ cannot be rejected. The attributes of management accounting innovations have no association with the non-adoption of the innovations.

4.2 External factors

Much research shows that the development of an accounting system is associated with various contingent external factors (Choi and Mueller 1984; Chenhall 2003; O’Conor et al. 2004). Hence, apart from the above mentioned internal factors, there certainly exist contingent external factors that influence the evolution of management accounting practices in Vietnamese food and beverage enterprises. To discover those factors, I analyze secondary source data such as books, Vietnamese regulations on accounting, prior related studies and so on.

4.2.1 The political, social, and economic environment of Vietnam⁷

The accounting system of a country is closely connected with its political, social, and economic environment. Changes in political, social, and economic environment of a country considerably lead to the changes in its accounting system (Choi and Mueller 1984; Renault and Nguyen 2007). To explain the evolution of management accounting practices in the Vietnamese enterprises, it is necessary to analyze the association between the political, social, and economic environment and the development of accounting system in Vietnam.

The development of Vietnamese accounting system can be divided into three periods, namely, the 1st period from 1954 to 1987, the 2nd period from 1988 to 1994 and the 3rd period from 1995 till now (Adams and Do 2005). Table 4.12 presents significant legal documents on accounting in the three periods.

⁷ This part is written based on Nguyen, T.P.D (2011). An overview of the development of Vietnamese accounting on legislation perspective. *Global Student Conference in Economics and Business Administration –Tohoku University & Nagoya University Collaboration Program*. Nagoya, 8 September 2011.

Table 4.12: Vietnamese regulations on accounting from 1954 till now

Period	Regulations
From 1954 to 1987	<ol style="list-style-type: none"> 1. Decree No. 175-CP dated on 28 October 1961: Regulation on Organization of State Accounting 2. Decree No. 175-CP dated on 10 September 1970: Amendment of Regulation on Organization of State Accounting 3. Decision No. 233-CP issued on 1 December 1970: Uniform accounting and statistics reports for industrial enterprises 4. Decision No. 425-TC/CDKT dated on 14 December 1970: Uniform Chart of Accounts 5. Decision No. 426-TC/CDKT dated on 14 December 1970: Accounting books of the Voucher-Journal accounting system
From 1988 to 1994	<ol style="list-style-type: none"> 1. Order No. 06/LCT-HDNN dated on 20 May 1988: Accounting and Statistics 2. Decree No. 26 dated on 18 March 1989: Regulation on Chief Accountant of SOEs 3. Decree No. 25 dated on 18 March 1989: Regulations on Organizing of State Accounting 4. Decision No. 224/QĐ-CDKT dated on 18 April 1990: New Uniform Chart of Accounts and Accounting Reports 5. Decision No. 598/QĐ-CDKT dated on 18 December 1990: Accounting Regulations for Non-State sectors
From 1995 to present	<ol style="list-style-type: none"> 1. Decision No. 1141-TC/QĐ-CDKT dated on 1 November 1995: Accounting regime for enterprises 2. Decision No. 1503/1998/QĐ-BTC dated on 30 October 1998: Establishment of Steering Committee for the promulgation of Vietnamese Accounting Standards (VASs) 3. Decision No. 149/2001/QĐ-BTC dated on 31 December 2001: Issuance and Promulgation of 4 Vietnamese Accounting Standards (VASs) (Series 1) 4. Decision No. 165/2001/QĐ-BTC dated on 31 December 2002: Issuance and Promulgation of 4 Vietnamese Accounting Standards (VASs) (Series 2) 5. Accounting Law 2003 dated on 17 June 2003 6. Decision No. 234/2003/QĐ-BTC dated on 30 December 2003: Issuance and Promulgation of 6 Vietnamese Accounting Standards (VASs) (Series 3) 7. Decree No. 129/2004/ND-CP dated on 31 May 2004: Guidance on the implementation of a number of articles in the Accounting Law 8. Decision No. 12/2005/QĐ-BTC dated on 15 February 2005: Issuance and Promulgation of 6 Vietnamese Accounting Standards (VASs) (Series 4) 9. Decision No. 100/2005/QĐ-BTC dated on 28 December 2005: Issuance and Promulgation of 6 Vietnamese Accounting Standards (VASs) (Series 5) 10. Decision No.15-TC/QĐ-CDKT dated on 20 March 2006: Accounting regime for enterprises 11. Circular No. 53/TT-BTC dated on 12 June 2006: Guidance on the organization of management accounting unit in an enterprise. 12. Decision No. 48-TC/QĐ-CDKT dated on 14 September 2006: Accounting regime for small and medium enterprises

4.2.1.1 The period from 1954 to 1987

In this period, the Vietnamese accounting system was first inherited from a French accounting system and then transferred to a communism accounting system.

Vietnam was a colony of France from 1858 to 1945. During the French colonial period, Vietnam had the characteristics of a backward and poor agricultural country (Chu 2004). The French brought its accounting model to Vietnam to support the colonial administration in this period (Adams and Do 2005). The main characteristics of the French accounting by the 1860s are the usage of a uniform accounting system and budgets (California Department of Finance 1998). Therefore, the French probably used a uniform accounting system and budgets in Vietnam during this period.

After 1941, Japanese army came to Indochina colonial countries of the French. Vietnam had to suffer from two colonial burdens of both the French and the Japanese army. At the end of the 2nd World war, Japan was defeated by the allied armies. The Communist Party of Vietnam under the leadership of Ho Chi Minh successfully carried out August revolution to establish Democratic Republic of Vietnam on 2 September 1945. However, the colonial period officially ended in Vietnam when the French was completely defeated by the Democratic Republic of Vietnam in May 1954. As a result of this victory, at the same year, the Geneva Agreement was signed between France and Vietnam with the involvement of United States, Soviet Union, Great Britain and China. The French had to withdraw and Vietnam officially became an independent country in 1954. However, according to the Agreement, Vietnam was divided into two parts: Democratic Republic of Vietnam in the North and Republic of Vietnam, which was supported by the United States military, in the South. It is worth to note why this separation happened to Vietnam. The reason is that the United States wants to prevent the spread of communism in Southeast Asia so they decided to directly interfere in

Vietnam (Chu 2004). Therefore, the two parts of Vietnam had very different political, social, and economic systems. This situation lasted about 20 years till 1975.

With regards to the accounting system in North of Vietnam, the French accounting was still used in several years after 1954. In 1960s, the North had been enrolled the communist community. A centrally planned economy was established with a model learned from the communist countries, particularly the former Soviet Union and China. In the centrally planned economy, all enterprises are state-owned and non state-owned enterprises are banned (Adams and Do 2005). State-owned enterprises (SOEs) had no rights in deciding their performances such as what would be produced, what prices their products are, which product costing practice they can use and so on. Such decisions were made by the Government for all enterprises in the economy through comprehensive plans (Dang 2008).

As a vital part of the centrally planned economy, Vietnamese accounting system was imported from the communism accounting system. The Soviet-style accounting model was considered as a basic and uniform tool for controlling and managing the centrally planned economy in Vietnam (Adams and Do 2005). An official accounting system was promulgated in Decree 175-CP on 28 October 1961. This accounting model focused on financial management requirements of the Government and taxation, control over SOEs, and the provision of statistical data for the Government. In 1960s, double entry was barely used while the single entry was used instead. The Government also promulgated rigid regulations of depreciation, revenue recognition, product costing and so on, which are different from the international accounting standards (Adams and Do 2005). However, to solve problems which newly occurred in the economy, the Government had to release the first uniform chart of accounts in Decision 425-TC/CDKT issued on 4 December 1970. This uniform chart of accounts was applied to all sectors in the

Vietnamese economy. This means that the concept of double entries has been used in Vietnamese enterprises since 1970 (Pham 2006). In conclusion, accounting system in Vietnam had almost the same meaning as bookkeeping in the period from 1954 to 1987 (Adams and Do 2005). There was no definition of management accounting in Vietnamese enterprises in this period.

The South of Vietnam, supported by the United States military, followed a capitalism approach. Some researchers supposed that the French accounting system was still widely used there. However, it is difficult to find official research or documents about the accounting system used in the South of Vietnam in this period.

4.2.1.2 The period from 1988 to 1994

To overcome the social and economic crises caused by applying the centrally planned economy, Vietnam had to undertake the Doi Moi program at 1986. The goal of Doi Moi is to transfer from the centrally planned economy to a socialist-oriented market economy. This economic renovation has led to significant changes in the socio-economic environment of Vietnam. It diversifies the economic sectors, liberalizes trade and promotes non-state and foreign direct investment (FDI) sectors.

The Ordinance on Accounting and Statistics, which was issued on 10 May 1988, stated that to change the Vietnamese accounting system is a prerequisite for transforming from the centrally planned economy into a market-oriented economy. After that, Decree No. 25-HDBT was issued in March 1989 to supersede the Decree No. 175-CP promulgated on 28 October 1961. The Ordinance on Accounting and Statistics and the Decree No. 25-HDBT were the major accounting regulations in this period. A number of accounting and financial management regulations for various sectors and industries were issued based on these

regulations. According to these accounting regulations, the Vietnamese accounting system were oriented to serve not only the needs of the Government and tax authorities but also the needs of enterprises. However, the accounting system still served the needs of Vietnamese Government more than those of enterprises in fact (Adams and Do 2005). In conclusion, the accounting system in this period play a transitional role of moving the communism accounting style towards a Western accounting style that emphasizes the needs of enterprises. There were no official regulations which mentioned the role of management accounting system in enterprises during this period.

4.2.1.3 The period from 1995 to present

This period is characterized by the integration of Vietnam into the global economy. Vietnam joined many international organizations such as Association of Southeast Asian Nations (ASEAN) in 1995, ASEAN Free Trade Area (FTA) in 1995, Asia Pacific Economic Co-operation in 1997, and United States Bilateral Trade Agreement (US-BTA) in 2000. The milestone of this period was the accession of Vietnam to World Trade Organization (WTO) in 2007.

The integration into the global economy has put pressure on the Vietnamese accounting system. International organizations and donors have required Vietnamese Government to provide a sufficient legal framework and a transparent accounting system. A system of accounting regulations based on the international accounting standards is one of the main commitments which Vietnam has to obey in order to join international organizations (Adams and Do 2005; Chu 2004; Nguyen and Richard 2011). Moreover, the needs of relevant accounting information for making decisions have emerged in non-state-owned and foreign-owned companies in Vietnam. Regarding the SOEs, they have a greater autonomy in making decisions due to the decentralization in economic administration of the

Government (Nguyen and Richard 2011). Hence, the SOEs also have the needs of relevant accounting information for competing in markets. In addition, along with foreign investors, international accounting and auditing firms have come to Vietnam since the 1990s. These accounting firms and multinational corporations use international accounting standards. They brought their professional accounting systems to Vietnam (Adams and Do 2005).

The “Vietnamese Accounting System 1995” (Decision 1141-TC/QD/CDKT, 1995) remarked the beginning of accounting reforms in this period. A variety of new accounting regulations was promulgated in line with the rapid changes of the Vietnamese economy. These regulations create a legal framework for the Vietnamese accounting system. This framework is domestically, not internationally, called as Vietnamese Generally Accepted Accounting Principles (VN GAAP). The name, VN GAAP, is easier for foreigners to understand Vietnamese accounting regulations in comparison with other countries’ GAAP or international GAAP (Adams and Do 2005). Although VN GAAP contains a great number of legal documents, it can be identified with three main parts, namely, Accounting Law, Vietnamese Accounting Standards (VASs), and Uniform Accounting System (UAS).

Accounting Law promulgated on 17 June 2003 by the National Assembly of Vietnam. This law is considered as the most significant document in the accounting reform of Vietnam. It is the first time in Vietnamese accounting history that management accounting is recognized as an official part of the accounting system in an enterprise. Article 4 of Chapter 1 of the Accounting Law 2003 provides a definition of management accounting as follows.

Management accounting means the collection, process, examination, analysis and supply of economic and financial information according to the requirements of economic and financial management and decision within the enterprises.

Vietnamese Accounting Standards (VASs) and their interpretations comprise fundamental accounting principles and methods for making entries in accounting books and for compiling financial statements (Accounting Law 2003). VASs were built by Vietnamese Accounting Standard Board (VASB) which was established by Vietnam Ministry of Finance with the technical assistance of European Union (Euro-Tapviet project), World Bank, and Asian Development Bank (ADB). The first four VASs were promulgated in 2001. Till now, the Vietnam Ministry of Finance issued 26 VASs which are almost in accordance with the International Accounting Standards (IASs). Since 2001 so far, IASs have been known as International Financial Reporting Standards (IFRSs).

The contents of VASs are constructed from IASs/IFRSs but corresponded with the context of Vietnamese economy (Adams and Do 2005). Hence, there exist several differences between VASs and IASs/IFRSs. First, the numbers of VASs are not equal to those of IASs/IFRSs because the suitability of IASs/IFRSs for Vietnam is still under consideration (Pham et al. 2011; Nguyen and Richard 2011). Second, Vietnamese accountants have had a custom of obeying rigid accounting rules in a long time so it is difficult for them to make judgments and estimates required by the principle-based accounting system in IASs/IFRSs (Nguyen and Richard 2011). Much research considers the current VASs as “rules-based” accounting standards rather than “principles-based” standards like IASs/IFRSs (Adams and Do 2005; Pham et al. 2011). Third, VASs emphasize the management needs of Vietnamese Government while IASs/IFRSs focus on those of enterprises because Vietnamese Government cannot adopt a large number of international accounting standards which mainly serve for enterprises (Nguyen and Richard 2011). It can be indicated that VASs are on the first phase of convergence to international accounting standards.

Uniform Accounting System (UAS) is considered as an important part of VN GAAP. According to Accounting Law 2003, UAS comprises of major accounting principles and guidelines on accounting works (The National Assembly 2003). The UAS has a long history in Vietnam since the era of centrally planned economy. The first uniform chart of accounts was issued in 1970s, and then modified several times till now. The latest UAS was issued in the Decision 15-TC/QD-CDKT on 20 March 2006 for enterprises in all fields of business and all economic sectors. A simpler UAS, which is considered as a part of this UAS, was issued for solely SMEs in Decision No. 48-TC/QD-CDKT on 14 September 2006.

According to Accounting Law 2003, UAS was built based on VASs. However, UAS is too concrete and rigid with a uniform chart of accounts, uniform formats of financial statements and uniform accounting treatments for all specific transactions in enterprises. UAS concentrates on the recording, recognition, and measurement of transactions, whilst VASs focus on recognition, measurement, and disclosure (Nguyen and Richard 2011). The purpose of promulgating UAS is mainly for the needs of Vietnamese Government and tax agencies (Yang and Nguyen 2003; Nguyen and Richard, 2011). It can be supposed that the co-existence of VASs and the UAS delays the utilization of VASs in Vietnam (Adams and Do 2005). Why does this co-existence of VASs and UAS exist in Vietnam? According to Nguyen and Richard (2011), this problem has originated from the direct governmental involvement in Vietnamese accounting regulations since the period of centrally planned economy. Till now, Vietnamese Government still wants to keep accounting regulations to meet their needs of political and macro-economic control.

In summary, a market-oriented economy has been gradually established in Vietnam in this period. The Government has modified the accounting system in accordance with the international accounting standards. The needs of developing

management accounting system for internal purposes emerged and developed in Vietnamese enterprises during this period. However, management accounting system serves for internal purposes of enterprises. The Government has no direct benefit from developing management accounting. Therefore, they promulgated laws, VASs and UAS which mainly serve the needs of governmental and tax agencies rather than those of enterprises. Policy makers try to protect the government benefits regardless of enterprises' difficulties in implementing their regulations. Many studies agree that the development of accounting in Vietnam is strongly affected by the Government (Yang and Nguyen 2003; Chu 2004; Renault and Nguyen 2007; Nguyen and Richard 2011). Meanwhile, Vietnamese enterprises are used to following the rigid UAS since the era of centrally planned economy. Majority of accountants do not have experiences in choosing management accounting practices by themselves (Nguyen and Richard 2011). Their knowledge in management accounting is still limited. In addition, accounting services are not so developed in Vietnam and Vietnamese enterprises are not ready to use such kinds of services (Chu 2004).

To conclude, the development of Vietnamese management accounting practices is closely associated with the country's political, social, and economic environment. All the above mentioned characteristics of the political, social, and economic environment in Vietnam can explain the existing low evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises.

4.2.2 The history of Vietnamese costing system

Costing is a vital part of any management accounting system. To understand the existing evolutionary stage of management accounting practices in the Vietnamese enterprises, I attempt to study the history of costing system in Vietnam.

As mentioned above, Vietnam adopted communism accounting system from 1960s to 1987. Uniform Accounting System (UAS) is the unique and dominated accounting system. According to the Decision No. 425-TC/CDKT issued on 14 December 1970, UAS required that costs had to be classified into constant items such as material cost, wage cost, fuel cost, overhead cost (Pham 2006). This type of cost classification was compulsory for all enterprises in the Vietnamese economy. Also, the whole accounting ledgers and reports of costs were uniform for all kinds of enterprises. The reports of costs were prepared quarterly, yearly or even monthly with regards to some important enterprises (The Government, Decision No.233-CP, 1970). These reports had to be submitted to enterprises' higher authorities such as their ministries, the Office of Prime Minister, Ministry of Finance, General Statistics Office, State Planning Committee and so on (Chu 2004).

Costing methods were also promulgated in UAS. Absorption costing, job order costing and standard costing were mandatory for all enterprises (Doan et al. 2011). Regarding standard costing, it is necessary to mention that standard costs or norms were set by Governmental authorities instead of enterprises. Therefore, they were not in accordance with the real situation of the enterprises. There existed a big gap between the standard costs and the real costs (Pham 2006). Even the directors or chief accountants might not know exactly the actual costs of their enterprises (Chu 2004). In conclusion, costing system in this period was under development. Enterprises had to obey rigidly costing practices allowed by the Government. The costing system served solely for the management needs of the Government not for those of enterprises.

During the period from 1988 to 1994, Vietnamese accounting was transferred from the communism accounting style to a Western accounting style. Many new accounting regulations were promulgated in this period. Most of them

focused on providing a temporary legislation framework for financial accounting in non-state sectors which had just established since the Doi Moi. There were a few changes on costing system regulations. State-owned enterprises began to have rights on deciding selling prices and choosing product costing practices. Non-state owned enterprises can make their own decisions on controlling their costs and building the costing systems by themselves. Both state-owned and non-state owned enterprises do not need to submit reports of costs to the Government agencies. In this period, Vietnamese Government made a decentralization of rights on managing costs to enterprises (Chu 2004; Nguyen and Richard 2011).

In the period from 1995 till now, there are more significant changes in Vietnamese accounting regulations. Along with the rapid development of non-state sectors as well as the decrease in numbers of state-owned enterprises, the regulations on the costing system have become more flexible. Absorption costing is still officially recommended by the Government of Vietnam (Decision No.15-TC/QD-CDKT 2006). However, companies can have the rights to adopt other costing practices in line with their management requirements such as variable costing, standard costing, ABC and so on. There is no restriction on adopting costing practices in enterprises.

In addition, Vietnamese Government promulgated some legal documents to instruct enterprises how to organize costing systems during this period. For instance, classifying cost based on cost behavior was recognized in legal documents. Part 7 and Part 8 of VAS 02 (Decision No. 149/2001/QD-BTC) say that overhead costs have to be classified into fixed and variable costs in order to allocating them correctly to the cost of goods manufactured. This is the first time that definitions of fixed and variable costs were officially mentioned in a legal document in Vietnam (Pham 2006). Also, the Vietnam Ministry of Finance issued the Circular No. 53/TT-BTC on 12 June 2006 to guide the organization of

management accounting unit in an enterprise. The Circular mainly focuses on providing general guidance on cost classification, calculating product cost, building accounts, ledgers and reports of costs, and product pricing. The guidance of the Circular is limited on a simple and traditional costing system. For instance, absorption costing and cost-plus pricing are highly recommended for enterprises in the article 1 and article 2 of part 3 of the Circular. This can explain for our findings in Chapter 3 that absorption costing and cost-plus pricing are widely adopted in the Vietnamese food and beverage enterprises at present. Despite the fact that the Circular has such significant limitations, it is a motivation to make Vietnamese enterprises realize the importance of costing systems in their organizations.

In conclusion, costing systems have become increasingly diversified in Vietnamese enterprises. Regulations on costing systems in both state and non-state owned enterprises have been changed to be more suitable for the management needs of enterprises. However, there is a special characteristic in the development of Vietnamese costing systems. It is the direct governmental involvement in regulations on costing practices. Historically, costing systems were developed based on the needs of enterprises themselves (Johnson and Kaplan 1987). In the case of Vietnam, the Government promulgated UAS to guide enterprises organize costing systems for a long time. Therefore, Vietnamese enterprises have a tradition of rigidly obeying the regulations issued by the Government. They are not active in adopting new costing systems by themselves. This can explain the low adoption rates of modern costing practices in the Vietnamese food and beverage enterprises.

4.2.3 Summary

This chapter answers the Research Question 4. It presents internal and external factors which influence the evolution of management accounting practices in the Vietnamese food and beverage enterprises.

The internal factors are size of enterprises, age of enterprises and the attributes of management accounting innovations. First, I explore that large enterprises adopt more management accounting practices than SMEs. Large enterprises have more tendencies to use some specific traditional and modern management accounting practices than SMEs. Specifically, regarding traditional practices, namely, classifying cost based on cost behavior, CVP analysis, financial ratio analysis and modern practices, namely, ABC and ABM, product profitability, product life cycle analysis, customer profitability analysis and benchmarking, large enterprises tend to use more frequently than SMEs. Second, I find that age of enterprises is a significant factor affecting the adoption of management accounting practices. The older enterprises tend to apply more management accounting practices than the younger ones. Regarding the practices, namely, classifying cost based on cost behavior, CVP analysis, financial ratio analysis, ABC and ABM, the older enterprises have more tendencies to use them than younger enterprises. Third, I analyze that attributes of management accounting innovations are associated with the adoption of them in the Vietnamese food and beverage enterprises. The management accounting practices which are considered to have attributes, namely, “Saving cost,” “Saving time,” “Using easily,” “Enhancing productivity,” and “Gaining competitive advantage”, are preferred to adopt by the enterprises.

I also find external factors which influence the evolution of management accounting practices in Vietnamese food and beverage enterprises. The changes in political, social, and economic environment of Vietnam have a significant impact on the formation and development of Vietnamese management accounting system. In the period from 1954 to 1986, there is no term equivalent to management accounting in Vietnamese enterprises. Accounting was considered as bookkeeping under the centrally planned economy. It was just a tool of the Government and tax

authorities to control all enterprises in the economy. After the Doi Moi in 1986 and the globally economic integration since the 1990s, a socialist-oriented market economy and competitive markets were established in Vietnam. In this period, enterprises need correct and relevant accounting information for making decisions because they have to compete in not only the Vietnamese market but also international markets. These are the main conditions for the emergence and development of management accounting in Vietnam from the mid of 1990s. The milestone of the evolution of management accounting in Vietnam is Accounting Law 2003 which officially provides a definition of management accounting and considers it as an official part in an accounting system. However, the development of management accounting in Vietnam is strongly affected by the Government. They promulgated laws, VASs and UAS which mainly serve the needs of governmental and tax agencies rather than those of enterprises. Meanwhile, Vietnamese enterprises have had a tradition of obeying the rigid UAS since the era of centrally planned economy. Majority of accountants do not have experiences in choosing management accounting practices by themselves. Their knowledge in management accounting is still limited. All the above mentioned characteristics of the political, social, and economic environment of Vietnam can explain the existing low evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises.

The history of Vietnamese costing system is also an external factor influencing the existing evolutionary stage of management accounting practices in Vietnamese food and beverage enterprises. In the centrally planned economy, regulations on the costing system were issued by the Governmental agencies. The regulations were very rigid in order to serve solely for the Government's requirements. Enterprises had to apply costing practices allowed by the Government. After Doi Moi in 1986, the regulations on the costing system have

become increasingly flexible and suitable for enterprises. Vietnamese enterprises can deliberately apply costing systems which meet their management requirements. However, they have a tradition of rigidly obeying accounting regulations promulgated by the Government and tax authorities. They are not active in adopting new costing practices by themselves. Therefore, the adoption rates of modern costing practices are rather low in Vietnamese food and beverage enterprises.

Chapter 5

CONCLUDING REMARKS, LIMITATIONS AND FUTURE RESEARCH

5.1 Concluding remarks

This study reveals empirical evidence on the evolution of management accounting practices in Vietnamese food and beverage enterprises. I employ a questionnaire survey to study the evolution of management accounting practices in the enterprises based on Nishimura model. It is found that majority of the SMEs in Vietnam are in the initial stages of the evolution of management accounting practices. However, several large enterprises have already reached the highest stage of the evolution of management accounting practices. There is a clear difference on the evolutionary stages of management accounting practices between the large enterprises and the SMEs.

I find that traditional management accounting practices are more widely adopted than modern ones in the Vietnamese food and beverage enterprises even the large enterprises. Regarding traditional costing practices, majority of the enterprises adopt absorption costing to calculate product cost. The other modern costing practices, i.e., ABC, target costing are used by some large enterprises but at very low rates. There is no enterprise even the large ones which adopt kaizen costing. Regarding traditional decision support practices, CVP analysis and product profitability analysis are adopted but at very modest rates. Modern decision support practices such as ABC and ABM, benchmarking and customer profitability analysis are adopted by only a few large enterprises. With regard to performance evaluation and strategic analysis practices, financial ratios analysis has the highest adoption rate. No enterprise even large ones adopts modern performance evaluation and strategic analysis practices such as value chain analysis and Balanced Scorecard.

I also explore typical characteristics of costing, budgeting, and product pricing systems in the Vietnamese food and beverage enterprises. Absorption costing, simple traditional budgeting and cost-plus pricing approach are widely adopted in the enterprises.

I make comparisons between the adoption rates of management accounting practices in Vietnamese food and beverage enterprises and those in other countries. It is found that the adoption rates of both traditional and modern management accounting practices in the Vietnamese enterprises are lower or even lowest among the studied countries. The results obtained by this comparison are significant to understand the evolutionary stages of management accounting practices in the Vietnamese food and beverage enterprises in the light of international view. I also analyze the needs of improving management accounting and product pricing systems in the Vietnamese food and beverage enterprises. Majority of the large enterprises would like to improve their management accounting and product pricing systems, however, few SMEs consider these needs. There is a big difference between the large enterprises and the SMEs in the needs of improving management accounting and product pricing systems.

I attempt to explore factors which influence the evolution of management accounting practices in Vietnamese food and beverage enterprises. I find some significant internal factors as follows. First, the size of enterprises is an important factor influencing the adoption of management accounting practices in the enterprises. There are significant differences between large enterprises and SMEs in adopting management accounting practices. The large enterprises likely adopt more management accounting practices than the SMEs. The large enterprises have more tendencies of using several traditional and modern management accounting practices than the SMEs. Second, I find that enterprise age is also a significant factor influencing the adoption of management accounting practices in Vietnamese

food and beverage enterprises. The older enterprises adopt more management accounting practices than the younger enterprises. The older enterprises have more tendencies of using several traditional and modern management accounting practices than the younger enterprises. Third, I obtain evidence that there are relationships between the attributes of management accounting innovations and the adoption of them in Vietnamese food and beverage enterprises. The innovations which have attributes, namely, “Saving cost,” “Saving time,” “Gaining competitive advantage,” “Using easily” and “Enhancing productivity” are preferred by the enterprises.

Moreover, I analyze some external factors which influence the evolution of management accounting practices in Vietnamese food and beverage enterprises. First, the political, social, and economic environment of Vietnam significantly influences the evolution. Second, the history of costing system is an important factor which influences the existing evolutionary stages of management accounting practices in Vietnamese enterprises.

5.2 Limitations

I adopt literature analysis and questionnaire survey in this research and can obtain some useful results about the evolution of management accounting practices in Vietnam. But I have to admit that there are some limitations in my study.

First, like other questionnaire surveys, I cannot avoid inherent limitations such as sample size, volume and interpretation of questions, non response bias and so on. Time and financial factors relatively influence the data collection period. Regarding the non response bias, I conducted comparisons between early and late responses and no difference can be found. Hence, non response bias seems to be insignificant in my survey. In addition, the response rate of the survey (37.2 %) remained rather low because follow up procedures to enhance the response rate

cannot be implemented due to the time and financial limitations. However, I believe that the survey method would benefit if we understand the fundamental principles of the method and apply them appropriately (Van der Stede et al. 2005).

Second, I examine the evolution of management accounting practices in Vietnamese enterprises based on the data collected by my survey. There may be lack of prior research on the evolution of management accounting practices in Vietnam, especially, Vietnamese food and beverage enterprises. I therefore cannot compare my research findings with other studies about management accounting practices in Vietnam. It is also extremely difficult to build hypotheses to analyze the factors which probably influence the evolution of management accounting practices in the Vietnamese food and beverage enterprises. However, there may not be such my research about the evolutionary stages of management accounting practices in Vietnam. Therefore, my research may have contributed to the study of Vietnamese management accounting practices.

Third, national culture is regarded as a significant factor influencing the evolution of management accounting practices in many countries (Joshi 2001; Nishimura 2003; Wu et al. 2007). However, the contents of my survey do not include questions about the effect of national culture on the evolution of management accounting practices in the Vietnamese enterprises. I cannot cover those questions due to the limitation on the length of the questionnaire.

Finally, my survey is just restricted to food and beverage enterprises. So it may be difficult for my research to generalize from the results obtained in the food and beverage enterprises to other manufacturing enterprises in Vietnam.

5.3 Future research

For further research, I would like to solve the limitations of my study. A questionnaire survey cannot provide in-depth data for specific issues. Future

research should use case study method or integrate the questionnaire survey method with other data collection methods to explore the issues which I cannot examine in this research. I would like to describe the problems which I will challenge in my future research.

- What benefits of management accounting practices do the enterprises want to perceive in the future?
- What are the main reasons why Vietnamese food and beverage enterprises have not adopted modern management accounting practices such as BSC, kaizen costing, value chain analysis, total quality management?
- Why the adoption rates of modern decision support and strategic analysis practices such as customer profitability analysis, benchmarking, BSC are very low in the Vietnamese food and beverage enterprises?
- What are the main reasons why majority of the enterprises do not satisfy with their existing budgeting system? Which benefits of budgeting do they want to perceive?
- What are the other factors which may influence on the adoption rates of management accounting practices in Vietnamese food and beverage enterprises?

National culture is an un-denied factor influencing the evolution of management accounting practices in many countries (Joshi 2001; Nishimura 2003; Wu et al. 2007). It is stated that any culture has its advantages. I should focus on studying the extent to which Vietnamese culture can affect the evolution of management accounting practices in the Vietnamese food and beverage enterprises.

- With regard to the enterprises that already adopted target costing, what are the reasons why they do not combine it with kaizen costing? How are the processes of implementing target costing in these enterprises?

As analyzed in Chapter 3, the needs of enhancing management accounting and product pricing systems exist in the Vietnamese food and beverage enterprises at present. Majority of the large enterprises would like to enhance their management accounting and product pricing systems. However, only a small portion of SMEs recognizes the necessity of improving their systems. There exists a difference between the large enterprises and the SMEs in this issue. Therefore, I would like to analyze the application possibilities of some modern management accounting practices for the large enterprises and the SMEs in future research. I would like to analyze briefly some practices here.

Target costing

Target costing are supposed to be suitable for large enterprises. Numerous studies report the adoption of target costing not only in Japan but also in many countries such as in India (Joshi 2001), New Zealand (Wijewardena and De Zoysa 1999; Rattray et al. 2007), China and Taiwan (Nishimura 2003), Turkey (Kocsoy et al. 2008), Australia (Chenhall and Langfield-Smith 1998) and Netherlands (Dekker and Smidt 2003) and so on.

Target costing (called as Genka Kikaku in Japanese) is considered as a representative type of Japanese management accounting (Nishimura 2003). Tanaka (1993) says that “Target costing” was invented by Toyota Motor Corporation in the late half of 1960s and has been developed by Japanese automobile companies. Genka Kikaku remained a secret for many years until mentioned in literature in 1978 (Tani et al. 1994). Then, Genka Kikaku was translated into English as the name “Target costing” which have been widely used in the world nowadays. However, in 1995, official name of Genka Kikaku was defined as “Target cost management” in Japan because “Target costing” was too ambiguous and did not convey the true meaning of “Genka Kikaku” (Feil et al. 2004). The familiar equation of Target costing is as follows:

$$\textit{Target Cost} = \textit{Target Price} - \textit{Target Margin} \quad (5.1)$$

The target price in the Equation (5.1) is driven by market factors. It is identified only after considering customer requirements and competitors' prices. The target margin is obtained after considering the strategy of the company, expectations of shareholders, and requirements of the stakeholders. The target cost is obtained by focusing on product and process design as well as value engineering (Ansari et al. 2006).

Target costing is different from cost-plus pricing which is also widely adopted in many firms. As presented in Chapter 3, I find that cost-plus pricing is widely adopted in the Vietnamese food and beverage enterprises. Cost-plus pricing can be illustrated by the following equation.

$$\textit{Target Selling Price} = \textit{Expected Cost} + \textit{Expected Margin} \quad (5.2)$$

As shown in the Equation (5.2), under cost-plus pricing approach, the target price becomes a dependent variable. The product designers have no specified cost objective to achieve (Cooper 1995). The designers expected to minimize the cost of the product during their design period. In theory, by this way, cost-plus pricing can make the cost of the product lower than target costing because it aims to minimize the cost rather than reduce it to a targeted cost. Hence, if the targeted cost was also the minimum cost, cost-plus pricing and target costing are similar. However, in practice, target costing makes the cost of the product lower than cost-plus pricing. Why does this happen? Many researchers agree with the explanation that designing to a *specified* minimum cost appears to create more intense pressure to reduce costs than designing to an *unspecified* minimum cost (Cooper 1995). In other words, it is more feasible to design a product at a specified cost than an unknown minimum cost. This would be a great advantage of target costing over cost-plus pricing.

Target costing is not restricted by the word “costing” but it is really a profit planning and cost management system (Ansari et al. 2006). Target costing is mainly used at the planning and design stages, at which majority of product cost is determined in fact (Sakurai 1989; Monden and Hamada 1991; Tani et al. 1994; Cooper 1995; Dekker and Smidt 2003).

According to Dekker and Smidt (2003), the Dutch firms reported that the benefits of target costing are, respectively, cost reduction, timely product introduction, customer satisfaction and quality control. The firms’ main goal for adopting target costing and the main benefit they received from it is identical: to reduce the cost. Therefore, target costing is supposed to extremely be suitable for companies who follow cost leadership strategy. Regarding one of the findings presented in Chapter 4, the top reason why the Vietnamese food and beverage enterprises adopt management accounting practices is to save cost. Therefore, it would be an important signal to indicate that a more diffusion of target costing would occur in the Vietnamese companies in the future. With regard to food sector, there is an interesting finding in the research of Dekker and Smidt (2003). A Dutch food company reported that they only "use target costing under special circumstances, which is to test for the feasibility of special products. It is not used for the normal product range.” The Vietnamese food and beverage companies should consider this note before adopting target costing.

Target costing is also relevant to companies which operate in competitive markets (Horngren et al. 2011). These companies have to accept the prices set by the market. Target costing is proved to be a useful tool in the severe competitive environments in Dutch manufacturing enterprises (Dekker and Smidt 2003). As presented in Chapter 2, the food and beverage markets of Vietnam will become more and more competitive in the future. Target costing would be a good choice for them.

Kaizen Costing

“Genka kaizen” is another vital part of the Japanese cost management system. “Genka kaizen” is widely called as “Kaizen costing”. The word “kaizen” means “improvement” in Japanese language. Kaizen costing therefore denotes the process of seeking continuous improvements to reduce costs. While target costing is mainly used in the planning and design stage, kaizen costing is mainly used in the manufacturing stage of a value chain. The objective of kaizen costing is to eliminate unnecessary inefficiencies from manufacturing processes (Cooper 1995).

Target costing and Kaizen costing are closely related to each other. They create the total cost management on the entire life of a product. If either of them is disregarded, the aims of cost management cannot be conducted appropriately (Monden and Hamada 1991). The former, target costing, is applied in the planning and design of the product. Then when the product is officially launched the manufacturing stage, the later, kaizen costing, is used to continuously reduce the costs. Cooper (1995) also figures out the difference between target costing and kaizen costing is the degrees of cost reductions each can bring. According to Cooper (1995), approximately 90 percent of a product’s costs are exactly determined when its design is approved. If this assessment is correct, kaizen costing can only affect the remaining 10 percent. However, the critical role of kaizen costing cannot be denied because kaizen costing can make the manufacturing process more efficient.

In case of Vietnamese food and beverage enterprises, as presented in Chapter 3, the adoption rate of target costing is only 7.4% while the adoption rate of kaizen costing is 0%. It means that 7.4% enterprises used target costing without combining it with kaizen costing. Hence, the effectiveness of their target costing systems should be in doubt. It may be referred that even the 7.4% enterprises,

which already have adopted target costing, have not understood the real meaning of target costing as a “Target cost management” system.

Balanced Scorecard

As analyzed in Chapter 3, the adoption rates of modern management accounting practices which have functions of performance evaluation and strategic analysis is very low or even zero in the Vietnamese food and beverage enterprises. Among performance evaluation and strategic analysis practices, the Balanced Scorecard (BSC) is reported as an effective tool. However, I find that no enterprise even the large ones adopt BSC in my survey. BSC can be used effectively in both large enterprises and SMEs (Kaplan and Norton 2004; Palladium Group, Inc. 2009; Aoki and Hasebe 2012; Fernandes et al. 2006). BSC measures organizational performance across four different but linked perspectives which are obtained from the organization’s vision, strategy and objectives as follows (Atkinson et al. 2011):

- Financial – How is success measured by our shareholders?
- Customer –How do we create value for our customers?
- Process – At which processes must we excel to meet our customer and shareholder expectations?
- Learning and growth –What employee capabilities, information systems, and organizational capabilities do we need to continually improve our processes and customer relationships?

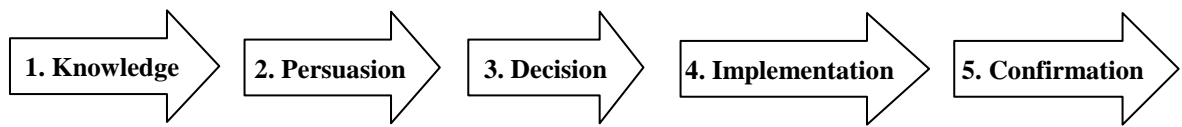
Using BSC, enterprises can not only track financial results but also censor, with nonfinancial measures, whether they are building or destroying their capabilities – with customers, processes, employees and systems – for future growth and profitability. Therefore, in the future, I would like to investigate the application possibilities of Balanced Scorecard in both Vietnamese large enterprises and SMEs.

Diffusion of Innovation theory

Much research interested in studying the process of adopting new innovations in a specific context. One of the most popular processes is the DOI theory proposed by Rogers in his book series (Rogers 2003). In the field of management accounting, there exists research using the DOI theory in studying the diffusion of management accounting practices in countries (Firth 1996; Yazdifar and Askarany 2012).

One of the most significant parts in DOI theory is the framework of the “innovation-decision process” as shown in Exhibit 5.1.

Exhibit 5.1: The sequence of stages in the processes of adopting or rejecting an innovation (Rogers 2003)



Rogers (2003) denotes the innovation-decision process as “an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation”.

Rogers (2003) divides the process into 5 steps. The steps follow each other. In the first step “*Knowledge*”, an individual learns about the presence of innovation and searches for information about it. The individual/organization seeks to answer critical questions such as “What the innovation is”, “How and why does it work” (Rogers 2003). In this phase, mass media channels such as radio, television, and internet are effective ways to diffuse the innovation. In the “*Persuasion*” step, the individual forms his/her negative or positive attitude about the innovation after knowing about the existence of it. If the individual/organization interested in the innovation, he/she will do further investigation on the innovation. In this phase,

interpersonal channels such as asking friends, teachers or colleagues, face to face meetings play an important role. Next, in the “*Decision*” step, the individual/organization makes initial decisions about whether he/she adopt, try or reject the innovation. According to Rogers (2003), most individual/organization does not use an innovation without first trying it on a limited scope. This trial plays an important role in his/her final decision. In some circumstances, particularly in collectivism cultures such as Asian cultures, the order of “Knowledge- Persuasion- Decision” stages can be “Knowledge- Decision- Persuasion” with the group’s final decision not personal decision. In the fourth step “*Implementation*”, an innovation is actually used. The individual/organization adopts an innovation under their contexts. However, it may occur uncertainty about the benefits of the innovations. The individual/organization may need technical supports or advices from professionals or the other individuals who had experiences in reducing the uncertainty. In the final step “*Confirmation*”, the individual searches for support or empirical evidence for his/her decision. The innovation-decision process almost finished. However, discontinuance of adopting the innovation can happen in this stage if the individual becomes dissatisfied with the results of implementation or he/she decides to adopt a better innovation.

Through studying the DOI theory, I find that communication channels play a very important role in the diffusion of innovations. In each stage, there are relevant channels such as mass media, internet and interpersonal. Especially, in the field of management knowledge, researchers suppose that conferences and workshops are important channels because they can reach a large range of audiences.

In addition, Rogers (2003) emphasizes that among a large range of factors that influence the diffusion of innovations, the attributes of innovations have the most important role. In simple words, the attributes of innovations have a close

relationship with the adoption rates of them. He suggests that majority of the difference in the adoption rates of innovations lines on five attributes of the innovations. They are the “*relative advantage*” of the innovation over the existing technique, the “*compatibility*” of the innovation with the current conditions and expected values, the “*simplicity*” of the innovations, the “*trialability*” or the ability of which an individual can try to use the innovation before full implementation and the “*observability*” of the results which innovations can bring to enterprises. Therefore, if we want to promote the adoption rates of innovations, we should consider the attributes of the innovations and the context of enterprises. We should provide information of attributes of the innovations to enterprises. If the enterprises understand the attributes of innovations, they can decide whether they adopt or reject the innovations.

The above mentioned ideas of DOI theory would be useful in finding solutions for promoting the diffusion of modern management accounting innovations in Vietnam in the future.

The other research topics such as comparison between state-owned enterprises and non-state owned enterprises, between local and joint-venture enterprises in the adoption of management accounting practices are also interesting and especially necessary in transitional economies like Vietnam, China (Firth 1996; Wu et al. 2007). Wu et al.2007 find that joint ventures which have foreign partners play important roles in importing modern management accounting practices into China. The adoption rates of management accounting practices in the joint ventures are higher than the Chinese SOEs which have no foreign partners.

My survey is just restricted to the food and beverage enterprises. In the future, I would like to expand this survey to other manufacturing enterprises in Vietnam to evaluate the evolutionary stages of Vietnamese manufacturing

enterprises. Also, I can obtain necessary information to enhance management accounting systems of Vietnamese enterprises in general.

In conclusion, despite some limitations, my study is an exploratory research in providing empirical evidence on the evolution of management accounting practices in Vietnamese food and beverage enterprises. I also explore some factors influencing the evolution. This is a broad and complex topic. Reviewing past studies about the evolution of management accounting practices in Vietnam, I find that there is severe lack of such studies. I focus on examining this perspective in this paper. I think my contribution is here. I do hope that my research can motivate other researchers to follow this topic in the future.

REFERENCES

- Abdel-Kader, M., and R. Luther. 2006a. IFAC's conception of the evolution of management accounting: a research note. *Advances in Management Accounting* 15: 229-247.
- Abdel-Kader, M., and R. Luther. 2006b. Management accounting practices in the British food and drinks industry. *British Food Journal* 108 (5): 336 - 357.
- Abdel-Kader, M., and R. Luther. 2008. The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review* 40 (1): 2–27.
- Adams, H. A., and T. L. Do. 2005. *VN GAAP and VN GAAS: Convergence to international accounting and auditing principles*. Hanoi: National Political Publisher.
- Al-Omiri, M., and C. Drury. 2007. A survey of factors influencing the choice of product costing systems in UK organizations. *Management Accounting Research* 18 (2007): 399-424.
- Ansari, S., J. Bell and D. Swenson. 2006. A template for implementing target costing. *Cost Management* 20 (5): 20-27.
- Aoki, M., and M. Hasebe. 2012. *Significance of Learning Process in BSC Introducing Process in Japanese Small and Medium Enterprises*. Discussion paper. Tohoku Management&Accounting Research Group. Sendai, Japan. Available at: <http://ir.library.tohoku.ac.jp/re/bitstream/10097/55375/1/tmarg102.pdf>
- Atkinson, A. A., R. S. Kaplan, E. M. Matsumura, and S. M. Young. 2011. *Management Accounting: Information for Decision-Making and Strategy Execution (6th Edition)*. New Jersey: Prentice Hall.
- Business Monitor International. 2012. *Vietnam Food & Drink Report Q1 2013 – (Includes 5-year forecasts to 2017)*. United Kingdom: Business Monitor International Ltd. (BMI).
- California Department of Finance. 1998. *Development of Modern Budgeting*. Available at: <http://www.dof.ca.gov/fisa/bag/history.htm>

- Chenhall, R. H., and K. Langfield-Smith. 1998. Adoption and benefits of management accounting practices: an Australian study. *Management Accounting Research* 9 (1): 1-19.
- Chenhall, R.H. 2003. Management control systems design within its organizational context: findings from contingency- based research and directions for the future. *Accounting, Organization and Society* 28 (2003): 127-168.
- Choi, F.D.S., and G. G. Mueller. 1984. *International Accounting*. Englewood Cliffs, N.J.: Prentice-Hall.
- Chu, T. 2004. *Accounting changes in a transition economy: the case of Vietnam*. Doctoral dissertation, University of Wollongong, Australia.
- Communist Party of Vietnam. 2006. *Policy Enactments of the 10th National Congress of the Communist Party of Vietnam*. Hanoi: Communist Party of Vietnam. (In Vietnamese)
- Cooper, R. 1995. *When Lean Enterprises Collide: Competing Through Confrontation*. Cambridge, MA: Harvard Business Review Press.
- Dana, L. P. 1994. On the internalization of a discipline: Research and Methodology in Cross-Cultural Entrepreneurship and Small Business Studies. *Journal of Small Business and Entrepreneurship* 11 (2): 61-76.
- Dang, P. 2008. *Vietnam's Economic Mindset: A Daunting and Spectacular Road, 1975-1989*. Hochiminh City, Vietnam: Southern Intellect Publishing House. (in Vietnamese)
- Dekker, H., and P. Smidt. 2003. A survey of the adoption and use of target costing in Dutch firms. *International Journal of Production Economics* 84 (3): 293-305.
- Diamond, S. S. 2011. Reference Guide on Survey Research-*The Reference Manual on Scientific Evidence, Third edition* (pp. 359-424). National Research Council. Washington, D.C.: The National Academies Press.
- Doan, N. P.A, D. T. Nguyen, and M. Lokman. 2011. Western management accounting practices in Vietnamese enterprises: Adoption and perceived benefits. *Pacific Accounting Review* 23 (2): 142-164.
- Feil, P., K. H. Yook, and I. W. Kim. 2004. Japanese target costing: a historical perspective. *International Journal of Strategic Cost Management/ Spring 2004* , 10-19.

- Fernandes, K.J., V. Raja, and A. Whalley. 2006. Lessons from implementing the Balanced Scorecard in a small and medium size manufacturing organization. *Technovation* 26 (5-6): 623-634.
- Field, A. 2000. *Discovering Statistics using SPSS for Windows: Advanced Techniques for Beginners (Introducing statistical methods series)*. London, United Kingdom: Sage Publications Ltd.
- Firth, M. 1996. The diffusion of managerial accounting procedures in the People's Republic of China and the influence of foreign partnered joint ventures. *Accounting, Organizations and Society* 21 (7-8): 629-654.
- Fowler, J. F. J. 2009. *Survey Research Methods (Applied Social Research Methods Series, No.1), 4th edition*. Thousand Oaks, California: Sage Publications, Inc.
- General Statistics Office of Vietnam. 2012. *Statistical Yearbook of Vietnam 2010*. Hanoi, Vietnam: Statistical Publishing House.
- Granlund, M. 2007. On the interface between management accounting and modern information technology - a literature review and some empirical evidence. Working paper, Available at: <http://ssrn.com/abstract=985074>
- Hornigren, C. T., S. M. Datar, and M.V. Rajan. 2011. *Cost Accounting: A Managerial Emphasis, 14th Edition*. Edinburgh Gate, Harlow, England: Pearson Education Limited.
- Hoang, T., N.M.N. Chu. 2008. *Data Analysis with SPSS Program*. Hochiminh city, Vietnam: Hong Duc Publishing House. (In Vietnamese)
- Hoang, T., N.M.N. Chu. 2011. *Applied Statistics for Economic and Social Data*. Hanoi, Vietnam: Labor and Social Publishing House. (In Vietnamese)
- International Federation of Accountants (IFAC). 1998. *International Management Accounting Practice Statement: Management Accounting Concepts*. Available at: http://www.mia.org.my/handbook/guide/imap/imap_1.htm
- Johnson, T. H., and R. S. Kaplan. 1987. *Relevance Lost – The Rise and Fall of Management Accounting, 1st edition*. Boston, Massachusetts: Harvard Business School Press.
- Joshi, P. L. 2001. The international diffusion of new management accounting practices: the case of India. *Journal of International Accounting, Auditing & Taxation* 10 (1): 85-109.

- Kaplan, R.S., and D. P. Norton. 2004. *Strategy Maps- Creating Intangible Assets into Tangible Outcomes, 1 edition*. Boston, Massachusetts: Harvard Business Review Press.
- Kocsoy, M., K. Gurdal, and M. E. Karabayir. 2008. An evaluation study on the Turkish manufacturing enterprises applying target costing. *The International Journal of Applied Economics and Finance* 2 (2): 51-69
- Levine, M. D., T.C. Krehbiel, and M.L. Berenson. 2010. *Business Statistics: a First Course, 5th edition*. Prentice Hall, One Lake Street, Upper Saddle River, New Jersey: Pearson Education, Inc.
- Mahfar, R., and N. H. Omar. 2004. The current state of management accounting practice in selected Malaysian companies: an empirical evidence. *The 2004 Universiti Tenaga Nasional International Business Management Conference (UIBMC 2004)*. Hyatt Regency Kuantan Pahang, Malaysia. Available at: <http://dspace.uniten.edu.my/jspui/handle/123456789/622>
- Maria do Céu, F. G. A. 2010. Management accounting and information technology-some empirical evidence. In *Performance Measurement and Management Control: Innovative Concepts and Practices (Studies in Managerial and Financial Accounting, Volume 20)*. Emerald Group Publishing Limited.
- Ministry of Finance. 1995. Decision No. 1141-TC/QD-CDKT dated on 1 November 1995: Accounting regime for enterprises. (*In Vietnamese*)
- Ministry of Finance. 2001. Decision No. 149/2001/QD-BTC dated on 31 December 2001: Issuance and Promulgation of 4 Vietnamese Accounting Standards (VASs) (Series 1) (*In Vietnamese*)
- Ministry of Finance. 2006. Decision No.15-TC/QD-CDKT dated on 20 March 2006: Accounting regime for enterprises. (*In Vietnamese*)
- Ministry of Finance. 2006. Decision No. 48-TC/QD-CDKT dated on 14 September 2006: Accounting regime for small and medium enterprises. (*In Vietnamese*)
- Ministry of Finance. 2006. Circular No. 53/TT-BTC dated on 12 June 2006: Guidance on the organization of management accounting unit in an enterprise. (*In Vietnamese*)
- Mondell, S. 2005. Triangulation between case study and survey methods in management accounting research: An assessment of validity implications. *Management Accounting Research* 16 (2): 231-254.

- Monden, Y., and K. Hamada. 1991. Target Costing and Kaizen Costing in Japanese Automobile Companies. *Journal of Management Accounting Research* 3: 16-34.
- MaClave, J. T., P.G. Benson, and T. Sincich. 2011. *Statistics for Economics and Business, 11th edition, international edition*. Boston, MA: Pearson Education, Inc.
- New Zealand Trade and Enterprise. 2011. *Exporter Guide - Food & Beverage Vietnam: Market Profile July 2011*. New Zealand Trade and Enterprise. Available at: http://fic.nfi.or.th/food/upload/pdf/3_1239.pdf
- Newbold, P. 1995. *Statistics for Business and Economics, 4th edition, international edition*. London: Prentice-Hall international.
- Nguyen, C. P., and J. Richard. 2011. Economic transition and accounting system reform in Vietnam. *European Accounting Review* 20 (4): 693-725.
- Nguyen, T.P.D, and M. Aoki. 2012. Management accounting practices in Vietnamese food and beverage enterprises. *Asia Pacific Management Accounting Association 2012-Annual Conference (APMAA 2012)*. Xiamen, China, 14-17 November 2012.
- Nishimura, A. 2006. Enterprise governance and management accounting from the viewpoint of feed forward control. *Asia-Pacific Management Accounting Journal* 1 (1): 1-18.
- Nishimura, A. 2003. *Management Accounting: Feed forward and Asian Perspectives*. New York, NY: Palgrave Macmillan.
- Nooteboom, B. 1994. Innovation and Diffusion in Small Firms: Theory and Evidence. *Small Business Economics* 6 (5): 327-347.
- O'Connor, N. G., C. W. Chow, and A. Wu. 2004. The adoption of "Western" management accounting/controls in China's state-owned enterprises during economic transition. *Accounting, Organizations and Society*, 29 (3-4), 349-375.
- Palladium Group, Inc. 2009. *Balanced Scorecard Hall of Fame Report*. Boston, MA: Harvard Business Publishing Newsletters.
- Pham, C. B. 2006. *Building a costs accounting system for Vietnamese pharmaceutical companies*. Doctoral dissertation. National Economics University, Hanoi, Vietnam. (in Vietnamese)

- Pham, H. H., G. Tower, and G. Scully. 2011. De jure convergence between Vietnamese and International Accounting Standards. *The 2011 AFAANZ Annual Conference*. Darwin, Australia.
- Rattray, C. J., B. R. Lord, and Y. P. Shanahan. 2007. Target costing in New Zealand manufacturing firms. *Pacific Accounting Review* 19 (1): 68-83.
- Renault, M. and C. P. Nguyen. 2007. The new system of business accounting in Vietnam: an empirical evaluation. *The 29th Annual Congress of the European Accounting Association*. Dublin, Ireland. Available at: <http://www.lautorite.qc.ca/files/pdf/fonds-education-saine-gouvernance/promo-gouvernance/cifo-esg-uqam-etude-2007-03.pdf>
- Rogers, E. M. 2003. *Diffusion of Innovations, 5th edition*. New York, NY: Free Press.
- Sakurai, M. 1989. Target costing and how to use it. *Journal of Cost Management (summer)*, 39-50.
- Smith, M., Z. Abdullah, and R. A. Razak. 2008. The diffusion of technological and management accounting innovation: Malaysian evidence. *Asian review of Accounting* 16 (3): 197-218.
- Spraakman, G. 2010. *The impact of information technology on management accounting practices*. Working paper, Available at <http://ssrn.com/abstract=1734052>
- Tanaka, T. 1993. Target costing at Toyota. *Journal of Cost Management (Spring)*: 4-11.
- Tani, T., H. Okano, N. Shimuzu, Y. Iwabuchi, J. Fukuda, and S. Cooray. 1994. Target cost management in Japanese companies - current state of the art. *Management Accounting Research* 5 (1): 67-81.
- The Government of Democratic Republic of Vietnam. 1970. *Decision No. 233-CP*, issued on 1 December 1970: Uniform accounting and statistics reports for industrial enterprises. (*In Vietnamese*)
- The National Assembly. 2003. *Law No. 03-2003-QH11 on Accounting, dated on 17 June 2003*. Hanoi, Vietnam: The National Assembly of the Socialist Republic of Vietnam. (*in Vietnamese*)
- Uyar, A. 2010. Cost and Management Accounting Practices: A Survey of Manufacturing Companies. *Eurasian Journal of Business and Economics* 3 (6): 113-125.

- Van der Stede, W. A., S. M. Young, and C. X. Chen. 2005. Assessing the quality of evidence in empirical management accounting research: The case of survey studies. *Accounting, Organizations and Society* 30 (7-8): 655-684.
- Wijewardena, H., and A. De Zoysa. 1999. Comparative analysis of Management Accounting practices in Australia and Japan: An Empirical Investigation. *The International Journal of Accounting* 34 (1): 49-70.
- Wu, J., A. Boateng, and C. Drury. 2007. An analysis of the adoption, perceived benefits, and expected future emphasis of western management accounting practices in Chinese SOEs and JVs. *The International Journal of Accounting* 42 (2): 171-185.
- Yang, D. C., and A. T. Nguyen. 2003. The Enterprise Accounting System of Vietnam and United States Generally Accepted Accounting Principles: A Comparison. *Advances in International Accounting* 16 (2003): 175-204.
- Yazdifar, H., and D. Askarany. 2012. A comparative study of the adoption and implementation of target costing in the UK, Australia and New Zealand. *International Journal of Production Economics* 135 (1), 382-392.

Appendix A

ECONOMIC DATA OF VIETNAMESE MANUFACTURING AREA

Table A.1: Net turnover of Vietnamese manufacturing enterprises from 2005 to 2010

Unit: billion VND

<i>Manufacturing area</i>	2005	2006	2007	2008	2009	2010
Food products and beverages	167,290	196,409	262,474	367,699	414,975	526,654
Tobacco products	10,790	11,442	13,892	15,043	18,930	22,832
Textiles and wearing apparel	66,747	102,142	105,317	125,547	148,652	201,760
Leather and related products	37,344	44,483	51,307	60,973	66,813	86,219
Wood and products of wood and cork, except furniture	11,070	13,860	18,832	23,464	26,696	39,969
Paper and paper products	16,965	20,981	27,205	37,846	40,154	56,474
Printing and reproduction of recorded media	10,314	9,884	11,874	15,953	16,996	27,699
Coke and refined petroleum products	2,270	2,842	2,945	3,752	16,879	116,975
Chemicals and chemical products	46,187	55,070	66,541	92,816	151,546	139,023
Basic pharmaceutical products and pharmaceutical preparations	9,729	11,391	14,772	19,053	21,519	28,123
Rubber and plastics products	31,480	40,488	55,413	75,396	120,356	120,840
Other non-metallic mineral products	47,130	56,514	67,064	90,953	129,909	145,348
Basic metals	34,482	42,824	75,522	121,548	129,355	185,933
Fabricated metal products, except machinery and equipment	39,253	53,397	66,108	97,781	109,957	149,559
Computer, electronic and optical products	35,676	45,016	60,344	73,737	87,451	125,152
Electrical equipment	31,655	47,279	62,539	72,206	79,975	111,658
Machinery and equipment, etc	7,406	11,239	17,115	21,428	22,809	31,740
Motor vehicles, trailers and semi-trailers	24,785	26,809	40,228	59,929	69,865	76,615
Other transport equipment	43,512	49,184	74,039	83,967	129,886	120,354
Furniture	26,936	33,708	45,344	53,668	56,336	74,082
Other manufacturing	8,800	10,374	12,924	15,874	31,142	29,029
Repair and installation of machinery and equipment	1,851	2,068	6,245	12,387	7,013	21,148
Total	771,673	887,404	1,158,043	1,541,019	1,897,214	2,437,167

**Table A.2: Gross output of Vietnamese manufacturing industry at current prices
from 2005 to 2010**

Unit: billion VND

<i>Manufacturing area</i>	2005	2006	2007	2008	2009	2010
Food products and beverages	201,523.7	242,918.5	291,046.5	402,657.5	466,166.3	582,719.8
Tobacco products	16,477.3	16,048.6	18,577.0	19,525.7	24,598.4	27,372.2
Textiles and wearing apparel	79,031.1	107,093.9	127,272.8	156,630.4	185,382.3	236,939.5
Leather and related products	42,313.2	48,227.6	55,286.8	69,461.7	73,757.2	102,073.9
Wood and products of wood and cork, except furniture	19,403.3	21,098.6	26,182.3	32,793.2	38,011.7	48,942.0
Paper and paper products	18,601.0	22,373.1	27,970.1	38,478.6	42,005.2	55,606.2
Printing and reproduction of recorded media	9,738.8	11,512.7	12,058.1	15,542.1	18,525.4	24,543.3
Coke and refined petroleum products	2,145.0	3,174.3	2,379.3	4,511.1	35,486.4	120,696.9
Chemicals and chemical products	46,641.3	60,178.9	70,279.9	96,247.0	126,761.1	137,122.3
Basic pharmaceutical products and pharmaceutical preparations	8,861.0	11,403.4	13,133.9	17,527.4	23,590.2	43,017.2
Rubber and plastics products	38,913.9	49,116.5	59,990.7	84,359.3	97,814.1	129,773.7
Other non-metallic mineral products	54,639.5	70,504.2	78,161.7	101,055.0	146,390.9	161,629.6
Basic metals	37,400.8	45,481.2	63,534.7	85,816.6	87,963.9	132,047.6
Fabricated metal products, except machinery and equipment	45,706.7	59,333.6	75,996.3	101,258.2	124,124.3	176,172.0
Computer, electronic and optical products	34,781.9	41,137.1	58,039.4	68,536.4	85,828.7	112,649.2
Electrical equipment	33,985.3	43,938.7	60,385.7	69,669.4	80,397.4	92,231.9
Machinery and equipment n.e.c.	11,459.7	12,661.7	16,356.3	21,261.5	27,921.9	32,936.8
Motor vehicles, trailers and semi-trailers	28,465.5	30,307.7	40,227.7	54,938.4	61,051.8	85,412.5
Other transport equipment	44,375.2	52,631.7	73,860.0	83,115.4	101,009.6	111,207.0
Furniture	33,656.8	44,438.7	53,861.0	65,147.0	74,052.4	93,752.3
Other manufacturing	6,612.3	11,425.3	14,253.2	19,529.7	22,482.6	31,873.8
Repair and installation of machinery and equipment	3,768.2	3,970.4	6,997.2	12,263.9	17,457.4	24,211.3
Total	818,501.5	1,008,976.4	1,245,850.6	1,620,325.5	1,960,769.2	2,563,031.1

Table A.3: Number of employees in Vietnamese manufacturing enterprises from 2005 to 2010

Unit: person

<i>Manufacturing area</i>	2005	2006	2007	2008	2009	2010
Food products and beverages	406,117	433,402	457,155	498,132	526,056	546,327
Tobacco products	14,598	14,132	13,721	13,881	13,596	13,586
Textiles and wearing apparel	676,362	783,821	900,767	941,254	961,347	1,050,011
Leather and related products	531,238	587,064	614,969	632,696	611,101	716,271
Wood and products of wood and cork, except furniture	103,225	112,440	122,513	126,813	126,152	124,981
Paper and paper products	62,958	70,174	79,059	81,272	86,160	89,760
Printing and reproduction of recorded media	42,490	41,295	45,425	51,147	55,234	59,660
Coke and refined petroleum products	3,547	3,861	1,477	1,442	3,465	5,518
Chemicals and chemical products	66,253	69,803	73,406	80,100	87,411	89,033
Basic pharmaceutical products and pharmaceutical preparations	25,869	27,939	29,907	33,164	34,896	36,351
Rubber and plastics products	113,041	128,011	149,443	164,558	178,697	200,928
Other non-metallic mineral products	220,197	228,355	242,117	268,381	284,123	293,173
Basic metals	43,546	45,462	52,393	61,070	66,342	72,192
Fabricated metal products, except machinery and equipment	134,070	155,045	181,711	198,283	216,686	234,561
Computer, electronic and optical products	45,705	58,445	86,647	94,257	125,648	167,573
Electrical equipment	86,022	105,862	119,212	120,145	124,405	132,725
Machinery and equipment, etc	34,315	39,663	47,017	50,102	52,537	54,798
Motor vehicles, trailers and semi-trailers	38,665	42,489	46,291	46,222	60,291	70,095
Other transport equipment	82,320	92,440	118,431	120,967	128,641	117,199
Furniture	209,949	249,942	281,559	273,827	265,834	279,798
Other manufacturing	71,296	78,706	81,865	86,901	98,402	108,225
Repair and installation of machinery and equipment	16,927	18,146	22,528	24,720	24,072	26,328
Total	3,028,710	3,386,461	3,767,613	3,969,334	4,131,096	4,489,093

Appendix B

CONTENT OF THE QUESTIONNAIRE

(Translated from Vietnamese to English)

I. GENERAL INFORMATION

1. **Name of enterprise:**
2. **Address:**
3. **Stamp of enterprise:**
4. **Name of respondent:**
5. **Designation of respondent:**
6. **Email of enterprise or respondent:**
7. **Please choose the current manufacturing field of your enterprise**
 - a. Food
 - b. Beverage
 - c. Others
8. **Which kind of enterprise doer your enterprise belong to?**
 - a. State-owned enterprise
 - b. Joint-Stock company
 - c. Limited company
 - d. Foreign Joint-venture enterprise
 - e. Others
9. **Year of establishment:**
10. **Please answer the total number of your employees**
 - a. Below 10
 - b. 10-200
 - c. 200-300
 - d. Above 300
11. **Please indicate the total asset in your latest Balance sheet (Billion Vietnam Dong)**
 - a. Below 20
 - b. 20-100
 - c. Above 100
 - d. Others
12. **Please indicate the total revenue in your latest Income Statement:**
13. **Which regulation is your accounting system currently based on?**
 - a. The accounting regime issued in Decision 15/2006/QD-BTC on 20 March 2006.
 - b. The accounting regime issued in Decision 48/2006/QD-BTC on 14 September 2006.
14. **What is your current accounting method?**
 - a. Using only manual paper ledgers
 - b. Combining paper ledgers with excel or accounting software (please write the name of your accounting software)
 - c. Using only accounting software (please write the name of your accounting software)
 - d. Others
15. **Is your company listed in Vietnamese Stock Market (HNX, HOSE)?**
 - a. Yes

- b. No

II. MANAGEMENT ACCOUNTING SYSTEM

16. **Do you have a management accounting unit in your enterprise?**
 - a. Yes, there is a management accounting unit which is separated from the financial accounting unit.
 - b. Yes, there is an accounting unit which is combined both financial accounting and management accounting.
 - c. No, there is only a financial accounting unit.
 - d. Others
17. **Please evaluate the role of management accounting unit in your enterprise.**
 - a. Necessary
 - b. Not necessary
 - c. Ineffective
 - d. Other
18. **Please indicate the management accounting practices which has been adopted in your enterprise (choose as many as you want).**
 - a. Cost-Volume-Profit analysis
 - b. Financial ratios analysis
 - c. Budgeting
 - d. ABC and ABM
 - e. Balanced scorecards
 - f. Kaizen costing
 - g. Target costing and Target pricing
 - h. Just in time
 - i. Standard costing
 - j. Value chain analysis
 - k. Product life cycle analysis
 - l. Product profitability analysis
 - m. Classifying costs based on cost behavior
 - n. Customer profitability analysis
 - o. Benchmarking
 - p. Total quality management
 - q. Absorption costing
 - r. Process costing
 - s. Others
19. **Based on the management accounting practices that you have chosen in Question 18, please indicate the reasons for adopting them. (choose as many as you want)**
 - a. Achieving competitive advantage against competitors
 - b. Saving time
 - c. Saving cost
 - d. Using easily
 - e. Enhancing productivity
 - f. Required by customers
 - g. There is no other choice
 - h. Others
20. **Based on the management accounting practices which you have not chosen in Question 18, please indicate the reasons for not adopting them. (Choose as many as you want).**
 - a. Expensive
 - b. Not suitable
 - c. Never heard of it
 - d. Too complicated

- e. Time consuming
- f. No experiences
- g. Others

21. **Please evaluate the purposes for which your enterprise use cost information**

Purposes	Least important			Utmost important	
	1	2	3	4	5
To control the costs					
Budgeting					
To evaluate performance					
To make operation decisions					
To make short-run manufacturing or investment decisions					
To make long-run manufacturing or investment decisions					
Product pricing					
External reporting					
Others:					

22. **Do your enterprises classify costs based on cost behavior into: variable costs, fixed costs and mixed costs?**

- a. Yes
- b. No
- c. Others

23. **Have you used budgeted costs or cost norms to control costs occurred in your enterprise?**

- a. Yes, and use frequently
- b. Yes, but do not use frequently
- c. No using
- d. Others

24. **If you have used budgeted costs or cost norms, please evaluate them.**

- a. Effective
- b. Less effective than expected
- c. Others

25. **Does your enterprise conduct variances analysis between actual costs and budgeted costs or cost norms and analyze the causes of these variances?**

- a. Yes, it is conducted regularly and it is very important to analyze the causes
- b. Yes, it is sometimes conducted because analysis of causes is not important
- c. No, it is not conducted
- d. Others

26. **In terms of each product, do you classify its production costs into direct production costs and indirect production costs?**

- a. Yes
- b. No
- c. Other

27. **Which kind of cost allocation bases do you use to allocate manufacturing overhead costs for products?**

- a. Direct material cost
- b. Direct labor cost
- c. Multiple cost allocation bases
- d. Others

28. **Do you use predetermined overhead rates for allocating overhead costs?**

- a. Yes
- b. No

29. **How do you calculate the value of work in process?**

- a. Based on direct materials costs used
- b. Based on the completion percentage
- c. Based on 50% conversion costs
- d. Based on standard costs or cost norms
- e. Others

30. Please indicate the proportion of each cost in product cost

Costs	Below 20%	From 20% to 40%	From 40% to 60%	From 60% to 80%	From 80% to 100%
Direct material cost					
Direct labor cost					
Direct manufacturing overhead cost					
Indirect manufacturing overhead cost					
Selling cost, marketing, distribution					
Administration cost					
Research and Design cost					
Customer service cost					

31. Which kind of costing practices are you adopting to calculate product costs or cost of goods manufactured (please choose as many as you want)

- a. Absorption costing
- b. Process costing
- c. Standard costing
- d. Direct costing
- e. Others

32. Which kind of budgets have you used in your enterprise?

- a. Sales budget
- b. Production budget
- c. Cost of goods sold budget
- d. Selling cost budget
- e. Administration cost budget
- f. Direct material costs budget
- g. Direct manufacturing labor cost budget
- h. Manufacturing overhead cost budget
- i. R&D and Design costs budget
- j. Cash budget

33. Do your current budgets satisfy your management requirements?

- a. Completely satisfied
- b. Partly or somewhat satisfied
- c. Not satisfied
- d. Others

34. Which kind of below statements do you use in your enterprise? (please choose as many as you want)

Statements	Period		
	Monthly	Quarterly	Yearly
a. Revenue statement			
b. Cost of goods sold statement			
c. Production cost statement			
d. Cost of goods manufactured statement			
e. Selling cost statement			
f. Administration cost statement			

35. **Which department do you ask for opinions to make decisions on pricing product? (please choose as many as you want)**

- a. Accounting department
- b. Selling department
- c. Planning department
- d. R&D department
- e. Design or engineering department
- f. Other

36. **In product pricing, please indicate the importance of these factors.**

Factors	Not Important	Moderate Important	Important
a. Cost base + expected profit			
b. The price at which the customer want to buy the product			
c. The selling price of competitors			
d. Life cycle of the product			
e. Kind of the product (Ex: a special kind which is difficult to produce)			
f. Other			

37. **The process of pricing a product will be implemented based on which directions as follows?**

- a. Production costs incurred + expected profit → selling price
- b. In R&D and design phases, proposing production costs and profit margin → selling price
- c. Identify the selling price and expected profit → Design and manufacture the product to achieve the targets
- d. Others

38. **How many pricing processes are being used in your company?**

- a. Only one process for all kinds of products.
- b. Many processes, each process is equivalent to each kind of product.
- c. Many processes for each product and pricing processes will be changed continuously in the life cycle of a product
- d. Other

39. **Do you want to improve your current management accounting system? Please indicate some specific reasons.**

- a. Yes. The reasons are:
- b. No. The reasons are:
- c. Other

40. **Do you want to improve your current pricing system? Please indicate some specific reasons.**

- a. Yes. The reasons are:
- b. No. The reasons are:
- c. Other

Appendix C

THE RESULTS OF MANN-WHITNEY U TEST

Table B.1: the Mann-Whitney U test result for the adoption of specific management accounting practices in large enterprises and SMEs

Management accounting practices	SME and large enterprises	N	Mean Rank	Sum of Ranks
Classifying costs based on cost behavior	SMEs	37	23.07	853.50
	Large enterprises	17	37.15	631.50
Absorption costing	SMEs	37	27.62	1022.00
	Large enterprises	17	27.24	463.00
Process costing	SMEs	37	27.23	1007.50
	Large enterprises	17	28.09	477.50
CVP analysis	SMEs	37	22.61	836.50
	Large enterprises	17	38.15	648.50
Financial ratio analysis	SMEs	37	23.23	859.50
	Large enterprises	17	36.79	625.50
ABC and ABM	SMEs	37	24.50	906.50
	Large enterprises	17	34.03	578.50
Balance scorecards	SMEs	37	27.50	1017.50
	Large enterprises	17	27.50	467.50
Kaizen costing	SMEs	37	27.50	1017.50
	Large enterprises	17	27.50	467.50
Target costing	SMEs	37	26.23	970.50
	Large enterprises	17	30.26	514.50
Just in Time	SMEs	37	27.50	1017.50
	Large enterprises	17	27.50	467.50
Standard costing	SMEs	37	26.96	997.50
	Large enterprises	17	28.68	487.50
Value chain analysis	SMEs	37	27.50	1017.50
	Large enterprises	17	27.50	467.50
Product life cycle analysis	SMEs	37	26.00	962.00
	Large enterprises	17	30.76	523.00
Product profitability analysis	SMEs	37	24.19	895.00
	Large enterprises	17	34.71	590.00
Customer profitability analysis	SMEs	37	26.50	980.50
	Large enterprises	17	29.68	504.50
Benchmarking	SMEs	37	25.50	943.50
	Large enterprises	17	31.85	541.50
Total quality management	SMEs	37	27.50	1017.50
	Large enterprises	17	27.50	467.50
ERP	SMEs	37	27.00	999.00
	Large enterprises	17	28.59	486.00

Test Statistics^(a)

Practices	Classifying costs based on cost behavior	Absorption costing	Process costing	CVP analysis	Financial ratio analysis	ABC and ABM	Target costing	Just in Time	Standard costing	Product life cycle analysis	Product profitability analysis	Customer profitability analysis	Benchmarking	ERP
Mann-Whitney U	150.50	310.00	304.50	133.50	156.50	203.50	267.50	314.50	294.50	259.00	192.00	277.50	240.50	296.00
Wilcoxon W	853.50	463.00	1007.50	836.50	859.50	906.50	970.50	467.50	997.50	962.00	895.00	980.50	943.50	999.00
Z	-3.59	-0.13	-0.57	-4.03	-4.37	-3.80	-1.93	0.00	-0.82	-2.60	-3.27	-2.11	-3.04	-1.48
p-value (1-tailed)	0.00*	0.45	0.235	0.00*	0.00*	0.00*	0.025*	0.5	0.205	0.005*	0.00*	0.02*	0.00*	0.07

Grouping Variable: SMEs and large enterprises

* Significant at the .05 level

Table B.2: The Mann-Whitney U result for the adoption of specific management accounting practices between the old and young enterprises

Management accounting practices	Age of companies	N	Mean Rank	Sum of Ranks
Classifying costs based on cost behavior	Old (≥ 10 years)	21	33.21	697.50
	Young (< 10 years)	33	23.86	787.50
Absorption costing	Old (≥ 10 years)	21	24.29	510.00
	Young (< 10 years)	33	29.55	975.00
Process costing	Old (≥ 10 years)	21	29.07	610.50
	Young (< 10 years)	33	26.50	874.50
CVP analysis	Old (≥ 10 years)	21	32.93	691.50
	Young (< 10 years)	33	24.05	793.50
Financial ratio analysis	Old (≥ 10 years)	21	32.79	688.50
	Young (< 10 years)	33	27.50	907.50
ABC and ABM	Old (≥ 10 years)	21	30.93	649.50
	Young (< 10 years)	33	25.32	835.50
Target costing	Old (≥ 10 years)	21	29.36	616.50
	Young (< 10 years)	33	26.32	868.50
Standard costing	Old (≤ 10 years)	21	29.36	616.50
	Young (> 10 years)	33	26.32	868.50
Product life cycle analysis	Old (≥ 10 years)	21	28.57	600.00
	Young (< 10 years)	33	26.82	885.00
Product profitability analysis	Old (≥ 10 years)	21	31.00	651.00
	Young (< 10 years)	33	25.27	834.00
Customer profitability analysis	Old (≥ 10 years)	21	27.79	583.50
	Young (< 10 years)	33	27.32	901.50
Benchmarking	Old (≥ 10 years)	21	29.36	616.50
	Young (< 10 years)	33	26.32	868.50
ERP	Old (≥ 10 years)	21	28.29	594.00
	Young (< 10 years)	33	27.00	891.00

Test Statistics

	Classifying costs based on cost behavior	Absorption costing	Process costing	CVP analysis	Financial ratio analysis	ABC and ABM	Target costing	Standard costing	Product life cycle analysis	Product profitability analysis	Customer profitability analysis	Bench-marking	ERP
Mann-Whitney U	226.50	279.00	313.50	232.50	235.50	274.50	307.50	307.50	324.00	273.00	340.50	307.50	330.00
Wilcoxon W	787.50	510.00	874.50	793.50	796.50	835.50	868.50	868.50	885.00	834.00	901.50	868.50	891.00
Z	-2.50	-1.86	-1.79	-2.42	-2.93	-2.35	-1.53	-1.53	-1.01	-1.87	-0.33	-1.53	-1.25
<i>p</i> -value (1-tailed)	0.005*	0.05	0.045	0.01*	0.00*	0.01*	0.065	0.065	0.155	0.03*	0.37	0.065	0.105

Grouping Variable: Old and Young enterprises

* Significant at the .05 level