

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI, GHANA**

**Impact of Total Quality Management on Organisational Performance: A Case of
Kuntenase Government and Saint Michael's Hospitals of the Bosomtwe District**

By

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**A thesis submitted to the Department of Construction Technology and
Management,**

College of Art and Built Environment

In partial fulfilment of the requirement for the degree of

MASTER OF SCIENCE

NOVEMBER, 2018

DECLARATION

I, the under-signed do hereby declare that, this research work, under the supervision of Dr. Barbara Simons is my own and that, to the best of my knowledge, it contains no material already published by someone else nor material which has been accepted for the honour of any other degree of the University, aside from where due affirmation has been made in the content.

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ABSTRACT

The study aimed at investigating the impact of Total Quality Management (TQM) on Organizational Performance. The study was conducted in the Kuntense Government's and St. Michael's Hospitals of the Bosomtwi District in the Ashanti Region of Ghana. The study's sample size was 80 from each hospital and included management, staff and clients. The research used both primary and secondary data collected from the respondents and data mining respectively. Variables used to capture TQM are management commitment through reliability, responsiveness, assurance, empathy and tangibles. The organizational performance was measured by customer satisfaction, increased productivity and competitive advantage. The data generated was analysed using the Ordinary Least Squares (OLS) regression technique to determine the significance of the independent variables has on triple constraint variables. Descriptive statistics was used to test the data. The results show that TQM has positive impact on organizational performance. In light of these findings, the study made some recommendations, such as, the need for top managements of both hospitals to continue to look into ways to increase its employees' empowerment and participation for continuous improvement.

Keywords: *Total Quality Management and Organisation Performance*

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ACKNOWLEDGEMENT

I am most thankful to God Almighty who by His grace, direction, protection and wisdom granted me the chance to carry out this research work. For all these, I say thank you Father! This is how far you have brought me.

With sincere appreciation, I also acknowledge the immense commitment and contributions of Dr. Barbara Simons of Department of Construction Technology and Management, KNUST, who supervised this research, work and put forward his untiring efforts in ensuring that it comes to an acceptable standard. Her recommendation, directions, advice and constructive criticisms were extremely useful. Indeed, I am profoundly indebted to her for her supervision.

My profound gratitude likewise goes to all friends especially Claudia Antwiwaa Gyamfi, Fred Frimpong, Pious Boakoh and Oteng Kissiedu who encouraged me to pursue the programme. Without their participation and support, this work would not have come this far. To every one of you, I say Ayekoo!

DEDICATION

I dedicate this research work to my family and all my loved ones.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

A Health Care Organization (HCO) is an intricate association essentially attributable to the immaterial result of administration and a mix of different expert staff. Quality administration in medicinal services is a basic prerequisite in wellbeing area. The standards of value have been understood in human services. Be that as it may, quality is certainly not a physical property benefit. Utilization of the term 'Social insurance Service' instead of 'Medicinal Care' additionally characterizes the field and puts it as a substance that can be evaluated, observed and moved forward. A quality human services framework can be characterized as "one that is open, suitable, accessible, moderate, viable, proficient, incorporated, safe, and patient related" (Park, 2009). Social insurance is conveyed by professionals in partnered wellbeing administrations, dentistry, birthing assistance, obstetrics, drug, nursing, optometry, drug store, brain research and other consideration suppliers. Quality administration in social insurance is a wide term. At first it was seen as guiding the medicinal services faculty to what to do. Be that as it may, its present translation is to deal with the procedure of consideration (Salehi et al., 2018). It alludes to watching the authoritative capacities as a cooperation of strategies and procedures that can be tended to independently and all in all. Albeit different models have been advanced, in any case, the idea of group of three of structure, process and result proposed by Donabedian (1980) remains the establishment of value appraisal today. Quality administration has risen as the critical need more savagely than any time in recent memory in light of the new meaning of the quality with patient fulfillment as the result of administration.

The nature of administrations being given to patients is very vital. The customary perspective of value control went for deformity recognition while the present idea goes for the imperfection aversion, constant process change, and result driven framework guided by patients' needs. Henceforth there is a crying need to realize a change in outlook in nature of social insurance conveyance (Rathee, 2016). The experts need to venture forward to get engaged with quality (Rana et al., 2014). As of now, the quality has been tended to more in restorative field than in the united fields, for example, dentistry and nursing and furthermore more in the creating nation setting.

Medicine is a scholarly calling and it chooses its own substance quality. The concentration for quality in social insurance is on basic preventive upkeep as opposed to add up to benefit support. Donabedian (1980) proposed the utilization of set of three of structure, process, and result to assess the nature of human services. The structure segment incorporates the foundation, expertise and capabilities of social insurance experts and regulatory frameworks to convey the medicinal services. The procedure incorporates the individual segments of consideration and their communications. The result is the recuperation, reclamation of capacity, and survival. To comprehend quality the key highlights are dependability, affirmation and responsiveness. The seven mainstays of value as exhibited by Donabedian (1980) are viability, proficiency, optimality, worthiness, authenticity, value, and cost. As per the Institute of Medicine, administrations are of value, when they are protected, viable, tolerant focused, opportune, proficient, and fair (Donabedian, 1980).

Managing quality in social insurance has watched a change in perspective from anticipating that blunders and imperfections should considering that ideal patient experience is achievable. Philip Crosby bolsters a similar rule that the framework for causing quality is aversion and not the evaluation.

1.2 PROBLEM STATEMENT

TQM integrates all the efforts in the organization concerning quality development, quality implementation and quality maintenance to meet overall customer satisfaction at all economic levels. TQM improves work quality and employer satisfaction to ensure participation and involvement and consequently the organization image (Yusuf et al., 2007). Participative culture is developed from TQM in that employee can participate directly in areas relating to work and decisions (Yusuf *et al.*, 2007). TQM is much more practiced and concentrated in the developed economies than the developing economies, particularly Ghana. The main reason for the lack of interest is the fact that the impact of scientific research on developed countries' TQM implementations are far more influential than in developing countries.

Although a number of studies have been conducted, for example, (Al-Obaidi, Maddi, AlBargati, & El-Fallah, 2005) many of these, although helpful in looking at new issues in the TQM implementations (e.g. Top management commitment, Cultural change, Customer focus, Total involvement, Continuous Improvement, Training, and Teamwork), have either failed to capture the dynamic of pluralistic views on quality, or have focused on a higher level of health service such as hospitals. Consequently, there are no national standards or instruments for measuring patient perceptions of health service facilities. It is therefore important for the TQM implementation to take advantage of the available experience in other developing countries especially Ghana and specialized organizations to create instruments that are acceptable, valid, and reliable in a cost-effective and timely manner. Therefore, there is the need for this study to be conducted in Ghana.

1.3 RESEARCH QUESTIONS

The study sought to answer the following questions:

1. What TQM practices are been implemented at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District?
2. What are the challenges associated with TQM implementation at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District and?
3. What is the relationship between TQM implementation and Organizational Performance at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District?

1.4 RESEARCH OBJECTIVES

The overall aim of the study was to examine the impact of total quality management on organizational performance.

Specifically, the study sought to achieve the following objectives:

1. To explore TQM practices implemented at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District;
2. To ascertain the challenges associated with TQM implementation at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District.
3. To examine the relationship between TQM implementation and Organizational Performance at Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District.

1.5 BRIEF RESEARCH METHODOLOGY

The study adopted quantitative approach using the survey design. The survey method was selected because of its ability to facilitate the collection of data from large groups of

respondents. Data collected was analyzed quantitatively using descriptive. The data collected was first edited to remove errors and then coded accordingly. Structured questionnaires were designed and administered to sampled fractions of Management members, Staff and Clients (Patients) of the two Hospitals, to elicit information on the general perception on how the two organizations are performing as a result of TQM practices. Fraction of the respondents were considered as a result of time and resource constraints. The Statistical Package for the Social Sciences (SPSS v. 20) and Pearson Correlation were used to analyze the obtained primary data. Provisions of secondary data for the study were obtained by means of data mining using computer technology, reviewing of relevant textbooks, published articles/reports from renowned authors and researchers, together with reports and records of the two hospitals.

1.6 SIGNIFICANCE OF STUDY

Regarding the dearth of literature addressing the close link between TQM application and organization performance in the health sector, the outcome of the study will serve as useful literature for other researchers who want to work in this field of study. The study will add new knowledge to literature on TQM applications and organisational performance. Again, the findings from this work will enable health service organizations both public and private to know TQM applications and how these affect organisational performance. Health management experts, international organizations and project managers will also benefit from this research work making them aware of the issues in TQM. Furthermore, the study will serve as an important guide, source of knowledge and reference work for academicians, practicing project management professionals, health managers, the general public students, stakeholders, and development partners. Overall,

the study offers both managerial and theoretical understanding of TQM, its application and organizational performance in the health sector.

1.7 SCOPE OF STUDY

This study focuses on the health sector in Ghana. The study centers on the practices of TQM and organizational performance at the Kuntense Government's and Saint Michael's Catholic Hospitals at Bosomtwi District in the Ashanti Region of Ghana. The study was limited to the two Hospitals of Ghana, and therefore, the findings from the study were not generalized to the whole Ghana and other countries in the world. Total Quality Management concepts discussed were tangibles, reliability, responsiveness, continuous improvement, and empathy. Concepts for organisations performance were increased productivity and competitive advantage.

1.8 LIMITATIONS OF THE STUDY

First and foremost, the absence of database on implications of TQM on organizational performance at the Kuntense Government's and Saint Michael's Catholic Hospitals of the Bosomtwi District posed as a hindrance to the progress of the study. This could have lessened the dependability capacity of the work but the study's intent of eliciting for meaningful information made the researcher carefully explain thoroughly the concept of TQM, Organizational Performance and other key terms to the respondents before their engagements. In addition, even though, a nationwide study would have been much worthwhile for the purposes of national reflection on the subject, there are to some extent financial and informational resources constraints which could indicate the impracticality of undertaking such an exercise.

1.9 ORGANIZATION OF STUDY

The entire study is organized into five (5) chapters. The first, which is Chapter One outlines the background to the study, problem statement, research questions, research objectives, brief overview of research methods, scope of study, the significance of study and the organization of the study. Chapter Two talks about the literature review of the study. Here, the concept of TQM, its application and organisational performance are explained. In addition, theoretical and empirical literatures on TQM, the study's conceptual framework and hypothesis are developed in this chapter.

The Chapter Three deals with the procedures and steps with the necessary tools used for collecting worthwhile information required to address the gap (research problem). Chapter Four covers the analysis and discussion of the study's results emanating from the collected data. Chapter Five which is the final chapter presents the summary of findings, conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter focuses on the contextual review delving into the concept of TQM, TQM practices and its dimensions as well as challenges. The review also touches on organization performance. Again, the review touches on the theoretical and empirical review as well as conceptual framework and hypothesis development.

2.2 CONCEPTUAL REVIEW

The review looks at the history and the current issues in TQM and service organisational performance.

2.2.1 The concept of TQM

Total Quality Management (TQM) as a concept originated from Japan and is regarded as very old. It started to develop in the late 1930s after the Second World War. The focus hinged on quality improvement and again using quality control measures specifically in the sector of manufacturing (Demirbag *et al.*, 2006; Talib *et al.*, 2010a). Subsequently, other countries such as UK and USA had a whiff of QM concept. These countries also applied TQM concept in manufacturing sectors. As days went by, QM idea grew faster and has taken shape on the international front kowtowing to the standards of quality espoused by the international world series of ISO 9000 (Sachdeva *et al.*, 2007; Demirbag *et al.*, 2006; Talib *et al.*, 2010b). Industries, in an anxious bid to ensure competitiveness and efficiency designed various QM approaches. Integrating organizational functions to focus, helping them meeting and achieving their requirements and organizational objectives is the hallmark philosophy of TQM (Demirbag *et al.*, 2006). TQM put

customers (internal and externally) at heart. TQM seeks to meet the expectations of customers on a regular basis. Everyone is involved in ensuring that the organization works harder to improve processes or products.

TQM is more focused on integrating all organizational efforts taken into consideration quality development, quality improvement and quality maintenance at all economical levels to meet full customer satisfaction. TQM ensures work quality and satisfaction of employer-employee by participating and involving themselves in the organizational processes. (Yusuf *et al.*, 2007).

Taken together, Mohanty and Lakhe, (2002), identify four relevant features of services; intangibility, inseparability, heterogeneity and perishability and define the service system integrating all components to work with aim to satisfying customers' needs.

The manufacturing sector started using TQM to improve organisational performance. Later it moved to the service organisations. TQM is seen as combining principles, techniques and practices (Dean and Bowen, 1994).

TQM or critical success factors for service organisations possess helping them with quality programme success include training and education, top-management commitment; quality information and performance measurement, customer focus, continuous improvement and innovation, benchmarking, employee involvement, employee encouragement, and supplier management (Talib *et al.*, 2010a; Talib *et al.*, 2011c; Sila *et al.*, 2002; Mahapatra *et al.*, 2006; Zhang, 2000).

2.2.2 TQM Practices

Implementing successfully TQM improves communication, increases productivity, improves customer satisfaction, and leads to competitive advantage. Strong competitive pressure has forced service organizations to adopt QM tools and techniques to offer higher quality products and services as a way to delight and keep their customers intact. Quality management tools and techniques have been seriously adopted by service organisations as a result of strong competitive pressures. This has led to high quality services and products delighting and keeping customers intact (Prajogo et al., 2003; Tsang et al., 2001). Oakland (1995) defines TQM practices as areas critical to an organization that help an organization to examine the categorization of the impacts of TQM to achieve its mission.

2.2.3 Dimensions of Quality

According to Crosby (1979), quality is conformance to requirement and can only be measured by the cost of non-conformance. He further argued that, the standard performance of quality is zero defects (mistakes) and can only be considered as the price of non-conformity, and never believed in statistical process control in understanding total quality management as in the cases of Deming (1986) and Juran et al., 1988). To Fotopolous et al. (2009), some of the critical attributes of organizations deemed offering quality services to its clients are tangibles, reliability, responsiveness, assurance and empathy.

2.2.4 Tangibles

Tangibles are the equipment, written materials, physical appearance of facilities and staff. It translates to the organization's appearance and conditions, interiors, the

appearance of the staff and tools used (Zeithamal et al., 2006). Organizations use tangibles to showcase their image and signal quality (Zeithaml et al., 2006).

2.2.5 Reliability

The performance ability of promised service dependably and accurately” or “delivering on its promises is reliability (Zeithaml et al., 2006). Reliability is crucial because clients would like to experience firms that keep their vows. Reliability dimension is communicated implicitly customers of the organisation. This is evident in the work done by Andaleeb & Conway, (2006) on food and beverage industry positing that reliability is understood to mean fresh food delivered at the correct temperature and accurately the first time.

2.2.6 Responsiveness

Responsiveness, according to Zeithaml et al., (2006) is the willingness to providing quick services to customers service. Responsiveness dimension concerns addressing customer’s questions, complaints, and requests quickly and accurately. An organization is recognized to be responsive when concerns from customers are communicated and answered. Success comes when organisations critically see responsiveness from the customers’ point of view rather than the organizations perspective (Zeithaml et al., 2006).

2.2.7 Assurance

Zeithaml et al. (2006), defines assurance as courtesy and knowledge of employees as well as the ability of service providers to inspire confidence and trust. To medical and healthcare industry, assurance is a relevant service quality dimension that clients see in

measuring a hospital or a surgeon for an operation. The confidence and trust represent the personnel linking the customer to the organization (Zeithaml et al., 2006).

2.2.8 Empathy

Empathy is the caring organisations give to its customer (Zeithaml et al., 2006). The treatment given to customers must be special and unique. Provision of empathy is done in several ways: customer preferences and needs, customers' name. Companies use the empathy concept furnish to customers services guide competitive advantage over other the firms (Zeithaml et al., 2006). The dimension of empathy is good for in industries where relationship building with clients ensures survival of the firm as against transaction marketing (Andaleeb & Conway, 2006).

2.3 CHALLENGES OF TQM PRACTICES

Shortell et al. (1995a), say that there is one glaring difference between TQM applications in other fields and the healthcare service organizations. Applications of TQM at numerous fields have made it a point to direct the application at the core processes of the firm and again at areas of greatest strategic priority. However, it different in health care. TQM applications, provide administrative support to care for patient activities rather than addressing directly the clinical processes.

Apart from the obstacles observed, cultural obstacles have the strongest strain on TQM application in health-care organizations. Shortell et al. (1995a), documents five cultural obstacles to TQM application health care organization:

- Health-care organizations are inward-looking; they tend to focus more on the needs of care-givers and professionals than on the needs of external customers.

- Large health-care organizations are typically organized on a relatively hierarchical basis, exemplifying bureaucratic cultures that are resistant to employee empowerment.
- There is a lack of senior management commitment to TQM in most health-care organizations.
- In health-care organizations, leadership styles are based on command and control and hero/heroine models, rather than empowerment and 'manager as developer' (or manager as coach) models (Shortell et al., 1995a).
- In general, middle managers perceived TQM as a threat that might eliminate their jobs.

2.4 ORGANIZATIONAL PERFORMANCE

Unger et al., (2011) aver that public policy as far as organizational performance is concerned generally has been perceived to focus on tangible measures such as, improving access to finance, mitigating regulatory burdens and enabling the use of business support mechanisms. However, the veneration of other less tangible factors such as, the growing recognition of leadership commitment to the implementation of best management practices, such as, TQM also epitomize significant drivers of organizations' performance (Tracy, 2015; Hayton, 2012; 2015). Conversely, the main objective of any organization is to enhance the job performance of its employees so that it could survive in this highly competitive business environment (Das et al., 2006). Abuzaid (2015) affirms the above assertion by arguing that, the best investment any business can ever make is employees, since they are to operate effectively and efficiently to realize organization's goals. Performance is a multidimensional construct and an extremely vital criterion that determines organizational successes of failures. To Prasetya and Kato (2011),

performance can be defined as the attained outcomes of actions with skills of employees who perform in some situations. According to Drucker (2004) and Hayton (2015), the performance of an organization's employee is his/her resultant behaviour on a task which can be observed and evaluated. To Pattanayak (2005), organizational performance is the various contributions made by employees and the systems put in place for the accomplishment of organizational goals.

Here, the study is of the view that, organization performance is simply the result of patterns of action carried out to satisfy the objectives of an organization according to some standards. This means organization performance is a behaviour which consists of directly observable actions of employees, and also mental actions or products such as answers or decisions, which result in organizational outcomes in the form of attainment of goals. Tracy (2013) defines job performance as an important activity that provides both the goals and methods to achieve the organizational goals and also provide the achievement level in terms of output. Additionally, it is an effort on the part of an employee to achieve some specific goal (Boyatzis, 1982; Drucker, 2004 and Bloom et al., 2012). Generally, organization performance is an intricate term and involves the recurring activities to establish organizational goals, monitor progress towards the goals and make adjustments to achieve those goals much efficiently and effectively – i.e. functioning and outcomes of the organization's operations (Richardson, 2017).

Also, Rouse (2013) points out that organization's performance is a composite assessment of how well an organization executes on its most important parameters, typically financial, market and shareholder performance.

Furthermore, the study is of the view that, organizational performance can be viewed in a broader context as a part of the Total Quality Management of such organization. Likewise, (Rouse et al., 2013) define it as the actual results of an organization as measured against its intended goals and objectives. In furtherance to the above assertions, the study contends that organizational performance primarily includes manufacturing of products and services, functioning of different units of an organization, outcomes of their work in total. Its complexity nature justifies why specialists like strategic planners, strategic managers and etc. pay critical attention to its measurement (Rouse et al., 2013).

2.4.1 Organizational Performance Measurement

Performance measurement is very critical for an organizational effectiveness. Organizational performance assessment is a subset of business intelligence (BI) that is concerned with the excellence of an aggregate of individuals' work output for organizations, and has traditionally been measured in terms of organizations' financial position (Ridgeway, 2011; Rouse et al., 2013). However, in recent times, the concept of capacity building has gained appreciable levels of recognition and has led into the advent of investment in employees and total quality management (Ridgeway, 2011). Contemporary, organizational performance measurement and its management has expanded beyond forecasting, budgeting and planning, and performance results are often shared publicly rather than only with financial stakeholders and investors, as was formerly the case (Salaheldin et al., 2008; Hayton, 2015). He also argues that, it is now considered to involve factors such as, strategy responsiveness, productivity, reputation, innovation, growth, assurance, reliability, etc.

Hayton (2015) further argues that organizational performance comprises the actual output or results of an organization as measured against its needed outputs (objectives and goals). Likewise, the study is in agreement with the above contention, as while examining the link between the quality principles and practices and performance, scholars were noticed to have used different performance variables such as innovative, financial, operational and quality performance.

For the purposes of this study, the two performance variables used to measure organizational performance are satisfaction level which will be measured by customers' satisfaction, increased productivity resulting from the measurement of operational efficiency and effectiveness, and the advantage level measured with the use of the organization's growth in terms of its relative market share (customer base). The parameters are as follows;

2.4.2 Increased Productivity

The discussion of increased organisational productivity is commonly subjugated by thoughts of the productivity of labour, but it in general terms, may be considered as a ratio of the number of physical units of output per unit of resources input to the organizations (Eilon, 1987 cited by Richardson, 2017). Duncan (2017) also points out that organization's productivity is literally how efficient and effective organizations' operate. He further viewed it as the assessment of a group of workers' efficiency and averred that it remains a critical determinant of cost efficiency within organizations.

Therefore, this draws an assertion from the above views that organisational productivity is a measure of the efficiency and effectiveness of workers in converting resource inputs into useful outputs. It however, constitutes organizations' ability to choose appropriate

courses of action, meeting deadlines, building social networks, etc. for themselves. The study's above view is in conformity with Richardson's (2017) case that organizations' increased productivity is a computation of the average output per period by the total resources or costs incurred – i.e. energy, capital, personnel, material and etc. consumed in that period.

2.4.3 Competitive Advantage

Contemporary, businesses experience an unending need to invest in their workers (Richardson, 2017) as the current state of the economy responds well in terms of accumulation and not distribution (Washburn, 2016). This has triggered business executives' concerns about leadership's commitment to pay critical attention to TQM, and even mostly equates quality to organizational growth. This has however, contributed enormously to the veneration of organizations' investment strategies in current business discourse such as TQM (Washburn, 2016).

2.5 TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL PERFORMANCE

Literally, there are many surveys, articles and studies that describe the critical roles of quality in improving organizational performance. It is quite evidential that TQM has huge impact on the business performances of organizations within the manufacturing and service industries.

Conversely, the works of Salaheldin (2008) revealed a strong positive association between TQM implementation and Organizational performance, and five TQM principles – i.e. customer focus, continuous improvement, top management's commitment, employee involvement and service / product innovation have a

significantly positive effect on product / service quality, recommending the use of reward, motivation and recognition for employees' involvement in TQM efforts.

In addition, Das et al., (2006) found a positive relationship between TQM and both organizational operations and performance. The results showed that, customer focus, continuous improvement, top management's commitment, employee involvement and service / product innovation have a significantly and positively correlated to product / service quality.

2.6 THEORETICAL LITERATURE REVIEW

The theories underpinning the study are Deming, Crosby and Juran's theories of Total Quality Management.

2.6.1 Deming's Theory of TQM (1986)

Deming (1986), posits that it is the customer who can define quality of any service or product. Again, he asserts that quality can change depending upon the needs of the customer. Deming (1986), extracted three applications: variability reduction resulting in predictable degree of uniformity, lower cost and market suitability. In addition to these, Deming developed 14 points regarding TQM of which seven are deadly diseases that stampede performance of firms. Other factors in his model prevent realization organisational quality. To him, these 14 points give organisations the requisite energy and strength by providing solution to the seven killer diseases and ensure organisations achieve performance excellence. The fourteen (14) points programme proposed by Deming are: improve services and products by creating constancy of purpose, new philosophy adoption, achieve quality by ceasing dependence on inspection, price alone business award practice should end, rather, reduce total cost by working with a one

supplier, improve constantly and forever every process for planning, production and service, institute training on the job, adopt and institute leadership, drive out fear, break down barriers between staff areas, eliminate slogans, exhortations and targets for the workforce, eliminate numerical quotas for the workforce and numerical goals for management, remove barriers that rob people of pride of workmanship, and eliminate the annual rating or merit system, institute a vigorous program of education and self-improvement for everyone, and put everybody in the company to work accomplishing the transformation.

2.6.2 Crosby's Theory of TQM (1979)

The concept of quality, according to Crosby (1979), is conformance to requirements. Quality must take into account the measurable and clearly defined terms to aid organisations take action. In his view, quality has no levels and managers should measure quality tracking consistently the cost of wrong things done. He referred to this as price of conformance (POC). He advised managers to adhere to this simple formula to save themselves from always doing the wrong things.

Cost of Quality (COQ) = Price of Conformance (POC) + Price of Nonconformance (PONC); POC = cost of getting things done right the first time and PONC = information provided to management regarding the wasted cost and a visible indication of progress as the organization improves.

Again, Crosby's four absolutes of quality management; adherence to requirements as quality definition, prevention is the suitable way to ensure quality, performance standard for quality is zero defects (mistakes), and the price of nonconformity is measured by quality.

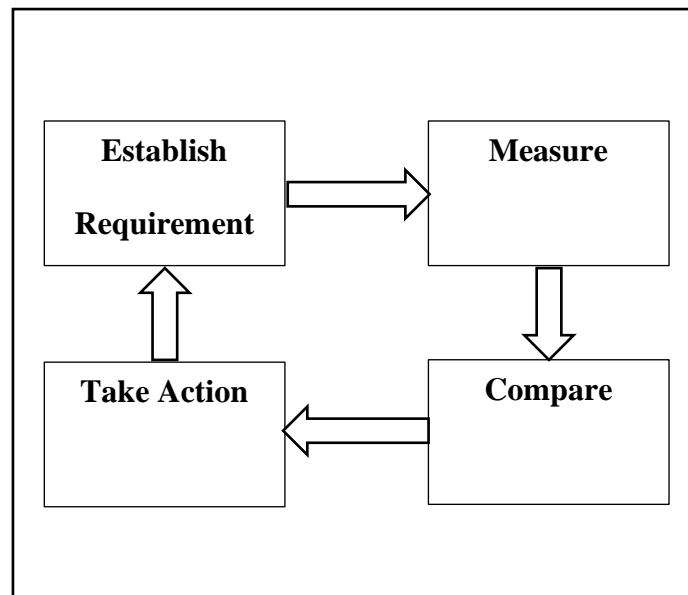


Figure 2.1: The Prevention Process (Crosby, 1987)

For Crosby, continuous quality improvement has fourteen steps: Achieve add up to responsibility from administration, shape a quality change group, make measurements for every quality change action, decide cost of value and show how change will add to gains, prepare managers suitably, urge representatives to settle deformities and keep issues logs, make a zero-abandons advisory group, guarantee that workers and administrators comprehend the means to quality, exhibit your organization's dedication by holding a zero imperfections day, objectives are determined to 30, 60, or 90-day plan, decide main drivers of mistakes, expel them from procedures, make motivators programs for workers and make a quality chamber and hold consistent gatherings, and rehash from stage one.

2.6.3 Juran's Theory of TQM (1988)

Fitness for use is Juran's whole concept of quality. He argues for the balance existing between features and product undisturbed from deficiencies. In his view, products are outputs including goods and services. By extension, he said that features are

technological characteristics of a product well carved to meet the needs of the customer and that service organisations have features like delivery promptness or extended courtesy (Juran et al., 1988). Quality Trilogy is attributed to him. The quality trilogy comprises quality planning, quality improvement, and quality control. He proposed ten steps improvement in quality and these are: an awareness of the opportunities and needs for improvement must be created, improvement goals must be determined, organization is required for reaching the goals, training needs to be provided, initialize projects, monitor progress, recognize performance, report on results, track achievement of improvements, and repeat.

2.7 EMPIRICAL LITERATURE REVIEW

Performance measurement is seen as significant component at different levels management techniques. Organizational performance is measured by two main criteria - cost and quality. These affect directly the practices of total quality management (Sadikoglu, 2009).

Sadikoglu (2009) and Brun (2010) argue that the application of various TQM practices like process management, training, and customer management affect performance of employees which in the long run affect directly the whole organization's performance. Gharakhani et al., (2013) further consolidate the argument raised by Sadikoglu and Brun that TQM greatly affect financial performance of organisations.

Wen et al. (2009) and Letica (2007), posit that TQM practices impact customer satisfaction with specific reference to public sector services. They conducted a study and found out that the focus of TQM practices on strategic planning, processes management and employees, customer concern, measurement of internal and external customer

satisfaction level of perceived product or service quality leadership and customer concern influence performance of institutions and organisations. Again, their study affirmed that TQM practices, employees focus and satisfaction levels of customers have positive relationship. They argue that satisfaction of customers and manager commitment relate strongly. However, according to their findings few TQM practices like planning strategically and managing processes have less effect on customers' levels satisfactions. Lakhal et al. (2002) and Talha (2004), confirm that TQM practices directly contribute to enhancing organisations performance by reducing costs, improving staff members' performance, and increase in the level of customer satisfaction.

Dooyoung et al. (1998), challenge the assertion by Saizarbitoria (2006), that TQM directly influence positively organisational performance and aver that in certain circumstances TQM implementation do not achieve the desired organisational goals.

2.8 CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The conceptual framework specifies the concepts that guide the study to achieve its objectives. It is developed from the theoretical and empirical review of literature. It touches on the indicators measuring each constructs or variable.

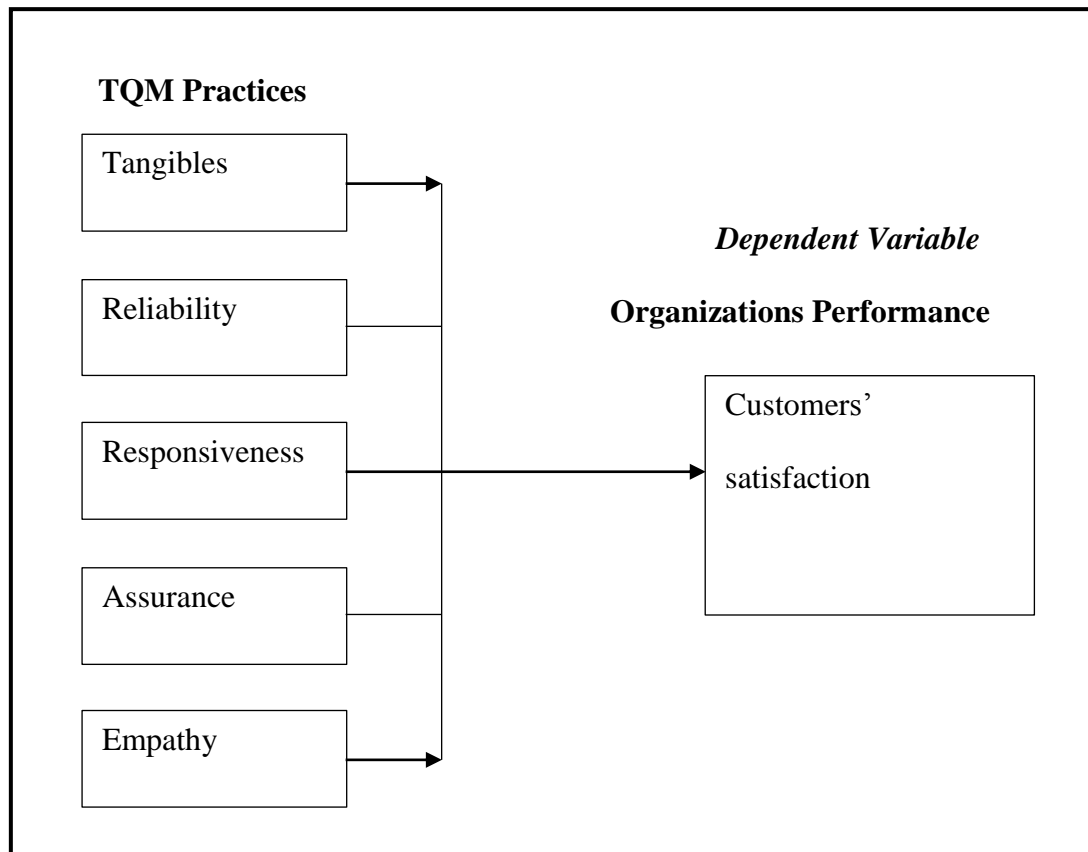


Figure 2.1: Conceptual Framework for the study

Source: Author's own construct, 2018

2.9 CHAPTER SUMMARY

The chapter reviewed the context of TQM and organisational performance as well as theoretical and empirical literatures. Upon review, gap was identified. The application of TQM practices in the manufacturing and other sectors are better than that of the health care organisations and that the manufacturing and the other sectors adhere to the principles and practices of TQM as against the health care organisations.

CHAPTER THREE

RESEARCH METHODOLOGY AND ORGANIZATIONAL PROFILE

3.1 INTRODUCTION

This chapter throws much light on the research design and purpose, study population, sample size and sampling techniques adopted for the study. It also describes into detail the various research instruments, specific steps and methods employed in the collection and analysis of the data deemed suitable to address the research problems.

3.2 RESEARCH DESIGN

To Yin (2009), every empirical study form has an inherent if not overt research design. It is the connection of a study's empirical data to its initial research questions and ultimately, to its conclusions in a logical sequential manner (Baah-Ennumh et al., 2012). In addition, Yin (2009), points out that research design preponderantly constitutes the outline of the various stages involved in the research exercise and serves more or less as a plan that guides the investigator through the process of collecting, analyzing and interpreting observations.

The study employed the quantitative research design. According to Leedy et al. (2001) quantitative research design furnishes explanations and comprehension of difficult situations. Designed questionnaires were given to hospital employees as well as customers to answer to know the impact of total quality management on service organization's performance. In extreme cases where the respondent is unable to answer, the researcher guides the respondent to answer.

3.3 STUDY POPULATION

Literally, this refers to the aggregate number of people found within a particular area. Likewise, population is also considered as a collection of items or individuals with one or more common characteristics from which data can be elicited and analyzed (Kumar, 2009). Also, Ruben and Babbie (1989), define study population as the sum of all elements from which the sample is actually selected. With regard to these, the study population consisted all the staff including management members and clients of the two hospitals – i.e. Kuntense Government's and Saint Michael's Hospitals in the Bosomtwi District of Ashanti Region of Ghana.

3.4 SAMPLING PROCEDURES

3.4.1 Sampling Frame

Sample frame, according to Rubin and Babbie (1989), is the actual list of sampling units from which the sample is selected. The Management members, Staff (employees) and Clients (those who accessed the facilities on that day) of the two hospitals constituted the study's sampling frame. The population as shown for the study is 95 (Hospitals' record, 2018) and is shown in Table 3.4.

3.4.2 Sample Size

The population under study is heterogeneous due to the diverse orientations and characteristics among management members, employees and clients of the two public hospitals, and it is only prudent to consider larger sample size since the more heterogeneous a population is, the larger the sample ought to be (Saunders et al., ,2007). Much more, both the convenience non-probability and simple random sampling techniques are used for the purposes of this study. To Saunders et al., 2007, probability

samplings is often allied with surveys and proffer each member of the population the same or equal opportunity of responding to the research questions through selection while non-probability restricts the researcher's choice of respondents.

Literally, two hundred respondents from the respective units of the sample frames from the two hospitals were expected to participate in the study. Respondents were selected with 5% error margin to ensure 95% confidence level following the sample size determination table developed by Yamane (1967). Eight (80) were selected out of the expected 100 from respondents in respective hospitals representing 95%. The number of respondents (80) was considered appropriate. The sample size calculation by Yamane (1967) is given by:

$n = \frac{N}{1+N(e)^2}$, where n is the sample size, N is the population size, and e is the level of precision.

$$n = \frac{95}{1 + 100(0.05)^2} = 76$$

Table 3.1: Type of respondents and sample size

Category	Gender	Kuntense Hospital	%	St. Michael's Hospital	%
Management	M	4	80	3	60
	F	1	20	2	40
Staff	M	11	18.3	17	28.3
	F	49	81.7	43	71.7
Clients	M	7	23.3	13	43.3
	F	23	76.7	17	56.7
TOTAL		95	100	95	100

Source: Field Data, 2018

3.4.3 Sampling Technique

Following the virtue of the population being diverse, a stratified random sampling technique was used for the staff and clients and the convenience non-probable for the management members since they were ten (10) only, with five (5) from each hospital and believed to be key informants. Indeed, it is apt for heterogeneous population as Fraenkel & Wallen (2000) and Tabachnick & Fidell (2007) make the case that, this method (stratified random sampling) involves the process of fragmenting the population into one or more strata on the grounds of certain attributes to the population and connotes a modification or reform of the simple random sampling technique. Also, the stratified random sampling approach was adopted in the selection exercise in order to attain the situation whereby none of the several groups to be surveyed from the sample frame is left out. This assertion is in congruence with the thought that, this technique guarantees the attainment of respondents with diverse areas of expertise or knowledge on the study topic or research problem from all the noted sub-groups of the sample population (Bradshaw & Stratford, 2000; Patton, 1990; Saunders et al, 2007).

The management members were selected with the use of convenience non-probability method because of their knowledge on the subject matter (key informants). These were the Administrator, Medical Officer, Pharmacist, Accountant and Matron from both hospitals. Otherwise, the stratified random probability sampling method was adopted for the selection of the staff and clients of both hospitals due to their large numbers. Literally, each of the hospital's respondents was mainly divided into three groups according to the selected sampling frames – i.e. Management members, staff and clients. However, the staff and clients were classified into six strata depending on which department you were found to be dealing with at that moment. The departments were Pharmacy, Children's Ward, Males Ward, Females Ward, Maternity and Out-Patient Departments.

In all, a total number of 80 respondents were selected from the sample frames – i.e. management members (10) with 5 from each of the hospitals, staff (40) with 30 from each of the hospitals. Therefore, a total number of eight (80) respondents out of the anticipated number of two hundred (100) sampled from each hospital to respond to the questionnaires were considered for the study.

3.5 INSTRUMENT FOR DATA COLLECTION

The people's viewpoints were elicited by means of a survey instrument's designed questionnaire for the study in order to establish a profile of TQM implementation and its implications on Organizational Performance within the two public hospitals of the Bosomtwi District. Basically, this involved the compilation of structured questions as a research instrument, with close-end multiple-choice questions grounded on the 5-point Likert-style rating scale which offers respondents a range of options or answers to choose from. Literally, 5 on the scale represent the highest score and 1 is the lowest on the scale. Respondents for the study had choices either to disagree or agree to an extent with the questions made within the scope to make data collation and analysis much simpler and ensuring that issues of concern are directly addressed by the selected answers. Also, necessary alterations and reforms to the questionnaire were made within the context of the study, and respondents were briefed about the significance of the research in order to make them truthful and diligent with their responses.

3.6 SOURCES OF DATA

The data type which is fundamentally gathered or collected to be used for a specific purpose is known as the primary data (Saunders et al., 2007; Tabachnick and Fidell,

2007; Kumar, 2009) and, for this study, it was collected through the responses from the administered questionnaires with the help of the three field assistants.

The data type which is purposefully obtained for other usage than what it was basically collected for (Tabachnick and Fidell, 2007). Likewise, Kervin (1999) considers it to be a summarized or raw (unprocessed) data. In addition, Saunders et al., 2007 views it as either explanatory or descriptive and of three categories – documentary, survey and multi-source. The act of data mining using computer technology, reviewing of journals, textbooks, articles, publications, Television documentaries and magazines from renowned authors and researchers, together with departmental reports and internal records of the two public hospitals served as the sources where secondary data for the study was collected.

3.7 THEORETICAL MODEL FOR THE STUDY

The theoretical model guiding the study is the SERVQUAL model of service quality espoused by Parasuraman et al., (1986). SERVQUAL conceptualizes service quality to be gap existing between customers' expectations and perceptions (Parasuraman et al., 1986). There are discrepancies that exist between what management perceive as service quality and what customers think service quality is. These gaps were seen as major hindrances to attempting to furnish a service which customers perceive as being of high quality (Parasuraman et al., 1986). Managers of service organisations most times will not comprehend particular characteristics indicating to customers' high quality, particular features a service must possess in order to meet customers' needs, and what performance level furnish high quality service. Consequent to these, service quality perception by customers' service is affected (Parasuraman et al., 1986).

The discrepancy existing between management perceptions of customer expectations and the real specifications given for a service may come about because of constraints of resource, conditions of the market and limited management commitment to service quality. This discrepancy influences quality of service perceptions of customers (Parasuraman et al., 1986). Service quality is a multi-dimensional construct and because of its multi-dimensional nature Parasuraman et al. (1986) outlined ten key service dimensions: tangibility, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing customers and access. Regardless of the type of service, the scholars argue that, customers basically use similar criteria in evaluating service quality.

3.8 EMPIRICAL MODEL SPECIFICATIONS AND ESTIMATION METHODS

Following the objectives and the questions the study seeks to achieve and answer, cross sectional model specification is used. The model is specified as follows:

$$y_i = \beta x_i + \varepsilon_i, \text{ where}$$

y_i = dependent variable

x_i = independent variable

ε_i = random or stochastic variable.

3.8.1 Statistical Methods to Estimate Empirical Model

In this study, similar model specification will be adopted. The data generated will be analyzed using the Ordinary Least Squares (OLS) regression technique to determine the significance of the independent variables has on service organization's performance. The model for this study is specified thus:

$$OR\ PER_i = \alpha_0 + \beta_1 TAN_i + \beta_2 REL_i + \beta_3 RES_i + \beta_4 ASS_i + \beta_5 EMP_i + \varepsilon_i$$

--- (1)

Where

OR PER = Organizational Performance

TAN= Tangibles

REL = Reliability

RES = Responsiveness

ASS = Assurance

EMP = Empathy

But OR PER is measured by Increase Productivity (IP) and Competitive Advantage (CA)

Therefore:

$$IP_i = \alpha_0 + \beta_1 TAN_i + \beta_2 REL_i + \beta_3 RES_i + \beta_4 ASS_i + \beta_5 EMP_i + \varepsilon_i, \text{----- (2)}$$

$$CA_i = \alpha_0 + \beta_1 TAN_i + \beta_2 REL_i + \beta_3 RES_i + \beta_4 ASS_i + \beta_5 EMP_i + \varepsilon_i, \text{----- (3)}$$

3.9 DATA ANALYSIS TECHNIQUE

The researcher edited the data collected from the field of study to ensure consistency in the responses. This was done to ascertain whether all questionnaires were duly responded and contained accurate information to make meaning. Also, specific codes were assigned to all the questions in the questionnaire (close-ended) and computerized after an overview of the responses was done. Furthermore, the data processing aspect involved the explanation of variables, coding of data (keying) and finding missing values by editing.

With guidance by the research questions and objectives, descriptive statistics including simple tables, frequency and regression tables formed the basis for describing the data analysis based on the Statistical Package for Social Sciences version 20.0 (SPSS). Additionally, mean and standard deviation test were performed to reveal the weight of each factor.

3.10 RELIABILITY AND VALIDITY

The study considered measuring the consistency of the research instruments by pre-testing the questionnaires on a small sample from the survey sample frame as it's deemed to be very intricate in designing a questionnaire, as even experts do not initially get it rightly as expected. In the piloting process, ten (10) questionnaires were given to some selected respondents from other hospitals to fill the questionnaire independently and collected after a week. Conversely, the analysis of the various responses improved the research instruments as the pilot test created room for the polishing of the questions in terms of its order, layouts and filtering. Hence, the calculation of reliability of the impact of TQM practices (tangibles, reliability, responsiveness, assurance and empathy) on Organizational Performance (customer satisfaction, increased productivity and competitive advantage) questionnaires using Cronbach's alpha coefficient were done. Also, the supervisor and other advisors approved the face validity of the assessment tools used in the course of this study.

3.11 ETHICAL CONSIDERATION

The researcher bearing in mind of the several implications associated with research ethics, considered sending an official letter to the Kutenase Government's and Saint Michael's Catholic Hospitals in the Bosomtwi District in order to gain full access into the two public hospitals.

In addition, the various participants of the study were accorded the requisite reverence as the study in itself required the acquisition of certain personal information. Also, respondents were adequately educated on the plethora of reasons for the study such as, the kind of information being elicited for, motives for eliciting the information, usage of generated information, study's direct and indirect effect on them through the data collected.

Also, mechanisms were put in place to ensure anonymity and confidentiality of the participants at all time, and were however, made to understand that they had the legitimacy to pull out of the study at any time as their participation was voluntary.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter involves the presentation of the data analyses and discussion of the study. It consists of deliberations on issues such as respondents' demographic characteristics, the TQM principles or practices implemented in these two hospitals. It also includes analysis of the extent to which customers' requirements and expectations have been fulfilled at the two hospitals and the challenges associated with implementing TQM in the two organizations. Finally, the extent to which the implementation of TQM practices is related to the two hospitals' performance is analyzed as far as the study is concerned.

4.2 ORGANIZATIONAL PROFILE

The Ashanti capital Kumasi metropolis has the highest number of health facilities in Ashanti region at 38% and Kumasi has a teaching hospital to support the medical training at the KNUST (Komfo Anokye Teaching Hospital). Saint Michael's Catholic Hospital is located at Bosomtwi twenty minutes from Kumasi. It was established in 1958 and draws its source of funding from charity. The hospital is mainly focused on maternal and pediatrics care, and also runs an outreach programme to the neighbouring villages. The hospital is located in the small town called Pramso and is classed as a medium-sized hospital serving a catchment area of approximately 135,000 people. The facility is a 99 bed capacity, currently has 5 medical doctors and at a status of District General Hospital. On the other side, Kuntense Government's Hospital is a primary hospital located at Kuntense. The facility serves about 120 communities with a population of about 179,000. Its community serves as the host to Lake Bosomtwi.

4.3 DESCRIPTION OF THE SAMPLE

Data on respondents' demographics were collected and analyzed. Variables included were age, gender, educational level and familiarity with the facility. These characteristics are deemed to rightly position the study into its perspective since they have a high proclivity to inform the researcher on respondents' awareness levels as far as the study's subject matter is concerned. The following subsections present the results.

4.3.1 Distribution of Respondents by Age

The age of respondents, particularly that of those who are directly or indirectly associated with the two hospitals is very essential to determine which category of people in terms of age are involved or affected by the operations of the Kuntense Government's and Saint Michael's Catholic Hospitals in the Bosomtwi District. The ages of respondents are put into five groups, ranging from below 20, 20-30, 31-40, 41-50 and 51-60+. Table 4.1 below shows the cross tabulation of the age distribution of the respondents (Management members, Staff and Clients) from the two hospitals studied.

Table 4.1: Distribution of Respondents by Age

Category	Kuntense Gov't Hosp.		St. Michael's Catholic Hosp.	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Below 20*	0	0	4	4.2
20 -30	8	8.4	11	11.6
31 – 40**	48	54.7	42	44.2
41 – 50	15	23.2	31	32.6
51 – 60+	9	13.7	7	7.4
Total	80	100	95	100

Source: Field data, 2018

For the respondents from Kuntense Government's hospital, the table above indicates that, the below 20 years age group was found to be the least respondents – i.e. none of the respondents was below the age of 20 and the highest age group is those who are between the age group of 31 to 40 years.

The age groupings shows that 0% of the respondents are between the age group of below 20, 8.4% are between the age group of 20 and 30 years, while 54.7%, 23.2% and 13.7% are all respondents between the age groups of 31 and 40 years, 41 and 50 years and 51 and 60 years and above respectively.

For the respondents from the St. Michael's Catholic Hospital, the result indicates that, the below 20 years age group also had the least respondents and the highest age group is those who are between the age group of 31 to 40 years. However, the age groupings shows that 4.2% of the respondents are between the age group of below 20, 11.6% are between the age group of 20 and 30 years, while 44.2%, 32.6% and 7.4% are all respondents between the age groups of 31 and 40 years, 41 and 50 years and 51 and 60 years and above respectively. Therefore, the case of none of the respondents not being below 20 years from the Kuntense Government's Hospital and only 4 being below 20 years from the Saint Michael's Catholic Hospital imply that, all of the respondents are people with experience in life and are maturing, thus, could have a better understanding of the implications of TQM practices on organization, requirements and expectations of clients in hospitals, as well as the challenges of TQM application in hospitals.

4.3.2 Gender Distribution of Respondents

According to the Food and Agriculture Organization (FAO), gender is defined as both the perceptual and material relationship between men and women. It is also not

determined biologically by sexual characteristics of either men or women, but it is a social construct. The gender details of the respondents were obtained and the results presented in Table 4.2

Table 4.2: Distribution of Respondents by Gender

Category	Kuntenase Gov't Hospital		St. Michael's Catholic Hospital	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Male	17	23.2	33	34.7
Female	63	76.8	62	65.3
Total	80	100	95	100

Source: Field data, 2018

From the table Table 4.3b, male constitutes 23.2% of the total respondents of the respondents while female constitutes 76.8% from the Kuntenase Government's Hospital. Likewise, male respondents constitute 34.7% while female respondents represent 65.3%. Drawing inference from the results, it is clearly indicated that, female constitute majority of the respondents interviewed from both hospitals. This is as a result of having almost all the staff nurses who participated to be female nurses. Thus, there is an imbalance between men and women respondents, as women are far more than men even though men are also equally affected by the implications of TQM on Organizational performance. However, this also shows that both male and female respondents of the two hospitals were captured in the study which helps to mitigate bias that might attribute to gender association in the study. In addition, the result's case of having most of the respondents to be females, confirms the fact that women are more than men in the health sector due to their overt interest in the nursing and midwifery profession.

4.3.3 Distribution of Respondents by Educational Attainment

The educational levels of respondents were considered for the study. This was done to inform the researcher of respondents' awareness of the subject matter.

Table 4.3: Distribution of Respondents by Educational attainment

Category	Kuntenase Gov't Hospital		St. Michael's Catholic Hospital	
	Frequency	Percentage (%)	Frequency	Percentage (%)
No Education	0	0	0	0
Primary – JHS	9	9.5	0	0
SHS / Voc. / Tech	10	15.8	31	32.6
Tertiary / Graduate	66	74.7	64	67.4
Total	80	100	95	100

Source: Field data, 2018

For the Kuntenase Government's Hospital, the table above shows that, all the respondents had gained some levels of education with 9.5% up to the Junior High School level, 15.8% up to the SHS level and 71% up to the tertiary level. This shows majority of the respondents are highly educated. On the other side, all of the respondents from the St. Michael's Catholic Hospital had their educational level not lower than the SHS level. 32.6% of the respondents were educated up to the SHS level, 67.4% were educated up to the tertiary level. The general level of education of the respondents was very high, as majority of the respondents from both hospitals have acquired higher level of education. It is implied that the educational requirements needed by one to perform the tasks of these management members and staff have contributed to the higher educational levels of the respondents.

4.3.4 Longevity of Respondents' associability with the Hospitals

Respondents' years of associability with their respective hospitals is presented below.

The study is of the view that, respondents' levels of familiarity and associability with the organization is likely to influence their opinions.

Table 4.4: Longevity of respondents' associability with the two Hospitals

Category	Longevity of associability				Total
	Below 1 year	1 - 5 years	6 - 10 years	11-15 +years	
Kuntenase Gov't Hos.	12 12.6%	65 68.4%	13 13.7%	5 5.3%	95 100%
St. Michael's Cath. Hos.	8 8.4%	49 51.6%	21 22.1%	17 17.9%	95 100%

Source: Field data, 2018

According to the table above, majority 65 (68.4%) of the respondents from the Kuntenase Government's hospital mentioned that they have been associated with the hospital for the past 5 years while 5 respondents (5.3%) claimed to have been associated with the hospital from 11 – 15 years and above. However, 12 (12.6%) and 13 (13.7%) mentioned they have been associated with the hospital for the past 1 year and 6 – 10 years respectively.

Likewise, 49 (51.6%) of the respondents representing majority mentioned they have also been associated with the St. Michael's Catholic hospital for the past 1 – 5 years while 8 (8.4%) claimed to have known the hospital less than a year. However, 21 (22.1%) and 17 (17.9%) have also been with the hospital for the past 6 – 10 years and 10 -15 and above years respectively. In sum, the number of years of which the respondents claimed to have known their respective hospitals is quite long, and for that matter, their responses are deemed to reflect what actually takes place in the hospitals.

4.3.5 Distribution of Respondents by Position

For the purposes of this study, respondents' from the hospitals' employees included management also known as the executive and the core staff of all the six departments of the facilities. These respondents are categorized into two. Firstly, the Executive management which comprises of the top-level managers of the two hospitals is considered as one. On the other hand, the middle-level and first-level managers, and all the core staff are also considered as one. Figure 4.3 below details the various positions of the respondents from the management and staff sampling frames of the two organizations.

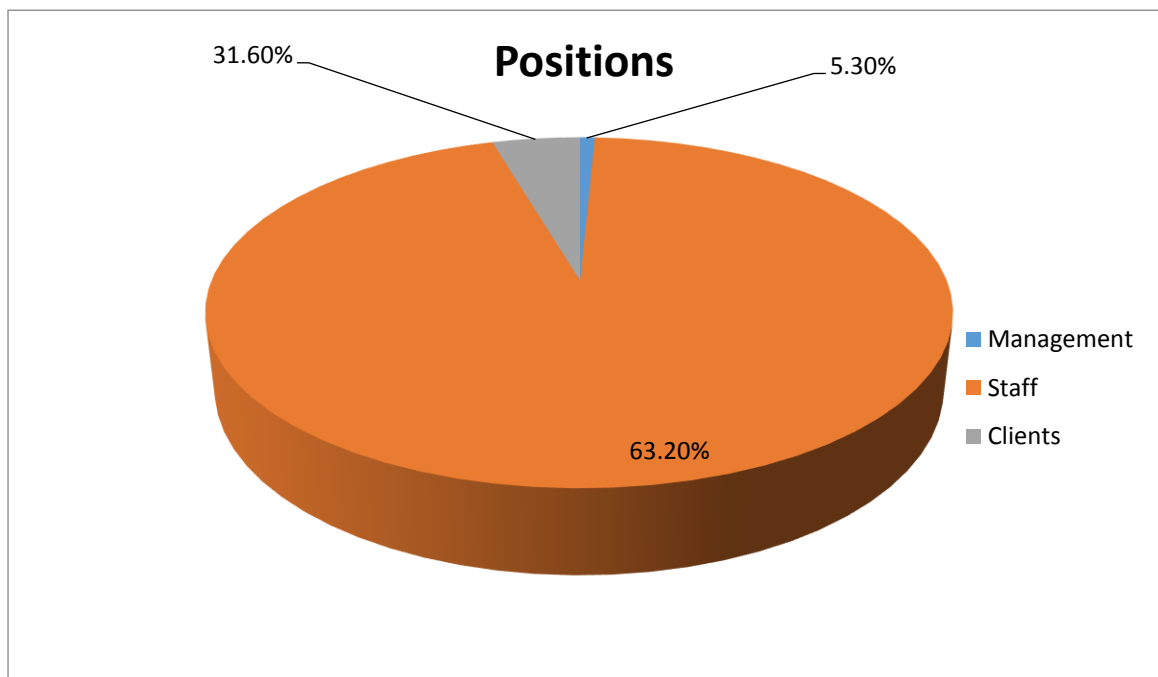


Figure 4.3: Positions of Respondents

Source: Field data, (2018)

The figure 4.3 shows that, respondents from the staff sampling frame constitute the majority – i.e. 120 respondents representing (63.2%), followed by the respondents from the clients sampling frame – i.e. 60 respondents representing (31.6%). However, with

regards to the management category, each of the hospital has a five-member management team who are the heads of the various departments, thus, 10 respondents representing (5.3%) was considered.

4.4 DESCRIPTIVE RESULTS

The analysis of the results focus on research objectives. These included analysis of the TQM practices implemented at the hospitals, clients' requirements and expectations from these hospitals. The analysis of the challenges associated with TQM application, organizations' performance and the effect of TQM practices on organizational performance were also included. Lastly, the correlation and multiple regression analysis were all presented.

Table 4.5: Extent of TQM practices at the two Hospitals

	N	Min.	Max.	Mean	Standard Deviation
Reliability	190	1.00	5.00	4.1085	.93799
Responsiveness	190	2.00	5.00	3.9708	.82880
Assurance*	190	1.313	5.00	3.8500	.82660
Empathy	190	1.00	5.00	3.8963	.80910
Tangibles**	190	2.15	5.00	4.7723	.93799
Overall (TQM Practices)	190	1.493	5.00	4.1196	0.86809
Valid N (List wise)	190				

Source: Field data, (2018)

Descriptive statistics were used to assess the level of TQM practices implemented by the two hospitals. The Mean and Standard Deviation (S.D) of the three dimensions of TQM practices were calculated, to establish the respondents' assessment of the extent to which leadership is committed to the implementation of TQM in the hospitals. The scale used

in the statements was the Likert-scale; 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5 – Strongly Agree. The descriptive statistics of the findings are presented. According to the table above, the results showed that, tangibles had the highest mean of $M = 4.7723$ and standard deviation of $S.D = 0.93799$, followed by reliability at a mean of $M = 4.1085$ and standard deviation of $S.D = 0.93799$. Followed by responsiveness with a mean of $M = 3.9708$ and standard deviation of $S.D = 0.82880$ and empathy with a mean of $M = 3.8963$ and standard deviation of $S.D = 0.80910$. The least but still with a high mean score of $M = 3.8500$ and standard deviation of $S.D = 0.82660$ was assurance. Overall, TQM practices scored a mean of **$M = 4.1196$** and standard deviation of **$S.D = 0.86809$** . In fact, it is important to note that the mean score was above the midpoint. This statistically shows that TQM practices are inherent and implemented in the Kuntense Government's and St. Michael's Catholic Hospitals. And therefore, the study can conclude that leadership of both hospitals is aware of the TQM principles and concept which would go a long way in the development of the two health facilities.

Table 4.6: Extent of the Challenges of TQM Practices

	N	Min.	Max.	Mean	Standard Deviation
TQM as Threat*	190	2.00	5.00	3.7387	.95735
Bureaucratic Culture	190	1.80	5.00	4.0918	.83780
Senior Management Commitment**	190	1.32	5.00	4.1098	.89880
Overall (Challenges)	190	1.707	5.00	3.9801	.89798
Valid N(List wise)	190				

Source: Field data, (2018)

The result of the challenges of TQM practices is presented in table 4.3.3.1 below. The result included analysis of the challenges associated with TQM, and is with three dimensions (each with three items). Descriptive statistics were used to assess the challenges associated with TQM. The Mean and Standard Deviation (S.D) of the three dimensions of the challenges were calculated, to establish the respondents' assessment of the extent to which the challenges are associated with TQM. The scale used in the statements was the Likert-scale; 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5 – Strongly Agree. The descriptive statistics of the findings are presented in table 4.3.2.1 below.

From the table above, the result shows senior management commitment had the highest mean score of $M = 4.1098$ and standard deviation of $S.D = 0.8980$, followed by bureaucratic culture with a mean score of $M = 4.0918$ and standard deviation of $S.D = 0.83780$.

The least but still with a high mean score of $M = 3.7387$ and standard deviation of $S.D = 0.95735$ was TQM as a threat. However, the overall mean score for the TQM challenges was **$M = 3.9801$** and standard deviation of **$S.D = 0.89798$** . This result indicates that both the two hospitals appreciate that there are obstacles inclined to the implementation of TQM principles. The study views senior management commitment as the critical tool to promote TQM in the hospitals. The study's findings agree with the findings of Shortell et al. (1995) who posited that health care organizations lack of senior management commitment to TQM.

4.4.1 Analysis of Organizational Performance

This subsection presents the results of the analysis of the organizational performance. Three (3) identified dimensions of organizational performance were assessed. These were the customer satisfaction with three dimensions (each with three items), increased productivity with three dimensions (each with three items) and competitive advantage with three dimensions (each with three items). Descriptive statistics were used to assess the level of organizations' performance by calculating the mean and standard deviation of the dimensions, to establish the respondents' assessment of the extent to which the two hospitals – i.e. Kuntense Government's and St. Michael's Catholic Hospitals are performing. The scale used in the statements was the Likert-scale; 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree and 5 – Strongly Agree. The results are presented in the following subsections.

Table 4.7: Extent of Organisation Performance

	N	Min.	Max.	Mean	Standard Deviation
Efficiency and Effectiveness*	190	2.3	5.00	3.7153	.78209
Resource Allocation**	190	2	5.00	4.5118	.62971
Strategy Formulation	190	1.95	5.00	4.2168	.90512
Overall (Increased Productivity)	190	2.08	5.00	4.14796	.77230
Valid N(List wise)	190				
Strategy Responsiveness	190	1.75	5.00	4.3371	.60923
Human Resource Practices*	190	1	5.00	2.9923	.89301
Brand Position**	190	3	5.00	4.8920	.65903
Overall (Competitive Advantage)	190	1.92	5.00	4.0738	.72042
Valid N(List wise)	190				

Source: Field data, (2018)

This subsection presents the overall results of analysis of the organizations' performance towards achieving the desired increased productivity. Three identified dimensions of increased productivity according to Hayton (2015) were assessed and presented. These were efficiency and effectiveness with three items, strategy formulation with three items and resource allocation with three items. These were strategy responsiveness with three items, human resource practices with three items and brand position with three items. Descriptive statistics were used to assess the levels of these dimensions. Resource allocation had the highest mean score of $M = 4.5118$ and a standard deviation of $S.D = 0.62971$, followed by strategy formulation with a mean score and a standard deviation of $M = 4.2168$ and $S.D = 0.90512$ respectively.

The least but still with a high mean score of 3.7153 and a standard deviation of 0.78209 was efficiency and effectiveness. However, the overall increased productivity had a mean score and a standard deviation of **$M = 4.14796$ and $S.D = 0.77230$** respectively. Again, the analysis reveals that brand position had the highest mean score of $M = 4.8920$ and a standard deviation of $S.D = 0.65903$, followed by strategy responsiveness with a mean score of $M = 4.3371$ and a standard deviation of $S.D = 0.60923$. The study indicates human resource practices as having the least mean score of $M = 2.9923$ and a standard deviation of $S.D = 0.89301$.

This indicates that the two hospitals are operating efficiently and effectively to achieve organizational performance. Moreover, even though human resource practices had a mean score that is less than the midpoint, the overall mean score for competitive advantage was revealed to be **$M = 4.0738$** with a standard deviation of **$S.D = 0.72042$** . This therefore, signifies that the hospitals are doing well among its competitors within the healthcare service delivery with regards to its relative market share.

4.4.2 Effect of TQM on Organizational Performance

This section presents the results of analysis of the effect of TQM on Organizational Performance. It includes a correlation analysis and presents the results of a bivariate correlation based on Pearson correlation statistics in the following sections.

4.4.3 Correlation Analysis

According to table 4.3.5.1.1 below, the main objective of the study - to examine the nature of relationship between TQM and organizational performance in Kuntense Government's and St. Michael's Catholic Hospitals of Bosomtwi District is achieved. The correlation coefficient between the TQM of the hospitals and organizational performance $r = 0.81$ with respect to significant level of 0.01 is significant. In other words, there is a direct and positive relationship between the TQM and Organizational Performance of Kuntense Government's and St. Michael's Catholic Hospitals (see the second table below).

Table 4.8: Correlation matrix of the TQM and Organizational Performance

Variable		TQM	Customers' Satisfaction	Increased Productivity	Competitive Advantage	Organizational Performance
Customers' Satisfaction	Correlation Coefficient (α)	0.93				
	Determination Coefficient (%)	91%				
Increased Productivity	Correlation Coefficient (α)	0.91	0.89			
	Determination Coefficient (%)	81%	94%			
Competitive Advantage	Correlation Coefficient (α)	0.93	0.93	0.83		
	Determination Coefficient (%)	90%	81%	94%		
Organizational Performance	Correlation Coefficient (α)	0.81	0.91	0.90	0.87	
	Determination Coefficient (%)	91%	90%	95%	90%	
Strategy Responsiveness	Correlation Coefficient (α)	0.94	0.96	0.93	0.86	0.88
	Determination Coefficient (%)	92%	96%	91%	91%	95%
Brand Position	Correlation Coefficient (α)	0.86	0.90	0.91	0.91	0.93
	Determination Coefficient (%)	90%	85%	85%	95%	92%
Human Resource	Correlation Coefficient (α)	0.93	0.88	0.93	0.95	0.94
	Determination Coefficient (%)	85%	90%	90%	95%	88%
		Level 0.05* level 0.01**				

Source: Field data, 2018

Pearson correlation analysis was used to examine these hypotheses. The correlation coefficients between Total Quality Management and Organizational Performance, reliability and organizational performance, responsiveness and organizational performance, assurance and organizational performance, empathy and organizational performance and tangibles and organizational performance are presented in the table 4.9 below.

Table 4.9: Relationship between TQM and Organizational Performance at the Hospitals

Variables	Organizational Performance Coefficients	
	Correlation (α)	Determination (%)
TQM	**0.81	91
Reliability	**0.91	91
Responsiveness	**0.90	81
Assurance	**0.87	90
Empathy	**0.91	91
Tangibles	**0.89	90
Significant level	0.01, 0.01, 0.01 & 0.05 respectively	
N	190	

Source: Field data, 2018

The table above indicates that, the coefficient of determination of the relationship between Total Quality Management and the Organizational Performance is 91% i.e., 91percent of the distribution is shared between TQM and Organizational Performance. Therefore, the main research hypothesis is confirmed. However, the null hypothesis of the study which states that; there is no statistical relationship between TQM and Organizational Performance is rejected.

4.4.4 Multiple Regression Analysis

The multiple regression analysis was carried out to estimate the effect of TQM (Independent Variables) on organizational performance (Dependent Variable). Results are presented. This presents a summary of the model in which the item of interest is the adjusted R^2 statistics, which is 0.215. This suggests TQM account for 21.5% of the variation in organizational performance.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Durbin-Watson
1	0.512 ^a	0.245	0.215	0.52413	1.938

Source: Field data, 2018

- a.** Predictors: (Constant), Reliability, Responsiveness, Assurance, Empathy and Tangibles
- b.** Dependent Variable: Organizational Performance score

The table below presents the analysis of variance (ANOVA) results. It is also known as model fit results. Of interest in this table are the F – Statistics and its associated sig. value. The results show that the F – Statistics is 6.569% ($p < 0.01$). The results indicate that the model hypothesis that the “model has no power to predict organizational performance from TQM practices score” could not be accepted. They therefore, suggest that the model has power to predict organizational performance significantly from the TQM scores.

Table 4.11: Model Fit Results

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.751	5	1.982	6.569	.000 ^b
	Residual	21.043	73	.275		
	Total	27.794	76			

Source: Field data, 2018

a. Dependent Variable: Organizational Performance score

b. Predictors: (Constant), Reliability, Responsiveness, Assurance, Empathy and Tangibles

The table below presents the results on the coefficients of the regression model. The coefficients results show that reliability positively predict organizational performance, standardized B = .627, ($p < 0.01$). These results suggest that respondents are of the view that, performance of the hospitals whose management implemented TQM (Reliability) characteristics increased significantly by 62.7%.

The results also show that responsiveness, assurance, empathy and tangibles significantly and positively predict organizational performance, standardized B = .442, ($p < 0.01$) and standardized B = .548, ($p < 0.01$) respectively. This however indicates that, respondents are of the view that, performance of organizations whose managements implement TQM (responsiveness, assurance, empathy and tangibles) characteristics increased significantly by 44% and 55% respectively.

Multicollinearity statistics show tolerance figures ranging from 0.603 to 0.858 while Variance Inflation Factors (VIFs) ranged from 1.165 to 1.772. These findings suggest that multicollinearity is not suspected amongst the independent variables. Kumar (2014) suggests that multicollinearity would be suspected if tolerance figures are below 0.10 or VIF statistics are 10.0 or higher.

Table 4.12: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.344	.526		6.356	.000		
Reliability	.525	.106	.627	4.947	.000	.636	1.772
1 Assurance	2.73	.103	.442	2.666	.000	.603	1.659
Tangibles	3.85	.071	.548	1.447	.000	.858	1.165

Source: Field data, 2018

a. Dependent Variable: Organizational Performance score

4.5 DISCUSSIONS

Total quality management (TQM) is a systematic quality improvement technique for firm-wide management meant for improving performance in terms of customer satisfaction, quality, productivity, and profitability (Lakhal et al., 2002). The acceptance of TQM practices by many firms across the globe have captured the attention of many researchers from diverse areas. TQM is a management philosophy seeking to empower every member of the organization. It is intended to ensure and promote long-term, continuous and sustained improvement in productivity and quality by eliminating employees' fear of change (Deming, 1986). The cost of prevention which is the cost of correction is the brain behind TQM. (Wen et al., 2009; Letica 2007) indicate that TQM can deliver real competitive advantage. The TQM approach encapsulates the basic techniques and principles of existing management tools in a structured manner quality function deployment and statistical control.

TQM concentrates on regular process improvement in organisations to furnish superior customer value and meet customer needs. TQM is a popular guideline for organisational management and that it helps to adopt developing strategic info maps and info charts for an information organization. However, there are severe obstacle or challenges face TQM practices in service organisations. In an attempt to contribute to this findings, the present study relied on a sample of 80 employees and customers in two hospitals in the Ashanti Region of Ghana. The results obtained are discussed below:

4.5.1 Total Quality Management Practices in the Hospitals

The study sought to ascertain respondents' perceptions about the TQM principles implemented at the Kuntense Government's and St. Michael's Catholic Hospitals. This was done by seeking the respondents' perceptions about reliability, responsiveness, assurance, empathy and tangibles of the two health facilities. The study indicated that the respondents to a large extent agreed that, the two facilities - Kuntense Government's and St. Michael's Catholic Hospitals as organizations have its managements to be aware of TQM and its roles towards organizational performance. The study's findings commensurate with the findings of Lakhal et al., 2002; Talha, 2004, who posited that confirm that TQM practices directly contribute to enhancing organisations performance by reducing costs, improving staff members' performance, and increase in the level of customer satisfaction. The findings, however contradict the findings of Dooyoung et al. (1998), challenge the assertion by Saizarbitoria (2006), that TQM directly influence positively organisational performance and aver that in certain circumstances TQM implementation do not achieve the desired organisational goals.

4.5.2 Challenges of Total Quality Management Practices in the Hospitals

The study sought to ascertain respondents' perceptions about the challenges of associated with the implementation of TQM practices in the Kuntense Government's and St. Michael's Catholic Hospitals. This was done by seeking the respondents' perceptions about three dimensions – i.e. bureaucratic culture, senior management commitment and TQM as a threat. In all, the score of the challenges was found to be high and gives the indication that the two hospitals are much aware of the inherent obstacles as far as the implementation of TQM in organizations is concerned.

Among the three dimensions, senior management commitment was found to have the highest score, followed by bureaucratic culture and then TQM as a threat. The study's findings agree with the findings of Shortell et al. (1995) who posited that health care organizations lack of senior management commitment to TQM.

4.5.3 Total Quality Management and Organisation Performance in the Hospitals

The descriptive data indicated that TQM principles are inherent in the day to day operations of the two hospitals though none of the TQM practices – i.e. reliability, responsiveness, assurance, empathy and tangibles had a mean score of 5, but with high mean scores above the midpoint, and with overall score of $M = 4.1196$ and $S.D = 0.86809$. The findings of Sadikoglu (2009) and Brun (2010) that the application of various TQM practices like process management, training, and customer management affect performance of employees which in the long run affect directly the whole organization's performance and Gharakhani et al., (2013) consolidate the argument raised by Sadikoglu and Brun that TQM greatly affect financial performance of organisations.

4.6 CHAPTER CONCLUSION

This chapter presented the study's results and findings. It also discusses the findings in relation to the study's objectives, underpinning theories, and the pertinent literature. The subsequent chapter, presents the summary of the findings, conclusion, and recommendation of the study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The purpose of the study was to examine the impact of total quality management on organisational performance in the Bosomtwi District in the Ashanti Region of Ghana. This chapter of the study provides summary of the study findings in congruence with the slated research objectives. The chapter also presents thorough conclusion and recommendations based on the findings discovered by the study. The recommendations of the study covered two broad areas namely policy or practical recommendations and future research recommendations. Whilst the practical recommendations cover steps to improve total quality management practices in the hospitals, future research recommendations cover information for future researchers on the topic under study.

5.2 SUMMARY OF FINDINGS

TQM integrates all the efforts in the organisation concerning quality development, quality implementation and quality maintenance to meet overall customer satisfaction at all economic levels and again improves work quality and employer satisfaction to ensure participation and involvement and consequently the organisation image is plausible. However, implementing TQM practices in the hospitals is a great challenge and the challenges come in many forms. In the light of this, the purpose of the study was to examine the impact of total quality management on organisational performance in the Bosomtwi District in the Ashanti Region of Ghana.

5.2.1 Review of TQM Practices in the Hospitals

The first objective of the study was to explore TQM practices. The study found that leadership of both hospitals is aware of the TQM principles and concept which is impacting on the development of the two health facilities.

5.2.2 Review of the Challenges of TQM in the Hospitals

The second objective of the study was to ascertain the challenges associated with TQM implementation. The study found that senior management commitment plays a critical role in promoting TQM in the hospitals.

5.2.2 Review of TQM and Organisation Performance in the Hospitals

The third objective was to examine the relationship between TQM implementation and Organizational Performance. The study found that the two hospitals are practicing TQM efficiently and effectively to achieve organizational performance and market share.

5.3 CONCLUSION

TQM and organisation performance are very vital subject matter to every organisation and its development. Therefore, encouraging good and realistic TQM practices ultimately affect organisation performance. The study has proven that organisation performance – increased productivity and competitive advantage are significantly determined by TQM practices. It is clear that without good TQM practices organisation performance is affected negatively.

5.4 RECOMMENDATIONS

In light of the discussed analysis of the findings and conclusion of the study, the following practical suggestions are recommended to organizations.

- Firstly, the study recommends that there must be a concerted effort by top management in the two hospitals to continue to look into ways to increase its employees' empowerment and participation. Continuous improvement is keen in Total Quality Management. The two hospitals should pay critical attention in regards to the value of its implementation. This empowerment or training would expose employees to contemporary TQM and management trends and practices. It is also recommended that in this policy, organizations must indicate focus areas for the TQM training, sources of funding and, most importantly, the planning and implementation process.
- Secondly, the tool used for measuring TQM implementation and organizational performance within the organizations should be reliable and valid. The study suggests that, Kuntense Government and St. Michael's Catholic Hospitals can adapt this model to advance their course in TQM.
- Last but not the least, the study also recommends that organizations especially Kuntense Government and St. Michael's Catholic Hospitals should continue their effort in considering TQM as a priority for their organizations in the future and involving the organizations to Total Quality Management implementation at all levels.

5.5 RECOMMENDATIONS FOR FUTURE RESEARCH

The following future research recommendations are provided;

Future researchers can examine the other TQM practices and how these affect organization performances in Ghana. Future researchers can explore TQM practices in other organisations to know how these organisations embrace the practices.

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APPENDIX

QUESTIONNAIRE

Preamble

My name is Atta Brobbey Appiah Jnr. I am a final year MSC Project Management student from the Department of Building Technology at Kwame Nkrumah University of Science and Technology, Kumasi. As part of the requirement for the master's degree, I am conducting a research on the topic: **Impact of Total Quality Management on Organizations Performance: A Case Study of Two Public Hospitals at Bosomtwi District**. The objectives of the study include:

- Explore TQM practices at Bosomtwi District Hospital;
- Examine the impact of TQM practices on organizational performance;
- Explore the TQM practices obstacles in the health sector.

The implication of the findings is for the future implementation of quality management in the health sector in Ghana and other countries. Information given will be treated with utmost confidentiality.

Thank you for your participation and assistance with this study.

Section A: Demographic Characteristics of Respondents

Please tick the applicable option.

1. **Are you:** ☐ M ☐ F

2. **What is your current age in years?**

Below 20 [], 20 – 30 [], 31 – 40 [], 41 – 50 [], 51 – 60 + []

3. **What is your highest level of Education?**

- ☐ Primary / Elementary
- ☐ Up to JSS / JHS
- ☐ Up to SSS/ SHS
- ☐ Diploma / HND / Degree / Post-graduate

4. What is your position in this organization?

- Management / Executive
- Staff
- Clients

5. How long have been with this organization?

- Below 1 year
- 1 – 5 years
- 6 – 10 years
- 11 – 15 + years

Section B: TOTAL QUALITY MANAGEMENT PRACTICES

On the scale of 1 to 7 indicate by ticking (√) the quality management practices in the organization

A1: Reliability

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital performs its services without errors.	[]	[]	[]	[]	[]	[]	[]
2. The hospital services are performed within the promised time	[]	[]	[]	[]	[]	[]	[]
3. The hospital employees show sincere concern in solving my problems	[]	[]	[]	[]	[]	[]	[]
4. The hospital correctly performs a service from the very first time	[]	[]	[]	[]	[]	[]	[]
5. The hospital performs a service exactly as promised	[]	[]	[]	[]	[]	[]	[]

A 2: Responsiveness

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital employees quickly respond to my Requests	[]	[]	[]	[]	[]	[]	[]
2. The hospital employees are always willing to help	[]	[]	[]	[]	[]	[]	[]
3. The hospital employees are quick in eliminating potential errors.	[]	[]	[]	[]	[]	[]	[]
4. In the hospital, you do not spent much time waiting in line (queue).	[]	[]	[]	[]	[]	[]	[]

A 3: Assurance

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital employees tell you exactly when a service will be performed	[]	[]	[]	[]	[]	[]	[]
2. The hospital employees are trustworthy	[]	[]	[]	[]	[]	[]	[]
3. The hospital employees are kind and polite	[]	[]	[]	[]	[]	[]	[]
4. The hospital employees are knowledgeable enough to reliably respond to your questions	[]	[]	[]	[]	[]	[]	[]

A 4: Empathy

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital employees know to advise me what would be the most proper service for my specific needs.	[]	[]	[]	[]	[]	[]	[]
2. The hospital considers your wishes and needs	[]	[]	[]	[]	[]	[]	[]
3. The hospital employees show understanding of your specific needs.	[]	[]	[]	[]	[]	[]	[]

A 5: Tangibles

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital Offices are visually appealing	[]	[]	[]	[]	[]	[]	[]
2. The hospital has modern-looking technical equipment.	[]	[]	[]	[]	[]	[]	[]
3. The hospital employees dressed smartly in performing their work duties.	[]	[]	[]	[]	[]	[]	[]

Section C: TQM Challenges

C: TQM Practices Obstacles

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital is inward looking.	[]	[]	[]	[]	[]	[]	[]
2. The hospital has bureaucratic cultures.	[]	[]	[]	[]	[]	[]	[]
3. The hospital lacks senior management commitment.	[]	[]	[]	[]	[]	[]	[]
4. The hospital's leadership is based on commands and control	[]	[]	[]	[]	[]	[]	[]
5. The hospital managers see TQM as threat	[]	[]	[]	[]	[]	[]	[]

Section D: Organizational Performance

On the scale of 1 to 7 indicate by ticking (√) the level of performance in the hospital

B : Organization Performance

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
B 1: Increased Productivity							
1. The hospital market share has expanded for the past three years	[]	[]	[]	[]	[]	[]	[]
2. The hospital revenue has increased for the past three years	[]	[]	[]	[]	[]	[]	[]
3. The hospital percentage of profit has increased	[]	[]	[]	[]	[]	[]	[]
4. The hospital Return on Investment has increased for the past three years	[]	[]	[]	[]	[]	[]	[]
5. The hospital total trend of the company's performance has improved	[]	[]	[]	[]	[]	[]	[]

B2: Competitive Advantage

	Strongly disagree		Not sure			Strongly agree	
	1	2	3	4	5	6	7
1. The hospital offer competitive prices.	[]	[]	[]	[]	[]	[]	[]
2. The hospital is able to offer prices as low or lower than your competitors.	[]	[]	[]	[]	[]	[]	[]
3. The hospital is able to compete based on quality.	[]	[]	[]	[]	[]	[]	[]
4. The hospital offers services that are highly reliable	[]	[]	[]	[]	[]	[]	[]
5. The hospital offers high quality services to our customer	[]	[]	[]	[]	[]	[]	[]
6. The hospital delivers the kind of services needed	[]	[]	[]	[]	[]	[]	[]
7. The hospital delivers customer order on time.	[]	[]	[]	[]	[]	[]	[]
8. The hospital provides dependable delivery.	[]	[]	[]	[]	[]	[]	[]