

**CHRISTIAN SERVICE UNIVERSITY COLLEGE
SCHOOL OF BUSINESS**

**ADOPTION OF MANAGEMENT ACCOUNTING PRACTICES AND ITS IMPACTS ON
THE PERFORMANCE OF SOME PUBLIC HEALTH CARE INSTITUTIONS WITHIN
THE KUMASI METROPOLIS. (A CASE ON KOMFO ANOKYE TEACHING
HOSPITAL, TAFO GOVERNMENT HOSPITAL AND SUNTRESO GOVERNMENT
HOSPITAL)**

SARAH AFOAKWAH

ISAAC OFORI BONSU

COLLINS GYAMFI

ADAE EMMANUEL KWAKU OWUSU

MARGARET KONADU AGYARKO

**A DISSERTATION SUBMITTED TO THE ACCOUNTING AND FINANCE
DEPARTMENT OF CHRISTIAN SERVICE UNIVERSITY COLLEGE IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF
BACHELOR OF BUSINESS ADMINISTRATION (ACCOUNTING AND FINANCE)**

JUNE, 2018

ABSTRACT

The broad objective of this study is adoption of management accounting practice on the performance of public health hospital within Kumasi metropolis. In addressing this topic public hospital with the name Okomfo Anokye Teaching Hospital, South Suntreso hospital, Tafo Government Hospital

In an effort to investigate into the objective of the research, some specific objectives were explored, which are; the effect that MAPs have on performance, the effect that management influence on the design of MAPs have on performance, and the effects that challenges of MAPs have on performance of the selected public hospital. The research is a descriptive study which makes use of both primary and secondary data, where the primary data was attained through the design of a structured questionnaires which was administered to both the staffs of the accounts department and accounting students of the selected institutions.

Again, the study was positioned within analytical research approach and data collected from respondents from the selected public hospital were done by means of random sampling and non-random sampling techniques. The secondary data on the other hand was attained through the reliance of available related study done by other researchers.

The statistical package for social sciences (SPSS), version 23.0 was used to analyze the data of the study. A regression analysis was undertaken in order to check the correlational relationship between management accounting practices and the effects on the performance of private universities.

This study concludes that, management accounting practices plays a significant role on the performance of public hospital, especially as far as taking right decisions are concern.

It is therefore recommended that, public hospital should enhance their decision taking processes through equipping their staffs to be more analytical on information available, as well as generating reliable and relevant information to facilitate right decision taken.

ACKNOWLEDGEMENT

Our sincere thanks to the Almighty God for seeing us through this entire course. We are indebted to Mr. Christopher Daboug for his efforts in reading the scripts, his time and pains taking to guide us in coming out with this piece successfully. God Bless him for his efforts.

DEDICATION

This project is dedicated to God Almighty first and foremost, who has been our motivator, source of strength and provider throughout this course. Secondly, to all who supported us in diverse ways and in prayer especially our parents.

TABLE OF CONTENTS

CONTENTS

Declaration	i
Abstract.....	ii
Acknowledgement.....	iv
Dedication	v
Table of Contents	vi

CHAPTER ONE.....	1
-------------------------	----------

INTRODUCTION.....	1
--------------------------	----------

1.1 Background to the study	1
-----------------------------------	---

1.2 Statement of the Problem.....	3
-----------------------------------	---

1.3 Research questions	4
------------------------------	---

1.4 Objectives of the study.....	4
----------------------------------	---

1.4.1 Main objective	4
----------------------------	---

1.4.2 Specific objectives.....	4
--------------------------------	---

1.5 Significance of the study.....	5
------------------------------------	---

1.6 Scope of the Study	5
------------------------------	---

1.7 Limitation of the Study	6
-----------------------------------	---

1.8 Organization of the study.....	6
------------------------------------	---

CHAPTER TWO	8
--------------------------	----------

LITERATURE REVIEW	8
--------------------------------	----------

2.2 Definition of the concept of Management Accounting Practices.....	8
-----------------------------------------------------------------------	---

2.3 Theoretical Review	9
------------------------------	---

2.3.1 The Contingency Theory	9
2.3.2 New Institutional Sociology.....	10
2.3.4 Conceptual Framework.....	10
2.4 The effect of public hospital on the Choice and Use of Management Accounting Practices..	11
2.4.1The size of the organization	11
2.4.2The Competence of Accounting Staff.....	12
2.4.3 Organizational Performance.....	12
2.5 Costing and Budgeting.....	13
2.5.1 Costing	13
2.5.2 Budgeting.....	13
2.6 Management Influence on the Design of Management Accounting Practices.....	14
2.7 Challenges of Management Accounting Practices	15
2.8 Management Accounting Practice in Public Hospital Financing	15
CHAPTER THREE	17
METHODOLOGY	17
3.1 Introduction	17
3.2 Research design.....	17
3.3 Study Population.....	18
3.4 Sampling	19
3.4.1 Sources of Data.....	19
3.4.2 Primary Data	19
3.4.3 Secondary Data	20
3.4.4 Data Collection Method.....	20
3.4.5 Data Analysis Techniques	20

3.4.6 Validity of Data Collection Techniques	21
3.5 Empirical model.....	21
CHAPTER FOUR.....	23
DATA PRESENTATION, ANALYSES AND DISCUSSION	23
4.1 Introductions.....	23
4.2 Demographic Information	23
4.3 Reliability of the study using Cronbach Alpha Coefficient	25
4.5 Effect of management accounting practice on performance.....	28
4.5.2 Contributions of the variables (Beta).....	30
4.6.2 Contributions of the variables (Beta).....	33
4.7.1 Contributions of the variables (Beta).....	35
4.8.1 The Regression Equation.....	39
4.8.3 Management Influence on costing and budgeting Design	39
4.9.1 The Regression Equation.....	41
4.9.2 Coefficient, Significance of The Model and Beta.....	41
4.9.3 Cost of Implementation	42
4.9.4 Supporting Systems.....	42
4.9.5 Suitable Techniques	42
4.9.6 Management Commitment	43
4.9.7 Expert Monitoring and Supervision.....	43
4.9.8 Contributions of the variables (Beta).....	44

CHAPTER FIVE	45
SUMMARY OF FINDING, CONCLUSIONS AND RECOMMENDATIONS	45
5.1 Introduction	45
5.2 Summary of findings.....	45
5.2.1 Extent use of costing and budgeting and its impact on performance (financial and non-financial). (objective 1).....	45
5.2.2 Extent to which management influence design of costing and budgeting and its impact on performance (objective 2)	46
5.2.3 Effect of the challenges of management accounting practices on performance (objective 3).....	46
5.3 Conclusions	47
5.4 Recommendations of the study.....	48
REFERENCES	49
APPENDIX	52

LIST OF TABLES

Table 4.2.1 Operational Characteristics of Respondents	23
Table 4.3.1 Reliability using Cronbach alpha	25
Table 4.4 Results of the extent of use of MAP	26
Table 4.6.1 Effect costing and budgeting on performance of	29
Table 4.6.1 Effect of management accounting practices on performance of	32
Table 4.8 Results of the extent of Management Influence in the Design of costing and budgeting	37
Table 4.8 Effect of management influence on design of costing and budgeting on performance	38
Table 4.9 Challenges of management accounting practices and its impact on performance	40

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Management accounting practices are key instruments required to ensure the economic and financial sustainability of corporate entities (Horngren et al., 2009). They are indispensable to successful management planning and decision-making. Due to the high intense competition which characterizes the nature and dynamics of running a modern-day business, corporate bodies increasingly have shifted much attention to addressing factors that have the potential to lower the level of organization's financial performance (Otley, 1978). Managerial accounting practices are therefore put in place by management to generate valuable information needed to facilitate decision-making and exert control over scarce resources (Alleyne and Weekes-Marshall, 2011). Management accounting practices have equipped organizations with ways of handling internal cost and analyzing profit-maximizing potentials. In fact, corporate organizations have reaped much benefit from management accounting practices. They serve as means to improve organization's financial performance and predict likely future events (Horngren et al., 2009).

Traditionally, management accounting practices have focused on budgeting, planning and control, and profit and cost analysis. However, organizations, especially those with large sizes have begun merging traditional with modern management accounting practices including Balanced Score Card (BSC), Activity-based Costing (ABC), Target Costing (TC) and Strategic Management Accounting (SMC) (Ahmad, 2017). The adoption of cost accounting technique, for instance, was influenced by the shrinking size of organization's profit amidst rising operational cost in an unstable economic climate (Uyar, 2010). The modern management accounting practices uses both internal and external factors for profit-making analysis and organizational

decision making (Ahmad, 2017). The non-financial variables generate vital information needed by organizations to give them competitive advantage over other firms. This has the potential to improve the organization's resilience to change and ultimately strengthen its sustainability (Reid and Smith, 2002). Banker et al. (2000) posited that non-financial information is more effective in predicting a firm's financial performance than do financial information. In addition, the non-financial measures have a vital role to play in monitoring and evaluating the overall organizational efficiency and performance.

Primarily, the scope of management accounting practices aims at achieving four key goals. They a determination of cost, control of finance, information for management planning and control and cutting down on wasting scarce resources (Horngren et al., 2009).

(Folk et al., 2002) identified that management accounting practices require effective implementation in order to help corporate bodies maintain their competitiveness on the market. These responses are meant as a reaction to criticisms of laying less emphasis on financial indicators (Gomes et al., 2004). Therefore, it is imperative that management put in place a system which may involve all categories of employees to the smooth implementation of management accounting practices.

A number of variables have been identified in the literature as the determinants of management accounting practice. Whilst Merchant (1981) noted that the size of an organization has a significant effect on its management accounting practices, Dunk (1992) indicated technology as a major determinant of a firm's management accounting practices. Chenhall and Moris (1995) also added that the strategy a firm adopts has a significant influence on management accounting

practices. Level of education of the accounting personnel although, these have been identified as the significant factors, there may be other independent variables that are likely to influence management accounting practices.

To improve the financial performance of the public sector, Ghana inaugurated the International Financial Reporting Standards (IFRS) in 2007 to compel public service providers to report their financial statements (IFAC, 2011). As a non-profit institution, public healthcare institutions in Ghana rely heavily on government for financial strength to undertake its vital service of meeting the health needs of Ghanaians. Breaking even or a good financial performance is required to keep public health care institutions running. Empirical studies have shown that the use of management accounting practices has effect on the performance of a firm (Nartey, 2013). This study would provide evidence of the use of management accounting practices in the public health care institutions within the Kumasi Metropolis.

1.2 Statement of the Problem

Studies have shown that the implementation of management accounting practices in organizations has a significant positive effect on its performance (Abdel-Kedir and Luther, 2006).

Empirical studies in Ghana about Management Accounting Practices are very few. Such studies only look on small, medium and large scale firms or manufacturing and non-manufacturing firms. Such studies focused on small and medium Enterprises (SMEs) (Amoako et al., 2013; Boame, 2014), public corporations (Yeboah et al., 2014) and telecommunication industry (Mbawuni, 2014). Evidence about the adoption of management accounting practices and its impact on the performance on public health care institutions in Ghana is missing in the literature. Even though, Adu-Kyeremeh studied accounting practices in healthcare institutions in the

Ghanaian public sector, he used 37 Military Hospital as a case study. Again, the focus of his studies was limited to budgeting and internal control. This means that there is still a gap left to fill. It is against this background that the researchers seek to ask the following questions;

1.3 Research questions

1. What is the effect of management accounting practices on the performance of public health care institutions within the Kumasi Metropolis?
2. What is the extent to which management influence the design of management accounting practices within the public health care institutions in the Kumasi Metropolis?
3. What are the challenges of management accounting practices on the performance of public health care institutions in the Kumasi Metropolis?

1.4 Objectives of the study

1.4.1 Main objective

The main objective of the study is to assess the effect of management accounting practices on the performance of public health care institutions within the Kumasi Metropolis.

1.4.2 Specific objectives

1. To assess the extent to which Management Accounting Practice are used and its impact on the performance of Public Health Care Institution.
2. To assess the extent to which Management influence the design of Management Accounting Practice and its impact on performance of public health care institutions.
3. To examine the challenges of Management Accounting Practices and it impact on performance.

1.5 Significance of the study

1. Public health care institutions are non-profit making establishments set up by the state to cater for the health needs of individuals. They rely heavily on government for funding and support and are unable to internally generate sufficient revenue. Therefore, it is vital for public health care providers to, at least, break even, if not make profit. Evidence has shown that the use of management accounting practices in organizations improves its profitability (Abdel-Kedir and Luther, 2006). Therefore, findings of this study will serve as evidence to assess the effect of use of management accounting practices and its relationship with performance within the public health care institutions the Kumasi Metropolis.
2. Findings of the studies will inform government and Non-Governmental Organizations (NGOs) about management accounting practice that will help management decisions in formulating technique to improve their financial performances of public health care institutions.
3. Studies on management accounting practices in Ghana are very few. Findings from this research will add to the existing knowledge and contribute to theory.
4. Furthermore, it may serve as a reference material for students and other researchers who may pursue further studies on the same subject matter.

1.6 Scope of the Study

The study mainly covers three public hospitals in Kumasi; Okomfo Anokye Teaching Hospital, South Suntreso hospital, Tafo Government Hospital. The study is therefore aimed at providing a detailed knowledge on how management accounting practice is used in this hospital and its effect

on performance. It will enhance the researchers to identify the technique that help the hospital. The findings of the study would be generalized to cover the performance of public hospital in Kumasi. The outcome of this study could also be extended to other key internal stakeholders of these public hospital in Kumasi. This should however be done with great caution and further analysis.

1.7 Limitation of the Study

The findings of the study were encountered with numerous challenges, but not withstanding these challenges, the outcome of the study was not affected by any form. To begin with, it was a challenge collecting data from public institutions. There were also difficulties in gaining access to certain information on the basis of trust to our statement of confidentiality, time constraint, appropriate sample size, willingness of respondent to respond to questionnaires. This could lead to the validity of study being compromised.

1.8 Organization of the study

The study is structured orderly from chapter one to chapter five. Chapter one contains an overview of the study comprising of a background of the study and the nature of the problem, the objectives and significance of the study. It also contains proposed questions, scope and limitations of the study.

In chapter two, there is a review of the related and relevant literature on management accounting practices. The chapter three explains the methodological framework upon which the study is conducted, the data collection and analysis techniques, as well as how the data was analyzed.

In chapter four, the researcher discusses the responses of respondents to the questionnaires on the influence of management accounting practices on performance, and then integrates in the analysis the literature and document that connect with respondents' opinions. The final chapter will contain the summary, recommendations and conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.2 Definition of the concept of Management Accounting Practices

Management accounting has been defined variously by different scholars. According to Scapens (1991), there is no universally accepted definition of management accounting. Over the years, the change in management accounting practices has influenced the variance in the definition of the concept.

The Institute of Management Accountants (IMA) has variously defined management accounting to reflect the changing nature of the concept. IMA initially defined management accounting as “the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of financial information used by management to plan, evaluate and control an organization to assure the appropriate use of and accountability for its resources. They further added that management accounting also includes, the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies and tax authorities” (IMA, 1981, p 1). IMA (2008, p 1), however, has recently redefined management accounting as “a profession that involves partnering in management decision making, devising planning and performance management systems and providing expertise in financial reporting and control to assist management in the formulation and implementation of organizational strategy”

The Chartered Institute of Management Accounting (CIMA) also defined management accounting as the provision of information required by management for such purposes as the formulation of policies, planning and controlling activities of the enterprise; decision-taking on alternative courses of action, disclosure to external entities (shareholders and others), disclosure to employees and safeguarding assets (CIMA, 1987, p 10). The provision of this information

promotes long term planning, budgeting or profit planning, financial and cost accounting, financial control, treasure ship, internal and management activity. CIMA, later, broadened the scope of the definition to consider management accounting as part of the body called management. Therefore, to CIMA, management accounting takes into account the identification, generation, interpretation, presentation and use of valuable information to inform strategic decisions and formulate business financial strategy.

Furthermore, the International Federation of Accountants (IFAC) also defined management accounting as “the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within the organization and to assure accountability for its resources” (IFAC, 1998, p 99).

Considering the above definitions, it can be concluded that the concept of management accounting has evolved from a narrow conception (traditional definition) and has been broadened by the changing needs of information for decision making.

2.3 Theoretical Review

The review of literature has revealed two main theories which underline the study of management accounting practices: The Contingency theory and the New Institutional Sociology.

2.3.1 The Contingency Theory

The contingency theory explains that there is no universally accepted standard of management accounting practices. An organization’s choice and use of management accounting practices depends on the characteristics of that particular organization. Thus according to Burns and

Stalker (1961), different organizations use different management accounting practices. This implies that the use of management accounting practices in one organization may yield success but could be ineffective when the same body of principles are adopted in another organization. According to Otley (1980), the potential contingency factor upon which the success of management accounting is based includes the environment, technology, size, strategy and culture. Large firms or organizations, for instance, are better placed to use management accounting practices, as they may have the capacity to employ qualified personnel to oversee the implementation of management accounting practices. Chenhall and Morris (1995) argued that “sophistication” is required in order to broaden the scope of information required for planning, controlling and decision-making. To them, the characteristics of an organization have a strong impact on the adoption of sophisticated management accounting practices.

2.3.2 New Institutional Sociology

The New Institutional Sociology theory advocates that organizations operate in a highly institutionalized environment. The term ‘environment’ was used to mean the rules and social norms that evolve in the course of operation (Scott, 1992). This implies that the use of management accounting practices tends to be influenced by the social and cultural environment. The institutional procedures and formal structures of an organization determine its legitimacy and guarantee the resources required for organizational sustainability (Horngreen et. al, 2009).

2.3.4 Conceptual Framework

The management accounting practices adopted by an organization has a correlation with performance. The effective use of management accounting practices therefore has a positive effect on its financial performance (Ngenga, 2006). The performance of a firm or an organization is measured by its profitability.

Every organization is motivated by profit. Even, non-profit motive organizations such as public health care providers strive to break even in order to avoid incurring losses. Therefore, the financial performance of an organization is critical to its survival.

As depicted by fig. 1, the organization's financial performance is a dependent variable, as may depend on the independent variable i.e. management accounting practices. The management accounting practices adopted by the study are cost system, budgeting, information for decision-making, performance evaluation. They provide management with both financial and non-financial information required for decision-making (Ahmad,). The effective use of management accounting practices has a significant positive effect on organization's financial performance (Otley, 1978).

2.4 The effect of public hospital on the Choice and Use of Management Accounting

Practices

According to the contingency theory, different organizations use different management accounting procedures in different environments. However, the choice and use of management accounting is influenced by a number of firm-specific characteristics.

2.4.1 The size of the organization

Management accounting practice has effect on the performance of each public hospital (Abdel Al, & McLellan, 2013). MAPs do have differences from one public hospital to another hospital. Therefore, each public hospital is important. Under this literature they will be treated as on big hospital. With the knowledge that each has its own specific management accounting technique that it uses

There are a significant number of public and private hospital that have adopted MAPs such as financial and non-financial measures to assist in management decision making (Ahmad, 2014). However, the implementation become very difficult.

2.4.2 The Competence of Accounting Staff

Qualified accounting staff is also important to an organization as the knowledge of accounting staff would affect the success, growth and sustainability of the organization (Brown, Booth, & Giacobbe, 2004). Larger organizations normally have accounting and finance department (Ismail & King, 2007). Therefore, large hospitals hire qualified accounting staffs to use MAPs for internal reporting and to assist managers in the decision making process (Ismail & King, 2007). In terms of public context, MAPs applied by capable accounting staffs may have a substantial impact to the hospital productivity and growth (Collis & Jarvis, 2002). Therefore, the qualification of accounting staff is one of the factors that might affect the adoption of MAPs in the hospital. On the other hand, the shortage of qualified accountants may serve as a crucial aspect, as far as the application of contemporary management accounting techniques are concerned.

2.4.3 Organizational Performance

Understanding the meaning of organizational performance is a requirement for measuring and managing organization's performance (Maziriri and Chinomona, (2016). Hove, Sibanda and Pooe (2014) explains that organizational performance refers to how the aggregate technology enabled performance impacts across all firm activities, such as cost, revenue enhancement and competitiveness. Organizational performance involves the effectiveness and efficiency of an organization in attaining the set goals and the extent to which the business is able to excel in meeting the needs of all its stakeholders (Maziriri and Chinomona, 2016, p. 130).

2.5 Costing and Budgeting

2.5.1 Costing

Ittner & Larcker (2002, p.788) defined management accounting practices as a variety of methods specially considered for manufacturing businesses so as to support the organization's infrastructure and management accounting processes. Management accounting practices can include costing, budgeting, performance evaluation and information for decision-making are some of the methods used among many others.

Ittner & Larcker (2001) has also argued that due to the development of these new methods, it has changed the basic principles of management accounting to a more superior one that adds value to various practices. The literature has also indicated that management accounting practices such as costing have not been highly favored by most organizations. For example, Dugdale and Jones (2002) stressed that there is a limitation within the use of costing systems, since some of the costing techniques do not provide an accurate method of recording costs to be exact in order to make sound management decisions.

2.5.2 Budgeting

Drury et al. (1993) has defined budgeting as an important tool for forecasting and controlling the activities within an organization and for allocating the entity's resources so as to achieve its objectives and goals. In summary budgeting provides definition for expected revenues and expenses, the need for capital expenditure in relation to new facilities and equipment, evaluation of financial needs and means of achieving financial results. The majority of organizations highly favors the use of budgeting on a regular basis for long-term strategic planning and controlling of costs. Overall, Drury et al. (1993) concluded that surveys have shown that most companies

prefer to use budgeting over costing. However, to support their views, they summed it up by saying most organizations were using costing as a supplementary method to their budgets prepared.

2.6 Management Influence on the Design of Management Accounting Practices

In a study by Otley (1980), applied contingency theory to management accounting practices and explained the observation that there is no single generally applicable standard of accounting practice that can effectively be applied to all organizations. Each organization will have its own management accounting practices that best suits its conditions, the theory goes further to look at certain influential factors that will assist management to decide on an appropriate management accounting practice, these factors can either be the organizational structure, technological changes and the infrastructure of an organization. According to Sine and Krisch (2006), management accounting practices differ in organizations as a result of the uniqueness in their operations and environment. Technology has a very significant influence in the choice of management practice in a firm. For instance, Szchta (2002) found that technology had a significant in the adoption of modern management accounting techniques in polish firms, whereas Al-Omiri and Drury (2007) found that more sophisticated cost systems were positively associated with the importance of cost information, size, the intensity of competition and the financial sector. In this regard they noted that activity based costing adoption was also associated with the use of other innovative management accounting techniques like lean production and just-in-time in the service sector. Since firms compete on different fronts like, quality, price, reliability on delivery and customer service, there comes a challenge to management accountants to innovate and adapt new methods of management accounting in order to be more relevant on optimal competition fronts. The method of management accounting adopted should be the most

effective approach to provide the required information from both internal and external environments and provide flexibility to accommodate the competent level of management in the firm. The Australian study by Birkett (1989), found that the purpose of management accounting was to “provide management with the necessary key information as quickly and accurately as possible so as to enable appropriate action to be taken in a timelier manner.”

2.7 Challenges of Management Accounting Practices

Amani Hussein (December, 2017) the challenges of management accounting practices include: higher degree of uncertainty, high cost of implementation, lack of financial resources, lack of an active professional management board, lack of supporting systems, lack of suitable techniques and lack of management commitment. Hussein further revealed that, these challenges have no significant impact on the performance of organizations in Egypt. However, he suggested that there is more room for improvement. This means that the challenges cannot be overlooked irrespective of them not having any major effect on performance.

2.8 Management Accounting Practice in Public Hospital Financing

Public hospitals are financed by the government and sometimes internally generated revenue, due to the pressure on public health the government deem it a great opportunity to improve its facilities including the service rendered to the public. Therefore, efficiency and effectiveness has been the major topic in the decision to provide adequate service to improve the performance of health care sector which has been implemented across the country. Due to this reason management accounting has been playing an important aspect as the demand for health service and answerability have substantially increased (Lapsley, 1996), in this era where people need good service in public hospitals and have value for the money they pay and that the government should be accountable. The reason is, according to Hopwood (1992), management accounting

can help detect inefficient practices and ensure that each personnel is working adequately that is the responsibility assign to them to increase in better service of the public sector and attained it vision in future. Major challenges are faced since the accounting and economic concept, because the fundamental theory objectives are controlled by the stakeholders who might not be ready for accountability. (Llewellyn and Northcott, 2005). Subsequently, any efficiency inspired reforms could be challenged or even rejected by the stakeholders.

This chapter looks like how the management accounting practice have effect on its performance. It includes how hospital finance themselves in the use of management accounting technique where the technique has been widely use to explain it performance in the public sector.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Research methodology establishes the fact upon which the research is been done. It offers detailed of the study into how the research is been conducted. It is therefore important that the methodology used in this study is sound and thorough enough to effectively produce accurate data in order that the stated research goals and objectives will be achieved. This chapter presents the methodology which takes into account the detailed description of the study population, sampling, data sources and data analysis methods. In addition, the organizational profile is also considered in this chapter. It defines the population from which the sample was selected and describes the sampling procedures used to select the sample size. It also discusses the research design and the method of data collection which mainly involved in-depth interview.

The primary source makes use of questionnaires. The secondary data was mainly from already existing information and made use of publication such as books, articles, the internet source and many other already established facts.

3.2 Research design

A research design provides the basic direction for carrying out the project. In particular, a research design should provide relevant information that will most efficiently and effectively address the research question. Thayer (1993) also referred to a research design as a blue print or a detailed plan for how a research study is to be completed. Hair suggested that there are three distinct research design; exploratory, descriptive and casual. Of this three, descriptive and casual research design match the need to provide the relevant information for the above research

question. Descriptive data are needed to answer the first three research question concerning the effect of the use of Management Accounting Practice on it performance, the influence of the design of Management Accounting Practice and the challenges of using MAP in public health care centers. Casual research which can also be termed as explanatory research (Saunders et al, 2009) will test whether on variable (independent variable) is responsible for changes in another variable (dependent variable). The need for this research design reflect the two hypothesis developed in this study where both independent and dependent variables are involved in the required relationships. Questionnaires were the main instruments used to collect data. The use of questionnaire was employed to collect data from Accountants, administrators and health workers of public hospitals in Kumasi metropolis. The data collected from the public health care centers aid in determining the effect of management accounting practices on financial performance of public health care in Kumasi metropolis.

The above research design will use both quantitative strategies to find answers to the research questions

3.3 Study Population

Bryman (2004) describe a study population as the whole group that the research focuses on. According to Ngechu (2004) a population is a well-defined or a set of people, services, elements, events, group of things or household that are being investigated. Population studies also called census are more representative because everyone has equal chance to be included in the final sample that is drawn according to (Mugenda and Mugenda, 2003). The target population for this study was public hospitals in Kumasi metropolis.

3.4 Sampling

Sekeran (2003) wrote that sampling is the process of selecting a sufficient number of element from a population so that by studying the sample and understanding the properties or characteristics of the sample, researchers will be able to generalized the properties of the sample to the population. Three public health care centers within the Kumasi Metropolis i.e. (Okomfo Anokye Teaching Hospital, Tafo Government Hospital and South Suntreso Public Hospital). They have been purposely selected because they have been in the health care business for a longer period of time and have in place management accounting practices meant for both financial and non-financial decision making. Accounts officers and management personnel of the selected public health care institutions were sampled and questionnaires administered to for response.

3.4.1 Sources of Data

A data used for a research study can be sourced in two main ways, namely primary and secondary data (Suaders et al, 2007). For this study both primary data and secondary data were used to achieve the goals and objectives of the research.

3.4.2 Primary Data

Primary data as defined by Galvan J.L. (2013), is a source of data that provides a firsthand information that is absent to the objective of study. Structured questionnaires were the main instrument used to gather the primary data for the research from the various respondents. This source served as the main source for describing the effect of management accounting practice on the performance of private universities.

3.4.3 Secondary Data

Secondary data is essentially an information that is already available and which have been previously collected for some other purpose which has relevance to the studied problem. In this study secondary data were collected from Journal Reference books from the library and the internet. The acquisition of which information were obtained through the reviews of literature and various publications from other works. This source of data was adopted because of its cost effective and time saving nature and also provide valid and reliable source of information for the research.

3.4.4 Data Collection Method

According to Saunders et al (2003) it is better to use two methods of data collection within a study in order to object appropriately what the researcher's opinions are in relation to what the respondents are telling him. In this literature, questionnaires were used in the collection of the primary data as well as relying on other available literature on the subject as a source of the secondary data. A questionnaire includes all methods of data collection in which each person is asked to respond to the same set of questions in a predetermined order (de Vaus, 2002). It was adopted because of its high response rate, limited time in its administration and less cost. Questionnaires is also suitable for the gathering of first-hand information from the respondents on the topics under study. The questions were designed to include only close ended types. In all 50 questionnaires, 15 were administered each by the various public hospital under study.

3.4.5 Data Analysis Techniques

Statistical techniques were used in analyzing the data collected in this research in the form of SPSS and Microsoft Excel graphs, charts and frequencies. These techniques were chosen because its findings are easily interpretable and understandable. These techniques also give a

pictorial view of finding and do not require any technical abilities to interpret and understand the finding of this research.

3.4.6 Validity of Data Collection Techniques

An indication of how sound a researcher's work is based on its validity. Validity apply to both the design and methods used for a research of which these findings used truly represents the phenomenon a researcher is claiming to measure. (Seliger and Shohamu 1989, 95). In order to ensure the validity and reliability of the techniques that were used for data collection, the research questionnaire was designed in a way that helps the respondents to understand them easily, produce the information required and answer them without any personal affiliations. Selections of respondents were also based on credibility, accessibility, and affordability and knowledgeable of the respondent on the subject matter.

3.5 Empirical model

A simple regression model was used to estimate the relationship between management accounting practices and the performance (financial and non-financial) of the selected public health care institutions. The performance(financial and non-financial) being the dependent variable and management accounting practices, the independent variables. The mathematical formula is expressed as

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where Y_i = Financial Non-Financial Performance

β_0 = intercept

$\beta_1 X_1$ = Costing

$\beta_i X_2 =$ Budgeting system

The mean score response on each Likert scale was used to measure the value of the dependent variables. These values were regressed against the value of the dependent variable i.e. financial and non-financial performance. The results of the regression analysis were interpreted based on the coefficients and significant

CHAPTER FOUR

DATA PRESENTATION, ANALYSES AND DISCUSSION

4.1 Introductions

The aim of the chapter is to present, make analyses of results and discuss outputs with regards to the objectives of the study. Responses from some public health care providers in the Kumasi metropolis were used in the data analysis. The chapter presents result on the adoption of management accounting practices in public health care institutions in the Kumasi Metropolis in Ghana. The information was gathered from the management staff i.e. accounts officers and other management members in the public health care institutions in the Kumasi metropolis.

The study employed descriptive and multiple linear regression techniques to interpret the results. The study was conducted on a sample of 50 public health workers of which 41 representing 91% response rates.

4.2 Demographic Information

The respondents were asked a series of questions in relation to their demographic and operational characteristics. The findings are discussed below.

Table 4.2.1 Operational Characteristics of Respondents

Profile	frequency	Percentage
Number of employees		
1 – 4	5	3.3
5 – 50	17	56.7
More than 50	18	40.0

Years of operation		
1 – 3	9	26.7
4 – 10	29	63.3
More than 10	2	10.0
Position of respondents		
Accounts officers	34	86.7
Management members	5	10.0
Recorder	1	3.3

Source (field survey 2018)

As shown on Table 4.2.1 above, more than half of the respondents constituting 56.7% revealed the number of employees as between 5-50. Thirty-six point seven percent (36.7%) have more than 50 employees whilst 6.6% have 4 or fewer employees.

The results show that majority of the firms (10%) have been in business for more than 10 years. This is followed by respondents who have been in the business between 4-10 years (63.3%). Conversely, the numbers of newly operating firms (1-3 years) are 26.7% of respondents. This implies that, the vast majority of the responding firms are established businesses that might reasonably be expected to use management accounting techniques and have developed management accounting systems that are suitable for their business needs

Majority of the respondents representing were account officers whilst 10% were management members with the remaining 3.3 as recorder.

4.3 Reliability of the study using Cronbach Alpha Coefficient

It is important to check the reliability of the measurement tool employed to conduct a research in order to decrease the error in further analyses in the study (Dawson & Trapp 2001). Litwin (2003) defines reliability as an indication of how well the different items complement each other in their measurement of the different aspects of the same variable or quality. In the study multiple items scale was used. Accordingly, Ozdamar (2002) scale is a measurement class that has clear mathematical characteristics. However, reliability is a property that a scale must have and it is an indication of consistency of the measurement values obtained from the measurements repeated under the same circumstances (Gursakal 2001). The researcher used Cronbach's alpha to measure the internal consistency of the items by measuring the homogeneity of items used to measure the variables (Cronbach, 1951). Cronbach alpha values range from 0 and 1 and values closer to 0 are weak while values closer to 1 are strong indication of scale reliability (Devellis, 2003). The Cronbach alpha value for ease of use, speed of connectivity, information security, perceived usefulness, customer satisfaction, customer loyalty and customer value creation were .70 and above. McMillan and Schumacher (2001) suggest that alpha value for groups of items should be .70 and above.

Table 4.3.1 shows the output of the results.

Table 4.3.1 Reliability using Cronbach alpha

Variables	Cronbach alpha value	Number of items
Costing System	.873	5
Budgeting System	.906	7
Performance Evaluation	.745	5
Decision Making	.893	4

Management Influence	.956	14
High Cost of Implementation	.800	6
Lack of Supporting Systems	.819	6
Lack of Suitable Techniques	.818	6
Lack of Management Commitment	.878	6
Lack of Expertise in Monitoring and Supervision	.921	6
Challenges Impact on Performance	.848	5

Source: researcher's data (2018)

1. Extent use of management accounting practices and its impact on performance
2. Extent to which management influence on the design of management accounting practice and it impact on performance
3. The challenges of management accounting practice and it impact on performance

Table 4.4 Results of the extent of use of MAP

Costing Method	KA	TH	SH	mean	SD
Job Costing	50.9	20.1	29.0	3.96	0.92
Contract Costing	45.2	23.4	31.4	4.20	0.71
Process Costing	0.0	0.0	0.0	0.0	0.0
Service Costing	49.9	35.8	14.3	4.25	0.75
Variable Costing	40.0	34.2	25.8	3.97	0.93
Overall mean				3.27	0.87
Budgeting:-					

Purchasing Budget	54.8	21.3	23.9	4.13	0.86
Cash Flow Budget	42.8	37.2	20.0	4.29	0.97
Monthly Budget	32.5	63.1	4.4	4.20	0.93
Annual Budget	42.8	38.9	18.3	4.10	0.84
Budgeting for planning	31.8	59.5	8.7	4.09	0.89
Overall mean				4.16	0.93

Source (field survey, 2018)

Key notes KATH (Komfo Anokye Teaching Hospital) TH (Tafo Hospital), SH (Suntreso Hospital)

As shown in Table 4.4 above, the results revealed that the public health care institutions mostly used budgeting more than costing. It is however revealing from the mean scores that budgeting (4.16) was often used by the respondents whilst costing (3.24) was rarely used by the public health care providers in the Kumasi Metropolis.

The results also indicated that whilst 50.9% of the respondents from KATH use job costing, 20.1% from suntreso hospital uses job costing and 29.% from Tafo hospital also uses job costing. With contract costing, the results show that 45.2% from KATH use it whilst 23.4% from suntreso hospital uses contract costing. 31.4% from Tafo hospital also uses contract costing. With respect to process costing none of the hospitals use it. This may be as a result of process costing normally used by manufacturing firms. 40% from KATH often use variable costing whiles 34.2% from Tafo hospital often uses variable costing and 25.8% from Suntreso hospital uses variable costing.

Regarding to budgeting which was highly used more than costing the breakdown of it types is as follows, 54.8% from KATH uses purchasing budget, 21.3% from Tafo hospital uses purchasing and 23.9% also often uses purchasing budget. 42.8% from KATH uses cash flow budget, 37.2%

from Tafo hospital uses cash flow budget and 20.0% from Suntreso hospital often uses cash flow budget. Moving on to monthly budget 32.5% from KATH uses monthly budget while 63.1% from Tafo hospital uses monthly budget and 4.4% from Suntreso hospital uses monthly budget. 42.8% from KATH uses annual budget while 38.9% from Tafo hospital uses annual budget and 18.3% from Suntreso hospital uses annual budget. Lastly 31.8% from KATH uses budgeting for planning while 59.5% from Tafo hospital uses budgeting for planning and 8.7% from Suntreso hospital uses budgeting for planning.

4.5 Effect of management accounting practice on performance

In assessing the effect of management accounting practice on performance costing and budgeting were adopted as independent variables and performance (financial and non-financial) was the dependent variable.

The multiple regression analyses were done with 95% confidence level at a margin error of 5%.

The regression equation for the study is presented below.

R represents the correlation or relationship between the dependent and the independent variables

*R*² represents how much of the dependent variable can be explained by the independent variables.

Sig. represents the statistical significance level of the model (the acceptable level of significance for this research was 0.05).

Beta compares the contribution of each independent variable to the dependent variable (ignoring any negative signs)

Table 4.5.1 shows the results for the Model summary, ANOVA and coefficient statistics from the regression outputs on EFFECT OF COSTING AND BUDGETING ON PERFORMANCE.

Table 4.6.1 Effect costing and budgeting on performance of KOMFO ANOKYE TEACHING HOSPITAL

Model	FINANCIAL PERFORMANCE		NON FINANCIAL PERFORMA NCE		
	Rvenue growth rate	Return on investment	Patients satisfaction	Personne l develop ment	Quality health service
1	beta	Beta	beta	beta	beta
Job Costing	.145	.201	.091	.080	.089
Contract Costing	.014	.178	.214	.015	.049
Process Costing	.00	.00	.00	.00	.00
Service Costing	.025	.121	.254	.147	.387
Variable Costing	.258	.017	.025	.012	.014
Purchasing Budget	.298	.185	.045	.001	.018
Cash Flow Budget	.455	.214	.154	.014	.123
Monthly Budget	.145	.178	.145	.178	.124
Annual Budget	.258	.136	.145	.138	.158
Budget for Planning	.458	.145	.214	.258	.287
R	.842				
R ²	.709				
F-value	21.126				
Dependent Variable: Performance (financial and non-financial)					

Source: Author's data (2018)

From the model summary table, it was indicated that, moderate relation exists between management accounting practices and performance (financial and non-financial) with R-value of .842. With the R-square of .709, it was stated that 70.9% variances on performance (financial and non-financial) can be explained by management accounting practices. However, the

ANOVA results also showed that the combine impact of management accounting practices (costing and budgeting) on performance is statistically significant with ($F=21.126$). The F-value however shows that, the model for the study is strongly fit for the study following the suggestion of Litwin (2003) who states that F-statistics of 4 is an indication of study model fitness.

4.5.2 Contributions of the variables (Beta)

In comparing the individual effect of the independent variables (job costing, contract costing, process costing, service costing, variable costing, purchasing budget, cash flow budget, annual budget, budget for planning) on performance (financial and non-financial), the beta values (ignoring any negative signs) were used to determine which variable made the greatest contribution impact on performance.

From the above data it is known that with the use of job costing, financial performance of revenue growth and return on investment will increase by .145 and .201 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .091, .080 and .089 respectively. With regard to contract costing financial performance of revenue growth and return on investment will increase by .014 and .178 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .214, .015 and .049 respectively. On process costing it had zero beta value since it was not used by the hospital therefore had no impact on performance. Moving on to service costing financial performance of revenue growth and return on investment will increase by .025 and .121 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .254, .147 and .387 respectively

The results also show that purchasing budget on financial performance of revenue growth and return on investment will increase by .298 and .185 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .045, .001 and .018 respectively. With the use of cash flow budget financial performance of revenue growth and return on investment will increase by .455 and .214 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .154, .014 and .123 respectively. On monthly budget financial performance of revenue growth and return on investment will increase by .145 and .178 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .145, .156 and .124 respectively. Annual budget on financial performance of revenue growth and return on investment will increase by .258 and .136 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .145, .138 and .158 respectively. Lastly budget for planning on financial performance of revenue growth and return on investment will increase by .458 and .145 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .214, .258 and .287 respectively.

**Table 4.6.1 Effect of management accounting practices on performance of
TAFO GOVERNMENT HOSPITAL**

Model	FINANCIAL PERFORMANCE		NON FINANCIAL PERFORMANCE		
	Rvenue growth rate	Return on investment	Patients satisfaction	Personnel developm ent	Quality health service
1	beta	Beta	beta	Beta	beta
Job Costing	.125	.145	.017	.047	.075
Contract Costing	.008	.214	.085	.014	.048
Process Costing	.00	.00	.00	.085	.025
Service Costing	.012	.100	.025	.047	.078
Variable Costing	.125	.214	.085	.085	.022
Purchasing Budget	.085	.325	.179	.178	.171
Cash Flow Budget	.247	.147	.145	.241	.189
Monthly Budget	.092	.214	.159	.173	.175
Annual Budget	.047	.217	.149	.195	.158
Budget for Planning	.214	.014	.178	.176	.258
R	.712				
R ²	.713				
F-value	21.126				
Dependent Variable: Performance (financial and non-financial)					

Source: Author's data (2018)

From the model summary table, it was indicated that, moderate relation exists between management accounting practices and performance (financial and non-financial) with R-value of .712. With the R-square of .713, it was stated that 71.3% variances on performance (financial and non-financial) can be explained by management accounting practices. However, the ANOVA results also showed that the combine impact of management accounting practices on performance (financial and non-financial) is statistically significant with (F=21.1126). The F-value however shows that, the model for the study is strongly fit for the study following the suggestion of Litwin (2003) who states that F-statistics of 4 is an indication of study model fitness

4.6.2 Contributions of the variables (Beta)

In comparing the individual effect of the independent variables (job costing, contract costing, process costing, service costing, variable costing, purchasing budget, cash flow budget, annual budget, budget for planning) on performance (financial and non-financial), the beta values (ignoring any negative signs) were used to determine which variable made the greatest contribution impact on performance.

From the above data it is known that with the use of job costing, financial performance of revenue growth and return on investment will increase by .125 and .145 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .017, .047 and .075 respectively. With regard to contract costing financial performance of revenue growth and return on investment will increase by .008 and .214 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .085, .014 and .048 respectively. On process costing it had zero beta value since it was not used by the hospital therefore had no impact on performance. Moving on to service costing financial performance of revenue growth and return on investment will increase by .012 and .100 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .025, .047 and .078 respectively

The results also show that purchasing budget on financial performance of revenue growth and return on investment will increase by .085 and .325 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .085, .178 and .171 respectively. With the use of cash flow budget financial performance of revenue growth and return on investment will increase by .247 and .147 respectively. Also non-financial

performance of patient satisfaction, personnel development and quality health service will increase by .145, .241 and .189 respectively. On monthly budget financial performance of revenue growth and return on investment will increase by .092 and .214 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .159, .173 and .175 respectively. Annual budget on financial performance of revenue growth and return on investment will increase by .047 and .217 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .149, .195 and .158 respectively. Lastly budget for planning on financial performance of revenue growth and return on investment will increase by .214 and .014 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .178, .176 and .280 respectively.

Table 4.7 Effect of management accounting practices on performance of SUNTRESO GOVERNMENT HOSPITAL

Model	FINANCIAL PERFORMANCE		NON FINANCIAL PERFORMANCE		
	Rvenue growth rate	Return on investment	Patients satisfaction	Personnel developement	Quality health service
1	beta	Beta	beta	Beta	beta
Job Costing	.115	.124	.056	.055	.018
Contract Costing	.178	.179	.014	.011	.021
Process Costing	.00	.00	.00	.00	.00
Service Costing	.189	.076	.011	.013	.024
Variable Costing	.126	.132	.015	.014	.069
Purchasing Budget	.059	.079	.198	.129	.456
Cash Flow Budget	.147	.192	.217	.245	.256
Monthly Budget	.123	.051	.195	.149	.423
Annual Budget	.056	.284	.199	.147	.247
Budget for Planning	.289	.073	.177	.183	.285

	R	.568				
	R ²	.458				
	F-value	21.126				
Dependent Variable: Performance (financial and non-financial)						

Source: Author's data (2018)

From the model summary table, it was indicated that, moderate relation exists between management accounting practices and performance (financial and non-financial) with R-value of .568. With the R-square of .458, it was stated that 45.8% variances on performance (financial and non-financial) can be explained by management accounting practices. However, the ANOVA results also showed that the combine impact of management accounting practices on performance (financial and non-financial) is statistically significant with (F=21.126). The F-value however shows that, the model for the study is strongly fit for the study following the suggestion of Litwin (2003) who states that F-statistics of 4 is an indication of study model fitness

4.7.1 Contributions of the variables (Beta)

In comparing the individual effect of the independent variables (job costing, contract costing, process costing, service costing, variable costing, purchasing budget, cash flow budget, annual budget, budget for planning) on performance (financial and non-financial), the beta values (ignoring any negative signs) were used to determine which variable made the greatest contribution impact on performance.

From the above data it is known that with the use of job costing, financial performance of revenue growth and return on investment will increase by .115 and .124 respectively. Also non-

financial performance of patient satisfaction, personnel development and quality health service will increase by .056, .055 and .018 respectively. With regard to contract costing financial performance of revenue growth and return on investment will increase by .178 and .179 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .014, .011 and .021 respectively. On process costing it had zero beta value since it was not used by the hospital therefore had no impact on performance. Moving on to service costing financial performance of revenue growth and return on investment will increase by .189 and .076 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .011, .013 and .024 respectively

The results also show that purchasing budget on financial performance of revenue growth and return on investment will increase by .059 and .079 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .198, .129 and .456 respectively. With the use of cash flow budget financial performance of revenue growth and return on investment will increase by .147 and .192 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .217, .245 and .256 respectively. On monthly budget financial performance of revenue growth and return on investment will increase by .123 and .051 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .195, .149 and .423 respectively. Annual budget on financial performance of revenue growth and return on investment will increase by .056 and .284 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .199, .147 and .285 respectively. Lastly budget for planning on financial

performance of revenue growth and return on investment will increase by .289 and .073 respectively. Also non-financial performance of patient satisfaction, personnel development and quality health service will increase by .177, .183 and .085 respectively.

EXTENT TO WHICH MANAGEMENT INFLUENCE THE DESIGN OF COSTING AND BUDGETING AND ITS IMPACT ON PERFORMANCE

Table 4.8 Results of the extent of Management Influence in the Design of costing and budgeting

Management:-	Mean	SD
Initiating change programs	3.96	1.03
Implementing latest health practices	3.73	1.01
Providing training for employees	4.06	1.04
Making resources available to carry out activities	3.86	1.00
Recognizing employees' superior quality performance	3.66	0.92
Management has strong understanding for patients	3.63	0.99
Management work close together to create superior value for patients	3.80	1.03
Management has strong marketing orientation	3.83	1.01
Information are easily accessible to employees for decision making	4.03	1.03
Innovation and creativity are highly recognized by management	3.73	1.08
Ensures effective internal and external communication	3.96	0.92
Considers risk in the delivery of services	3.66	0.84
Considers affordability in rendering of services alongside maximizing revenue	3.93	0.86
All employees are encouraged to make suggestion	3.40	1.03

Source (Field survey, 2018)

As indicated on Table 4.7 above, management most often considered providing training for employees (4.06) to be the most important, followed by making information easily accessible to employees for decision making (4.03), initiating change programs (3.96) and ensuring effective internal and external communication (3.96), making resources available to carry out activities (3.86), Management has strong marketing orientation (3.83), implementing latest health practices (3.73) and innovation and creativity are highly recognized by management (3.73), recognizing employees' superior quality performance (3.66), considers risk in the delivery of services (3.66), strong understanding for patients (3.63), Managers considered employees suggestion (3.40) to be the least important.

Table 4.8 shows the results for the Model summary, ANOVA and coefficient statistics from the regression outputs on the EFFECTS OF MANAGEMENT INFLUENCE ON DESIGN OF COSTING AND BUDGETING ON PERFORMANCE THE THREE PUBLIC HOSPITALS

Table 4.8 Effect of management influence on design of costing and budgeting on performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.148	.515		6.116	.000
Management Influence	.231	.131	.315	1.759	.089
R	.315				
R ²	.100				
F-value	3.095				
Dependent Variable: Performance (financial and non-financial)					

Source: Author's data (2018)

4.8.1 The Regression Equation

A linear regression is used to determine the relationship between the independent variables and dependent variables. It is one of the most commonly used techniques and takes the form $Y = a + bX$, where y is the dependent variable, X the independent, a intercept, and b the slope.

The regression equation for the study is shown as; $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$. In computing the values from the regression table, the equation will before become;

$$Y = 3.148 + .231(X_1).$$

From the model summary table, it was indicated that, weak relation exists between management influence on costing and budgeting design and performance with R-value of .315. With the R-square of .100, it was stated that 100% variances in performance can be explained by management influence on costing and budgeting design. Hence, the ANOVA results also showed that the combine impact of costing and budgeting (Management Influence) on performance is statistically not fit with ($F=3.095$). The F-value therefore shows that, the model for the study is not fit following the suggestion of Litwin (2003) who states that F-statistics of 4 is an indication of study model fitness.

4.8.2 Coefficient, Significance of The Model and Beta

To analyze the effect of the independent variable (Management influence on MAP design) on performance the correlation coefficient, t-statistic, significance and beta value were used.

4.8.3 Management Influence on costing and budgeting Design

However, in assessing management influence in the context of costing and budgeting design, the regression results showed that, there is positive relationship between management influence and performance with a correlation coefficient of .315. That is, when all other variables are held

constant performance will increase with perceived management influence on costing and budgeting design. Management influence on costing and budgeting design is statistically not significant and making no unique contribution to performance with t-value of 1.759 and significance at 0.89. This means, with perceived management influence on MAP design, public hospitals will perform well, thereby providing better service to the public.

Table 4.9 shows the results for the Model summary, ANOVA and coefficient statistics from the regression outputs on the CHALLENGES OF COSTING AND BUDGETING AND ITS IMPACT ON THE PERFORMANCE OF THE THREE PUBLIC HOSPITALS.

Table 4.9 Challenges of management accounting practices and its impact on performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.111	.771		2.737	0.11
High Cost	.159	.222	.179	.718	.480
Supporting System	-.107	.256	-.124	-.420	.678
Suitable Techniques	.403	.236	.452	1.710	.100
Management Commitment	-.090	.360	-.100	-.249	.805
Monitoring and Supervision	.143	.273	.207	.523	.606
R	.542				
R ²	.294				
F-value	1.999				
Dependent Variable: Performance (financial and non-financial)					

Source: Author's data (2018)

4.9.1 The Regression Equation

A linear regression is used to determine the relationship between the independent variables and dependent variables. It is one of the most commonly used techniques and takes the form $Y = a + bX$, where y is the dependent variable, X the independent, a intercept, and b the slope.

The regression equation for the study is shown as; $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$. In computing the values from the regression table, the equation will before become;

$$Y = 2.111 + .159(X_1) + -.107(X_2) + .403(X_3) + -.090(X_4) + .143(X_5).$$

From the model summary table, it was indicated that, weak relation exists between challenges of costing and budgeting on performance with R-value of .542, With the R-square of .294. It was stated that 29.4% variances in performance can be explained by challenges on costing and budgeting. Hence, the ANOVA results also showed that the combine impact of costing and budgeting challenges (cost of implementation, support systems, suitable techniques, management commitment, and monitoring) on performance is statistically insignificant with ($F=1.999$;). The F-value therefore shows that, the model for the study is not fit following the suggestion of Litwin (2003) who states that F-statistics of 4 is an indication of study model fitness.

4.9.2 Coefficient, Significance of The Model and Beta

To analyze the effect of the independent variable (cost of implementation, supportive systems, suitable techniques, management commitment and monitoring) on performance (financial and non-financial) the correlation coefficient, t-statistic, significance and beta value were used.

4.9.3 Cost of Implementation

However, in assessing cost of implementation in the context of performance, the regression results showed that, there is positive relationship between cost of implementation and performance with a correlation coefficient of .179. That is, when all other independent variables (supportive systems, suitable techniques, management commitment and expert monitoring) are held constant performance will increase with perceived cost of implementation. Cost of implementation is statistically not significant and making no unique contribution to performance with t-value of .718 and significance at .480. This means, with perceived cost of implementation, public hospitals may perform well.

4.9.4 Supporting Systems

The regression results showed that, there is negative relationship between supporting systems and performance of public hospitals with a correlation coefficient of -.124. When the other independent variables are held constant, the performance of public hospitals will decrease. Supporting System is statistically not significant and making no contribution to the prediction of the performance of public hospitals with t-value of -.420 and significance at .678. This means, with perceived supporting systems, public hospitals may not perform to satisfaction.

4.9.5 Suitable Techniques

However, in assessing suitable techniques in the context of performance, the regression results showed that, there is positive impact on performance with a correlation coefficient of .452. That is, when all other independent variables (cost of implementation, supportive systems, management commitment and expert monitoring) are held constant performance will increase

with perceived suitable techniques. Suitable Technique is statistically not significant and making unique contribution to performance with t-value of 1.710 and significance at .100. This means, with perceived suitable techniques, public hospitals may perform to satisfaction.

4.9.6 Management Commitment

The regression results showed that, management commitment has negative relationship with performance of public hospitals with a correlation coefficient of -.249. When the other independent variables are held constant the performance of public hospitals will decrease. Management commitment is statistically not significant and making no contribution to the prediction of the performance of public hospitals with t-value of -.249 and significance at .805. This means, with perceived management commitment, public hospitals cannot perform to satisfaction.

4.9.7 Expert Monitoring and Supervision

However, in assessing expert monitoring and supervision in the context of performance, the regression results showed that, monitoring and supervision has positive impact on performance with a correlation coefficient of .207. That is, when all other independent variables (cost of implementation, supportive systems, suitable techniques and management commitment) are held constant performance will increase with perceived expert monitoring and supervision. Expert monitoring and supervision is statistically not significant and making no unique contribution to performance with t-value of .523 and significance at .606. This means, with perceived expert monitoring and supervision, public hospitals may perform to satisfaction.

4.9.8 Contributions of the variables (Beta)

In comparing the individual effect of the independent variables (cost of implementation, supportive systems, suitable techniques, management commitment and expert monitoring) on performance, the beta values (ignoring any negative signs) were used to determine which variable made the greatest contribution to explaining performance. The beta values for cost of implementation, supportive systems, suitable techniques, management commitment and expert monitoring are .179, -.124, .452, -.100 and .207 respectively. The highest beta value is .452 representing suitable techniques hence, with suitable techniques performance of public hospitals may increase.

CHAPTER FIVE

SUMMARY OF FINDING, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter of this research study deals with the conclusions and recommendation of the research project. This chapter summarizes the findings made from the research topic; *adoption of management accounting practices and its impact on the performance of public health centers within the Kumasi Metropolis*. This chapter presents recommendations and suggestions for other scholars who want to pursue this research topic in the near future

5.2 Summary of findings

This research sought to study the adoption of Management Accounting Practices (MAP) in the public health care institutions within the Kumasi Metropolis. A total sample of 40 respondents were selected from three public health care providers namely Komfo Anokye Teaching Hospital (KATH), Tafo Government Hospital and Suntreso Government Hospital for the study. Data were collected from the respondents using a semi-structured questionnaire.

Statistical Package for Social Sciences (SPSS) version 20 was used to run the analysis and the regression.

5.2.1 Extent use of costing and budgeting and its impact on performance (financial and non-financial). (objective 1)

1. Budgeting was highly used by the three government hospitals followed by costing.
2. Budgeting contributed more to the non-financial performance of the three government.
3. Costing contributed more to the financial performance of three government

5.2.2 Extent to which management influence design of costing and budgeting and its impact on performance (objective 2)

1. The results showed that management influence has positive relationships with performance. This means the more management influence the design of costing and budgeting the more performance is increased with beta value of .315

2. Management most often influence the design of costing and budgeting by providing training for employees, followed by making information easily accessible to employees for decision making, initiating change programs and ensuring effective internal and external communication. Managers considered employee's suggestion to be the least important.

5.2.3 Effect of the challenges of management accounting practices on performance (objective 3)

1. Lack of suitable techniques were found to have the highest beta value of .452 and also have positive relationship with performance.
2. High cost of implementation most often resulted in low provision of health service, whilst lack of supporting systems most often led to high employee turnover and expensive service to patients. Lack of suitable techniques and lack of management commitment both most often increase the cost of service to patients and high employee turnover most often was the result of lack of expertise in monitoring and supervision.

5.3 Conclusions

The management accounting practice that has the greatest impact on the performance of public hospitals is budgeting system. Budgeting system is very crucial in the running of public hospitals. Also, the challenges that comes with implementation of management accounting practices is not that effective and therefore enables the implementation of MAPs meets its intended purpose. It can also be said that, it does not take a lot of managers' efforts in influencing management accounting practices since it has little impact on performance. Hence, managers have adequate time to focus on the basic outlines of management accounting practices to achieve their optimum efficiency and effectiveness.

Further contribution made by the study to managing an organization is that, effective information gathering system is very vital in the quest to effectively implement management accounting practices. Additionally, the study revealed that, organizations without MAPs make less effective decisions, they are unable to attain optimum performance and in the case where they reach perceived optimum performance, it would mean more room for improvement where they can do far better with the implementation of MAPs.

The study has also identified roles played by MAPs in public hospitals which are; assistance in the acquisition of assets, aiding in planning for the future, as well as guiding the overall performance of their core activities. Hence, organizations with MAPs have quality and efficiency in their decisions, enhanced cost control, and effective monitoring and supervision of activities.

5.4 Recommendations of the study

Based on the empirical findings of the study, the following recommendations have been made;

1. Management should organize regular workshops and other educative programs to upgrade the skills and expertise of management accounting professionals in order to adopt and implement modern techniques of MAP.
2. Management of the public health institutions should develop cheaper alternatives in order to reduce the implementation cost and promote the smooth implementation of MAP.
3. As an efficient accounting ethical practice, it is the responsibility of the management accounting professionals to remain relevant in adding value to their organizations by keeping abreast of new research findings in their area of specialty.
4. Management having influence on MAP designs have no significant effect on performance. Hence, management should not give much attention to influencing MAP design.

REFERENCES

- Ahmad, K., & Mohamed Zabri, S. (2013). The relationship between the use of management accounting practices and the performance of Malaysian medium-sized enterprises.
- Edvinsson, L., & Sullivan, P. (1996). Developing a model for managing intellectual capital. *European management journal*, 14(4), 356-364.
- Hove, P., Sibanda, K., & Poee, D. (2014). The impact of Islamic banking on entrepreneurial motivation, firm competitiveness and performance in South African small and medium enterprises. *Mediterranean Journal of Social Sciences*, 5(15), 165.
- Hussein, A. (2017). Adoption, Importance and Barriers to the Implementation of Contemporary Management Accounting Practices: Evidence from Egypt. *Accounting and Finance Research*, 7(1), 192.
- Ismail Salaheldin, S., & Eid, R. (2007). The implementation of world class manufacturing techniques in Egyptian manufacturing firms: An empirical study. *Industrial Management & Data Systems*, 107(4), 551-566.
- Nuhu, N. A., Baird, K., & Appuhami, R. (2016). The Association between the Use of Management Accounting Practices with Organizational Change and Organizational Performance *Advances in Management Accounting* (pp. 67-98): Emerald Group Publishing Limited.
- Otley, D. (1999). Performance management: a framework for management control systems research. *Management accounting research*, 10(4), 363-382.
- Saunders, M. N. (2011). *Research methods for business students*, 5/e: Pearson Education India.
- Abdel-Kader, Magdy (2006). *Management Accounting in British Food and Drinks Industry*. (pp. 336-357) volume 108.

- Ahmad Kamilah, Mohammed Zabri, Shafie (2013). *The Relationship Between the Use of Management Accounting and the Performance of Malaysian SMEs*.
- Alleyne, Philmore Weekes Marshal, Diana (2011). *An Exploratory Study of Management Accounting Practices in Manufacturing Companies in Barbados, volume 2*.
- Bird, Deanne Kathrine (2009). *The Use of Questionnaires for Acquiring Information on Public Perception of Natural Hazards and Risk Mitigation-A review of Current Knowledge and Practice, volume 9 (pp. 1307)*.
- Del Sord, Carlotta Orelli, Rebecca L. Padovan, Emanuele (2012). *Italian Higer Education System, in a Journal; Economic Research-Ekonomiska iztrazinaja, volume 25, pp. 825-845*.
- Fargas-Marlet, Monsterrat Mcsherry, Dominic Larkin, Emma Robinson, Clive. *Research with Children: Methodological Issues and Innovative Techniques. Volume 8, pp. 175-192*.
- Hilton, Ronald W. (1999). *Managerial Accounting* Published by Irwin/McGraw-Hill
- Karanja, Joseph Crispus Ndungu Mwangi, Evanson Nyaanga, Pius. (2014). *Adoption of Mordern Management Accounting Techniques (SMEs) in Developing Countries; A Case Study of SMEs in Kenya*.
- Lil, Bin (2009). *The Classical Model of Decision Making Has Been Accepted as Not Providing and Account on How People Typically Make Decisions. volume 3, pp. 151. International Journal of Business and Management*.

- Maziriri, Eugene Tafazdwa Mapuranga, Mitson. (2017). The Impacts of MAPs on the Business Performance of SMEs within the Province of Gauteng in South Africa. *A Journal of Accounting and Management*.
- McDonough, Jo McDonough, Steve. (2014). Research Methods for MAPs. Published by Routledge.
- Nuhu, Nuradden Abubakar Baird, Kevin Appuhami, Ranjith (2016). *The Association Between the Use of MAPs with Organizational Change and Organizational Performance*. In a Book Title *Advances in Management Accounting*. Published by Emerald Group Publishing Limited.
- Okwechime, Ekene Duncan, Peter Edgar, David. Researchonline @GCU
- Otley, David (1999). Performance Management: *A Framework for Management Control Research*, volume 10, pp. 363-382.
- Saunders, Mark NK (2011). *Research Methods for Business Students 5/e*. Published by Pearson Education, India.
- Stake Robert E, (2013). *Multiple Case Study Analysis*. Published by Guilford Press.
- Verbeeten, Frank HM (2013). *Performance Management Practices in Public Sector Organization and Its Impact on Performance*. In a *Journal of Accounting, Auditing and Accountability Journal*, volume 21, pp. 427-454.
- Zairi, Mohammed (2012). *Measuring Performance for Business Results*. Published by Springer Science and Business Media.

APPENDIX

QUESTIONNAIRE

This study is conducted in partial fulfillment of the requirement for the award of BBA Accounting in Christian Service University College (CSUC). This questionnaire is designed to collect data for “adoption of management accounting practice. A case study of three (3) public health institution within Kumasi metropolis”

All information provided will be treated with utmost confidentiality. We shall be highly appreciative if you may endeavor to complete this questionnaire.

Please **tick** (✓) the appropriate response that best represents your opinion for each statement using the scale provided on top of each section.

SECTION A

THE EFFECT OF MANAGEMENT ACCOUNTING PRACTICES AND ITS IMPACT ON PERFORMANCE

HOW OFTEN DOES YOUR INSTITUTION USE THE FOLLOWING SYSTEMS: USE THE FOLLOWING SCALE FOR SCORING?

Never	Rarely	Occasionally	Frequently	Very Frequently
1	2	3	4	5

S/N	Item	1	2	3	4	5
1.	Costing methods are used in the acquisition of assets					
2.	Costing methods are considered in ascertaining the total cost of the organization					
3.	Costing system are used in the organization to be cost effective and efficient					
4.	Costing systems are used in my organization to increase its revenue					
5.	Budgeting system is used in the acquisition of assets					
6.	Budgeting is used in the organization in catering for unforeseen expenditure					

7.	Budgeting is used in the organization to control future cost					
8.	Budgeting is used in achieving financial target of the organization					
9.	Budgeting is used in assessing the future performance of the organization					
10.	Budgeting is used to know the organization's progress report in meeting policy goals					
11.	Performance evaluation is used to ascertain the progress of my organization					
12.	Organization's progress is based on its financial performance					
13.	Performance evaluation is used in the organization when ensuring its revenue growth					
14.	Staff complaints are evaluated					
15.	Employee's satisfaction is evaluated					
16.	Organization uses information gathered for decision making					
17.	Management uses MAP to monitor its resources					
18.	Decision making helps to control risk in the organization					

SECTION B

THE EXTENT TO WHICH MANAGEMENT HAS INFLUENCE ON THE DESIGN OF MANAGEMENT ACCOUNTING PRACTICE AND IT IMPACT ON PERFORMANCE

TO WHAT EXTENT DO YOU AGREE TO THE FOLLOWING STATEMENTS REGARDING THE INFLUENCE OF MANAGEMENT ON THE DESIGN OF MANAGEMENT ACCOUNTING PRACTICES. USE THE FOLLOWING SCALE FOR SCORING.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

S/N	Item					
1.	Management is influential when it comes to;	1	2	3	4	5
2.	Initiating change programs					
3.	Implementing latest office practices					
4.	providing training for employees					
5.	making resources available to carry out activities					
6.	recognizing employees for superior quality performance					
7.	strong understanding for staffs					
8.	working closely together to create superior value for stakeholders					
9.	strong marketing orientation					
10.	Making information easily accessible by employees for decision					

	making					
11.	innovation and creativity being highly recognized in this institution					
12.	Ensuring effective internal and external communication					
13.	Considering risk in the delivery of services					
14.	Considering affordability in rendering of services alongside maximizing revenue					
15.	Encouraging employees to make suggestions in decision making					

SECTION C

THE CHALLENGES OF MANAGEMENT ACCOUNTING PRACTICE AND ITS IMPACT ON PERFORMANCE

HOW WOULD YOU RANK THE FOLLOWING AS MAP CHALLENGE IN YOUR INSTITUTION? USE THE FOLLOWING SCALE FOR SCORING.

VERY HIGH	HIGH	NEUTRAL	LOW	VERY LOW
1	2	3	4	5

S/N	Item	1	2	3	4	5
1.	High cost of implementation					
2.	Lack of supporting systems					
3.	Lack of suitable techniques					
4.	Lack of management commitment					
5.	Lack of expertise in monitoring and supervision					

TO WHAT LEVEL DO YOU AGREE TO THE FOLLOWING STATEMENTS REGARDING THE IMPACT OF THE ABOVE CHALLENGES. USE THE FOLLOWING SCALE FOR SCORING.

STRONGLY AGREE	AGREE	NEUTRAL	STRONGLY DISAGREE	DISAGREE
1	2	3	4	5

S/N		1	2	3	4	5
1.	High cost of implementation results in expensive service to customers					
2.	High cost of implementation contributes to low enrolment					
3.	High cost of implementation reduces students' satisfaction					
4.	High cost of implementation minimizes revenue generation					
5.	High cost of implementation reduces cost control effectiveness					

6.	High cost of implementation leads to high employees turn over.					
7.	Lack of supporting systems results in high employees' turnover					
8.	Lack of supporting systems results in expensive service to customers					
9.	Lack of supporting systems <i>contributes</i> to low enrolment					
10.	Lack of supporting systems reduces students' satisfaction					
11.	Lack of supporting systems minimizes revenue generation					
12.	Lack of supporting systems reduces cost control effectiveness					
13.	Lack of suitable techniques results in high employees' turnover					
14.	Lack of suitable techniques results in expensive service to customers					
15.	Lack of suitable techniques <i>contributes</i> to low enrolment					
16.	Lack of suitable techniques reduces students' satisfaction					
17.	Lack of suitable techniques minimizes revenue generation					
18.	Lack of suitable techniques reduces cost control effectiveness					
19.	lack of management commitment Results in high employees' turnover					
20.	lack of management commitment Results in expensive service to customers					
21.	lack of management commitment <i>Contributes</i> to low enrolment					
22.	lack of management commitment reduces students' satisfaction					
23.	lack of management commitment minimizes revenue generation					
24.	lack of management commitment reduces cost control effectiveness					
25.	Lack of expertise in monitoring and supervision results in high employees' turnover					
26.	Lack of expertise in monitoring and supervision results in expensive service to customers					
27.	Lack of expertise in monitoring and supervision <i>contributes</i> to low enrolment					
28.	Lack of expertise in monitoring and supervision reduces students' satisfaction					
29.	Lack of expertise in monitoring and supervision minimizes revenue generation					
30.	Lack of expertise in monitoring and supervision reduces cost control effectiveness					

SECTION D

INSTITUTIONAL CHARACTERISTICS

1. Name of institution

.....

2. Number of employees

.....

3. Year of operation

.....

4. Position of respondents

.....