



MANAGEMENT ACCOUNTING DEVELOPMENT IN  
THE HEALTHCARE SECTOR: THE CASE OF  
HOSPITALS IN ABU DHABI

BY

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A dissertation submitted in fulfilment of the requirement  
for the degree of Master of Sciences in Accounting

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## **ABSTRACT**

This study aims to examine the relationship between the management accounting development and three variables, namely, corporate governance, size, and ownership. A total list of (36) hospitals registered with HAAD and SEEHA of Abu Dhabi in the year 2010 was used as a sample for this study. Out of this list, 31 questionnaires were returned, which is equal to 86.1% of the total targeted hospitals. A survey was conducted using questionnaires to gather data from the respondents. The respondents were financial managers and the accounting managers. The study proposed that there is a direct relation between management accounting development and corporate governance, size and ownership; and a direct relation between management accounting development and the performance of the hospital. The result from this study indicates that there is no relation between management accounting development and corporate governance, However, the result shows negative significant relationship between size, ownership and MAD, plus negative significant relationship between MAD and hospital financial performance. This reflects the possibility of MAD was developed for more than for its impact on economic performance. As it is recognised in the literature that advanced MA adoption can be linked to managerial exercise of gaining stakeholder' legitimacy, the findings of the study demand further investigations by examining this pertinent issue via other theoretical perspectives.

## ملخص البحث

تهدف هذه الدراسة إلى إختبار العلاقة بين المحاسبة الإدارية وثلاثة متغيرات هي: حوكمة الشركات، والحجم، والملكية. تم استخدام قائمة تتضمن (36) مستشفى مسجلة لدى هيئة الصحة و شركة أبو ظبي للخدمات الصحية (صحة) عام 2010 عينة لهذه و الدراسة. تم استرجاع عدد 31 استبانة ، التي تساوي 86.1% من مجموع المستشفيات المستهدفة. وأجريت الدراسة باستخدام استبيانات لجمع البيانات من أفراد العينة. وكانت العينة مكونة من مدير المالية ومدير المحاسبة. واقترحت الدراسة أن تكون هناك علاقة مباشرة بين تطور أدوات المحاسبة الإدارية، حوكمة الشركات، والحجم والملكية،بالإضافة الى وجود علاقة مباشرة بينتطور ادوات المحاسبة الإدارية وأداء المستشفى. وأشارت النتائج من هذه الدراسة أنه لا توجد علاقة بين تطور المحاسبة الإدارية وحوكمة الشركات، في حين أن هناك علاقة سلبية بين المحاسبة الإدارية، الملكية، الحجم والأداء. ومع ذلك، اظهرت نتائج الدراسة انه ينبغي استخدام أدوات المحاسبة الإدارية ولكن مع مراعاة الفروقات بين المستشفيات بما في ذلك الملكية والحجم. وساهمت هذه الدراسة في محاولة لإظهار العلاقة بين تطور المحاسبة الإدارية وحوكمة الشركات.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Science in Accounting

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## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Ibrahim Musa R. Rahamhi

Signature.....

Date.....

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

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THE HEALTHCARE SECTOR: THE CASE OF  
HOSPITALS IN ABU DHABI**

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## LIST OF ABBREVIATION

ABC	Activity Based Costing
BIESM	Board Involvement in External Stake Holder Management
BIISM	Board Involvement Internal Stakeholder Management
BSC	Balanced Scorecard
CDFC	Cost Determination and Financial Control
CEO	Chief Executive Officer
CIMA	Chartered Institute of Management Accountants
GLM	General Linear Model
HAAD	Health Authority Abu Dhabi
IFAC	International Federation of Accountants
IUM	International Islamic University Malaysia
IPC	Information for Management Planning and Control
ITA	Institutional Theory of Agency
JIT	Just-In-Time
MA	Management Accounting
MAD	Management Accounting Development
OECD	Organization for Economic Co-operation and Development
PJSC	Public Joint Stock Company
RWR	Reduction of Waste in Business Resources
SEHA	Abu Dhabi Health Services Company
SPSS	Statistical Package for the Social Sciences
TQM	Total Quality Management
UAE	United Arab Emirates
VC	Creation of Value through Effective Resource Use
WTO	World Trade Organization

# CHAPTER ONE

## INTRODUCTION

### 1.0 BACKGROUND

Management accounting has been developed to face the effect of the quick changes in the global market. However, the question here is, how does the role of management accounting differ from the past (Cotesta et al., 1998)? Many researchers and accounting professionals have conducted research to answer this question and fill the gap between old and contemporary practices and to show the best way to generate benefits from management accounting in the new market. P.V. Cotesta et al. (1998) argue that traditional management accounting practices adopted a simple model of cost behaviour. With the present business competition this is not helpful in facing the rapid economic changes, because consumer tastes are different from the past, which will lead to a change in the costing and business processes. As a result, current management accounting practices need to respond to the increasing complexity of business operations as they attempt to embrace a rapidly changing and highly competitive global marketplace (Cotesta et al., 1998).

Traditional management accounting techniques, such as standard costing and variance analysis, traditional budgeting and cost volume profit analysis are said to be less useful in the present business environment (Farjana Yeshmin\* and Md. Amran Hossan, 2011). To succeed in the present dynamic business environment, new management accounting techniques, such as just-in-time (JIT), activity-based costing (ABC), total quality management (TQM), balanced scorecard (BSC), process re-

engineering, life cycle assessment, and target costing would greatly enhance the ability of corporations to meet global competition.

The health level of citizens has become an essential objective in the developmental, social and economic planning of all countries, which, in turn, separates the contemporary hospital from its conventional role as a place in which a physician just practices their profession to a more comprehensive role in terms of the mode of provision of health services. This has led to the multiplying of hospital objectives. Further, in the provision of diagnostic and treatment services to outpatients and inpatients, hospitals now aim to provide technical standards and professional expertise to physicians, nurses and specialists through the provision of all necessary means, tools and research.

To a certain extent, hospitals are now responsible for promoting preventive medicine awareness in their surrounding areas and within the whole community. The foregoing necessitates such health institutions to exert greater effort to retain their customers and to stabilize or increase their profitability without compromising the quality of the ultimate output. On the other hand, this causes the operating expenditure of the institution to increase. It is noteworthy that the conventional costing systems depend on the distribution of gross costs on an arbitrary basis causing the final product/output to bear direct or indirect unjustifiable or irrelevant costs.

Healthcare is among the priority sectors identified by the UAE Government, and, as a result, the UAE healthcare industry has displayed extraordinary growth and significant progress in the past few years. The Government's focus on healthcare aims to not only diversify the oil-reliant economy but also to develop an unprecedented healthcare infrastructure to ensure that adequate services are provided in the Emirates. Presently there are some 17 government hospitals in Abu Dhabi, as well as 19 private

hospitals, and they are continuing to increase. Healthcare used to be free to all, but in 2001 the Government introduced charges to reduce the drain of healthcare on public funds. In addition, it also aimed to increase the cost of foreign labour by making them pay for compulsory health insurance every year, thus encouraging the employment of local staff. Since the Government introduced this policy, government hospitals have faced a decrease in the number of patients in contrast to the increase in the number of patients visiting private hospitals. Historically, the Ministry of Health used to control all the hospitals in Abu Dhabi but recently it divided into two companies: SEHA (Abu Dhabi Health Services Company), and HAAD (Health Authority Abu Dhabi), which is the regulatory body of the private healthcare sector in the Emirate of Abu Dhabi and which ensures excellence in healthcare for the community by monitoring the health status of the population.

From what is stated above, there are two types of hospital operating in Abu Dhabi – private and public hospitals. On 29 December 2007 under Emiri decree No. 10 of 2007, the Abu Dhabi Health Services Company was launched, which is owned by the Government of Abu Dhabi. The corporate name is SEHA, SEHA means ‘health’ in Arabic. SEHA is an independent, public joint stock company (PJSC) created to manage and develop the curative activities of the public hospitals and clinics of the Emirate of Abu Dhabi. SEHA started to privatise the government hospitals in Abu Dhabi and owns and operates 12 hospital facilities, 2,644 licensed beds, and more than 40 Ambulatory and Primary Healthcare Clinics. It is one of the largest employers in the Middle East with more than 15,500 doctors and nurses as well as other clinical and administrative staff. SEHA delivers world-class healthcare locally by partnering with internationally recognized healthcare leaders, such as Johns

Hopkins Medicine, Cleveland Clinic, Bumrungrad International, Vamed, and Vienna Medical University.

This thesis tries to investigate and evaluate the extent of managerial accounting development in the health care organizations in Abu Dhabi, and to identify why they choose specific managerial accounting tools.

## **1.1 PROBLEM STATEMENT**

Because of the increasing competition in the health sector around the world, hospitals must consider the challenges in the market if they want to maximize their profitability in a way to guarantee their continuity and maintain the same level of quality services provided. Therefore, in order to strengthen their competitive position and then achieve their goals in the areas of profit and sustainability, the hospital administrations should look for appropriate ways and methods to reduce the cost of health services provided to patients while at the same time maintaining the service quality. Perhaps one of the best approaches to achieve this goal is that the hospital administrations should seek to reduce the indirect costs of health services. Cooper and Kaplan (1992) elaborated that due to the shortcomings of the traditional costing systems, hospitals should look at their management accounting and try to develop it in a way to enhance the profit and reduce the cost and that this is an appropriate method for avoidance of such shortcomings.

This study is one of a few studies that shed light on the development stage of the management accounting in the hospital sector due to its importance in fortifying the infrastructure of several institutions operating in the health services sector. Furthermore, this study is an attempt to show the relation between corporate governance and the level of management accounting development. The study will

focus on internal stakeholder's management, external stakeholder's management, audit committee, and to show the link between MA and corporate governance. This study has the following distinctive features. (1) It is among a few that depict the issue of evaluating the development level of management accounting tools in the health care sector in particular, given that most previous studies discussed the development of managerial accounting tools in the industrial and manufacture institutions. (2) Some studies that evaluated the development level of managerial accounting tools did not observe the type of hospital, while this study will observe the difference in the type of health care sector and will include both government and private hospitals. (3) This study attempts to show if there is a relation between corporate governance and the level of development of management accounting tools. This will differ from previous studies because most of the previous studies link corporate governance and the financial accounting issue. This research is different from the previous studies in several ways. First, the study intends to evaluate the stage of development in MA used by hospitals in Abu Dhabi, because most of the previous studies focused on the manufacturing sector while this study focuses on the health care sector, which is one of the most important sectors in any developing country. Second, the previous studies did not observe all the MA tools adopted by the hospital. Therefore, it will be very interesting to examine most of the stages of MA used by the hospitals and try to link them to the IFAC management accounting development stages (1998). Finally, the study intends to see if there is a link between the levels of development in MA used by hospitals in Abu Dhabi and corporate governance, because most of the previous studies focus on financial accounting while this study focuses on management accounting.

## **1.2 PURPOSE OF THE STUDY**

This study is significant because it is an attempt by the researcher to evaluate the management accounting levels of development in the hospital sector in Abu Dhabi, the capital of the United Arab Emirates, and to determine the level of development in MA practices by these hospitals. Therefore, the results to be revealed by this research will serve all parties relevant to such hospitals. In addition, to some extent, it will serve investors in such hospitals and will contribute to maximizing their returns from their investments therein and it will help the hospitals to reduce the cost and increase the profit while keeping the same quality of service. Furthermore, it will also serve citizens who will benefit from the creation of the appropriate potential for the viability of such hospitals, which will encourage them to upgrade the level of services provided to citizens with a view to achieving the objectives of this research. Babbie (2004) stated that the research objectives should be precisely written and designed to reach observable outcomes that the research ultimately hopes to achieve. Hence, in order to achieve the research aim the following objectives have been developed:

RO 1: To determine the stage of MA development in the hospital sector operating in Abu Dhabi.

RO 2: To explore whether corporate governance plays a significant role in the level of MA adopted by hospitals in Abu Dhabi.

RO 3: To examine the relationship between the development of MA in hospitals in Abu Dhabi and the performance of these hospitals.

RO 4: To examine the relationship between the development of MA in the hospitals in Abu Dhabi and the type and size of hospital.

The research conducted for this thesis aims to answer the following questions:

RQ 1: What is the MA applied in the hospital sector operating in Abu Dhabi?

RQ 2: What is the effect of corporate governance on the level of **MA** applied by hospitals in Abu Dhabi?

RQ 3: Does the level of **MA** adopted by hospitals in Abu Dhabi affect the performance of the hospitals?

RQ 4: Is there any relation between the stage of development of MA in the hospitals in Abu Dhabi and the type of hospital?

RQ 5: Is there any relation between the stage of development of MA tools in the hospitals in Abu Dhabi and the size of the hospital?

### **1.3 SIGNIFICANCE OF THE STUDY**

This study focuses on a current topic relating to managerial accounting development, which could be of special interest to the accounting literature. The study will investigate the level of management accounting development on the healthcare sector in Abu Dhabi. The study will also try to highlight other factors that may affect the stage of development of management accounting in hospitals operating in Abu Dhabi, such as corporate governance, type of healthcare, and size. To the best of my knowledge, no prior study of this kind has examined if there is any relation between the level of managerial accounting development in hospitals and the corporate governance used by the hospitals.

### **1.4 MOTIVATION FOR THE STUDY**

The first motivation of the researcher is to meet the requirements of the Master of Science in Accounting. What encouraged the researcher to choose this topic is the fact that the topic is a current topic that relates to an important part of all countries, which is the healthcare sector. Second, the shortage in previous studies that link the level of

managerial accounting development and corporate governance, and, third, to be precise, it seems that very few studies have linked the stage of development of managerial accounting and Hospitals (e.g. Arnaboldi, M. and Lapsley, I. 2005).

## **1.5 STRUCTURE OF THE RESEARCH STUDY**

The contents of this Master of Accounting graduation thesis will be organized into six chapters. This section discusses the contents of the thesis.

Chapter one of the research dealt with the introduction of the study, statement of the research problem, general purpose and specific objectives of the study, research questions, research hypothesis, significance of the study, motivation for the research of the study, and, lastly, the structure of the study.

Chapter two, captioned literature review, starts with an introduction before explaining what is MA, development of MA, difference between contemporary MA and traditional MA, background about hospitals in Abu Dhabi, literature review, and, finally, the summary of the section.

The research methodology and hypothesis development forms chapter three of this study. It deals with issues that centre on how the researcher gathered and collected the data for the study and also the techniques and methods used to analyse the collected data.

Chapter four of this study covers the analysis of the gathered data. Here, the questionnaires and interviews that were administered to gather data were used to generate findings, which are analysed using both qualitative and quantitative methods. The responses from respondents and explanations collected from the interviewees are analysed appropriately in consonance with the various research questions aimed at achieving the study's aim and objectives.

The fifth chapter covers the discussion of the findings obtained from the data source as it relates to the literature review explored in the research study.

Lastly, chapter six provides the conclusion and recommendations formed from this study. This chapter of the study is associated with the researcher drawing conclusions on the study based on the findings uncovered, and, thus, necessary recommendations were made from the findings that were channelled towards achieving the study's aim and objectives.

The following chapter conducts a critical summary and assessment of previous academic literature surrounding the research subject in order to guide the necessity for research in areas where more analysis is required.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 INTRODUCTION**

This chapter starts by discussing the development of managerial accounting, followed by a review of managerial accounting development and then discusses the IFAC evolution of management accounting. The chapter then explains the relation between corporate governance and managerial accounting development, and then provides a briefing about the hospitals in Abu Dhabi, further linking the literature to the managerial accounting used in the healthcare sector.

#### **2.1 DEVELOPMENT OF MANAGEMENT ACCOUNTING**

Managerial accounting started to emerge in the nineteenth-century. During this early period, management accounting started to develop and catch up with the growth of the industry and markets. In the early years, management accounting only played the role of providing information concerning the internal activities of a firm. It provided information about what the suitable income would be and the material that should be used in production.

Atkinson, in his review of Johnson and Kaplan's book, "Relevance Lost: The Rise and Fall of Management", mentioned that Johnson and Kaplan had said that in the early 1900s, management accounting developed from only providing information for the internal activities of an organization to give analysis concerning the efficiency and productivity of physical labour and material used. Later, accountants recognized that the information provided by managerial accounting for monitoring efficiency and

productivity could simplify the inventory valuation process (Atkinson, 1989). Nishimura (2002) categorized this in his 'drifting management accounting' stage where an organization starts to apply a financial figure for management control purposes, and his 'traditional management accounting' stage where efficiency and productivity of management are based on the plan made annually. This is when financial ratio analysis, business comparative study, standard costing, budgetary tools, variance analysis and breakeven point analysis were widely used.

With the pressure of globalization that affects market competition, advancement of technology and pressure to get information much quicker (Siegel, 1999), management accounting is now playing a bigger role in organizations. Managerial accounting not only plays the role of providing information, it also plays a big role in decision making or at least in helping managers make better decisions (Lambert & Sponem, 2009). This is when managerial accounting developed resource management by applying different and alternative analysis tools such as just-in-time (JIT), activity-based costing (ABC), total quality management (TQM), balanced scorecard (BSC), process re-engineering, life cycle assessment, and target costing. Management accounting also provides inputs for strategic decision makers. This is supported by the findings in the survey undertaken by the Institute of Management Accountants and Ernst and Young Roles and Practices in Management Accounting Today: Results from the 2003 IMA-E&Y survey (Garg et al., 2003).

Sulaiman et al. (2004) suggested that the adoption of traditional management accounting practices were higher than new management accounting practices. In addition, the benefits obtained from traditional management accounting techniques were higher than for new management accounting techniques. This is because of the high costs involved in implementing contemporary management accounting

techniques, the lack of awareness of new techniques, the lack of expertise, the lack of top management support, and, finally, managers generally avoid risks, and tend to be less innovative. Thus, it is taking managers a longer time to adopt new management accounting tools.

Management accounting continues to develop from focusing on the reduction of waste to the creation of value through the effective use of resources (IFAC, 1998). Firms have started to recognize that in order to be competitive, they have to respond to customer needs (Yazdifar, 2003). As stated in the IFAC management accounting concept, this is the stage where organizations evaluate and consider where organizations evaluate and consider where customer value, shareholder value and organizational innovation are derived from target costing, cost design, recycling products and continuous cost improvement are the tools used to achieve the objective of creating value for customers, shareholders and the organization itself. Nishimura (2005) mentioned that in the integrated management accounting stage, organizations take proactive and preventive feed forward management. This development was due to the uncertainty and fluctuations in the market with the rapid development of technology and increased competition (Siegel, 2003).

Because of the rapid changes in the global market, managerial accounting has developed to stay in line with the market needs, and moved from only providing information for the purpose of internal business activity to create value for the customer and other stakeholders. This development is clearly seen in developed countries, such as the United States, other Western countries and Japan. It is also empirically true that this development is seen in larger firms where the operations and productions were more complex and needed to be controlled (Greenhalgh, 2000). However, little attention has been given to the role that management accounting has

played on small medium enterprises; one of the few studies on small medium organizations was conducted by Greenhalgh (2000). The findings from this study were not in support of the other studies made by large firms. His findings were that small medium organizations still focus on using traditional management accounting that only gives them the information for operation planning and keeps them away from adopting the alternative management accounting techniques (Greenhalgh, 2000). The author comments in his conclusion by saying:

It may be that a thin management accounting role is not sufficient to meet the challenge of complexity in a globally competitive world, but it is sufficient to enable the smaller transnational organization to manage profitably its own strategy in its own niche. (Greenhalgh, 2000).

## **2.2 IFAC EVOLUTION MODEL OF MANAGEMENT ACCOUNTING**

In March 1998, the International Federation of Accountants (IFAC) issued statement number 1 in the series of international management accounting practices as a framework explaining the development of managerial accounting in four stages (See table 2.1).