The Evolution of Management Accounting Practices in Vietnam: a Survey Research on Vietnamese Food and Beverage Enterprises

Nguyen Thi Phuong Dung* and Masaaki Aoki**

Abstract

The aim of this study is to examine the current evolutionary stage of management accounting practices in Vietnam, a Southeast Asian developing country, referring to the management accounting-evolution models proposed by IFAC (1998) and Nakamura (2003). In this paper, we focus on Vietnamese food and beverage enterprises because this sector has been considered as the largest in the Vietnamese manufacturing industry for many years. We employ a questionnaire survey to study the extent these enterprises have adopted certain traditional and modern management accounting practices and the main characteristics of their costing and product pricing systems. Our findings show empirical evidence that traditional management accounting practices of initial evolutionary stages are widely adopted in the enterprises. However, we find noteworthy evidence that some large Vietnamese food and beverage enterprises have already reached the highest stage of the evolution of management accounting. Thus, our study provides main characteristics of costing and product pricing systems in Vietnamese food and beverage enterprises.

1. Introduction

Vietnam is a developing country located in Southeast Asia. Since the mid of 1980s, Vietnam has carried out economic reforms to transfer from a centrally planned economy to a socialist-oriented market economy. During this transitional period, there have been numerous rapid economic and social changes. Privately-owned and foreign-investment enterprises have emerged and the Vietnamese domestic market has become much more competitive than before. Simultaneously, Vietnam has been integrated into the global economy. Therefore, Vietnamese enterprises need practical management accounting systems to enhance their strengths to survive in severe market competition.

Researchers and practitioners in Vietnam are interested in advanced management accounting practices in developed countries; hence we would like to help Vietnamese enterprises introduce management accounting systems into their business in the future. The initial step of our research is to grasp the current stage of management accounting practices in Vietnam. We focus on the food and beverage...
enterprises in our study because this sector has been considered as the largest in Vietnamese manufacturing industry for many years. In this article, we would like to answer the following research questions:

*RQ1:* What is the current evolutionary stage of management accounting practices in Vietnamese food and beverage enterprises?

*RQ2:* What are the main characteristics of costing and product pricing systems in Vietnamese food and beverage enterprises?

We will use the management accounting evolution model proposed by Nishimura (2003) and employ a questionnaire survey to identify the evolutionary stage of management accounting practices in the Vietnamese enterprises. Based on the results of this survey, we also aim to find characteristics of costing and product pricing systems in Vietnamese food and beverage enterprises.

The remainder of this article is structured as follows. In the next section, we describe management accounting evolution models, review prior studies focusing on management accounting practices in developed and developing countries, and examine Vietnamese management accounting practices. In Section 3, we explain the economic context of food and beverage enterprises in Vietnam and the research method. We examine the data collected from the Vietnamese enterprises in Section 4. This section reveals empirical evidence on the evolutionary stages of management accounting practices and main characteristics of costing and product pricing systems in the Vietnamese food and beverage enterprises. We summarize the results, clarify the limitation of our research, and state the future research in the final section.

2. Literature review

2.1. International Federation of Accountants (IFAC) model

In March 1998, 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 as a four-stage evolution 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 concentrates on explaining the evolution of management accounting in United States and European countries. The model, therefore, is also considered as Western or Anglo-American approach by researchers (Mohar and Omar, 2004; Abdel-Kader and Luther, 2006a). 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 the second stage from 1960 to 1965, the focus of management accounting was the provision of information for planning and control purposes. In the third stage from 1965 to 1985, management accounting focused on waste reduction of using business resources. The fourth stage or the current evolutionary stage of management accounting had been developed by 1995. In this period, the focus of management accounting moved toward a value creation through the effective use of resources and technologies.

It is necessary to state that the four stages in IFAC model are not mutually exclusive. Each stage successively includes the concepts of the previous stages and complements additional characteristics that occurred due to the new requirements of business management. For instance, the focus of management accounting on providing information in stage 2 still remains the same and is paraphrased in stage 3 and stage 4 where information becomes an increasingly critical resource along with other resources in enterprises. However, the difference between Stage 2 and Stage 3 is characterized by "value 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 stage 4 is regarded as "an integral part of the management process" and it concentrates on the use of resources to create value for organizations.

2.2. Nishimura model

Apart from IFAC model, Nishimura (2003) proposed another model describing the development of management accounting practices in Asian countries. This model is called Nishimura model or Eastern approach which is an alternative to IFAC model or Western approach (Mohar and Omar, 2004; Smith et al., 2008). Exhibit 2.2 depicts the four-stage evolution of Nishimura model. Basically, Nishimura and IFAC models describe the evolution of management accounting in a four-stage framework. However, Nishimura model provides more details about specific management accounting practices and concepts of control widely 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, the most developed country in Asia and it possesses common Asian cultures and thinking.

The first stage is referred to as "drifting" management accounting. In this stage, there is no inde-
pendent system of management accounting in organizations. The main focus of the stage is not management accounting itself but the application of financial accounting information to management and control requirements. Management accounting practices widely adopted in this period 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 such as 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. The contents of management accounting in this stage still have a deep influence 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 the 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, and opportunity cost analysis. 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 stage. 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.

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 control. In contrast to feedback control, feed forward control is a preventive and proactive control system. Managers who support this control utilize various kinds of methods to frequently adjust original plans and control the 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 variances continuously in the light of changing environments. It adopts various proactive methods beforehand to achieve the expected goals without delay. Therefore, feed forward control has to be integrated into organizational management to fulfill its functions (Nishimura, 2003). Management accounting practices which are widely adopted in this stage as target costing, kaizen costing, activity-based management, balanced scorecard, value chain analysis, life cycle analysis, and quality costing systems.

Fundamentally, Nishimura model seems to be consistent with Western model in terms of dividing the evolution 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 2.3). Therefore, we use Nishimura model as the main theoretical framework of this study.

2.3. Prior research on the evolution of management accounting practices in developed and developing countries

Chenhall and Langfield-Smith (1996) create a list of 42 traditional and contemporary management accounting practices to examine which of them are adopted and the benefits of adopted practices in Aus-
tralian large manufacturing firms. 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 rates and perceived benefits of traditional management accounting practices are higher than the contemporary practices in the enterprises. They also obtain evidence that Australian manufacturing firms have intentions to adopt management accounting practices focusing on non-financial information and strategy in the future. Although Chenhall and Langfield-Smith (1996) 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 approach 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 approach 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, 2005b), China (Wu et al., 2007), Vietnam (Doan et al., 2011).

Nishimura (2003) studies the evolution of management accounting practices in Asian countries. 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.

Abdel-Kader and Luther (2006a, 2006b) employ a questionnaire survey and face to face interviews to study the evolution of management accounting practices in the British food and drinks industry. They find that traditional management accounting practices such as Cost-Volume-Profit analysis (CVP analysis), direct costing, conventional budgets, and product profitability analysis are widely adopted in the enterprises. 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 enterprises. Based on IFAC model, they identify the evolutionary stages of management accounting practices in the British food and drinks enterprises.

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

2.4. Background of Vietnamese management accounting practices

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-style accounting model. This accounting system solely focused on management requirements of the Government of Vietnam and taxation authorities. The word “accounting” almost had the same meaning as “bookkeeping” and there was no official term corresponding to “management accounting” in Vietnam during this period (Adams and Do, 2005).

Since 1986, Vietnam has carried out its economic reform “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 enterprises were permitted and encouraged to develop in various fields of the economy. The conversion of state-owned enterprises into joint-stock companies, private-owned companies or corporations has been conducted gradually and consistently in Vietnam. Competitive markets have been established in the Vietnamese 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 businesses. Therefore, it is reasonable to consider that Doi Moi contributes to the emergence and the development of management accounting practices in Vietnam.

Vietnamese accounting on financial accounting perspective has been critically reformed since Doi Moi (Adams and Do, 2005; Doan et al., 2011). Laws and regulations on accounting are promulgated in conformity with international accounting standards. The Accounting Law 2002 officio recognizes management accounting as a part of the accounting system. The Ministry of Finance released Circular No. 53 on 12th June 2006 to provide basic guidance on organizing management accounting systems in an enterprise. Moreover, management accounting has become one of the mandatory subjects in the exams for candidates who wish to obtain the Auditor Certificate or the Accounting Practising Certificate. We would like to comment on academic management accounting research in Vietnam. There were only a few journal articles discussing modern management accounting practices in Vietnamese enterprises. In addition, most of them have been written in the Vietnamese language, therefore foreign

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1. The Accounting Law was promulgated by Vietnamese National Assembly in 2002. It contains provisions on accounting works, 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 candidates who practice as an auditor and provide 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 Practising 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.
researchers cannot fully understand Vietnamese management accounting practices.

With regards to the education of management accounting, some universities have begun to teach management accounting courses since the early 1990s till now (Doan et al., 2011). Though the curriculum of management accounting courses has changed continuously to meet the requirements of Vietnam's economy, it still focuses on traditional management accounting practices such as CVP analysis, absorption costing, and financial ratios analysis.

In short, there has been little research on the evolution of management accounting practices in Vietnamese enterprises until now.

3. Research methodology

3.1. 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, 2005). The Government of Vietnam has promulgated many policies to encourage the development of Vietnamese manufacturing sectors. New manufacturing enterprises with various kinds of ownerships have been established since Doi Moi. Simultaneously, the Government of Vietnam has conducted the conversion of state-owned enterprises into non-state-owned enterprises. Food and beverage enterprises have been already excluded from the governmental list of state-owned enterprises. They have highly developed in various types of ownership until now.

In Vietnam, the food and beverage industry is considered as the largest manufacturing sector based on the criteria of its net turnover and gross output in many years. According to the statistical data of the 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 31 December 2010), representing 21.8% of total 2,467,026 billion VND manufacturing sectors. In addition, gross output of food and beverage enterprises in 2010 was 582,730.1 billion VND (estimated to 30.78 billion USD at 31 December 2010). These enterprises employ 546,327 billion VND. However, in spite of its significant role in Vietnamese economy, it is difficult to find systematic research on management accounting practices in Vietnamese food and beverage enterprises.

3.2. Data collection

This study employs a questionnaire survey after conducting preliminary interviews and a pilot survey with some enterprises in Hanoi, one of the two largest manufacturing centers of Vietnam. The enterprises are selected from the following sources: Vietnamese General Statistics Office, the list of enterprises listed in Hanoi stock market and Ho Chi Minh stock market, and the List of the Vietnam top


We would like to explain criteria of selecting enterprises in our survey. First, the enterprises listed in 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 those of state-owned enterprises (Wu et al., 2007; Doan et al., 2011). Third, every answer has to be authorized by enterprises to assure the reliability of data. We select 145 enterprises from 4 cities based on these criteria, which are Hanoi, Ho Chi Minh City (the two largest manufacturing centers in Vietnam), Haiphong (northern district big city), and Dongnai (southern district big city). These cities have well-developed manufacturing infrastructure.

Our survey consists of two parts, namely general information (Part I) and management accounting system (Part II). Part I compromises questions about general characteristics of the enterprises. It includes the manufacturing field, the kind of enterprise, the year of establishment, total number of employees, total assets, sales revenue, and current accounting practices. Part II consists of questions concerning enterprises' management accounting practices such as accounting units, information technology (IT) application in accounting works, costing system, product pricing system, budgeting system, concept of control, and specific management accounting practices. Regarding important information, we used questions of various kinds, namely, closed-ended, open-ended and Likert scale questions to ensure the accuracy of responses.

A pilot survey was implemented from April 2011 to June 2011 in Hanoi. Then, the initial questionnaires were revised according to the feedback of this pilot survey. Finally, packs of five-page questionnaires, an 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 the year, we give the enterprises two months for returning 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. Finally, 54 questionnaires, which are authorized by enterprises, were available. This denotes the usable response rate of 37.2%.

4. Results and discussions

4.1. Overview of the sample

Table 4.1 represents the type of respondents and size of the enterprises. A majority of respondents (72.2%) are from the accounting departments and 24.1% of them are from the boards of director. We regard this information as a significant point to evaluate the quality of the responses.

According to Decree 56/2000/ND-CP\(^5\) issued by the Government of Vietnam in supporting small

\(^4\) Decision 14/2011/QD-TTG was issued by the Prime Minister of Vietnam on 4 March 2011. The decision promulgates criteria for identifying sectors which the Government owns wholly or majority in Vietnamese economy. It also provides a list of classification of state-owned enterprises. Food and beverage industries are not included in this list.

\(^5\) List of the Vietnam top 500 largest enterprises is available at this URL: http://toly500.com.vn/bang-wp.png?img=500-top-500-danhs-ykip bun chat viet nam

\(^6\) Decree 56/2009/ND-CP was issued by the Government of Vietnam on 30th June 2009. This decree has taken effect on 1 July 2009.
Table 4.1  Respondent category and size of the enterprises

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Numbers</th>
<th>Rate (%)</th>
<th>Size</th>
<th>Numbers</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting department</td>
<td>39</td>
<td>72.2</td>
<td>Small enterprises</td>
<td>28</td>
<td>51.8</td>
</tr>
<tr>
<td>Head of the department</td>
<td>19</td>
<td></td>
<td>Medium enterprises</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>Accountant</td>
<td>20</td>
<td></td>
<td>Large enterprises</td>
<td>17</td>
<td>31.5</td>
</tr>
<tr>
<td>Board of director</td>
<td>13</td>
<td>24.1</td>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>3.7</td>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: A small enterprise has total asset equal to or less than 30 billion VND (approximately 1 million USD). A medium enterprise has total asset in the range of 20 billion VND to 100 billion VND (approximately 5 million USD). A large enterprise has total asset equal to or over 100 billion VND (approximately 5 million USD). These exchanges from VND to USD are referred to the exchange rate of 20,800 VND/USD at 31/12/2011.

and medium enterprises (SMEs), total assets are considered as the prioritized criterion to identify the size of enterprises. Therefore, we classify the size of enterprises in this sample based on their total assets.

The majority of the enterprises (94.6%) are non-state owned enterprises. Nine enterprises are listed in the Hanoi stock market or the Ho Chi Minh stock market of Vietnam. Approximately 62% of the enterprises were established within 10 years. The oldest enterprise was found in 1975 and the newest was found in 2009.

We asked the enterprises whether they have accounting departments or not. Table 4.2 illustrates the result. A majority of the enterprises (94.4%) have accounting departments in their organizations. Especially, 11.1% of them have independent management accounting units which are separated from financial accounting units.

We requested the enterprises to evaluate the role of management accounting in enterprises. Table 4.3 shows the result. A significant number of enterprises (63%) consider that management accounting practices are necessary for the success of enterprises. This ratio is much higher than the ratios of enterprises which already have management accounting units (11.1%). It implies that many enterprises, which have not organized management accounting sections, regard management accounting as one of the key points to succeed.

Furthermore, one more important characteristic of the enterprises in this sample is the application of information technology (IT) in implementing accounting works. Table 4.4 shows that 92.4% of the enterprises apply IT in their accounting works. Specifically, 13 enterprises (24.5%) use software such as ERP (Enterprise Resource Planning), SAP, ACCMSFT; 36 enterprises (67.9%) use accounting software or MS Excel in combination with manual paper ledgers. Only 4 enterprises (7.6%) use exclusively manual paper ledgers. Regarding this characteristic, many researchers have concluded that application of IT is a vital condition to develop management accounting practices. In other words, management accounting is no longer feasible without IT (Graham, 2007; Sprakman, 2010; Maria de Ceu, 2010). Therefore, we consider the high proportion of IT application as an important characteristic of the enterprises.

4.2. Costing system

Table 4.5 denotes the cost structure of the enterprises. Direct material cost is the largest cost item with an average proportion of 69%. It is consistent with prior research about other developing countries.

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Table 4.5 Cost structure

<table>
<thead>
<tr>
<th>Costs</th>
<th>Below 20%</th>
<th>From 20% to 40%</th>
<th>From 40% to 60%</th>
<th>From 60% to 80%</th>
<th>From 80% to 100%</th>
<th>N</th>
<th>Mean</th>
<th>STD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct material cost</td>
<td>0</td>
<td>7</td>
<td>10</td>
<td>17</td>
<td>20</td>
<td>54</td>
<td>69%</td>
<td>21%</td>
<td>1</td>
</tr>
<tr>
<td>Direct labor cost</td>
<td>18</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>53</td>
<td>38%</td>
<td>26%</td>
<td>2</td>
</tr>
<tr>
<td>Direct manufacturing overhead cost</td>
<td>25</td>
<td>9</td>
<td>6</td>
<td>11</td>
<td>1</td>
<td>52</td>
<td>32%</td>
<td>25%</td>
<td>3</td>
</tr>
<tr>
<td>Administration cost</td>
<td>29</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>52</td>
<td>38%</td>
<td>23%</td>
<td>4</td>
</tr>
<tr>
<td>Indirect manufacturing overhead cost</td>
<td>16</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>49</td>
<td>27%</td>
<td>23%</td>
<td>5</td>
</tr>
<tr>
<td>Selling cost, marketing, distribution</td>
<td>18</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>51</td>
<td>30%</td>
<td>22%</td>
<td>6</td>
</tr>
<tr>
<td>Research and design cost</td>
<td>37</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>15%</td>
<td>10%</td>
<td>7</td>
</tr>
<tr>
<td>Customer service cost</td>
<td>41</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>47</td>
<td>13%</td>
<td>7%</td>
<td>8</td>
</tr>
</tbody>
</table>

N: Numbers of enterprises  STD: Standard deviation

(Joshi, 2001). The second largest cost item (38%) is direct labor cost. Manufacturing overhead cost, administration cost, and selling cost almost have 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 4.5 also presents the results of calculating standard deviations. For each cost, the standard deviation measures how much variation exists from the mean. As can be seen, the majority of the costs have standard deviations of 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.

Cost classification based on cost behavior is a preliminary step to control costs in enterprises (Horn gren et al., 2012). Therefore, we investigate this cost classification for our sample. It is found that 41% of the enterprises have already classified costs into variable costs, fixed costs, and mixed costs. However, nearly half of the enterprises (48%) do not adopt this cost classification. The rest of the enterprises (11%) give no answer or adopt other practices.

Regarding another kind of cost classification, a majority of the enterprises (76%) classified their production costs into direct and indirect production costs. This means they understood the importance of assigning costs to cost objects, which can provide information for numerous management purposes such as product costing, product pricing, and profitability analysis.

On the topic of allocating manufacturing overhead cost, more than half of enterprises (59.3%) use direct material cost as the only cost allocation base for manufacturing overhead cost. Because direct material cost is 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. We also find that only 24.1% of the enterprises employ multiple allocation bases for allocating manufacturing overhead costs. This evidence shows that these enterprises 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 the accurate product cost.

Our 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 one method. Absorption costing is the most popular method to calculate product cost with the adoption rate of 83.2% of the enterprises. The other methods such as standard costing or process costing are also used but at very low percentage (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 practice (Abdel-Kader and Luther, 2008b). However, it is completely consistent with the results found by Doan et al. (2011). They report that absorption costing is the most widely adopted costing practice among the Vietnamese enterprises. We agree with the explanation of Doan et al. (2011) that a method similar to absorption costing was compulsorily used in the former centrally planned economy in Vietnam. Though absorption costing currently has become mandatory for tax authorities or 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-run decisions.

That is the reason why modern costing practices, i.e., ABC and target costing have been promoted in many developed and developing countries (Abdel-Kader and Luther, 2006b; Horngren et al., 2012).

4.3. Budgeting system

Budgeting has been considered as the most popular management accounting practice in both developed and developing countries (Chenhall and Langfield, 1998; Joshi, 2001; Abdel-Kader and Luther, 2006b; Wu et al., 2007; Doan et al., 2011). Our survey finds that all the enterprises adopt a traditional budgeting method for some items.

Table 4.6 shows that the adoption rate of sales budget is the highest (72.2% of the enterprises). Cost of goods sold budget, administration cost budget, production budget, and direct material cost budget are adopted widely with the rates of approximately 50% enterprises. The lowest adoption rate (7.4% of the enterprises) is R&D and design cost budget. As shown in Table 4.5, these costs account for only a small portion of entire costs. Therefore, it is reasonable that the enterprises do not pay attention to these budgets. However, despite using budgeting, 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, are satisfied with their current budgets. Even 5.0% of the enterprises are not satisfied with their current budgets.

The survey also asks the enterprises whether or not they use budgeted costs or norms. It is found that 53.7% of the enterprises use budgeted costs or norms as a method of controlling their costs frequently and 20.4% of the enterprises have budgeted costs or norms but do not use frequently. Meanwhile, 20.4% of the enterprises do not use any system of budgeted costs or norms and the rest of the enterprises use other methods or give no answer for this question. Regarding the enterprises that use budgeted costs or norms, this survey asks them to evaluate their systems. Less than half of the enterprises (47%) regard their systems of budgeted costs as effective. More than half of the enterprises (53%) consider that their budgeted costs are less effective than they expected.

Moreover, we ask the enterprises whether or not they use variances analysis between actual costs
and the budgeted costs or norms. It indicates that 53% of the enterprises conduct variances analysis between actual costs and budgeted costs or norms as well as analyzing the causes of the variances. 23% of the enterprises consider that sometimes, not frequently, they conduct the variances analysis because they do not believe much on the results of analyses. The rest of enterprises (24%) even do not conduct variance analysis.

According to feedback control concept in Nishiumi model, enterprises compare actual performances with original plans or standards to identify variances after actions have been completed. Through variances analysis, the enterprises will revise following plans to make the actual performance of the following period much closer to the plans than the current one. Based on these characteristics of feedback control, we evaluate the control concept approach of the enterprises. All of them use traditional budgeting method. The majority of them uses budgeted costs or norms as cost targets and analyze variances between the actual costs and budgeted costs or norms after the actual performances finished. Hence, these are important signals to indicate that feedback control approach is widely used in the enterprises.

4.4. Product pricing system

Table 4.7 presents the factors influencing the product pricing processes in the enterprises. Based on the "important" column, it can be seen that 74.1% of the enterprises consider that the cost base combined with expected profit is the most important factor in pricing products. The 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 4.8 describes findings about the pricing approaches of the enterprises. The majority of the enterprises (74.1%) answer that they calculate expected profit and combine with production costs to decide selling prices of their products. 9.3% of the enterprises answer that they estimate production costs and expected profit in R&D and design phases before deciding selling prices of their 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 approach is widely known as "target costing." Therefore, this finding implies that cost-plus pricing is widely used and the adoption rate of target pricing is very low in the enterprises.

4.5. 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, we first summarize the adoption rates of management accounting practices adopted by the enterprises. Then, we examine these practices on Nishiumi model.

As shown in Table 4.9, we find that the majority of the small and medium enterprises employ management accounting practices of the stage 1 and the stage 2. There are some medium enterprises that
<table>
<thead>
<tr>
<th>Practices</th>
<th>Numbers of enterprises</th>
<th>Adoption Rate (%)</th>
<th>Evolutionary Stages</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Medium</td>
<td>Large</td>
<td>Total</td>
</tr>
<tr>
<td>1. Traditional budgeting</td>
<td>28</td>
<td>9</td>
<td>17</td>
<td>54</td>
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<tr>
<td>2. Absorption costing</td>
<td>25</td>
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<td>14</td>
<td>45</td>
</tr>
<tr>
<td>3. Classifying costs based on cost behavior</td>
<td>7</td>
<td>2</td>
<td>15</td>
<td>22</td>
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<tr>
<td>4. CVP analysis</td>
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<td>3</td>
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<tr>
<td>5. Product profitability analysis</td>
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<td>6. Financial ratios analysis</td>
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<td>7. ABC and ABM</td>
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<td>8. Target costing and Target pricing</td>
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<td>4</td>
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<tr>
<td>9. Standard costing</td>
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<td>4</td>
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<td>10. Benchmarking</td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>11. Product life cycle analysis</td>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>12. Customer profitability analysis</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13. Process costing</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. Enterprise resource planning (ERP)</td>
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<td>1</td>
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<td>15. Kaizen costing</td>
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<td>16. Just in time</td>
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<tr>
<td>17. Value chain analysis</td>
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<td>18. Total quality management</td>
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<tr>
<td>19. Balanced scorecard</td>
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</tr>
</tbody>
</table>

T: Traditional management accounting practices  
M: Modern management accounting practices

be adopted by any enterprises, even the large enterprises.

5. Conclusions and limitations

This study provides empirical evidence on the evolution of management accounting practices in Vietnamese food and beverage enterprises. We employ a questionnaire survey to study the evolutionary stages of management accounting practices in the enterprises based on Nishimura model.

Regarding the Research Question 1, we find that majority of the small and medium enterprises (SMEs) are in the stage 1 "drifting" management accounting and stage 2 "traditional" management accounting of the evolution of management accounting practices. However, several large enterprises have already reached the stage 4 "integrated" management accounting which is 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. It is also found that feedback control is used dominantly in the enterprises.

Regarding the Research Question 2, we find main characteristics of cost, budgeting, and product pricing systems in Vietnamese food and beverage enterprises. We find that absorption costing, traditional budgeting and cost-plus pricing are widely adopted in the enterprises.

Like other questionnaire surveys, this study cannot avoid inherent limitations such as sample size, volume and interpretation of questions. Time, financial factors, and non-response bias may influence the findings. In addition, the response rate of the survey (37.2%) remained rather low because follow up procedures to enhance the response rates could not be implemented due to the time and financial limitations. However, the questionnaire survey method would benefit if we understand the fundamental principles of the method and apply them appropriately (Van der Steede et al., 2005).

For further research, we would like to analyze the factors influencing the evolution of management accounting practices in Vietnamese food and beverage enterprises. We would like to compare our findings with relevant studies in other countries to identify any differences. Moreover, our survey is just restricted to the food and beverage enterprises. Therefore, we would like to expand this survey to other manufacturing enterprises in Vietnam and obtain necessary information to introduce modern management accounting practices to Vietnamese enterprises.

References


