

# ความก้าวหน้าของเครื่องมือทางบัญชีบริหารของ ประเทศไทยและประเทศไทยและมาเลเซีย

## THE ADVANCEMENT OF MANAGEMENT ACCOUNTING PRACTICES IN THAILAND AND MALAYSIA

คณิตศร เทอดเพาพงศ์\*

Kanitsorn Terdpaopong\*

นิมนานา วิเศษสรรพ์\*\*

Nimnual Visedsun\*\*

กัญนิภพธี นิธิใจนันท์\*\*\*

Kanibhatti Nitirojntanad\*\*\*

\* ผู้ช่วยศาสตราจารย์ และปริญญาเอก ผู้อำนวยการหลักสูตรบัญชีนานาชาติ คณะบัญชี มหาวิทยาลัยรังสิต

\* Assistant Professor and PhD., Director of International Accounting Program, Faculty of Accountancy, Rangsit University

\* Email: kanitsorn@rsu.ac.th

\*\* ผู้ช่วยศาสตราจารย์ และปริญญาเอก คณบดี คณะบัญชี มหาวิทยาลัยรังสิต

\*\* Assistant Professor and PhD., Dean of Faculty of Accountancy, Rangsit University

\*\* Email: nimnuan@rsu.ac.th

\*\*\* รองศาสตราจารย์ และปริญญาเอก อาจารย์ประจำ ภาควิชาการบัญชี คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

\*\*\* Associate Professor and PhD., Chulalongkorn Business School, Department of Accountancy, Chulalongkorn University

\*\*\* Email: kanibhatti@cbs.chula.ac.th

## บทคัดย่อ

การประยุกต์ใช้การบัญชีบริหารในทางปฏิบัติของประเทศไทยและประเทศไทยเชี่ยวชาญมีความแตกต่างกันอันเนื่องจากความก้าวหน้าของอุตสาหกรรมการผลิตของแต่ละประเทศ บทความฉบับนี้จึงมีขึ้นเพื่อศึกษาเปรียบเทียบเครื่องมือทางบัญชีบริหารที่เป็นข้อค้นพบการประยุกต์ใช้การบัญชีบริหารในอุตสาหกรรมในประเทศไทยและประเทศไทยเชี่ยวชาญที่ได้ถูกเลือกสรรมาเป็นอย่างดี จำนวน 40 บทความโดยนำมาระบุเทียบกับขั้นของวิัฒนาการทางบัญชีบริหารตามที่ปรากฏในรายงาน IFAC's Statement 1 เกี่ยวกับการปฏิวัติทางเครื่องมือทางการบัญชีบริหาร ผลการศึกษาสรุปได้ว่า ขั้นของวิัฒนาการทางบัญชีบริหารในประเทศไทยและประเทศไทยเชี่ยวชาญมีความแตกต่างกันโดยที่บริษัทโดยล้วนใหญ่ของประเทศไทยเชี่ยวชาญจะใช้เครื่องมือทางบัญชีบริหารในขั้นที่สูงกว่าขั้นที่หนึ่ง คือการควบคุมทางการเงินและการกำหนดต้นทุน (Cost determination and financial control) โดยเป็นในบริษัทที่มีนวัตกรรมการผลิตที่มีการใช้เทคโนโลยีระดับสูง และอยู่ในตลาดที่มีการแข่งขันสูง ในขณะที่บริษัทในประเทศไทยล้วนใหญ่ยังคงใช้เครื่องมือทางบัญชีบริหารในขั้นที่ 1 เป็นหลัก และเครื่องมือทางบัญชีบริหารที่ใช้มากที่สุด คือ 'งบประมาณ' ซึ่งประเทศไทยและประเทศไทยเชี่ยวชาญต่างก็ใช้เครื่องมือนี้ในการบริหารในลักษณะที่คล้ายคลึงกัน

**คำสำคัญ:** การปฏิบัติการทางบัญชีบริหาร วิัฒนาการ วิัฒนาการของบัญชีบริหาร IFAC งบประมาณ

## Abstract

Application of management accounting practices in Thailand and Malaysia may differ due to the advancement differences of the manufacturing industries in the countries. This paper aims to observe the management accounting practices which were findings of application of management accounting practices used in Thailand and Malaysia from the well-selected forty research articles. Those selected articles were compared against the IFAC's Statement 1 on IFAC evolution of management accounting. The findings can be concluded that the stages of management accounting evolution of Thailand and Malaysia are different. The majority of Malaysian companies seem to fully pass the first stage which is the cost determination and financial control. Most companies are more on innovative, high-technological and competitive markets, while majority of Thai companies predominantly used the stage 1 of management accounting practices. The most practice being used is 'budgeting' – where Thailand and Malaysia have this management practice in common.

**Keywords:** Management Accounting Practices, Evolution, Management Accounting Evolution, IFAC, Budget

## Introduction and Literature Review

The changing and increasingly competitive global market inevitably demands for complicated and advanced management accounting practices to assist companies to equip to the changes. Foreign direct investment (FDI) is rising in many countries especially in Asian countries where several matters are still in favor for investment. In this study, the findings on Thailand are compared to Malaysia due to the points that these two countries are in the same demographic region. Secondly, they are developing countries with a rise of gross domestic product (GDP) growth rate (In 2015, Thailand' GDP was 395.28 billion US dollars - representing 0.64 percent of the world economy, Malaysia 296.22 billion US dollars - representing 0.48 % of the world economy) (The World Bank, 2016). Additionally, the two countries are the target destination of foreign direct investment where a number of multinational corporations are established. Management accounting practices in these two countries are of the research interest. Management accounting is normally used by management for decision making. The high adoption of management accounting in companies may differ depending on level of need, management perception, and the readiness of the information. The management accounting tools or techniques used in each company, industry, and country will vary, depending on the advancement of the industry, the need of management, the management support, and the knowledge in the field.

In this paper, the International Federation of Accountants (IFAC) statements on management accounting are used as a benchmark when discussing about the stages of management accounting. IFAC is the global organization for the accountancy profession which works with 163 member organizations in 119 countries. The purpose of IFAC is to protect the public interest by encouraging high-quality practices by the world's accountants. In 1989, IFAC issued a statement summarizing its understanding of the scope and purposes of management accounting and the concepts which underpin the management accounting. In 1998, the statement was revised and released as Management Accounting Concepts – Number 1. Statement 1 provides evolution and change in management accounting, management process, and conceptual framework. This statement describes the development of management accounting through the four sequential stages: Stage 1 – Cost determination and financial control (pre-1950); Stage 2 – Information for management planning and control (by 1965); Stage 3 – Reduction of resource waste in business processes (by 1985); and Stage 4 – Creation of value through effective resource use (by 1995) (See Figure 1). Each stage encompasses the concepts of the previous stage and incorporates additional ones that arose out of a new set of conditions.

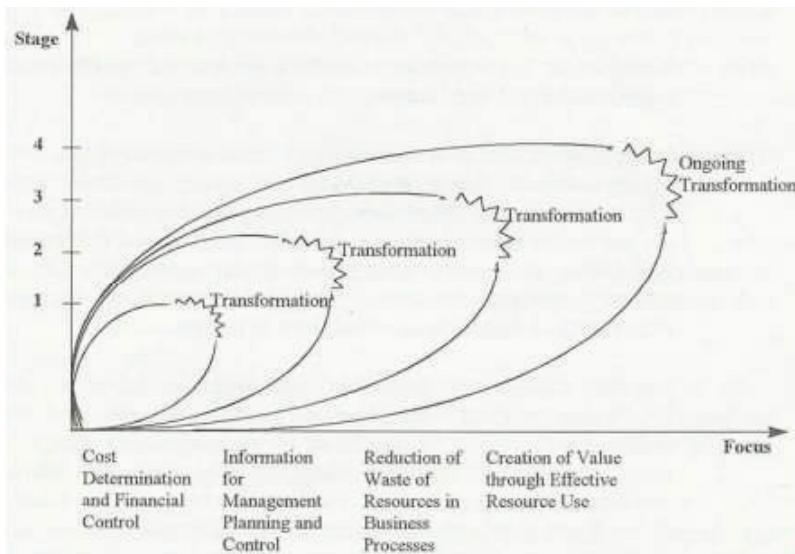


Figure 1 Evolution of the focus of management accounting

Source: IFAC (1998)

Stage 1 – Cost determination and financial control. The focus of this stage is in the determination of product cost and financial control of process. Production technology used at this stage is relatively simple.

Stage 2 – Information for management planning and control. The focus of this stage is on the provision of information for planning and control. Decision analysis and responsibility accounting were formed at this stage. It is manufacturing and internal administration rather than strategic and environmental consideration (Ashton, Hopper and Scapens, 1995).

Stage 3 – Reduction of resource waste in business processes. During the 1970s – 1980s, technological development was extremely high. This stage focuses on the reduction of waste in resources used in manufacturing process. Management needs information from management accountants regarding analysis and cost management technologies such as Just in time (JIT) method, Activity-based Costing (ABC), life cycling costing, quality of cost, and environmental costing was introduced for management decision making at this stage.

Stage 4 – Creation of value through effective resource use. In the 1990s, there was the development of world-wide-web and associated technologies which led to business online or electronic commerce. The focus of this stage is to receive real-time information. It is described by IFAC (para 19) that 'an integral part of the management process, as real-time information becomes available to management directly and as the distinction between staff and line management becomes blurred.' New models techniques such as total quality management (TQM), activity-based management (ABM), benchmarking and reengineering methods have been launched with the deliberation of eliminating activities that do not create value to business.

The research on management accounting development receives extensive attention in academic literature. Management accounting evolution has been widely researched. The Editorial Report by Scapens and Bromwich (2001) also describes the diversity of papers which have been published in the Management Accounting Research Journal. The report is subdivided into two periods: 1990 – 1994 and 1995 – 1999 where a wide range of topics has been studied. Table 1 summarizes the origin countries (or at least areas) of the authors that published the journal. The results indicate that Asia is the region second to last of published journals and the majority of published Journals are from the U.K. although there is a decline of published Journals in the U.K. between 1995-1999. Considering the topics that were highly studied during those 10 years, it is found that traditional costing (e.g. cost accounting systems and techniques, budgeting, standard costing & variance analysis, capital budgeting) has received high attention from many researchers and were the most topics being studied. Management accounting practices and management accounting change were largely studied (See Table 2). This also gives some indications that management accounting practices have been in the researchers' interest for long.

Table 1: Countries of origin

| Year/<br>Number of papers | 1990 – 1994<br>72 | 1995 – 1999<br>106 | Total<br>178 |
|---------------------------|-------------------|--------------------|--------------|
| Asia                      | 9%                | 5%                 | 7%           |
| Australia                 | 3%                | 14%                | 9%           |
| Europe                    | 13%               | 23%                | 19%          |
| U.K.                      | 56%               | 47%                | 50%          |
| U.S.                      | 18%               | 11%                | 14%          |
| Middle East/Africa        | 1%                | 0%                 | 1%           |
| <b>Total</b>              | <b>100%</b>       | <b>100%</b>        | <b>100%</b>  |

Source: Scapens and Bromwich (2001)

The samples of the research are Ashton et al.(1995), Abdel-Kader (2006), Chandler (1977), Chatfield (1977), Gliaubicas (2016), Hopwood (1987), Hockin & Marcve (1988), Johnson & Kaplan (1987), Loft (1995), Okano & Suzuki (2007), Parker (1980), and Solomons (1954). Much research conducts on the relationship of management accounting practices and the corporate performance. Several research results find empirical evidence on the positive relationship between effective management accounting system and corporate performance e.g. Ajibolade, 2013; Epstein, 2002; Mendoza and Saulpic, 2002; Monden, 1989; and Nishimura, 2004.

Table 2: Topics Studied

| Year/<br>Number of Papers   | 1990 – 1994<br>72 | 1995 – 1999<br>106 | Total<br>178 |
|---|-------------------|--------------------|--------------|
| Cost accounting systems and techniques  | 11%               | 10%                | 11%          |
| Budgeting, standard costing & variance analysis   | 6%                | 8%                 | 7%           |
| Capital budgeting   | 8%                | 5%                 | 6%           |
| Performance measurement   | 11%               | 10%                | 11%          |
| Contracting, incentive, etc.  | 2%                | 3%                 | 3%           |
| Other advanced techniques (Target costing, quality management, time-based management, and Japanese management accounting) | 6%                | 8%                 | 7%           |
| ABC   | 7%                | 7%                 | 7%           |
| Pricing; including transfer pricing   | 3%                | 4%                 | 3%           |
| EVA and residual income   | 0%                | 5%                 | 3%           |
| Strategic management  | 3%                | 7%                 | 5%           |
| Management accounting practices   | 15%               | 16%                | 16%          |
| Management accounting change  | 17%               | 7%                 | 11%          |
| Management and organization control   | 11%               | 7%                 | 8%           |
| Other   | 0%                | 3%                 | 2%           |
| <b>Total</b>  | <b>100%</b>       | <b>100%</b>        | <b>100%</b>  |

Source: Scapens and Bromwich (2001)

However, much of the previous research was oriented to development in one country which does not provide a wider picture of the development of the management accounting practices in general. And yet, several key factors influence the practices of management accounting in the country. The changes or the development of management accounting practices may derive from the need of the firm to adapt the companies themselves to the changing economic environment. The research questions of this paper are wrapped around the management accounting practices that stated by IFAC as an evolution model. This paper provides an overview of the Thailand and Malaysian literatures which management accounting practices being used by firms, and makes comparison between the two countries to understand the stages of evolution where they seem to belong using IFAC Evolution of Management Accounting as a benchmark.

## Objectives of the study

The objectives of this study are:

- 1.1 To explore management accounting practices that have been used by managements in Thailand compared to Malaysia.
- 1.2 To compare the evolution stages of management accounting between the two countries.

## Survey Methodology

This survey employs a qualitative method. The constructive review by collecting information on a secondary data basis and content analysis were performed in this study. The research is based on logical analysis, grouping, comparing facts, and synthesis. Historical data on management accounting practices of the two countries – Thailand and Malaysia – was taken from the period between 2000 – 2016 for matters of comparison. The searching words for examples: 'management accounting practices', 'management accounting evolution', 'traditional management accounting' and other relevant searching keywords were used. Using such keywords, it enables us to collect research articles from a trustable sources and well-regarded journals. The 65 research papers were primarily selected and later were scaled down to only related research papers. Final 20 research papers for Thai management accounting practices and 20 research papers for Malasian management accounting practices were carefully and manually selected based on the relevance of the topics - equal number of 20 matched up unexpectedly. Those papers cover all types of business ownership structures - both listed and non-listed companies in the stock exchanges and not only large size companies, but small and medium-sized enterprises (SMEs), private-owned, state-owned are all included. Their research methods, the management accounting practices being mentioned on those papers were systematically collected and compared with the findings conducted in other countries. The findings, discussions and conclusions are then drawn based on the discussions from the 40 selected papers.

## Finding Summaries

### Management Accounting Practices in Thailand

From the 20 selected research papers on the management accounting practice in Thailand, there are some similarities and differences of the research findings. It is found that many research papers conducted on listed companies on the Stock Exchange of Thailand (Chongruksut 2009; Komaratat and Boonyanet, 2008; Phadoongsithi, 2003; Shoommuangpak 2014; Shutibhinyo 2012; Sumkaew, Liu and McLaren 2012; Wajeetongratana 2016; Yongvanich and Guthrie 2009), rather than on small and medium-sized enterprises (SMEs). One of the reasons is that collecting data from listed companies is more convenient than collecting from SMEs of which data is not publicly available. There is only two papers (Rodpetch 2003; and Wajeetongratana, 2016) out of 20 papers of the observation directly conducted on SMEs. It is found that the contemporary or newly management accounting tools are not widely used in Thailand. The use of traditional management accounting techniques remains strong.

Management accounting practices of Thai companies is dominantly based on traditional ones such as the use of standard costing (Rodpetch, 2002; Nishimura, 2004; Komaratat & Boonyacet, 2008; Sumkaew, Liu & McLaren, 2012; Wajeetongratana, 2016), direct costing (Komaratat & Boonyacet, 2008; Nishimura, 2004; Phadoongsitthi, 2003), uniform cost accounting (Komaratat & Boonyacet, 2008; Nimtrakoon & Tayles, 2015; Nishimura, 2004; Wajeetongratana, 2016), absorption costing (Phadoongsitthi, 2003; Phadoongsitthi, 2005; Sumkaew, Liu & McLaren, 2012), and variance analysis (Komaratat & Boonyacet, 2008; Sumkaew, Liu & McLaren, 2012). The technique that has been mostly used by management is 'budgeting' which illustrated on the research findings of several researchers such as Komaratat & Boonyacet (2008), Phadoongsitthi (2003), Phadoongsitthi (2005), Rodpetch (2002), Shoommuangpak (2014), Sumkaew, Liu & McLaren (2012), Wajeetongratana (2016). Management practices at this stage are concerned primarily with internal matters, especially on production capacity, and not fully or widely used for decision making by management.

On the second stage, the uses of information for management, some evidences from several research were found. Marginal cost accounting method (Rodpetch, 2002), target costing (Chongruksu, 2002; Terdpaopong & Visedsun, 2014; Wajeetongratana, 2016), responsibility and segment report (Komaratat & Boonyacet, 2008; Rodpetch, 2002; Shoommuangpak, 2014) are used. Such methods are used as information for planning management processes and controlling. It's used for companies' internal analysis purposes.

On the third and fourth stages, the uses of techniques in these stages are not much evident. The uses of activity-based costing and activity-based management were found on papers of Chongruksu (2002), and Intakham (2014), while just-in-time (JIT), life cycling costing, environmental costing and quality cost were not dominantly used in Thailand. The same goes to the fourth stage evolution, where value chain analysis, customer profitability and competitors analysis, balanced scorecard and other advanced and innovative techniques are categorized into these stage, found to be lessly used in Thailand. Only some research conducted on such issues (Chongruksu, 2002; Phadoongsitthi, 2003; Phadoongsitthi, 2005; Shutibhinyo, 2012; Wailerdsak & Suehiro, 2004).

After categorizing, it is found that the stage of management accounting practices in Thailand is still in the traditional stage and to be precised, assuming that it fully reached stages 1 and starting on stage 2. Some of the advanced management accounting practices techniques such as activity-based costing (ABC), capital budgeting, cashflows budgeting, cost-volume-profit (CVP) and balance scorecard (BSC), may be familiar to just Thai managements in large firms but not all managements have a clear picture of such practices. From the data collection, most businesses either large or small fall into stage 1 and used management accounting practices for their cost determination and financial control, while some used for management planning and control. There are only a few companies, from the research findings, that are advanced and fall into stage 3 using JIT and ABC. Eventhough JIT and ABC are not new in Thailand, they seem not to be popular among the Thai companies and some of which adandoned them later after using it for some times due to the difficulty in data collection, especially ABC (Chongruksut, 2002; Intakhan, 2014). Very advanced companies adopt total quality management (TQM), activity-based management (ABM), target costing (TC), and other creative value methods but it is unusual for other businesses to adopt such innovative methods (Nimtrakoon & Tayles, 2015; Shutibhinyom 2011; Terdpaopong & Visedsun, 2014; Yongvanich & Guthrie, 2009). The low adoption of management accounting practices found to be more on advancing stages. See Appendix 1.

### Management accounting practices in Malaysia

Malaysia is one of the countries that has been a location of foreign companies. One of the most popular foreign countries located in Malaysia is Japan. The study by Omar and Muda (2002) marked the start of management accounting practices in Malaysia. The study showed the successful Japanese-owned and other multinational companies in Malaysia where traditional techniques were used effectively. The use of management accounting practices and management accounting techniques used in Malaysia has been studied for decades such as the studies by Ahmad (2014), Ahmad (2015), Mahfar and Omar (2004), Mat, Smith, and Djajadikerta (2010), and Tuanmat, Smith (2011). With the finding results from researchers, the most used management accounting practices in Malaysian companies are budgeting, financial ratios analysis, standard costing (Omar and Muda, 2002; Sulaiman, Ahmad, and Alwi, 2004; Lias, Razak, and Yaso, 2010; Mat, Smith, and Djajadikerta, 2010; Ahmad, 2012; Ahmad, 2014). The low adoption and used management accounting practices are activity-based costing (Maelah, and Ibrahim, 2007; Maelah, Ibrahim, and Hartadi, 2013; Majid, and Sulaiman, 2008; Mat, Smith, and Djajadikerta, 2010), balanced scorecard, economic value added, benchmarking, value chain analysis (Lias, Razak, and Yaso, 2010; Mat, Smith, and Djajadikerta, 2010). Target costing is also reported to be mostly used in automotive industry (Hamood, Omar, and Sulaiman, 2013; Addin, Omar, and Sulaiman, 2014), while advanced management accounting practices such as just-in-time (JIT), activity-based costing (ABC), Lean, total quality management (TQM), and balanced scorecard (BSC) have been established in many companies in Malaysia (Mahood, Omar, and Sulaiman, 2013; Mat, Smith and Djajadikerta, 2014) and especially in the Japanese-owned companies.

The study by Mahfar and Omar (2004) - on the current state of management accounting practices in selected Malaysian companies, concluded that management accounting techniques of Malaysian companies are in stages 1 and 2 of IFAC evolution model. The Malaysian companies fully reached the second stage and have already evolved the third stage of management accounting evolution (Mahfar and Omar, 2004). The innovative and advanced techniques such as Kaizen costing, multiple regression, economic order quantity (EOQ) for inventory, were found to be less used in Malaysia (Mahfar and Omar, 2004). The findings from the adoption of management accounting practices in Malaysian SMEs (Ahmad, 2014) revealed that management accounting practices were adopted by the majority of Malaysian manufacturing firms and the techniques mostly used are budgeting, performance evaluation, decision supporting system, and strategic management accounting. The traditional management accounting techniques are frequently being used than the sophisticated ones. The study on determinants of management accounting control system was also studied by Mat, Smith, and Djajadikerta (2010). They found that the management accounting system used by the Malaysian firms is highly associated with the adoption of advanced manufacturing technology and strategic change. However, the findings from the literature of Malaysian companies adopting of management accounting practices are still contradicted at some point. Tuanmat, and Smith (2011) concluded that no significant differences in management accounting practices among local and foreign companies, or between small, medium, and large companies. On the contrary, Ahmad and Zabri (2015) found that size of the firms has significant influences on the use of certain management accounting practices. Despite the fact that there are some contradictions on research findings, most research support the point that there is a positive relationship between changes in management accounting practices and business performance.

From the previous research findings, management accounting evolution in Malaysia in accordance with the IFAC evolution model - is currently passing stage 1 where budgeting, financial ratio analysis and standard costing are highly adopted. However, Mahfar and Omar (2004) claimed that the Malaysian companies fully reached the second stage and evolved the third stage of management accounting evolution. Eventhough 'Target Costing' – the practices classified on stage 2 – is evident. Practices on stages 3 and 4 – activity based costing (ABC), just in time (JIT), LEAN and total quality management (TQM) are seen. However, there are some points found that research findings were contradicting, such as a matter of size affecting to the adoption of management accounting practices (Ahmad, 2012; Ahmad, 2014; Ahmad, and Zabri, 2015) while some researchers concluded that size did not matter to the adoption (Tuanmat, and Smith, 2011). Furthermore, advanced management accountning such as balanced scored card and benchmarking were found by some researchers of their low adoption (Llias, Razak, and Yasoa, 2010; Mat, Smith, and Djajadikerta, 2010), while Tuanmat and Smith (2011) found high adoption. These contradiction provides rooms for future research. See Appendix 2.

#### Comparison the Management Accounting Practices between Thailand and Malaysia

From the observation, during the last 16 years most of the firms in Thailand have not shown strong evidence of employing management accounting practices to a large extent. The evolution of Thai firms seems not to go far beyond stage 1 – cost determination and stage 2 – information for management planning and control (See Exhibit 1) based on the IFAC evolution model. The stage 3 - reduction of resource waste in business processes and stage 4 – creation of value through effective resource used are to be seen only in large and innovative companies in Thailand. Eventhough industrial stage of Thailand has been increasingly growing, the management accounting practices do not seem to advance at the same speed. Only innovative or advanced companies in Thailand that experience the rapid change of technology and under the high competitive market environment, adopt and implement mangement accounting practices at a higher level. While comparing to Malaysia, it seems that they are fully passing stages 1, while practices on stage 2 found less evident and stepping onto stages 3 and 4. Practices classified on stages 3 and 4 of Malaysian companies are higher adopted compared to Thai industry (See Exhibit 2).



Exhibit 1: Management Accounting Practices in Thailand

Exhibit 2: Management Accounting Practices in Malaysia

### Conclusions, limitations and recommendations for future research

In summary, when the economic factors start to change, it intensifies companies to change, to adapt and to improvise for the competitive market. This has brought strong attention to the use of resources in creating value to the business. More sophisticated methods or techniques such as activity-based management, just-in-time, quality costing, value chain analysis, competitors analysis, balanced scorecard, benchmarking and strategic costing techniques are beginning to receive the management attention. This assists to meet the requirements of management regarding making decisions and enhance business performance. Management accounting is then needed to play a new and proactive role to become a part of the management team. Knowing where the management accounting practices of the country is, and which stage where the company belongs to will help company and managements to realize their current stand point and leave rooms for improvement. Some research has confirmed that there is a strong and positive relationship between the level of management practices and the business performance.

Three main findings can be distilled from the study. Firstly, it is found that most of the research papers provide strong evidence and be able to conclude that Thailand has fully reached the first stage of IFAC management accounting evolution and evolved into the second stage of evolution evolved such as target costing, marginal costing and segment report. However, practices in stages 3 and 4 are found to be used in just some large and innovative companies in Thailand where they are in a high and innovative competitive market.

Secondly, the findings on Thailand has some similarities to Malaysia where stages 1 and 2 management accounting techniques are still predominantly applied among the sampling companies. Some methods being used by management - budgets, income statement analysis, cash flow analysis, balance sheet analysis, and financial ratios - are in stage 1. The conclusion of the study from Mahfar and Omar (2004) concluded that Malaysia is in an advanced stage, fully reaches stage 2 and is now stepping to stages 3 and 4. Advanced management accounting practices are mostly used in advanced and hi-technological and innovative companies in Malaysia. It is convincing to conclude that Malaysia companies are at a higher stage of management accounting evolution when compared to Thailand.

Thirdly, the conclusion of this paper drawn from selective papers written in English. This has brought to the limitation of this paper where conclusion must be interpreted and used with care. The research publications on Thai context in this regard is rather limited while it is more available on Malaysian context. Most of the papers on Thai management accounting practices may be more available in Thai language rather than English, unlike in Malaysian case. The conclusion may change to a different phase if all Thai and English publications are concerned.

However, to adopt and implement management accounting techniques effectively in a company, regardless of its size, business types, and ownership structures depends on several factors. Here are some key concerns from the observation from Thailand context compared to Malaysia.

#### 1. The lack of understanding of the role of management accounting in a company

In Thailand, the emphasis on accounting is towards 'financial accounting' rather than 'management accounting'. In many companies, management accounting tasks have been put in the hand of accountants who probably understand little on management accounting. As such, sophisticated management accounting practices may not be adopted or implemented due to the lack of understanding of the persons who play an important role in such doing. Furthermore, management accounting also receives less attention from top management of companies. To be fully benefited from management accounting practices, both managements and management accountants need to have deep and clear understanding of the management accounting practices and their benefits.

#### 2. Limitations of management accounting professionals

The imbalanced view between financial accounting and management accounting can be seen in Thailand. Education at a university level in Thailand is generally focused on financial accounting and auditing. One of the evidences is the number of professionals in the two fields. The main Thai national accounting professions organization is the Federation of Accounting Professions (FAP) which was approved by Accounting Professions Act 2547 BE on 23rd October 2004. The main roles of FAP are to be in a supportive, monitoring, and assisting functions. Establishing accounting standards, auditing standards, and other standards relating to accounting professions are the main supportive roles. The emphasis of FAP is likely to be more on financial accounting rather than management accounting. In Thailand, there is no regulations governing certified public management accountants like certified public accountants (CPAs). There is no establishments of international professional bodies such as Chartered Institute of Management Accountants (CIMA), Institute of Management Accountants (IMA) in Thailand while those organizations have established and well accepted in Malaysia for a long period of time.

### **Limitations of the study and recommendations for future research**

The major constraint of this paper is the limitation of the action research itself. This could resist other facts that have not come to the study's realization. Based on the survey method used on this paper – content analysis of which logical, grouping and comparing facts, and synthesis methods are employed, the conclusion is drawn and has rooms left for further research. For future research purposes, following matters need to be considered; i) to conduct research on management accounting evolution by covering extensive, larger, and more representative samples on leading industries. This is to assure the accuracy of the stage of management accounting practices drawn from larger sample size; ii) to conduct comparative study in this research topic by collaborating with other researchers in other countries and conduct research within the same discipline. This is, for matters of comparison, to see the advancement of management accounting practices in other countries and see what the different factors that influence the adoption and implementation of the management accounting practices; iii) to broaden the topic to cover other aspects such as factors influencing the management accounting practices in the country, problems and solutions on management accounting practices, benefits of advanced management accounting techniques, etc.; iv) to conduct qualitative research on management accounting practices by using interviews, focus group as tools in collecting data; v) to investigate the gaps between the management accounting practices being used by a company and the need of the company's management and how to bring up the management's expectation; and vi) to use other benchmark as beyond the IFAC's Statement 1 to investigate the evolution of management accounting practices. This is to obtain in-depth information from management and related parties. The extensive study for future research as aforementioned will shed more light on management accounting practices, the techniques being used in companies, pros and cons of advanced management accounting techniques used, and evolution of management accounting practices application.

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Appendix 1: Collection data on Thailand Management Accounting Practices

| Stage | Name  | Method                                    | High education                                    |                               | Low education                 |                             |
|-------|---|---|---|-------------------------------|-------------------------------|-----------------------------|
|       |   |   | Phadungsittithi (2005)                            | Waegeontarana (2016)          | Phadungsittithi (2005)        | Waegeontarana (2016)        |
| 1     | Cost determination                            | Standard costing                          | Rosdetch (2002)                                   | Nishimura (2004)              | Komarat & Boonyaue (2012)     | Waegeontarana (2016)        |
|       | Direct cost accounting                        | Phadungsittithi (2003)                    |   | Nishimura (2004)              | Komarat & Boonyaue (2008)     |                             |
|       | Records of cost accounting                    | Rosdetch (2002)                           |   |                               |                               |                             |
|       | Uniform cost accounting                       | Nishimura (2004)                          | Komarat & Boonyaue (2008)                         | Nishimura (2004)              | Waegeontarana (2016)          |                             |
|       | Absorption cost accounting                    | Phadungsittithi (2003)                    | Sunakew, Liu & McLaren (2012)                     | Sunakew, Liu & McLaren (2012) | Waegeontarana (2016)          |                             |
|       | Budgeting                                     | Phadungsittithi (2003)                    | Rosdetch (2002)                                   | Komarat & Boonyaue (2008)     | Sunakew, Liu & McLaren (2012) | Waegeontarana (2016)        |
|       | Budgeting control                             | Phadungsittithi (2005)                    | Rosdetch (2002)                                   | Rosdetch (2005)               | McLaren (2012)                | Waegeontarana (2014)        |
|       | ROI / Financial statement/Ratios analysis     |   |   |                               | McLaren (2008)                |                             |
|       | Variance analysis                             | Komarat & Boonyaue (2012)                 | Sunakew, Liu & McLaren (2008)                     | Sunakew, Liu & McLaren (2012) | Waegeontarana (2016)          | Phadungsittithi (2005)      |
| 2     | Information for Management                    | Double standard cost accounting           | Rosdetch (2002)                                   |                               |                               |                             |
|       | Marginal cost accounting                      | Chomprksu (2002)                          | Techcharoeng & Vacharakum (2014); 50 % of samples | Waegeontarana (2016)          | Nishimura (2004)              |                             |
|       | Target cost accounting                        | Chomprksu (2002)                          |   |                               |                               |                             |
|       | Responsibility accounting                     | Komarat & Boonyaue (2008)                 | Rosdetch (2002)                                   | Shoonoonwanpak (2014)         | Phadungsittithi (2005)        |                             |
|       | Segment report                                |   |   |                               | Waegeontarana (2016)          |                             |
|       | Kaizen system                                 | Chomprksu (2002)                          | Intakham (2014)                                   |                               | Nishimura (2004)              | Komarat & Boonyaue (2008)   |
| 3     | Reduction Waste                               | ABC                                       | Chomprksu (2002)                                  |                               |                               |                             |
|       | ABM   |   | Chomprksu (2002)                                  |                               | Komarat & Boonyaue (2008)     |                             |
|       | Life cycling costing                          |   |   |                               | Waegeontarana (2016)          |                             |
|       | Environmental costing                         |   |   |                               | Waegeontarana (2016)          |                             |
|       | Quality cost or TQM                           |   |   |                               | Waegeontarana (2016)          |                             |
| 4     | Creation of Value                             | Value chain analysis                      |   |                               | Waegeontarana (2016)          |                             |
|       | Customer profitability & competitors analysis | Phadungsittithi (2003)                    | Phadungsittithi (2005)                            |                               | Waegeontarana (2016)          |                             |
|       | Balanced scorecard                            | Chomprksu (2002)                          | Shutibunyv (2011); 69% of 73 respondents          |                               | Nishimura (2004)              | Yongwichit & Guthrie (2009) |
|       | Advanced & innovative techniques              | Waleelaisak & Sutarto (2004); Siam Cement |   |                               |                               | Waegeontarana (2016)        |
|       | Benchmarking of product characteristics       |   |   |                               | Phadungsittithi (2005)        | Waegeontarana (2016)        |
|       | Benchmarking of strategic priorities          |   |   |                               | Phadungsittithi (2005)        | Waegeontarana (2016)        |
|       | Strategic costing techniques                  |   |   |                               | Komarat & Boonyaue (2008)     |                             |

Appendix 2: Collection data on Malaysia Management Accounting Practices

| Stage | Name  | Method                          | High Adoption                                   |                                   | Low Adoption                     |                                  |
|-------|---|---------------------------------|---|-----------------------------------|----------------------------------|----------------------------------|
|       |   |                                 |   |                                   |                                  |                                  |
| 1     | Cost Determination                            | Standard costing                |   |                                   |                                  |                                  |
|       | Records of cost accounting                    | Ahmed (2014)                    |   |                                   |                                  |                                  |
|       | Budgeting                                     | Ahmed (2014)                    | Maftah & Omar (2004)                            | Lias, Razak & Yasca (2010)        | Mat, Smith & Djajadikerta (2010) |                                  |
|       | Budgeting control                             |                                 |   |                                   |                                  |                                  |
|       | ROI / Financial statement/Ratios analysis     | Ahmed (2014)                    | Maftah, Omar (2004)                             | Lias, Razak & Yasca (2010)        | Mat, Smith & Djajadikerta (2010) |                                  |
|       | Variance analysis                             | Ahmed (2014)                    | Maftah, Omar (2004)                             | Lias, Razak & Yasca (2010)        | Mat, Smith & Djajadikerta (2010) |                                  |
| 2     | Information for Management                    | Double standard cost accounting |   |                                   |                                  |                                  |
|       | Target cost accounting                        | Hamood, Omar & Sulaiman (2013)  | Sharaf-Addin, Omar & Sulaiman (2014)            |                                   |                                  |                                  |
|       | Responsibility accounting                     |                                 |   |                                   |                                  |                                  |
|       | Segment report                                |                                 |   |                                   |                                  |                                  |
|       | Kaizen system                                 |                                 |   |                                   |                                  |                                  |
| 3     | Reduction Waste                               | ABC                             | Hamood, Omar & Sulaiman (2013)                  | Mat, Smith & Djajadikerta (2014)  | Maelah & Sulaiman (2004)         | Mat, Smith & Djajadikerta (2010) |
|       | ABM   | JIT                             | Hamood, Omar & Sulaiman (2013) just established | Mat, Smith & Djajadikerta (2014)  | Maelah & Ibrahim (2007)          | Maelah, Ibrahim & Hariadi (2013) |
|       |   |                                 | Hamood, Omar & Sulaiman (2013)                  | Mat, Smith & Djajadikerta (2014)  |                                  |                                  |
|       | Lean (added for Malaysia context)             |                                 | Ayesh & Eddine (2015)                           | Hamood, Omar & Sulaiman (2013)    | Mat, Smith & Djajadikerta (2014) |                                  |
|       | Quality cost or TQM                           |                                 |   |                                   |                                  |                                  |
| 4     | Creation of Value                             | Value chain analysis            | Mat, Smith & Djajadikerta (2010)                | Sulaiman, Ramli & Mitchell (2008) | Mat, Smith & Djajadikerta (2014) | Lias, Razak & Yasca (2010)       |
|       | Customer profitability & competitors analysis |                                 | Mat, Smith & Djajadikerta (2010)                |                                   |                                  |                                  |
|       | Balanced scorecard                            |                                 | Ayesh & Eddine (2015)                           | Ayesh & Eddine (2015)             | Hamood, Omar & Sulaiman (2013)   |                                  |
|       | Benchmarking of product characteristics       |                                 | Ayesh & Eddine (2015)                           | Mat, Smith & Djajadikerta (2010)  | Mat, Smith & Djajadikerta (2010) |                                  |
|       | Benchmarking of strategic priorities          |                                 | Ayesh & Eddine (2015)                           | Mat, Smith & Djajadikerta (2010)  | Mat, Smith & Djajadikerta (2010) |                                  |
|       | Economic value added                          |                                 | Mat, Smith & Djajadikerta (2010)                |                                   |                                  |                                  |