UNIVERSITY FOR DEVELOPMENT STUDIES, WA

THE EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICES ON CUSTOMER SATISFACTION IN THE UPPER WEST REGIONAL HOSPITAL.

BY

DETOH WINFRED MAWUKO

STUDENT NUMBER: UDS/MCM/0061/14

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DECLARATION

Student

I hereby declare that this thesis is the results of my own original work and that no part of it has been presented for another degree in this University or elsewhere:

Candidate's Signature …… Date: ……

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Supervisor

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with guidelines on supervision of thesis laid down by the University for Development Studies.

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Name: ……

ABSTRACT

The healthcare systems have become complex and mind boggling as a result of expanding competition, changes in medical sciences, and increased patient expectation. There is the need to have harmony amongst resources and patient satisfaction. Total Quality Management (TQM) has the potential to address quality issues in many industries and enhance performance of organisations. The study assessed the extent of Total Quality Management practice and its effect on both internal and external customer satisfaction at the Upper West Regional Hospital. To achieve this, the researcher adopted quantitative survey using questionnaires and interview. A sample size of 145 respondents comprising of 5 top management, 76 other employees and 64 patients were drawn from population using stratified random sampling technique. The findings of the study revealed a high presence of Total Quality Management practices. However, employee satisfaction and patient satisfaction on the other hand were average based on the Best Rating Criteria. Furthermore, findings of this study supported that Total Quality Management practices in the Upper West Regional Hospital had no statistical significant effect on both internal and external customer satisfaction. The study therefore recommended that management of the hospital should consider other factors other than Quality Management initiatives to enhance customer satisfaction.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the study

The health status of a countries population is usually the measure of its wealth. This statement is affirmed by a popular adage that "Health is Wealth". The World Bank assumes that a half of disparities between developed and under developed countries are attributed to reduced life expectancy and ill-health (Ogbobine, 2012). Ogbobine (2012) further argued that the United Nation in its effort to minimize global poverty underlined the significance of good health in the eight Millennium Development Goals (MDG's). Three out of the Millennium Development Goal's are connected to health. These include, combating HIV/AIDS, malaria, and other diseases, improving maternal health and reducing child mortality. Attainment of these objectives according to Ogbobine (2012) are imperative as they will serve as catalyst for poverty reduction and economic growth.

A number of studies have highlighted dramatic benefits of improved health in least developed nations. Various scholars illuminate the influence of health to economic development. Finlay (2007) explains the role of health in economic development of a nation. He outlined that economic development of a nation could be achieved through educational incentive effects. He also affirmed the notion of people having longer lives through healthier living therefore advocating for increased investment in health education. Higher skilled wages and salaries is a resultant effect of investments in health education. Baldacci (2004) explores the role of health expenditures on economic development. The study established that investment into health within the study period influenced growth over the same period. Bloom, Canning, & Sevilla (2004) also explored labour

productivity effects of health on economic growth. They concentrated on how per capita income could be influenced by health improvement. The study concluded that economic development is directly affected by health. Scientifically, a higher level of public health goes hand in hand with higher level economic growth. Health improvement also affects demography. Ogbobine (2012) argues that households in unhealthy setting tend to have more children as compensation for expected and actual child mortality. In most cases, higher fertility rates imitates a conscious efforts by couple to attain their desired/preferred sizes in terms of family. Thus having more children raises the possibility that at least one or more children raises the possibility that at least one or more their children will survive into adulthood. Therefore a healthy society is characterized by a low mortality rate.

The concept of Total Quality Management is not new to business organisations across the world. Researchers argue that it primarily started during the 1800's when organisations in pursuit of quality started producing products that will make customers always returning to buy the same product they originally bought (Muntaka, 2012). William Cooper Proctor said "the first job we have is to turn out quality merchandise that consumers will buy and keep buying" as cited in (Muntaka, 2012). In the early twentieth century, quality management meant inspecting products to ensure that they met specifications. In the 1940s, during World War II, quality became more statistical in nature. Statistical sampling techniques were used to evaluate quality, and quality control charts were used to monitor the production process. In the 1960s, with the help of so-called "quality gurus," the concept took on a broader meaning. Quality began to be regarded as something that involved the entire organization, not only at the production stage. Since all functions were responsible for product quality and all shared the costs of poor quality, quality was seen as a concept that affected the entire organization (Odongo & Ngacho, 2015). According to Slack, et al.

(1995) and Varnadoe (1996) and Mallapaty (1999) the total quality concept and the term "total quality management" was first introduced to the western business world by Armand Feigenbaum in 1957, in the first edition of his book "Total Quality Control". A number of widely recognized approaches to quality management followed. Some of the recognized, "quality gurus" are Phillip Crosby, Joseph Juran and W. Edwards Deming. Crosby is known for his work on the cost implication of poor quality and his book "Quality is Free". Juran emphasized that quality is a continuous process and introduced the "pareto principle" or "85/15 rule". Deming is popularly referred to as the fore bearer of quality control in Japan, he is acknowledged for his "14 points for quality improvement"

Total Quality Management (TQM) is a management philosophy which focuses on the work process and people, with the major concern for satisfying customers and improving organizational performance. It comprises the proper coordination of work processes for continuous improvement in all business units with the aim of attaining or surpassing customer's expectations (Adediran & Adediran, 2008). Adediran & Adediran (2008) in their submission further stressed that TQM accentuates on totality of quality in all facets of an organization with the aim of minimizing waste and rework to reduce cost and maximize efficiency and effectiveness in the production process. The main emphasis of TQM is to ensure quality through continuous improvement in an effective dexterity of processes, systems and people of the organisation. Ensuring quality in TQM also means meeting and exceeding the customer's expectations.

According to Yusuf et at (2007) and Talib (2013) TQM is concerned with the synergy of all the efforts in the organization toward the direction of quality improvement, quality development and

quality maintenance to achieve complete customer satisfaction at all economical levels. TQM enhances quality of work and employer satisfaction through involvement and participation and subsequently the brand of the organization. It improves collective culture of staff where each employee can directly contribute to areas relating to his/her work and take decisions relating to their work. It is organized and achieved through programs such as quality circles on voluntary basis and quality improvement teams. The TQM approach incorporates three basic fundamental aspects: commitment, involvement and continuous improvement. Commitment in the sense to take pledge for never ending improvement in quality and services to the customer, involvement means participation of all the team members in accomplishing a common goal (thus from top to bottom), work as a single unit for better outcomes and concentrates on continuous improvement by pinpointing for any errors or faults, and eliminating it on spot (Talib, 2013).

1.2 Problem Statement

The healthcare systems have become challenging in the form of expanding competition, changes in medical sciences, and increased patient expectation. As a result of these challenges, there is therefore the need to have ideal harmony amongst resources and patient satisfaction. Total Quality Management (TQM) has the potential to address quality issues in many industries and enhance performance of organisations (Heidari & Farooquie, 2011). Juran (1995) defined TQM as the system of activities coordinated at accomplishing empowered employees, higher incomes, satisfied clients and diminished expenses. It is a philosophy aimed at consistently enhancing the quality and procedures to accomplish consumer loyalty. Simply put, it is the imbibing of quality

into products and processes and making quality issues a concern and responsibility for everybody in the organization (Maqbool & Ahmad, 2014).

A study by Salaheldin (2009) as cited in Maqbool & Ahmad (2014) indicates that there are many empirical studies which examine TQM practices performance relationships in large firms but the small and medium firms still need a little more attention of researchers. While the literature concerning service quality dimensions in the healthcare industry is replete with studies from the developed world, researchers from developing countries have been exploring the applicability of the related models and frameworks in their specific context (Heidari Gorji & Farooquie, 2011).

Healthcare delivery is globally viewed to be inadequate, ineffective and inefficient despite the huge and colossal investments into the healthcare. In order to sustain and maintain the quality healthcare, there is therefore the clarion call for a shift in the manner quality healthcare is administered. It is also clear that, organisations which are concerned about quality issues and continually seek quality improvement, will gain the uppermost customer approval and will flourish at the expense of those who don't (Patel, 2012).

However, a bulk of the research conducted on Total Quality Management is chiefly linked to manufacturing companies although it is commonly believed that principles and concepts under Total Quality Management are equally important to others in the service sector. Thus, there is little studies conducted on TQM in the health sector in general. The available state of research conducted in the area of health care quality coupled with the cost and inadequacy of health care services in Wa seems to warrant the present study entitled "The effect of Total Quality Management Practices on Customer Satisfaction: The Case of Upper West Regional Hospital".

1.3 Objectives of the Study

This study sought to achieve the following objectives:

1. To identify TQM practices in hospitals.
2. To assess the extent to which TQM practices are adopted by the Upper West Regional Hospital.
3. To evaluate whether the employees and patients of Upper West Regional Hospital are satisfied with its services
4. To identify the implementation challenges of TQM at Upper West Regional Hospital.

1.4 Research Questions

This study sought to answer the following questions:

1. What are the TQM practices in Hospitals?
2. What is the extent of TQM practices at the Upper West Regional Hospital?
3. What are the effect of TQM practices on Customer satisfaction at Upper West Regional Hospital?
4. What are the challenges involved in implementing TQM practices at Upper West Regional Hospital?
5. What measures can be put in place to improve TQM practices in Upper West Regional Hospital?

1.5 Research Hypothesis

To achieve the objectives highlighted above, the following three hypothesis were formulated and tested for this research:

Hypothesis 1:

H_0: Total Quality Management (TQM) practices have no statistical significant effect on client (patient) satisfaction.

H_1: Total Quality Management (TQM) practices have statistical significant effect on client (patient) satisfaction.

Hypothesis 2:

H_0: Total Quality Management (TQM) practices have no statistical significant effect on employee (internal customer) satisfaction.

H_1: Total Quality Management (TQM) practices have statistical significant effect on employee (internal customer) satisfaction.

Hypothesis 3:

H_0: Employee (Internal Customer) satisfaction has no statistical significant effect on client (patient) satisfaction.

H_1: Employee (Internal Customer) satisfaction has statistical significant effect on client (patient) satisfaction.

1.6 Scope of the Study

The research was carried out at the Upper West Regional Hospital in the Wa municipality of the Upper West Region in Ghana. The study focuses on the extent of Total Quality Management practices at the Upper West Regional Hospital, with the focus on how Total Quality Management practices affects both employee and patient satisfaction in the health care sector at the Upper West Regional Hospital. The Upper West Regional Hospital was selected for this study because the researcher believes this will enable an in-depth investigation in order to unearth the challenges and problems the institution faces with respect to quality management and customer satisfaction and also seek to provide suggestions to minimize the challenges in with respect to services delivery.

With the scope of the study narrowed Total Quality Management and its impact on performance and customer satisfaction, the researcher will focus on the Total Quality Management practices at the hospital, how effective those TQM practices are, the challenges in implementing TQM practices at the hospital and the relationship between TQM practices and customer satisfaction at the hospital.

1.7 Limitations to the study

The main constraint to the study was the use of one hospital in Ghana. The population included patients who attended the hospital to receive medical care with diverse ideology, cultural

differences, and from different regions. The responses from the respondents may not represent the general views of the population in the country.

1.8 Methodology

Various techniques were employed to ensure the success of this thesis. A survey based on self-administered open and close ended questionnaire were used to gather relevant information. From a total staff strength of about 427, 81 were selected from the various units of the hospital as the sample size for the staff and another 64 were selected to represent the patients who are the customers of the hospital to assess their level of satisfaction with the services rendered by the hospital. Interview with top management of the hospital was also conducted. The data collected was analyzed using frequency tables, and percentages. Responses was analyzed with SPSS. Discussion of results was made in relation to the research questions.

1.9 Significance of the study

The study contributes to the existing body of knowledge in the area of Total Quality Management and its effect on customer satisfaction in the healthcare sector in Ghana. It brings to light the challenges of Total Quality Management in organizations especially hospitals in Ghana. The study will also be a source of reference to government and policy makers that will redirect the attention on the need to assist hospitals in the practice of quality management to provide quality services to patients who are their primary clients. The findings and recommendations of the study will be useful for other health administrators of similar characteristics in designing Total Quality

Management practice schemes that will suit their operational environment. Insights from the study informs on how to improve work output. In addition, the research brings to the fore questions to expose gaps that would require further investigation.

1.10 Organisation of the Study

Chapter One includes the background of the study, problem statement, the objectives of the study, the research questions, the significance of the study and limitations and scope. Chapter Two critically identifies and explores the literature review on TQM. Chapter Three further looks at the methodology of the study. It explains the population, the sampling technique, data collection technique and how the data is analyzed. Chapter Four presents the data and their analysis which are exhibited in tables, charts, graphs and percentages and a discussion of the results is also presented. Chapter Five contains the summary, recommendations and conclusions of the thesis.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature related to the key aspects about the study. The importance of the literature review is to give the researcher insight into what has already been done in the selected field in order to identify and address the gaps.

2.2 The Concept of Quality

There are distinctive definitions and contending perspectives of the term quality by various individuals and the basic component of the business definitions is that the quality or service refers to the view of how much the product or service meets the client's desires and expectation (Adediran & Adediran, 2008). Researchers have tried to define the meaning of quality based on their insights and studies into the subject matter. Producers and industry define quality based on their own understanding of what quality is all about. These perceived variations in the definition of quality brings to fore the fact that there is no one definition of quality.

Despite the fact that quality can be characterized in a wide range of ways it is generally portrayed as the meeting or surpassing of client desires, and it is compound by six principle: continuous improvement, teamwork, data usage for decision making, empowerment, problem solving and importantly customer satisfaction (Brown, 2013).

ISO DIS 9000:2000 generally defines quality as the probability of inherent components of a product satisfy requirements (Willar, 2012). This implies quality is accomplished when stakeholders involved in projects or production are satisfied are satisfied with the output.

The Webster's dictionary define quality as anything, person or any object that has peculiar, essential and inherent features and has the ability to perform above its competitors. Quality has a logical interpretation as superiority of something the non-inferiority; it is additionally defined as fitness for purpose. Juran widely considered as one of the "quality gurus" argued two critical definitions could be deduced from the various meaning of quality. He defined quality as "features of products which meet customer needs and thereby provide customer satisfaction" (Juran, 1999).By this definition Juran (1999) suggested that quality is based on income. In order for producers and manufacturers to achieve quality they have to invest into it. The point of such sophisticated quality is to give more prominent consumer loyalty and, trust and to increase revenue. Providing more and/or better quality features however, usually requires an increased investment and hence usually resulting in increases in costs. Higher quality in this sense usually costs more (Juran, 1999). In his attempt of give the second definition of quality suggested that quality should mean "freedom from defects". He argued that freedom mean that work done should not be repeated as a result of mistakes which may require the same work to be redone. By his second definition of quality he reasoned that higher quality should rather result in lower costs. Deficiencies-freedom from blunders that require repeated reworks or that outcome in field failures, client disappointment, and client claims, etc (Juran, 1999). The researcher in trying to make meaning out the two conflicting definitions of quality by Juran can deduce that in order for organisations to prevent customer complains, claims, returns among others, they have to heavily invest in their production processes, customer service and relations. The cost of these complains

and claims will be far expensive than the investment into product and service quality in the long run.

Philip Bayard "Phil" Crosby another “quality guru” who was cited in Aole & Gorantiwar (2013) defined quality as "conformance to requirements". He additionally contended that quality must be characterized in quantifiable and unmistakably expressed terms to help the organisation to take decisions based on achievable targets, as opposed to experience, or notions. The requirements of a service or product should be characterized and determined plainly with the goal that they are clearly understood. Crosby in his submissions agreed with Juran that profits increases when cost is reduced through higher quality.

The American Society of Quality (ASQ) is a worldwide society dedicated to quality who contribute ideas, theories and tools that the world a better place. The ASQ as cited by Chandrupatla (2009) defined quality as anything that denotes an excellence in goods and services, especially to the degree they fit in with requirements and fulfill client’s desires.

2.3 Perspectives on Quality

Despite lack of structure and controversy, Garvin as cited in Hutu & Avasilcai (2003) outlined that most companies in setting their quality objectives commonly outline five perspectives of quality. These include:

2.3.1 The User perspective (fitness for use)

Fitness for purpose concentrates on the performance of a product in terms of function or usage. It can likewise be deduced that fitness for use definition is expected to address the issues of a particular user group and therefore is a client based. "This perspective has led to the following approaches: aggregation of very diverse individual preferences in order to define quality at market level in a significant manner; determining a consistent positive correlation between the two key concepts: quality and customer satisfaction" (Hutu & Avasilcai, 2003). This perspective is usually attributed to Juran.

2.3.2 The Producer Perspective (Conformance to specification)

With this perspective of quality the producer looks at the how well the product or service conforms to specifications or a project. In this regard, quality means "right the first time" (Hutu & Avasilcai, 2003). It is also called manufacturing quality where work processes and business forms based on industry best practices ought to give the premise to manufacturing quality at each stage of the manufacturing procedure. These best practices detect proof manufacturing procedures to warrant that every stage is effectively implemented, with comprehensive, completely traceable data. It additionally includes quality control, quality designs and engineering, and quality management.

2.3.3 The product Perspective:

Aside the five broad perspectives of quality, Garvin went ahead to describe different aspects of product quality. These include performance, reliability, conformance, features, durability,

aesthetics and perceived quality. This perspective assigns cost to each aspect of quality and therefore the best quality product will ultimately have the highest price. Additionally, quality can objectively be measured since it reflects the presence or absence of certain quantifiable features of a product / service (Hutu & Avasilcai, 2003).

2.3.4 The transcendental perspective:

Despite the fact that quality can't be defined, you realize what it is; with this perspective, quality is synonymous with excellence, endless universally accepted and complete. Infrequently, quality is related to craftsmanship as the opposition to large scale manufacturing. Quality being transcendent means it can't be definitely defined yet can be learnt by experience; thus, whatever quality is, people will learn how to identify it (Hutu & Avasilcai, 2003).

2.3.5 Value Based quality:

Defining quality depends on value; that is the relationship of price and cost to usefulness or fulfillment and satisfaction. From this viewpoint, a product is considered to be quality when it is one that is sold at a lower cost and useful as rival product. Additionally, when it offers prevalent convenience or fulfillment at a relatively similar cost. Along these lines, a buyer might purchase a generic product, rather than a brand name one, its performance is relatively equal at a lower price. (Masejane, 2012).

2.4 Dimensions of Quality

Garvin suggested that there are eight dimensions of product quality (Muntaka, 2012). Garvin's eights dimensions of product quality include:

2.4.1 Performance

Muntaka (2012) relates this dimension of quality with efficiency. The relation of the productive work done by a piece of equipment or in a process in relation to a similar machine performing the same function. Garvin (1987) in defining performance refers to a product's basic operating features. Garvin (1987) further contended that brands can be objectively ranked separately on their performance since quality involves quantifiable attributes.

Quality of performance is how effectively a service performs or product functions when it is utilized by the consumer. It computes the ratio to which the product or service gratifies the client from the viewpoint of conformance quality and design quality. When thinking about quality of performance, meeting customer expectation should be the focus (Lai, 2012).

2.4.2 Reliability

A product is considered to be reliable when the chances of it to flop is very low. Reliability is the ability to be relied on or depended on, as for accuracy, honesty, or achievement. Customers will always prefer a product that consistently produces the same results, preferably meeting or exceeding their specifications and expectation. This dimension of quality is extremely important especially for customers in developing countries where poverty levels are quite high. Everybody wants to be able to buy a product that will last for as long as possible. It is for this reason that

brands like Sony, Samsung, and Panasonic among others have become household names in Ghana (Muntaka, 2012).

2.4.3 Features

These are the bonus and supplementary qualities a product has besides its basic use. Customers seem to be attracted to products with more value added features, thereby procure them. This can be the outside rudimentary standards required to enter into the market (Manu, 2011). Feature may also be defined as any attachment which could be an additional, peripheral or secondary feature that supplements the primary functions of a product or service (Lai, 2012). Accordingly, a headset is a feature of a mobile phone whose primary function is communication.

2.4.4 Conformance

Conformance is how well something, such as a product or system, meets a specified standard. Producers are usually concerned with this dimension of quality. Quality of conformance is essentially meeting the specifications identified in the design stage after the product is produced or while the service is delivered. Here, quality is control beginning from raw material to the finished product. Three viewpoints are highlighted in this definition which include error identification, defection and analysis of root causes, and defect prevention. Defect prevention manages the means to deter the occurrence of defects and is usually achieved through the use of statistical process control techniques. (Lai, 2012).

2.4.5 Durability

This refers to the productive life of a product before it is declared unfit for use or unproductive. Durability as product is the ability to exist for long without notable deteriorating by opposing the impacts of overwhelming use, wetting, heating, drying, thawing, corrosion, freezing, oxidation, volatilization, among others (Prithivirajh, 2013). Accordingly an item is said to be durable when it has the capacity to withstand pressure and stress. Durability has to do with product life estimation which has both monetary and technical dimension (Manu, 2011).

2.4.6 Serviceability

Serviceability is the measure of and the features that support the easy and prompt preventive maintenance and corrective maintenance that can be carried out on a system. Corrective maintenance incorporates all actions made to repair a faulty system and get it again into a working or available state. The failure can be expected or unexpected, but it is usually an accidental one by the system. Preventive Maintenance includes all the actions taken to service, upgrade, replace, or reinforce a system to retain its operational or available state and prevent system failures (Lai, 2012). Serviceability is a statement of the simplicity with which a part, gadget or system can be repaired and maintained.

2.4.7 Aesthetics

Aesthetics relates to how a product feels, sounds, tastes looks, or smells. Aesthetics is usually subjective as it is a matter of customer's personal judgment and a reflection of his/her distinctive

preference. However, there seem to be some patterns in customers' rankings of products on the basis of taste. The aesthetics of a product are the subjective sensory characteristics of the product such as taste, feel, look and smell (Muntaka, 2012)

2.4.8 Perceived Quality

Perceived quality can be defined as the totality of a product or service with regard to its intended use or purpose and relation to alternatives of a customers perception. Perceived quality is ultimately, first, a perception and opinion of the customer (Vantamay, 2005). Vantamay (2005) further suggests perceived quality reflects the overall feeling about a product which is also intangible. However, it usually will be based on underlying dimensions which include characteristics of the products to which the brand is attached such as reliability and performance. Muntaka (2012) agrees with this assertion and argues that perceived quality is dependent on the customer's judgment and therefore very subjective. This feature is highly affected by any errors of the product that are exceedingly open to the public in general or the way client is dealt with when a quality-related issue with a product or service handled. Client loyalty and repeated business are highly related with perceived quality (Montgomery, 2009).

2.5 Service Quality

The gap or disparity between the expectations and perceptions of the customer relating to a service rendered is referred to service quality (Bolton & James , 1991). Service quality is also the extent of how thriving the service rendered to a customer meets his/her expectations. Rendering quality service means constantly meeting the requirement of customer expectations (Ndamnsa, 2013).

Service quality has five dimensions which are discussed below:

2.5.1 Tangibles

This dimension of service quality is concerned with the settings and environment in which the service is provided to the clients. This includes maintaining and keeping the workplace neat and orderly. Employees are to dress professionally and keep an excellent grooming and hygiene standard (Peprah & Atarah, 2014).

2.5.2 Reliability

Reliability in this context means the ability to provide the customer the promised service accurately and dependably (Nguyen, 2014). Excuses are not encouraged here. Here the firm make sure it correctly recognizes the customer's wishes, promise only what the organisation can deliver and follow through to ensure that the promised service or product was received as promised (Peprah & Atarah, 2014).

2.5.3 Assurance

This feature is to afford the customer that the knowledge and courtesy of the firms staff regarding what is being pledged is sufficient and exact and their capability to deliver trust and confidence (Nguyen, 2014). He argued that assurance feature of service quality is exhibited when employees showcase courtesy. Again it is also manifested when the organisation and its staff inspire confidence and trust in their customers through their products and services. Assurance is chiefly

significant for the services that the customers perceives as involving high rising and/or about which they feel uncertain about the ability to evaluate.

2.5.4 Empathy

Empathy involves the degree of individual devotion and attention given to clients when providing services to them. Firms are to listen to the sentiments of clients, put themselves in the shoes of the customers and address their desires (Peprah & Atarah, 2014). Empathy is an extra in addition to the trust and confidence of the clients and in the meantime increment the loyalty. Empathy also involves provision of caring and customized devotion to clients by the organisation (Prithivirajh, 2013).

2.5.5 Responsiveness

This feature is concerned with the preparedness to support clients and provide prompt services. Responsiveness also refers to the rate of response to a customer's request or needs (Prithivirajh, 2013). Employees are to stage a progressive can-do outlook and take instantaneous steps to help clients and satisfy their needs (Peprah & Atarah, 2014).

2.6 SERVQUAL

Parasuraman et al (1991) developed the SERVQUAL model which depends on the possibility that each person in an organisation, especially the service association, ought to perceive that they have clients to serve. There is a direct link between internal service quality and external service quality

and consequently client loyalty, client satisfaction and the profitability of the firm (Chingang & Lukong, 2010). Parasuraman et al (1985) as cited in Chingang & Lukong (2010) referred to service quality as the difference between consumers' perceptions of services offered by a particular organisation and their expectations about the organisation rendering such services. Lai (2012) also argues that service is largely defined as an experience felt by the user which makes service quality intangible in nature. This model also identifies 5 different gaps that are capable of generate an impact on the way that customers evaluate the quality of a service, and this gaps are shown as follows (Parasuraman, et al, 1985):

Gap 1. The consumer expectation-management perception gap.

Gap 2. The management perception-service quality specification gap.

Gap 3. The service quality specifications-service delivery gap.

Gap 4. The delivery-external communications gap.

Gap 5. The expected service-perceived service gap.

The SERVQUAL model is viewed by as "a concise multiple-item scale with good reliability and validity that retailers can use to better understand the service expectations and perceptions of customers and, as a result, improve service" (Parasuraman, et al, 1988). Furthermore, they also pointed out three likely aspects of the scale: (1) it offers more value if it is used at regular intervals instead of only once (which is not the case of this current investigation), (2) it can measure a given quality of a firm, and also an average score throughout its five dimensions, and (3) also determine how important is any of the five dimensions on influencing the overall quality perception of the customer.

2.7 Quality Gurus

2.7.1 Edward Deming

William Edwards Deming an American who lived between 14th October, 1990 and 20th December, 1993 was one of the pioneers of quality management. He was a professor, lecturer, author, engineer, statistician and a management consultant. His teachings and philosophies on quality management immensely influenced American manufacturers and consumers. Again his teaching impacted positively on customer satisfaction. He is also acknowledged to have enormously contributed to the technological rise of the electronic, shop building and automobile industry of Japan after the Second World War. The annual Deming Price for Significant Achievement in Product and Dependability was instituted by the Union of Japanese Science and Engineering to acknowledge his contribution towards quality improvement in Japan. The Second Order Medal of the Sacred Treasure in 1960 was conferred on him for his achievement by the Emperor of Japan then. Management according to Dr. Deming is pivotal if quality management is to succeed and that employees are not entirely responsible for problems but it rather be attributed to system failure. Dr. Deming identified special-and non-common cause conditions which according to him is as a result of system vulnerabilities while noting that these special and non-common cause were unpredictable and erratic. He used statistical control techniques to identify these conditions.

Deming made three significant contributions to the field of quality:

1. The fourteen points for transforming an organisation
2. The deadly diseases of organisations
3. The system of profound knowledge.

The fourteen points for transforming organisations:

Dr. Deming's fourteen points for transforming an organisation is the prime concept of TQM implementation. It is also based on a set principles initiated by management which aids organisations to improve their efficiency and effectiveness. According to Neave (1987) Deming's fourteen points include:

1. Constancy of purpose:

   This involves giving opportunities for continuous improvement of products and services to the public especially the customers. It also includes organisations having plans to be very competitive, granting employment opportunities rather than focusing on the firm's profitability. This can be achieved through long term allocation of resources (Knowles, 2011).

2. The new philosophy:

   Since the new world is in a new paradigm of economic regime, it is imperative for a new approach to quality management. There is the need to move from an era of mistakes, errors, delays, defective manufacturing and effective craftsmanship. Therefore, the emergence of efficient and effective management styles are necessary to address the ills of organisations and industry (Knowles, 2011).

3. Cease dependence on mass inspection:

   Quality should be achieved through imbibing quality in the whole production process to eliminate mass production. This can only be achieved by the introduction of scientific approaches in the production and purchasing function of organisations. (Knowles, 2011).

4. End lowest tender contracts:

   Organisations should avoid the practices of always awarding contracts based on the least tendered price. It should rather be based on the price plus the quality that accompany it. Thus the concept of whole life costing should be considered when evaluating tenders to achieve quality. The rationale is to reduce total life cost and not the initial contract cost. (Knowles, 2011).

5. Improve every process:

   Improve constantly and forever every process for planning, production, and service. Search continually for problems in order to improve every activity in the company, to improve quality and productivity, and thus to constantly decrease costs. Institute innovation and constant improvement of product, service, and process. It is management's job to work continually on the system (design, incoming materials, maintenance, improvement of machines, supervision, training, retraining) (Knowles, 2011).

6. Institute training on the job:

   Institute modern methods of training on the job for all, including management, to make better use of every employee. New skills are required to keep up with changes in materials, methods, product and service design, machinery, techniques, and service (Knowles, 2011).

7. Institute leadership:

   Adopt and institute leadership aimed at helping people do a better job. The responsibility of managers and supervisors must be changed from sheer numbers to quality. Improvement of quality will automatically improve productivity. Management must ensure that immediate action is taken on reports of inherited defects, maintenance requirements, poor tools, fuzzy operational definitions, and all conditions detrimental to quality (Knowles, 2011).

8. Drive out fear:

   Fear must be minimized in employees through effective communication with top management and other means in the organisation. This will result in being effective and productive in executing their duties (Knowles, 2011).

9. Break down barriers:

   Barriers within the organisation especially between staff areas and departments must be eliminated by encouraging teamwork. Teams therefore should comprise employees from different departments to address problems related with products and services (Knowles, 2011).

10. Eliminate exhortations:

    Eliminate the use of slogans, posters and exhortations for the work force, demanding Zero Defects and new levels of productivity, without providing methods. Such exhortations only

create adversarial relationships; the bulk of the causes of low quality and low productivity belong to the system, and thus lie beyond the power of the work force (Knowles, 2011).

11. Eliminate arbitrary numerical targets:

    Eliminate work standards that prescribe quotas for the work force and numerical goals for people in management. Substitute aids and helpful leadership in order to achieve continual improvement of quality and productivity (Knowles, 2011).

12. Permit pride of workmanship:

    Remove the barriers that rob hourly workers, and people in management, of their right to pride of workmanship. This implies, among other things, abolition of the annual merit rating (appraisal of performance) and of Management by Objective. Again, the responsibility of managers, supervisors, foremen must be changed from sheer numbers to quality (Knowles, 2011).

13. Encourage education:

    Institute a vigorous program of education, and encourage self-improvement for everyone. What an organization needs is not just good people; it needs people that are improving with education. Advances in competitive position will have their roots in knowledge (Knowles, 2011).

14. Top management commitment and action:

    Clearly define top management's permanent commitment to ever improving quality and productivity, and their obligation to implement all of these principles. Indeed, it is not enough that top management commit themselves for life to quality and productivity. They must know what it is that they are committed to-that is, what they must do. Create a structure in top management that will push every day on the preceding 13 Points, and take action in order to accomplish the transformation. Support is not enough: action is required (Knowles, 2011).

The deadly diseases of organisations

1. Absence of purpose to arrange products and services that have a market adequate enough to ensure that with the business survive and give employment opportunities.

2. Reliance on medium-term profit; short-term thinking that is motivated by anxieties of hostile takeover endeavors and pressure from investors and stakeholders to produce dividends

3. Individual evaluation mechanisms for management and line managers by objectives deprived of providing methods or resources to achieve goals. These may include performance evaluations, annual appraisals and merit ratings.

4. Job-hopping by managers

5. Reliance on visible data and information in decision making without consideration to other factors.

6. Extreme medical costs.

7. Extreme costs of liability determined up by attorneys who work on contingency payments.

The system of profound knowledge

This system is comprised four bodies of knowledge:

1. Knowledge of a system.
2. Knowledge of variation.
3. Theory of knowledge.
4. Knowledge of psychology.

The System of Profound Knowledge is the culmination of Dr. W. Edwards Deming's lifelong work. "It is an effective theory of management that provides a framework of thought and action for any leader wishing to transform and create a thriving organization, with the aim for everybody to win. By management appropriately applying the principles and practices of system of profound knowledge, a business can simultaneously reduce costs through reducing waste, rework, staff attrition and litigation, while increasing quality, customer loyalty, worker satisfaction and, ultimately, profitability" (The W. Edwards Deming Institute, 2015).

In trying to explain what a system is, Dr. Deming assumed that the rational of the system should be such that all fragments of the system gains not just a section of the system at the expense of the others. He also stressed that the components of system are interdepended on each other. He demonstrated this by using an orchestra to demonstrate the theory of a system. In a business setting the components of a system include stakeholders, suppliers, clients, workforce, the public and the environment (The W. Edwards Deming Institute, 2015).

Management in its bid to eliminate complications or obstacles in the system should be able to differentiate between deviations as well as understand its origin/ roots and forecast the behaviors of the deviations appropriately. However, without the knowledge of deviation, Management might take devastating decisions although with the best of intentions. The knowledge of variation therefore suggests that it is erroneous and misleading to attribute failure to an employee rather but should rather be attributed to the system (The W. Edwards Deming Institute, 2015).

On the theory of knowledge Deming argued that to help management incessantly advance more as well as better knowledge, particularly about its procedures and products, Dr. Deming advocated the Plan-Do-Study-Act (PDSA) cycle, which was first introduced to him by Walter Shewhart. It is also referred to as the Deming Cycle or Deming Wheel, PDSA. It is a knowledge seeking procedure which is dynamic and logical in nature. It is used for accomplishing an endless sequence of valuable knowledge for the continual advancement of a product or a process (The W. Edwards Deming Institute, 2015).

And finally on the knowledge of psychology Dr. Deming fundamentally realized that people are not the same in terms of capabilities and abilities. For this reason, management should identify these differences in order to optimize capabilities and abilities. He likewise comprehended that individuals are predominantly driven by inherent requirements, which includes taking pride in craftsmanship and teamwork to achieve shared objectives, rather than exclusively being driven by monetary reward, which he seen as a short-term type of motivation. (The W. Edwards Deming Institute, 2015).

2.7.2 Joseph Juran

Juran's philosophy, while related to Deming's in many ways, is more evolutionary than revolutionary. Juran's viewpoint includes adapting the prevailing management system rather than introducing a completely new system. Like Deming, he believed that eighty percent or chunk of the faults created by a system are management manageable not employee manageable. Joseph Juran's definition of quality is "fitness for use". Joseph Juran referred quality as "fitness for use" in terms of conformance, design, safety, availability, and field use. Accordingly, this theory more diligently integrates the viewpoint of client. He advocated for computing everything and reliance on systems and scientific procedures (Ross, 2009). Contrasting Deming, he concentrates on top-down management and procedural approaches rather than satisfaction and worker pride. His quality trilogy explains his style to quality management. The quality trilogy is founded on three main areas of management decision-making:

1. Quality planning
2. Quality control
3. Quality improvement

Quality Planning:

According www.qasigma.com (nd) quality planning is a concurrent undertaking which comprises all parties connected to a product or service such early that they can provide contributions and give prompt warnings at the planning processes.

The quality planning exercise steps include:

1. Description of the project.

2. Customer identification – those that will be affected by the actions undertaken to finish the project.
3. Customer needs discovery.
4. Product development and processes to meet the client's needs.
5. Quality objectives establishment.
6. Development of the plans for achieving set objectives.

Quality Control:

According to Juran quality control envelops the creation and maintenance of operational techniques which will subsequently ensure that the procedures act as expected and that the standard levels of performance will be being achieved. Quality control is conventionally set up achieve set targets and objectives but silent improving a processes in a system. Quality control is a short-term process that fundamentally control the variations in the process.

The following steps entail quality control:

1. Clear quality definition.
2. Awareness of the expected performance or targets.
3. Appraisal of the actual operational performance.
4. Comparison of the actual operational performance to goals set.
5. Action of the difference.

Quality Improvement:

As per Juran's Trilogy, quality improvement is a scientific approach which increases the process especially the level of performance. This can achieved through an advanced improvement in performance; this new innovation is introduced to increase the level of performance in the system. This ensures new levels of performances are accomplished, and after that quality control structures are set up to manage that productively.

2.7.3 Philip B. Crosby

The concepts of "Quality is Free" and "Zero Defects" is attributed to Philip B. Crosby. The four absolutes of quality, a fundamental to the quality improvement process is also attributed to him (Department of Trade and Industry, 2015):

1. Conformance to requirements is quality
2. prevention is the system of quality
3. Zero defect is the performance standard
4. The price of non-conformance is the measurement of quality

Crosby's fourteen steps to quality improvement are given as follows:

1. Management should be dedicated to a formal and clear quality policy
2. A quality improvement team should be formed at the management level with obligation of overseeing the quality improvement process, planning and administration
3. There is the need to identify and locate where existing and possible quality problems lie.

4. The cost of quality must be evaluated and its use must be explained as an administrative tool to control waste.
5. Quality consciousness and individual concern for quality within the organisation must be increased.
6. Corrective actions must be encouraged while formal systems instituted to remove root causes of problems.
7. Zero defects committees should also be established.
8. Training in quality improvement must be done for all employees.
9. A Zero Defects Day should be held to communicate the change and this should importantly include management recommitment and employee commitment to the course.
10. Employees and teams must be encouraged to set their own improvement goals.
11. Communication to management must be encouraged by staff concerning difficulties they encounter in achieving their improvement goals.
12. Recognition must be accorded to all participants
13. Quality councils for quality management information sharing must be established.
14. Repeat the process again – a new quality improvement team must be formed

2.7.4 Genichi Taguchi

Genichi Taguchi held that it is better to plan a product that is robust or imperious to variations in the production phase, rather than endeavor to control all the different defects at production stage. To practicalise this, he adopted already established concepts and theories on experimental design and made it more operational and useful for quality professionals. Routine optimization of product

and process prior to manufacturing should be the concern of quality experts rather than ensuring quality through inspection (Department of Trade and Industry, 2015).

2.7.5 Armand V Feigenbaum

Armand V Feigenbaum invented "total quality control", commonly known as "total quality". According to Department of Trade and Industry(2015) he referred to total quality control as the effective system of assimilating all the efforts of the numerous stakeholders of an organisation, so as to enable the production and services at the utmost efficient level and to achieve greater customer satisfaction through quality development, quality maintenance and quality improvement. Feigenbaum therefore saw quality as a business model and therefore suggested the following approaches to quality, namely:

a. Quality leadership
b. Modern quality technology
c. Organisational commitment

Tenstep Inc (2004) also added that Feigenbaum presented quality from the viewpoint of a collective and complete manner, which incorporates all the facets of the production process. The facets according to him include design, production, inspection, sales and after-sales services and customer service (when the client recieves the product). Feigenbaum suggested controls to regulate the above mentioned facets which controls the perception of quality

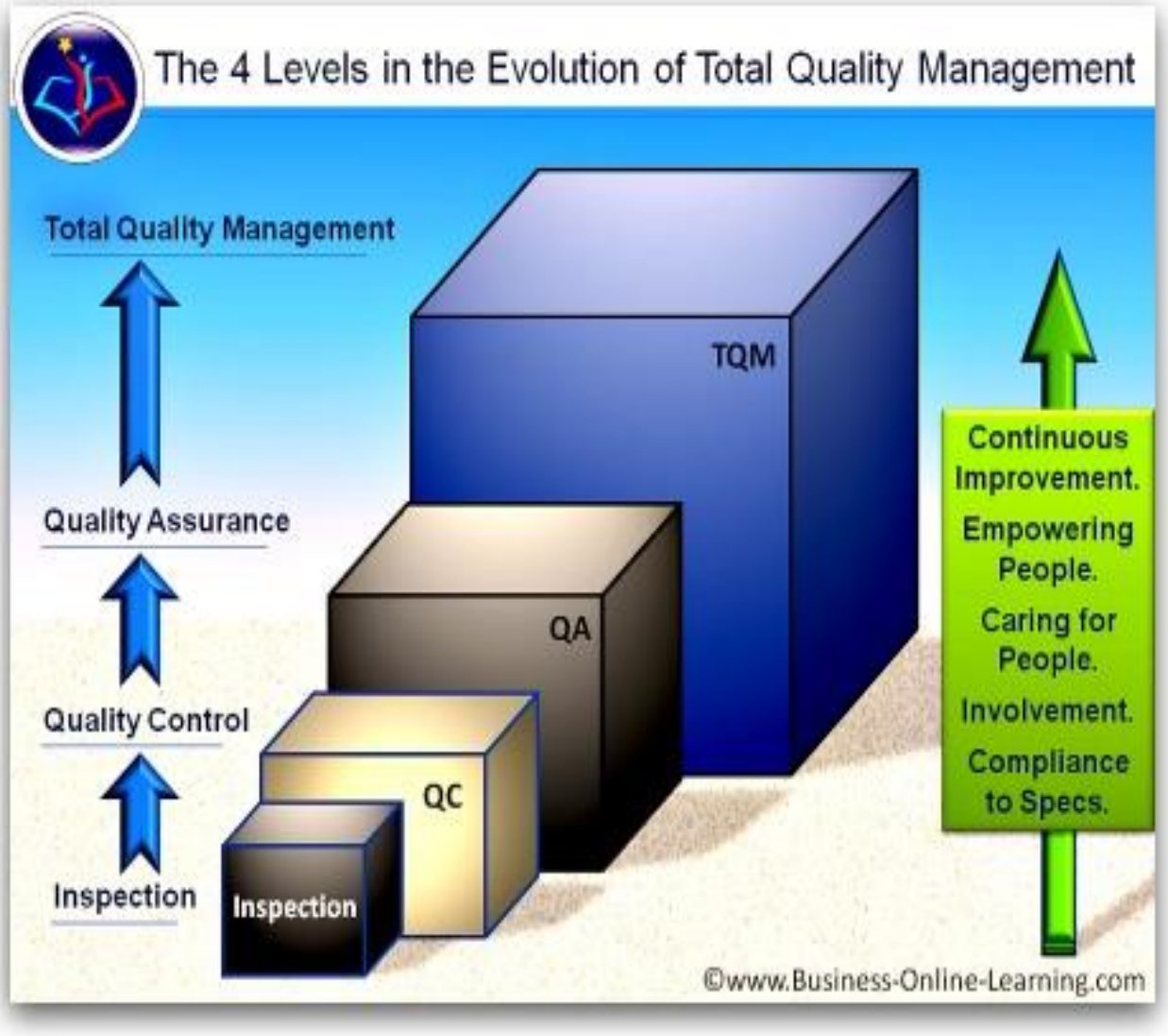
a. New-design control
b. Incoming material control
c. Product control

d. Special process studies.

Since these controls impact the nature of the product, they should be utilized to affect the quality of the finished product. He likewise contended that statistical tools make up an insignificant percentage of the quality control program.

2.8 Evolution of Quality.

Figure 1: The Evolution of TQM



Source: (Total Quality Management Training, n.d.)

2.8.1 Inspection

An inspection is, most commonly, a planned examination or formal appraisal exercise. Inspection comprises the measurements and examinations applied to certain features in respect to an object or activity. It includes the physical counting, measurement and appraisal of products to check for defaults and flaws and this process was used during the early stage of the evolution of Total Quality Management. It is usually an after production event (L o u g h l i n, 2008). The inspection process is a follow up exercise usually after manufacturing which result in non-compliant and substandard product to be sent back into the production house to be reworked (L o u g h l i n, 2008).

2.8.2 Quality Control

The ISO defines quality control as the fundamental measures and actions undertaken by a company in order to achieve quality. This means that any action or activity performed on the system to improve, manage and control the system/process may be a quality control activity. L o u g h l i n (2008) argued a quality control activity may involve a thorough and comprehensive performance examination of the system with the sole aim of improving, managing and controlling the process. This could include checking specifications, paperwork and procedures to control the system. This also requires reports and feedbacks generated from product testing at every stage of the production process.

2.8.3 Quality Assurance

Quality Assurance (QA) is a management technique that is defined as “all those scheduled and systematic activities needed to provide satisfactory confidence that a product, service or result will

satisfy given requirements for quality and be fit for use" (Bartram & Rees, 2000). Quality assurance was developed so that quality could only be accomplished to achieve the goal of minimizing defects at the early stages of production through effective plans and target setting efforts. Dale (2007) in L o u g h l i n (2008) stressed that greater emphasis is placed on advanced quality planning, training, critical problem solving tasks, improving the design of the product, process and services, improving control over the process and involving and motivating people. Largely the firm should experience a swing in importance from detection towards prevention of noncompliant produce if quality assurance is effectively implemented.

2.9 Total Quality Management

The concept of TQM vary according to the precise perspective within which managers and experts operate. TQM is like a competition devoid of the finish line, that is, it encompasses a relentless quest for continuous improvements Kongolo & Dlamini (2014). Opinski, (2010) in Kongolo & Dlamini (2014) stated that TQM is universally acknowledged to be a system of managing an industry through the use of new tools, principles and practices to deliver greater customer satisfaction in an increasing evolving market. The quality of life and organizational culture are not the not the only areas TQM influences, it also contributes to the elimination of errors associated with products and services among others. By this argument Total Quality Management is seen by scholars as a new phenomenon to manage a firm and also ensure that waste and cost are minimized and most importantly maintain and exceed customer satisfaction because of the continual changing demands of the customer. It is therefore a management strategy that encompasses every member of the organisation. According to the Asian Productivity Organisation Total quality management (TQM) should be viewed in a broader perspective. They argued that TQM should be considered

as a philosophy rather than a concept. TQM is referred to as the strategy employed by management with emphasis on quality across all the process and structure of the organisation. The American Society for Quality argued that TQM was originally introduced by the United States Army to replicate the management style of the Japanese to improve quality. The TQM management strategy is centred on the long standing achievement of customer satisfaction and benefits to all stakeholders and the environment within which a firm operates through coordinated efforts a firms stakeholders. To attain the preferred objective of operational quality levels, continuous improvement and customer satisfaction, Total Quality Management must be subject to requisite quality tools (Ngai & Cheng, 1997).

According to Mohammed (2006) as cited in Adediran & Adediran (2008), TQM is an effective system for assimilating various segments of a system and the efforts of an organisation in order to achieve reliability, profitability, efficiency and customer satisfaction through quality development, quality maintenance and quality improvement. As already mentioned, TQM is primarily concerned at the satisfaction of customers' requirements in a reliable, efficient and cost-effective manner. Zaidan (2009) in Al-Bourini1, Al-Abdallah, & Abou-Moghli (2013) also defined Total Quality Management from the perspective of organizational culture. Total Quality Management in that perspective is the establishment of a remarkable culture in performance, where all the organization's individuals are incessantly working to attain the consumer's expectations; and the work performance with the achievement of the quality at the best conceivable level, or with high effectiveness, and at the shortest possible time. Al-Bourini1, Al-Abdallah, & Abou-Moghli (2013) further argued that identifying the individuals' needs, desires and expectations and being consistent with them through incessant efforts and development at the organizational level, as a whole.

Total Quality Management is also seen as a foundation for new and emerging theories and philosophies on quality improvement. "Even though many think that TQM is old news, many of the new continuous improvement initiatives are based on TQM philosophies. TQM encompasses a number of different initiatives. For example, Six Sigma, which is popular today, is a methodology within TQM, not an alternative to it" Klefsjo et al (2001) as cited in (Pattanayak & Maddulety, 2011)

2.10 Major Principles of TQM

2.10.1 Leadership and Top Management Commitment

Management's function is principally to offer leadership for its subordinate's in other to achieve the long term ambitions of the organisation. Leadership is therefore understood differently by many researchers. From the perspective of Total Quality Management, leadership is described as the institution of a vision and atmosphere which stimulates people to contribute to organizational goals and nurtures both their capability to do so and their well-being within their endeavors (Knowles, 2011). Leadership in addition to top management commitment is very essential in Total Quality Management since its success hinges on the extent of involvement, commitment and backing management accords to the application of Total Quality Management (Knowles, 2011). Kanji & Moura (2003:132) in Masejane (2012) argued that the cooperation and commitment of management and staff is critical for the execution of Total Quality Management and organizational performance. Management must "walk the talk". Only when management is committed will employees excel at what they do. It takes a while to transform work cultures and work habits, but with persistence the message of quality management will prevail. Employees always want to do a

good job and all that they require are the precise tools and systems to effectively work (Perkar, 1995). Perkar (1995) further stressed that management in "Walking the talk" may comprise hiring the right workers, allocating the right job functions to the right personnel, providing the right finance to undertake the right functions within the remits of the organisation, providing the right incentive for the staff and creating the right environment to implement Total Quality Management.

Omachonu et al. (1998:24) as in Masejane (2012) argued that the philosophies and practices of Total Quality Management is uniquely peculiar to each company since it must be aligned to the vision and mission of the company. Regardless of the vision and mission, there is an underlying agreement as to the significance of leadership to the achievement of TQM objectives. In other words for Total Quality Management to be successful, institutions require strong leadership. And strong leadership require certain competences for a successfully execute Total Quality Management to achieve the desired outcome of customer satisfaction. Knowles (2011) outline the following as the basic competences a leader must possess in Total Quality Management:

1. The leader must embody the Values of Quality
2. He/she must Create Unity of Purpose
3. Focus on Process not Outcome
4. Motivation of Individuals
5. Control and Participation
6. Learning, Education and Training
7. Honesty, Integrity and a Long-Term Perspective
8. Embrace Change and Think Systemically

Torrington and Hall (1998) and Psychogios & Priporas (2007) argue that top management must illuminate the quality goals of the business to give clarity direction and to communicate these incessantly across organization.

2.10.2 Teamwork

Teamwork is broadly considered as one of the essential tenets of Total Quality Management. Knowles (2011) argues that teamwork is a central aspect of Quality Management, while individuals are very important, a peak of the work carried out in an organization will be assumed in teams, whether they are manufacturing teams, management teams or improvement teams. Knowles (2011) went further and stressed that teamwork is crucial to Total Quality Management with because of the reason of task complexity, synergy, communication and understanding and social interaction within the organisation. Haasbroek et al. (2004:367) as cited in Masejane (2012) describes a team as a group of people usually small in number with similar abilities who are dedicated to a fundamental purpose, performance goals, and a work plan for which they feel jointly liable. Masejane (2012) also argued that teams are central to Total Quality Management because teamwork ensures diverse components of the organisation work as a collective unit to achieve the goal of meeting the needs of the customer in ways that cannot be achieved by individual work performance. Haasbroek et al. (2004:364) in Masejane (2012) concisely outline the features of a highly effective and successful teams as:

The team is guided by a clear goal and vision, which are internalized the members, the team comprises of varied members who contribute exclusively to the success of team although they have their individual interests. There is a strong relation to the team by the members and feel

pleased with the way and the manner the team functions as well as its accomplishments. Constructive resolution of differences, and members willingly deliberate all ideas and thoughts with an open mind. Social communications are peaceful, with sufficient open communication and support. Changes and modifications are initiated by the team and not to be feared. Credibility building and excellence is achieved through networking and external communication. Although the team might have a recognized leader, leadership rotates among members depending on the specific task at hand and the competences required to lead. The team appraises its own progress and performance, and look for prospects for continuous learning (Masejane, 2012).

Researchers recognize the prominence of teamwork in Total Quality Management. Some argue that teamwork aids in the Total Quality Management improvement process. Oakland, (1995) in Zakuan, et al. (2012) concluded in their research that teamwork is crucial to the Total Quality Management course as teamwork improves communication, builds self-confidence, and breaks the links of dependency on the firm. In a typical Total Quality Management setting, quality improvement should be the concern of the whole organisation not in a departmentalized or segmented manner. In this regard, organizations will have be deal with inter-departmental management problems with cross-functional work groups (Psychogios & Priporas, 2007). Therefore, leadership must foster teamwork and inspire employees in the pursuit to utilize their competences so as to provide products/ services that will be considered quality by the customer.

2.10.3 Employee Training and Empowerment

Psychogios & Priporas (2007) belong to the school of thought who believe that among the principles of Total Quality Management, training is the single most significant component.

Oakland (1995) in Psychogios & Priporas (2007) stressed that quality training must be frequently to meet the ever changing business atmosphere in which a firm functions. These changes may include changes in technology, business structures, and most importantly the workers. Perkar (1995) argued that institutions must perform a needs assessment analysis in other to improve their quality. He stressed that continuous improvement cannot occur within a firm unless training is part of management's agenda. Leadership should take the initiative to conduct an examination of each worker's competences to execute his or her duties. This evaluation will assist management to focus on critical areas to train the employees to proficiently harness their skills and abilities. Training provides the required know-how, and skill set to detect opportunities for improvement, in so doing enabling employees to contribute to quality improvement in the production process (Adediran & Adediran, 2008). Stahl (1995) in Adediran & Adediran (2008) also suggested that training aids in conditioning personnel towards managing the Total Quality Management philosophy in the manufacturing process. Training serves as a preparatory ground for staff to attain the skills and techniques desired for quality improvement. Training is argued to be an imposing foundation for businesses in their quest to accomplish their goals and objectives. Deming in his "fourteen points for transforming organisations" stressed the significance of training. He argued that there is the need for everyone to be involved in the production process to recognize the needs of the client. Understanding the needs of the client will help appreciate the requirements of the work and those standards and targets to be attained. Motwani et al, (1994) as cited in Psychogios & Priporas (2007) suggested that organizations should be subjected to appraisal in Total Quality management. They argued that organisations spend heavily on training therefore, there is the need to gauge the impact of training on the organisations strategic goals by using explicit pointers like market share, employee performance and most importantly customer satisfaction

2.10.4 Continuous Improvement

According to Ratesh (2012) TQM is mainly concerned with the comprehensive execution of the production process through continuous emanating from a higher level of strategic planning and decision making from top management. This comes from the backdrop of the avoidance and prevention of mistakes and errors which results in continuous improvement in the system. Continuous improvement when successfully implemented in the system will naturally result in effectiveness and efficiency in system which may include capabilities, processes, people, and technology and machine capabilities. Continuous improvement and process control allows for ordinary employees engaged the operational activities to directly improve and alter job schedules and processes when there are errors in the system (Edu, 2013). The idea of continuous improvement is connected to the conviction that there is always a way to improve the way the organisation works. It should not be a one off event but never-ending activity by every member of the organisation at every level and phase of production. By identifying opportunities, having consistent processes in place and constantly appraising performance, businesses can remain competitive. Deming recognizes the prominence of process improvement in number five of his 14 points for management that, to improve upon quality and productivity, there is the need for an unending improvement in the stem of production and service delivery of organisations and this when done effectively and efficiently will reduce cost. According to Oakland (1993) in Adediran & Adediran (2008), argued that the concentration on continuous improvement will result in the creation of teams who are selected based on their competences and know-how of the process and their capacity to improve the system.

2.10.5 Employee Involvement

For Total Quality Management to be effective, it requires the total involvement of the all the players in the organisation particularly the employees. Shiba et al. (1993) in Adza-Awude (2012) agreed with this assertion and argued that every person in the business ought to be structured to allow for improvement in such the way they execute their jobs and meet customer requirements and needs. Employee involvement is "the process of empowering the members of the organization to make decisions and to solve problems appropriate to their levels in the organization" Sangeeta & Banwe (2004) in (Edu 2013). Employee involvement can therefore be defined as the level at which employees are given the freedom to be part of the decision making in the production process. Adediran & Adediran (2008) in comparing the traditional and TQM approach to employee involvement argued that the traditional involvement is "narrow minded" while the TQM being process centred. They further suggested that employee involvement should be cross-sectional such that employees will such that employees will assume a certain degree of freedom to taje decision that affect their jobs directly. Adediran & Adediran (2008) further stressed that the avoidance of mistakes and prevention of defects in the system is the main principle behind continuous improvement and will require employees and people to avoid and prevent those mistakes in the system.

2.10.6 Focus on the Customer

The primary goal of Total Quality management is the production of goods and services that meet the customer's requirements and probably exceed their expectation, thus Total Quality Management is ideally customer centred. The construct to Total Quality Management is to

understand the needs of the customer through the receipt of feedback on the usage of a product. This can be achieved through the maintenance of a good relationship between the producer and the customer. Customer dissatisfaction is therefore avoided or reduced when the customer is involved in the production process especially at the design and development stage of the production process (Edu, 2013). Focusing on the customer according to Kadian-Baumeyer (2015) involves "designing products or services that meet or exceed the customer's expectations. This includes the product itself, its functionality, characteristics, convenience and even the means by which the information about a product is received by a client". Sadikoglu & Oclay (2014) stressed through effective customer focus efforts, companies can design products and services in accordance to customer expectations, needs and complaints. This when effectively pursued will allow for the production of high quality, effective and efficient products and services.

2.10.7 Recognition and Awards

An effective and efficient Total Quality Management system is the integration of proper mechanisms of employee motivation and the recognition of individual employees as well as team efforts. According Edu (2013) recognition is perceived as the general affirmation of unrivaled performance of particular achievements by person or group. Recognition is therefore reward and honour given at the workplace for accomplishing specific and extraordinary performances as a result of the interaction and correspondence between management and staff. The aim of recognition and award is to inspire a repetition of the extraordinary performance that warranted the reward and acknowledgement given to the people. (Munro, 2012). Exceptional results and performances must be acknowledged and rewarded accordingly by top management. The Total Quality Management philosophy advocates for a reward system that is proportionate to the

achievement chalked. Thus it should be significant, consistent and meaningful, again it should be planned such that it encourages teamwork and cooperation while avoiding unnecessary competition within the organisation. Moballeghi (2007) reinforces this school of thought and stressed that well engineered reward scheme should aid to maintain and sustain any transformational process for a long period and for the reward system to achieve this , it requires an incorporation of training programs with total effectiveness.

2.11 Total Quality Management Tools

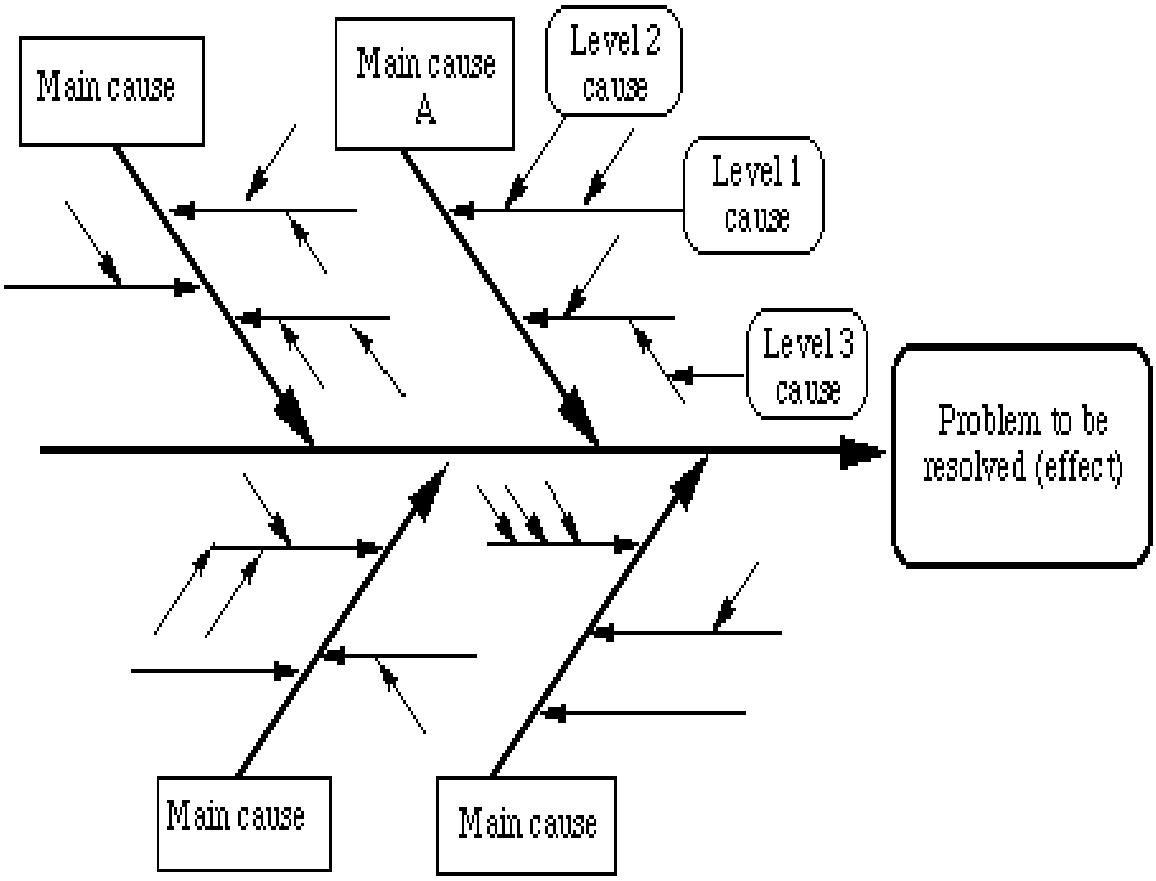
Quality tools are the ways of detecting and creatively addressing problems. One of the powerful aspects of TQM is the canvassing of a range of useful tools to implement its underlying concepts (Sallis, 2002). The following are some of the TQM tools and techniques used in identifying and addressing problems.

2.11.1 Fish Bone Diagram.

This tool was propagated by Professor Kaoru Ishikawa, a pioneer of quality management, in the 1960s to ascertain potential origins for particular quality problems. It is also called the Cause-and-effect diagram or the Ishikawa diagram. It can be utilized to structure a meeting to generate new ideas and quickly sorts thoughts into helpful classifications. It is also used to detect bottlenecks in the process and to identify where and why the process is not working. Edu (2013) argues that the fish bone diagram is presented in a way that the vertebrae of the fish connects the head which reveals the probable origin or cause of the problem. These causes could be attributed to the employees, environment, machines, materials, measurement and process. Each of these probable

causes can also have smaller bones that address precise problems that relate to each cause. The resultant diagram takes the form of a fishbone hence its name. Below is an example of a fishbone diagram which is illustrated in figure 2:

Figure 2: Fish Bone Diagram

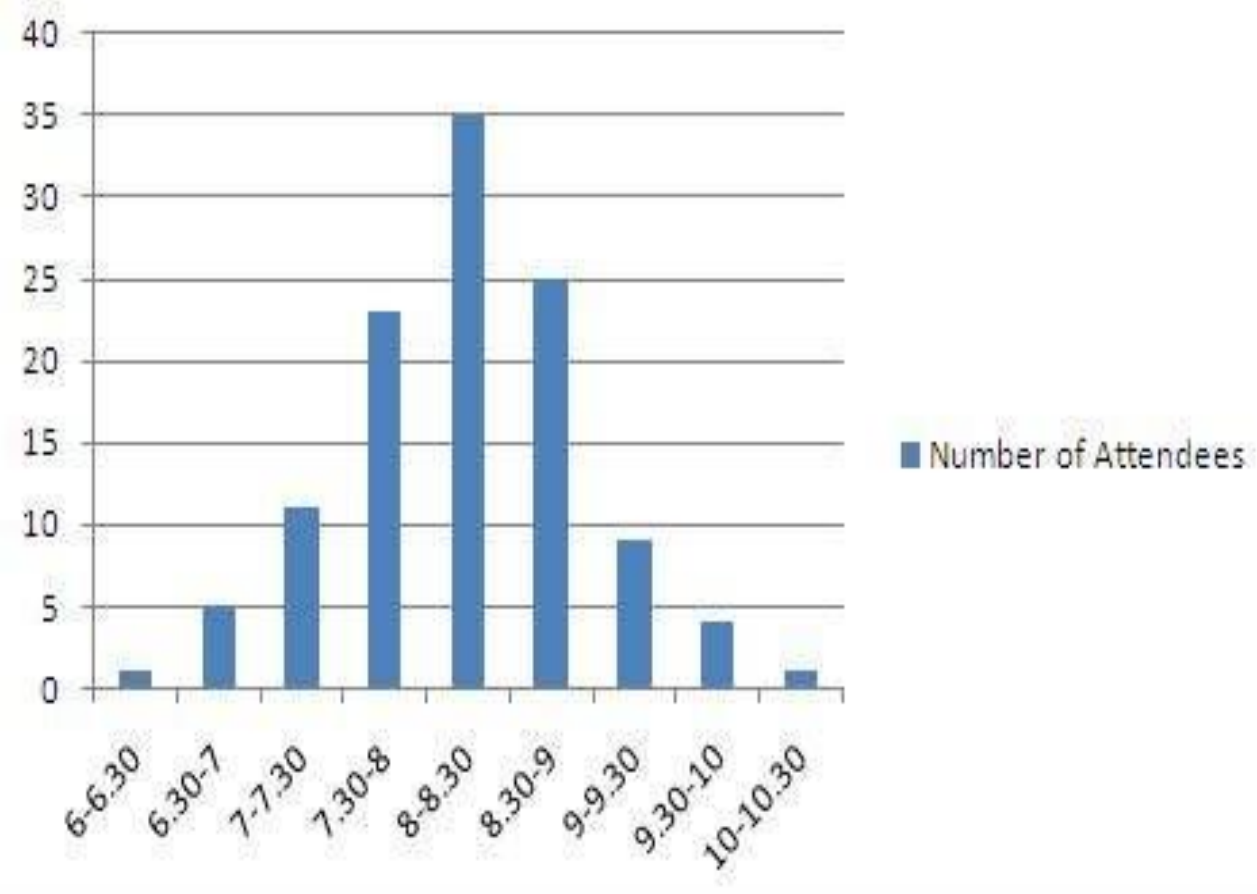


Source: Decision Support Tools, (n.d.)

2.11.2 Histogram

A histogram introduced by Karl Pearson is a graphical illustration of the distribution of mathematical statistics. It is a gauge of the likelihood dispersion of a constant variable (quantitative variable). With a histogram Individual data points are gathered together in cohorts, so you can get to know how data in every cohort occur in the data set frequently. The main advantage of the histogram is that it gives a simple analytical representation of the area and variety in a data set. The histogram however has a major shortcoming: The drawback of the histograms is that it is susceptible to control and manipulation to indicate distinctive pictures. In the event that excessively few or an excessive number of bars are utilized, the histogram can deceptive. Based on the analyst's experience, it needs some level of judgment, and possibly some research and experimentation. Histograms can also obscure the time differences among data sets.

Figure 3: Histogram



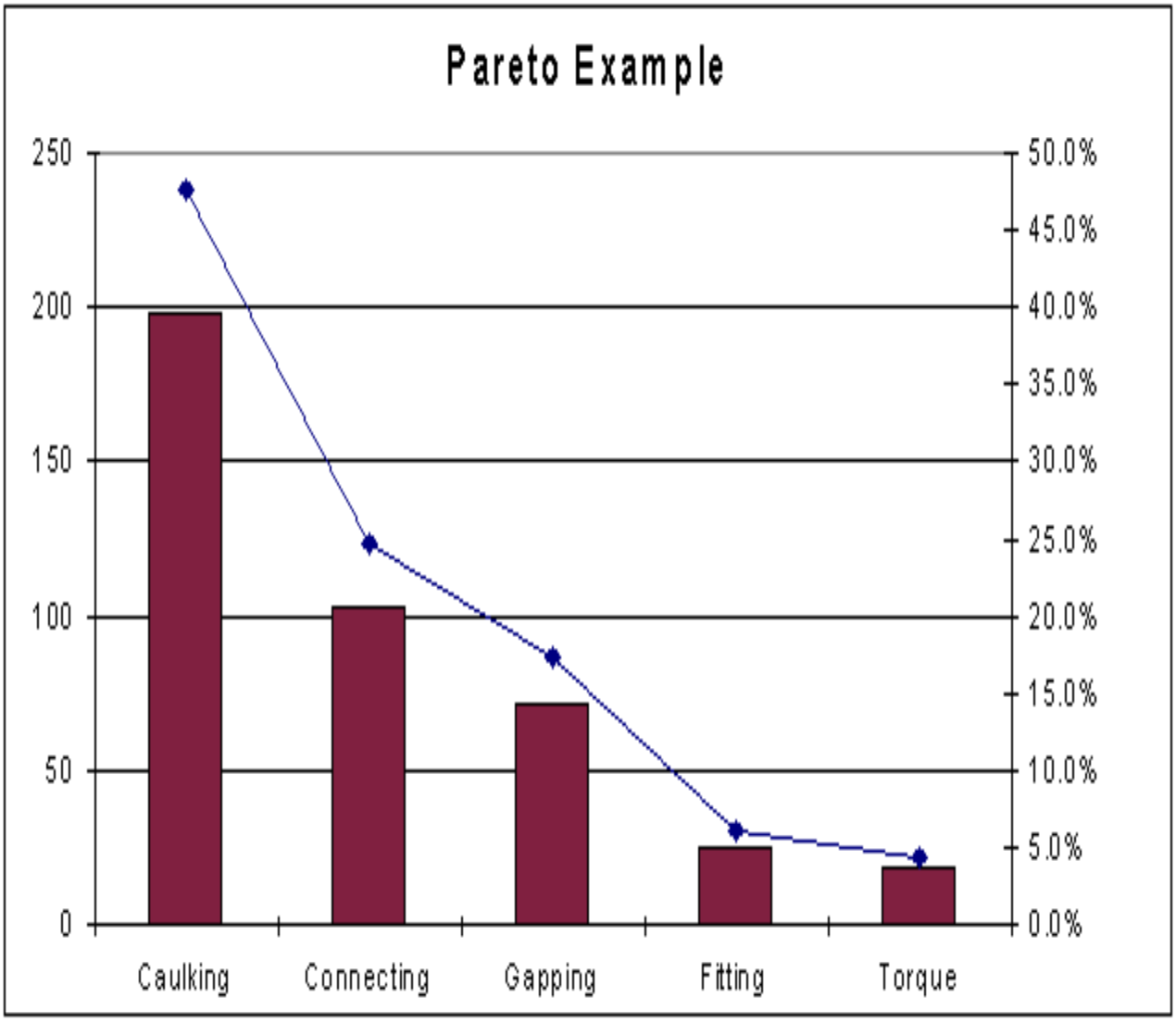
Source: Basic Quality Tools, (n.d.)

2.11.3 Pareto Diagram

The Pareto diagram devised by Vilfredo Pareto, in the late 19th century. The Pareto diagram is a graphical impression of the process problems, in ranking order of the most frequent, down to the least frequent, in descending order from left to right. Thus, the Pareto diagram illustrates the frequency of fault types. When using the Pareto, you can determine which fault is the most serious

or most frequent offender. Pareto analysis is a technique used to ascertain the causes of poor quality based on the degree of importance of these causes. The logic behind Pareto analysis is that only a few quality problems are important, whereas many others are not critical (Edu, 2013) . Edu (2013) further suggested that one way to use Pareto analysis is to develop a chart that ranks the causes of poor quality in descending order based on the percentage of defectives each has caused. It is applied by tallying the number of defectives for each of the different possible causes of poor quality in a product or service and then developing a frequency distribution from the data. This frequency distribution, referred to as a Pareto diagram, is a useful visual aid for focusing on major quality problems.

Figure 4: Pareto Diagram



Source: Total Quality Management Training, (n.d.)

The Pareto diagram is usually used when:

1. When analyzing data about the frequency of problems or causes in a process.
2. When there are many problems or causes and you want to focus on the most significant.
3. When analyzing broad causes by looking at their specific components.

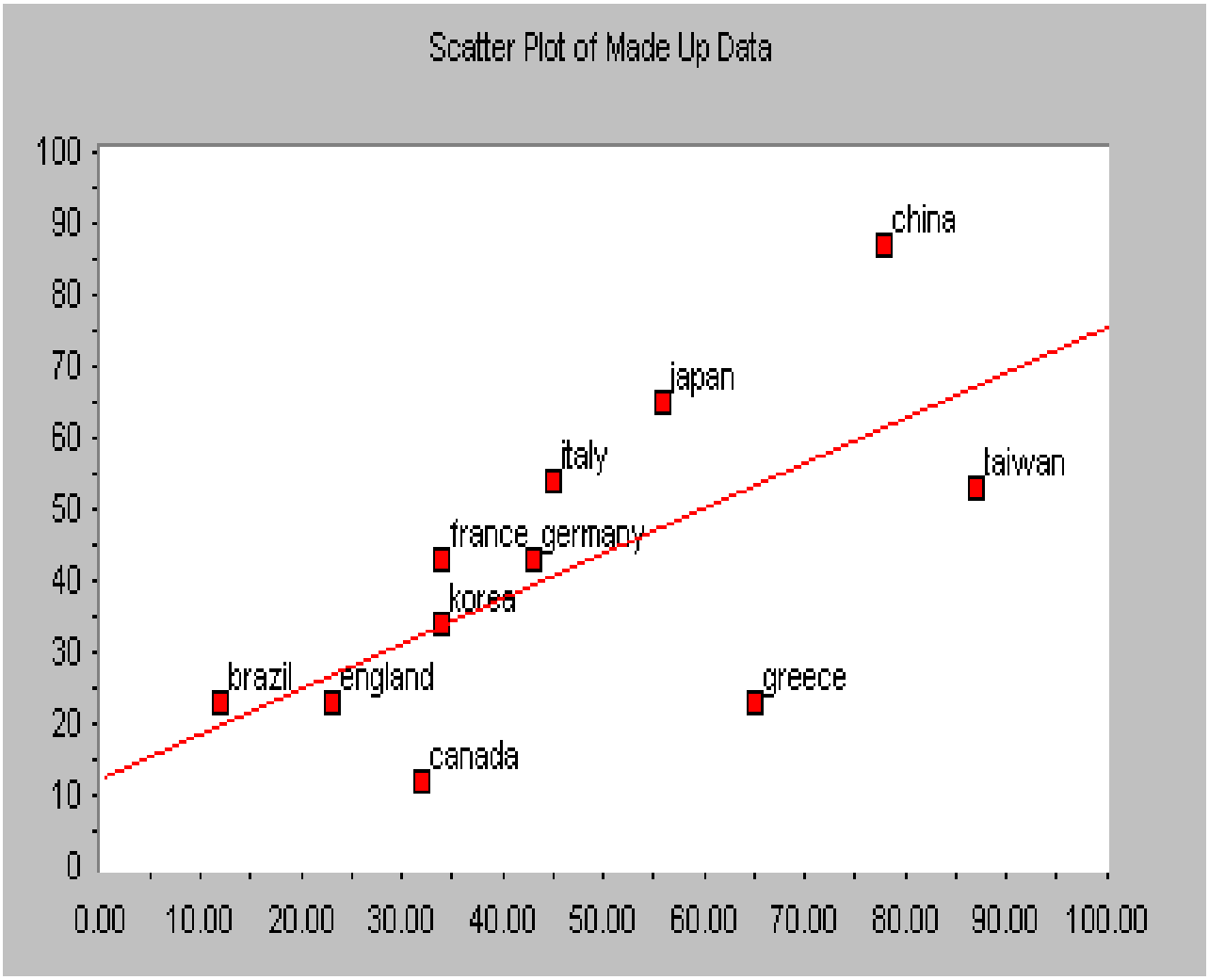
4. When communicating with others about your data.

2.11.4 Scatter Diagram

Scatter diagram (also called scatter plot, X–Y graph) are utilized to explore the conceivable relationship between two factors that both identify with the same "occasion." A straight line of best fit (using the least square method) is regularly incorporated. Edu (2013) reinforces this assertion and suggests that “scatter diagrams are graphs that show how two variables are related to one another. They are particularly useful in detecting the amount of correlation, or the degree of linear relationship, between two variables. The greater the degree of correlation, the more linear is the observation in the scatter diagram. On the other hand, the more scattered the observations in the diagram, the less correlation there is between the variables”. According to Tague (2005) scatter diagrams are used:

1. When numerical data is paired.
2. When dependent variable may have multiple values for each value of your independent variable.
3. When trying to identify potential root causes of problems.
4. After brainstorming causes and effects using a fishbone diagram, to determine objectively whether a particular cause and effect are related.
5. When determining whether two effects that appear to be related both occur with the same cause.
6. When testing for autocorrelation before constructing a control chart.

Figure 5: Scatter Diagram



Source: Scatter Plot:, (n.d.)

2.11.5 Control Charts

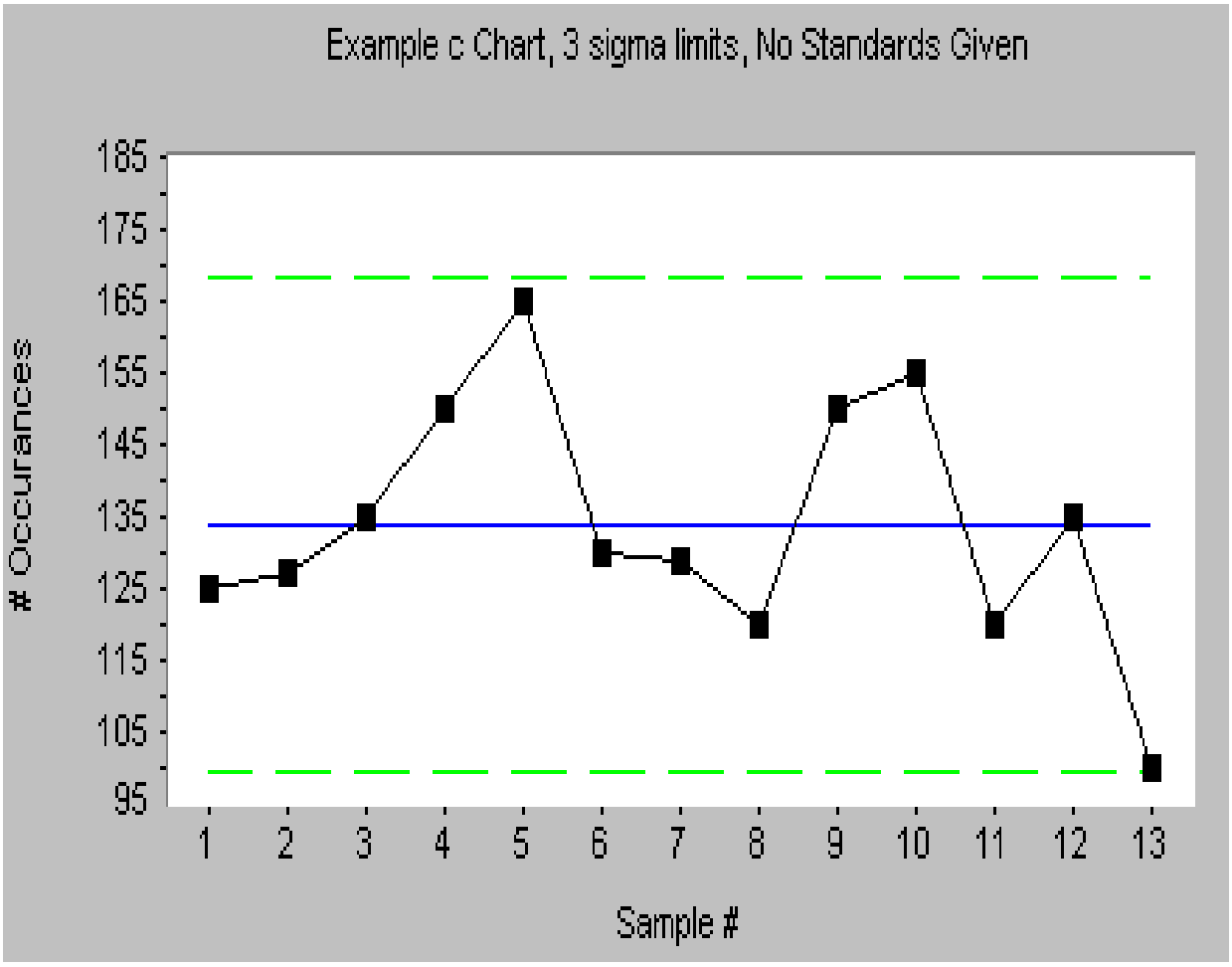
Control chart is used in studying changes in the process over time. It a graph which usually has three lines with a lower line which signifies a lower control limit. Again there is a central line which represents the average. In the same vain, the upper line signifies the upper control limit. With control charts data plotting are done in a relation to time. Thus the plotting are determined

from historical data. Conclusion made from control charts are done by comparing current data to the line (i.e. upper, central and lower control limits). These conclusion are done to determine whether process variation in the system are consistent or unpredictable (Tague, 2005). Tague (2005) further stressed that variable data are utilized in pairs when dealing with control charts. The top and bottom of the chart monitors the average and width of the distribution respectively. if for example the data set represents bullet shots, the clustered shots signifies the average while the range will also represent how closely the shots are assembled together.

Control charts are used:

1. To find and correct defects when controlling an ongoing process.
2. To predict an expected range of outcome from a process.
3. To determine how stable a process is in statistical control.
4. To analyze patterns of variations in the process which are either special causes (non-routine events) or common causes (built into the process).
5. To determine whether quality improvement projects would help prevent definite errors or to make essential alterations to the process.

Figure 6: Control Charts



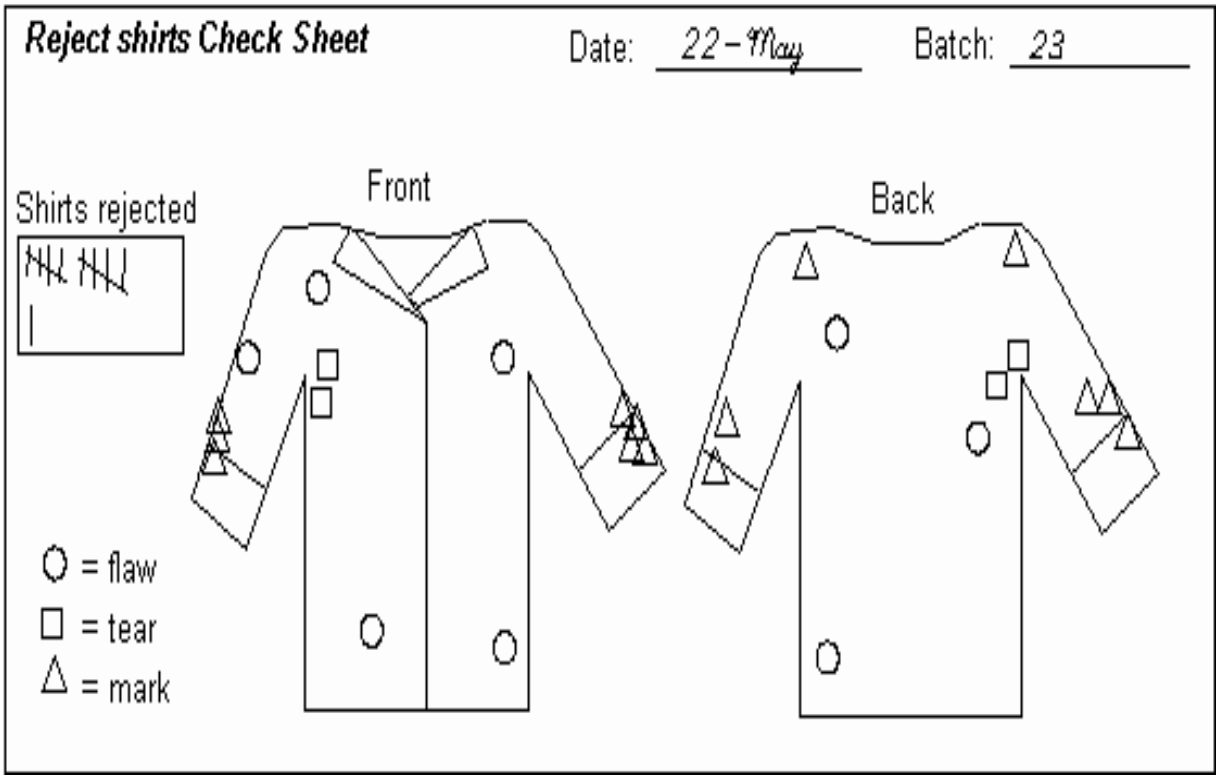
Source: Control Charts, (n.d.)

2.11.6 Check sheet and check list

A Check Sheet is designed to readily deduce statistical results from the document without further examination. To be able to collect specific data it needs to be designed to suit the data. A check sheet is used to gather quantitative or qualitative data. When the data gathered by the check sheet is quantitative, it is occasionally termed as the tally sheet. Check sheet is adaptable since it can suit various data gathering circumstances and it also needs marginal analysis of results. It is thus easy

and quick to use. Check sheets requires no control for biases of any kind which includes exclusion, perception, interaction, non-response, estimation and operational (Dahlgaard, Kristensen, & Kanji, 2007). The check sheet is used for real time gathering of data at the place where the data is produced.

Figure 7: Check Sheet



Source: Check Sheets, (n.d.)

A Checklist on the other hand comprises things that are significant or appropriate to a definite subject or situation. Checklists are usually adopted and used in operational circumstances to ensure that all necessary actions or steps or phases have been taken care of or covered when undertaking an exercise. The key purpose for the check list to control operations, not to gather data. The check list is generally used to ensure that all facets of a process have been undertaken for before decisions are made.

Figure 8: Checklist

Pneumatic Tool Checklist

Format No.:

Inspection Date	Location

Description	Condition				Remarks
	Good	Defect	Bad	N/A	
CONDITION					
Air Gun Impact					
Jacking					
Grinding					
Hydraulic Jack					
Fitting					
Hose					
Clamp					
Air Regulator					
Leaking					
Connections					
Operating System					
Technique used					
Position					
PERSONAL PROTECTIVE EQUIPMENTS					
Helmet					
Glasses					
Full Shield					
Ear Plug					
Dust Mask					
Hand Glows					
Safety Shoes					

Remarks / Comments:

Inspected By: Verified & Approved By:

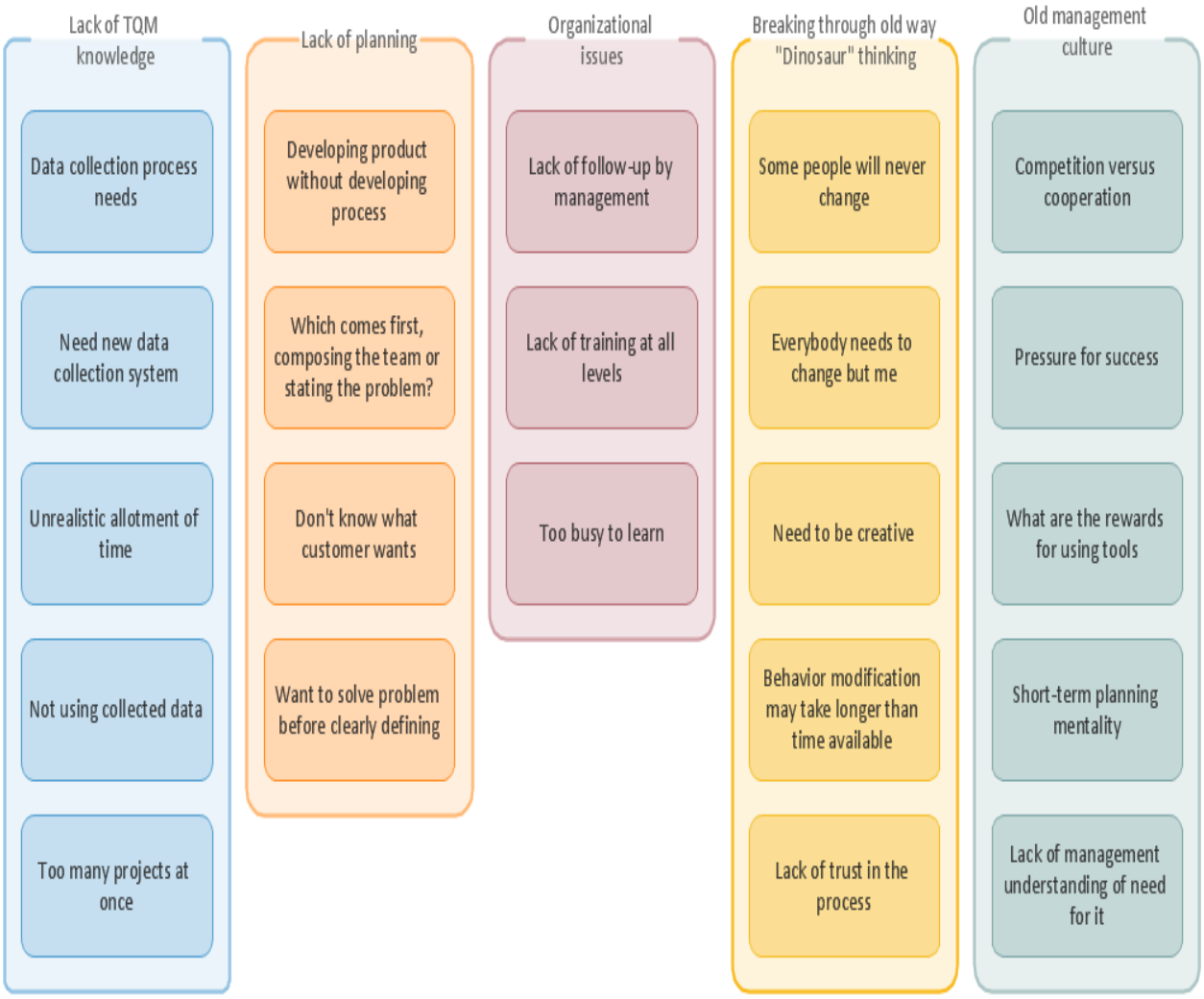
Source: Pneumatic tool checklist, (n.d.)

2.12 The New Quality Tools

2.12.1 The Affinity Diagram

To organize great amount of ideas into their natural relationships the affinity diagram is used. (Tague, 2004). The affinity diagram is to organize ideas rationally after they have been spawned. In developing an affinity diagram, there is the need to exhibit the problem where it is visible for everyone to see it. Subsequently, each team members then contribute their ideas for solving the problem by writing them on cards and paste them below the problem. The ideas of the other team members will then propel every team member to generate new ideas. The team members categories ideas into groups based on themes and patterns as the idea generation stage slows. Finally, title cards which are descriptive in nature are produced to define each group of ideas (Chaneski, 1998).

Figure 9: The Affinity Diagram



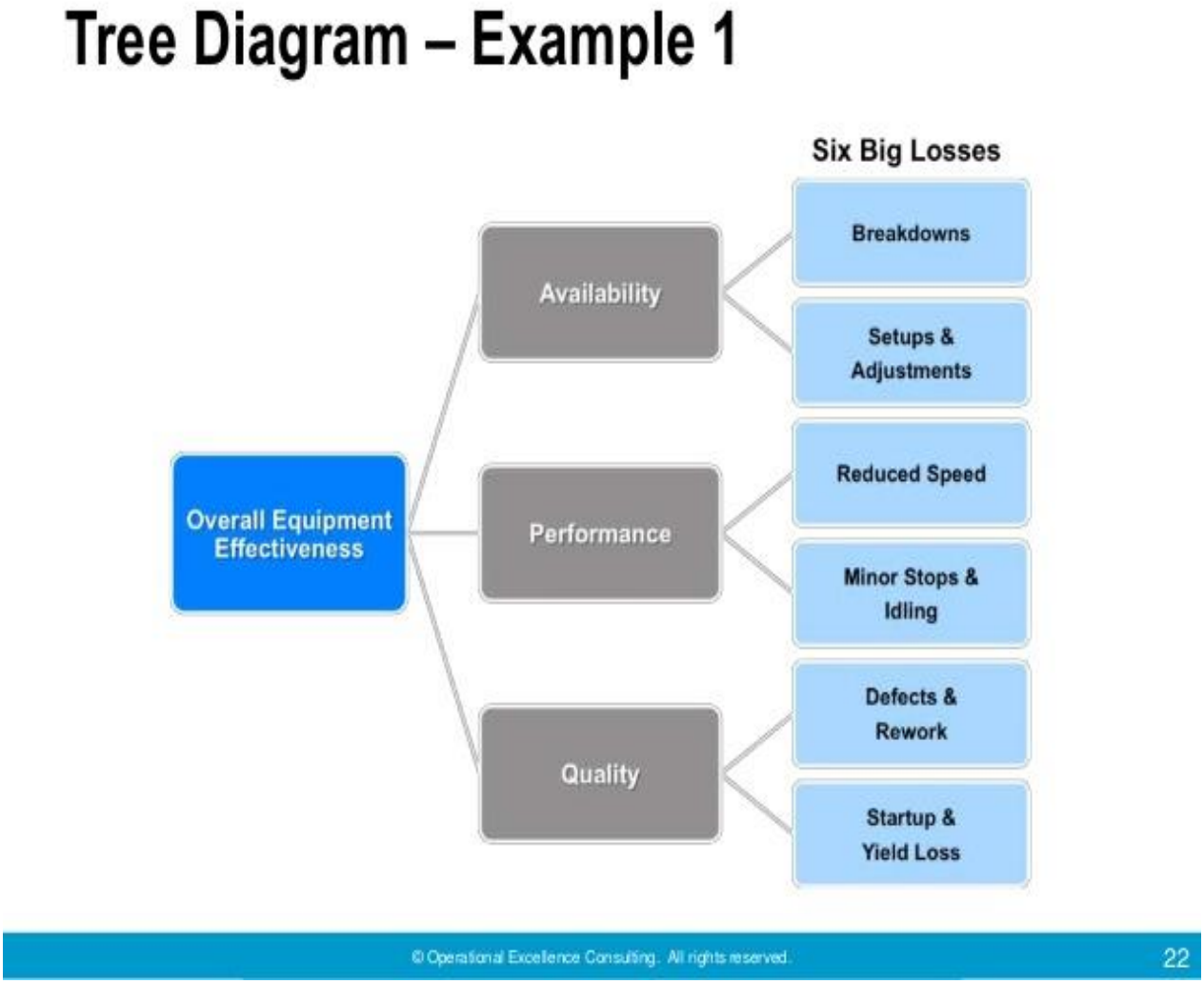
Source: Affinity diagram - Implementing continuous process improvement, (n.d.)

2.12.2 The Tree Diagram

The tree diagram bears the resemblance of a tree when completed and it is used to discover all the existing possibilities to solving a problem. Again, it also helps to achieve an undertaking when properly utilized. With the tree diagram, the problem or task represents the trunk with the possible options to solve the problem representing the branches. Twigs of the tree represents the elements

of the probable options while the leaves denotes the means to accomplish the options (Chaneski, 1998).The tree diagram according to Tague (2004) analyses comprehensive categories into better levels of detail, helping you move your analysis systematically from generalities to specifics.

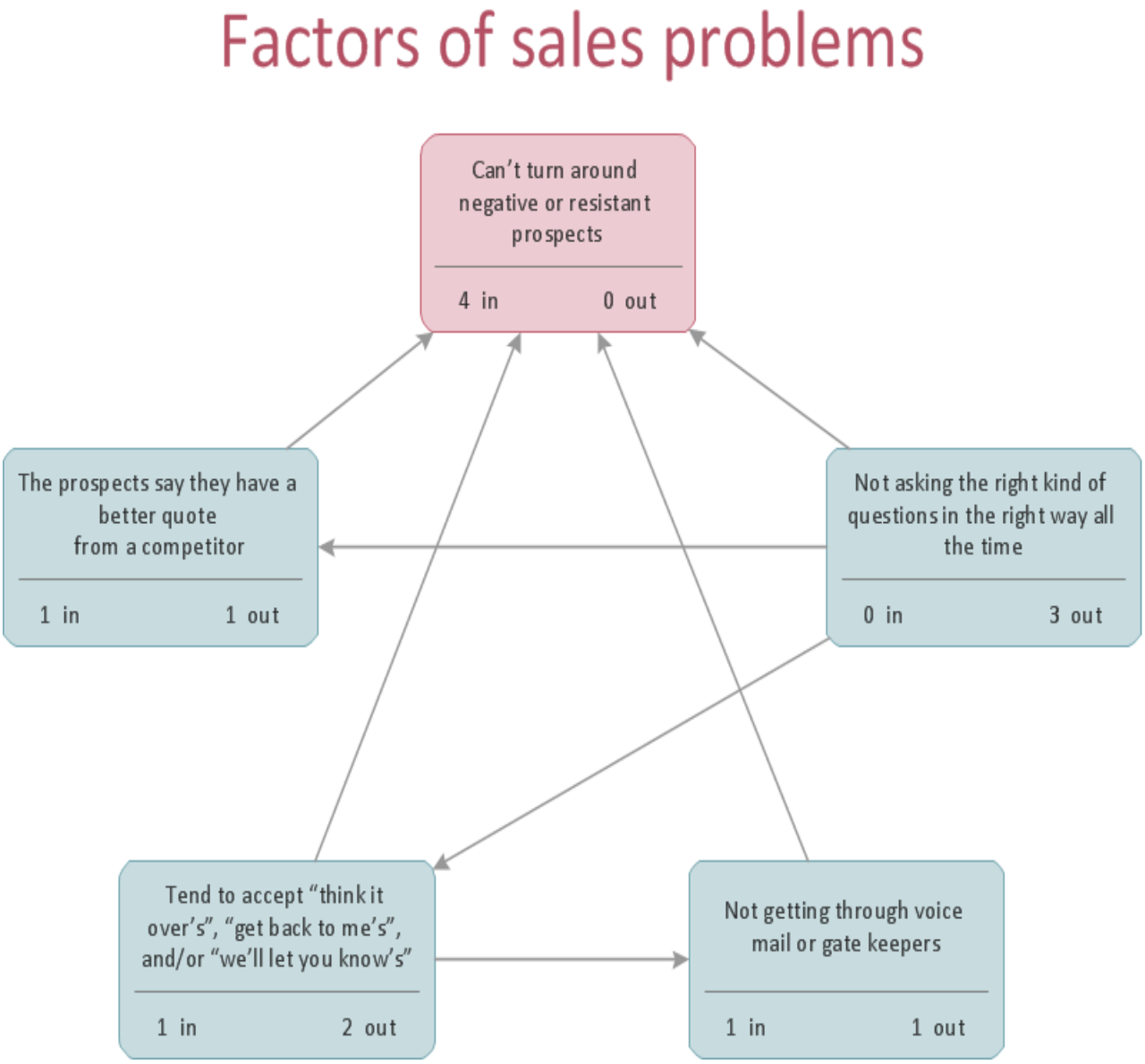
Figure 10: The Tree Diagram



2.12.3 The Relationship Diagram

The relationship diagram is used to study the linkages between the diverse facets of a complex situation. In other words, it represents the interactions of the cause-and-effect of a problem which allows for teams to analyse the root causes of a problem and the resultant effects that accompany them on the system. It usually starts with looking for ideas that have a relationship and determining which idea causes the other (Chaneski, 1998). For example if idea 1 causes idea 5, then an arrow is drawn from 1 to 5. If idea 5 causes idea 1, then the arrow is drawn from 5 to 1. If no cause is ascertained, an arrow is not drawn. After the exercise is complete, that idea with most outbound arrows are considered causative ideas whereas ideas with most inward arrows are considered resultant ideas.

Figure 11: Relationship Diagram



Source: Relationship diagram, (n.d.)

2.12.4 The Matrix Data Analysis or The Prioritization Matrix

The prioritization matrix is an L-shaped matrix that uses pairwise comparisons of a list of options to a set of criteria in order to choose the best option(s) (Tague, 2004). The prioritization matrix is a challenging, careful and timewasting decision-making tools which aids in selecting from a sequence of possibilities centered on a weighted criteria. The prioritization matrix can also be used when alternatives have been produced, such as in a tree diagram exercise. A prioritization matrix is very helpful to pick the particular option to implement by adding weights to each of the selection criteria adopted in determining between options (Chaneski, 1998).

Figure 12: Priority Matrix

	Cost	Reliability	Efficiency	Desirability	Row Total	Relative Decimal Value
Cost						
Reliability						
Efficiency						
Desirability						
Grand Total						

Source: Prioritization Matrix, (n.d.)

2.12.5 The Matrix Diagram

The matrix diagram helps to define the interactions existing among a group of items. The matrix diagram aids in matching the result of executing a new system to the requirements of a client (Chaneski, 1998). Facts about the relationship, (for example its strengths), the stakeholders role in a system are outlined by the matrix diagram (Tague N., 2004).

Figure 13: The Matrix Diagram

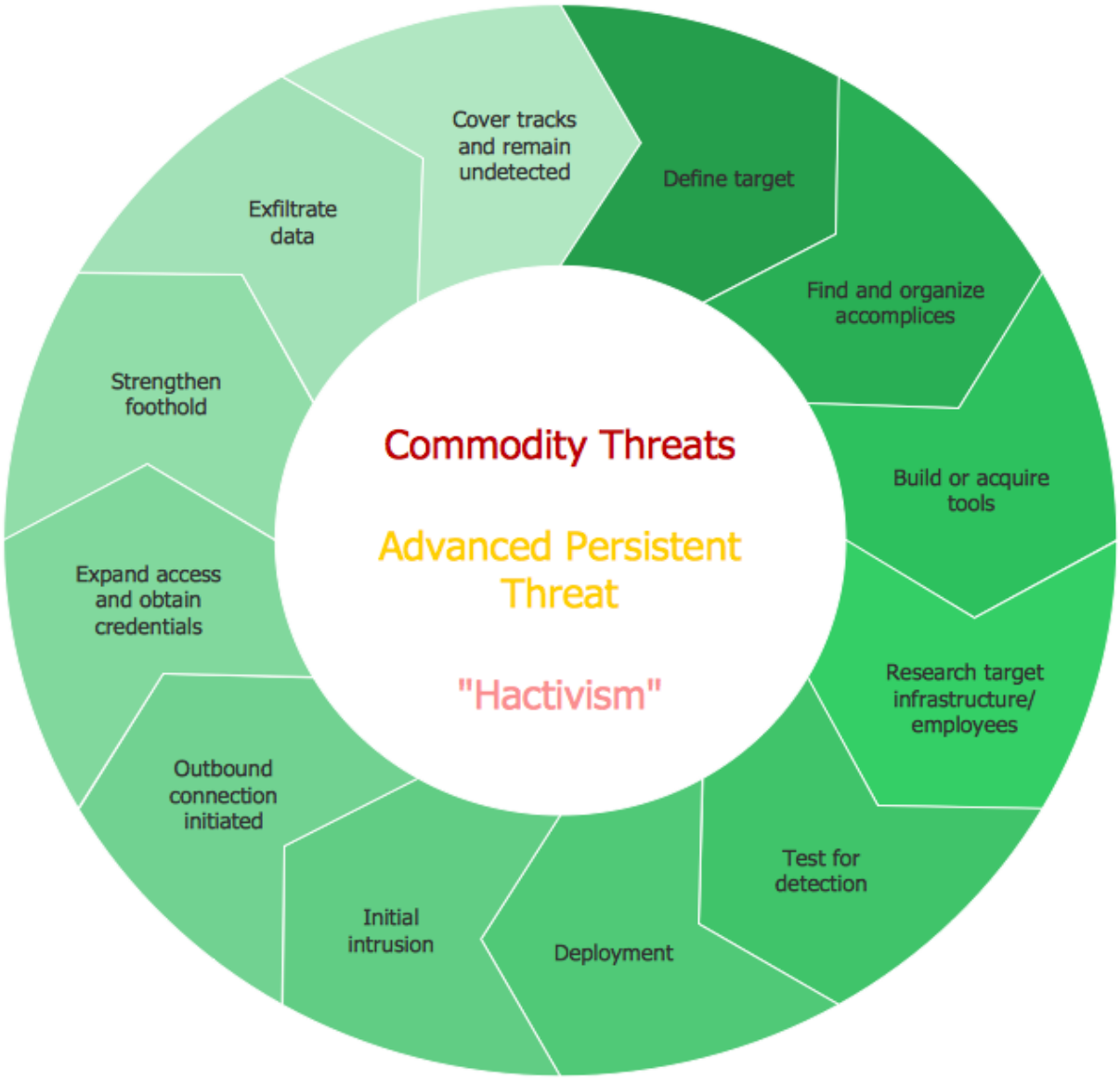
Requirements	Customer: Food	Customer: Medical Device	Customer: General
Quality System Type	FDA	FDA	ISO
Process control	SPC	SPC	SPC
Capability (Cpk) minimums	1.5	1.5	1.3
Certified Quality Engineers	Yes	Yes	Optional
Supplier Certification	Yes	Yes	Yes
HAACP Program	Yes	Yes	Optional
Designed Experiments	Optional	Yes	Optional
FMEA	Yes	Yes	Yes

Source: Matrix Diagram, (2012)

2.12.6 The Arrow Diagram

The arrow diagram which demonstrates the necessary arrangement of tasks in a process or structure which includes schedules and timetable accompanying the process or project. It also comprises the resource problems and their solutions of the system (Tague N., 2004).

Figure 14: The Arrow Diagram



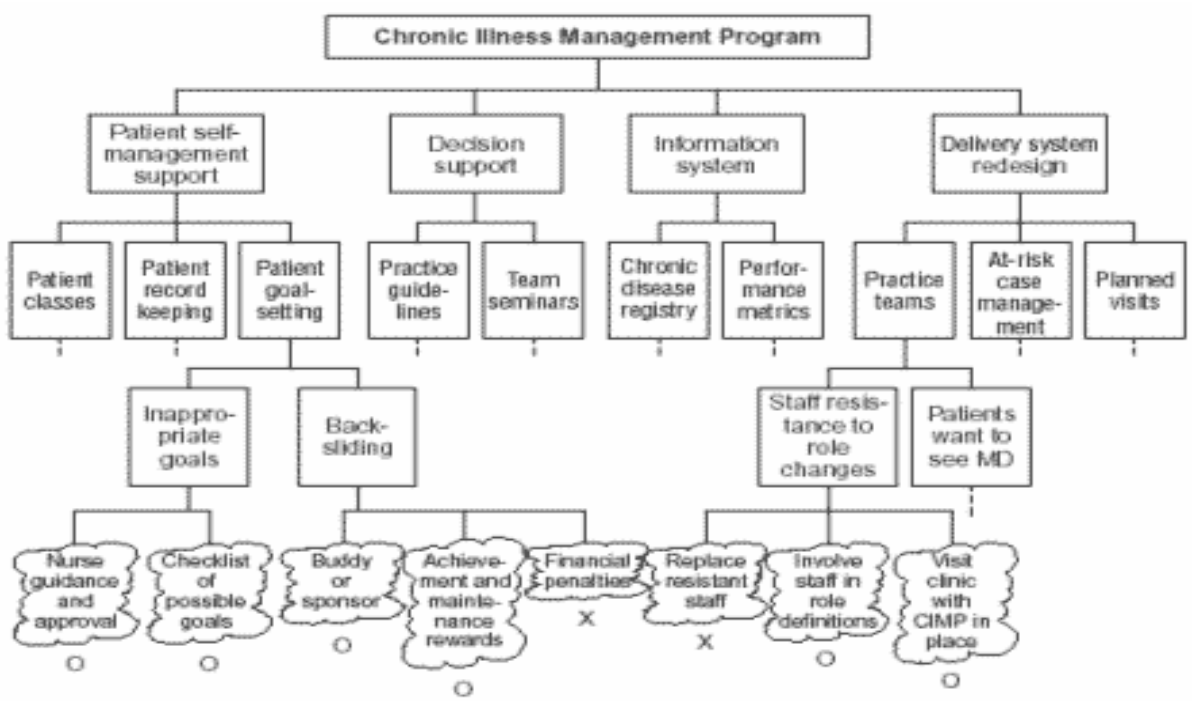
Source: Creating a Circular Arrows Diagram, (n.d.)

2.12.7 Process Decision Program Chart

The Process Decision Program Chart is a basically used for emergency or contingency planning. The Process Decision Program Charts is used to aid in identify problems linked to implementing particular programs and system improvements (Quintanna, 2005). Process Decision Program Chart has four steps which includes:

1. Listing all the steps that requires analysis in the process.
2. Listing all the possible errors at each stage.
3. Listing all the counter measures to the problems
4. Placing an O for feasible or an X for not feasible when evaluating the counter measure.

Figure 15: Process Decision Program Chart



Source: Process Decision Program Chart, (n.d.)

2.13 Why Total Quality Implementation fails

Lack of Management Commitment:

Lack of commitment is the commonest reason attributed for the failure of quality initiatives. Total Quality Management principles which should be continuous and uninterrupted should an obligation for management. This commitment should be visible in the work processes and not just talk regardless of the possibility that, these principles must be felt (Kazmi, 2013). This is usually the expectation from top management when TQM is concerned but they usually lack the required commitment level which forms part of the basis for TQM failure. The real issue is that management usually has little understanding as to what they were supposed to be committed to (Kazmi, 2013). At any phase of the program management would have viewed themselves as dedicated to quality and been satisfied to have made another intriguing discourse to display their commitment. Time and again managers introduce into quality plans with no genuine comprehension of the objective, not to mention the problems to be encountered. Unmistakably, management attempting quality improvement are somehow not adequately ready to go the full length (Keck, 1995).

Lack of Vision and Planning:

Constancy of purpose should always be demanded rather than commitment from top management was championed by W. Edwards Deming. The profound knowledge which serves as the bedrock of constancy of purpose ensures that management is always consistent with its policies. The real cause of failure of many quality initiatives is the failure to give purpose and provide an achievable plan to the policies outlined. Quality objectives of any organisation must be clearly communicated across the organisation by top management. Again management fails to appropriately integrate

quality into the organizational structure. Balestracci (1995) argues Total Quality Management efforts flops as a result of how they practically executed: they are set up as programs which is remote from the business. They are also mounted without realistic targets and often rigid, short-termed and expected to accomplish astonishing results without any concrete commitment from management. Beer (2003) supported this argument and stressed that management do not fully explore the gap the lacuna between the Total Quality Management programs they campaign for and the Total Quality Management practices in real practice. Paradoxically, it is this lack of capacity to investigate these gaps and scrutiny that causes TQM to fail.

Lack of Teamwork

Work is always executed by teams in Total Quality Management and the team members are continually available to assist to help themselves and operate a unit to solve problems in the system when they arise (Kazmi, 2013). He further stressed that TQM organization through their employees are always in search of proactive methods to improve the system by constantly correcting operational errors. Thus Total Quality Management managers should always look for ways to reduce the incidence of problem occurrence and improve the system than to wait for the problems to occur before they find solutions. This can be achieved through proper team coordination across the organisation. This situation is not similar in all organisations. Teams are neither encouraged nor developed as the idea of teamwork is not believed by some managers. Individualism is rather encouraged through individual promotions and the absence of teamwork which halts any efforts made to achieve TQM success through a synergy of the team to achieve set goals.

Inadequate and ineffective measurement of quality improvement

Ratesh (2012) argues that TQM aims at establishing or forecasting the needs of the customer in order to please him/ her through the monitoring of processes and employees. The achievement of TQM goals has posed considerable challenge to most businesses. Competition based standards, inadequate resources, poor planning, past performance standard among others account for the difficulties in measuring quality improvement. Worst of all human system processes and procedures are difficult to measure when applying statistical measurement tools.

2.14 TQM in the Health Service

Health care institutions in pursuit of quality improvement have tried various modules and approaches (El-Tohamy & Al Raoush, 2015). Issues of quality have become dominant for organisations in health care in recent times. Customer influence, hospital management initiatives and public health standards and regulations have accounted for the attention given to quality recently initiatives (Al-Ali, 2014). A concept for safety in medical care was embraced after a large number of medical errors occurred relating to patient safety worldwide. This shift of paradigm confirmed an approach of seeking both quality and safety in the healthcare industry.

Talib et al (2011) as cited in Salaheldin, Fathi, & Shawaheen (2015) argues that practices like commitment from management, systemization, organizational culture and structure, supportive leadership, teamwork, continuous improvement of the system, and most importantly patient satisfaction are the focal point of Total Quality Management in the health sector.

Some researchers are of the view that TQM application in the healthcare sector should not be done in a wholesale fashion but implemented based on the conditions pertaining to individual health facility. Total Quality Management should be tailor made to suit a firm and its operations. Therefore Total Quality Management must be designed by professionals in the health care sector to suit the industry. Principles, approaches and philosophies of quality must be engineered by them to suit the need and requirement of the clients who happen to be the patients in order to satisfy them (Lim & Tang).

2.15 Customer

A customer is part of the stakeholders of a business who interacts with the business either officially or informally in exchange of payment for services provided or received by him/her with the purpose of accomplishing a need (Agbor, 2011). The definition of customer is further given a broader connotation by (Manu, 2011). He stressed that when discussing the definition of customer, more often than not consideration is given to a person in a market when referring to what a customer is? But a customer according to him is given a broader perspective by viewing it from a business to business market. Thus a customer could also be seen as a firm or organisation. Attakora-Amaniampong, Salakpi, & Bonye, (2014) categorized the customer into the external and internal customer.

2.15.1 External Customers

External customers are the stakeholders who are not part of the actual production process of a product or service but are influenced by the activities of the company particularly the product

(Manu, 2011). By this definition external customers include entities and groups who interact with an organisation in exchange for services being rendered to them. The external customer is the final consumer or user of a product or/ and service (Attakora-Amaniampong et al, 2014).

2.15.2 Internal Customers

Gummesson (2004) in Manu (2011) indicated that employees should consider themselves as customers to each other with supplying and receiving decisions, services and goods. Internal customers according to Balestracci (1995) should be satisfied in order to satisfy the external customer. He stressed that a satisfied employee is the one who has the ability to extend the best customer care to others. Employees represents an important factor of TQM implementation, it therefore represents successfulness and winding up of a business. The survival of a business lies in the bosom of the employees. Employees usually are abreast about the needs and aspirations of the customers and identify the quality problems for solutions. Loyalty and retention of employees is derived from their satisfaction (Attakora-Amaniampong et al, 2014).

2.16 Customer satisfaction

Customer satisfaction is a concept generally considered to be intangible and includes determinants such as product quality, service quality provided, market where product is being sold, and the price of the product or service. Customer satisfaction is reliant on upon basic and peripheral functions and features of a product and what competitors can offer Garvin (1995:79) as cited in Masejane (2012). These attributes have already been deliberated on by the researcher in the section discussing the attributes of product and service quality. Deming (1986) as cited in Edu (2013)

argues customer satisfaction is the most significant gauge to measure the outcome of Total Quality management practices. Organisations achieve customer satisfaction when they are able to meet or exceed the expectations and requirements of the customer. In addition, organisations need to understand customer needs to be able to meet and exceed the requirements of the customer. This could be achieved through the use of tools like the customer satisfaction surveys. These surveys are primarily targeted at appraising customer satisfaction and loyalty towards certain products. Research has proven that higher levels of customer satisfaction leads to greater customer loyalty. Again customer satisfaction also leads to increased revenue for the organisation and reduced cost in the long run (Anderson, Fornell, & Rust, 1997). Anderson, Fornell, & Rust, (1997) further stressed that the pursuit of customer satisfaction regardless of its positive impact is also complemented with cost.

2.17 Relationship between TQM, employee satisfaction and Customer Satisfaction.

Attakora-Amaniampong et al, (2014) considered the connection amongst Total Quality Management and employment levels and client focus in project management practices among firms in the construction industry Ghana. The study uncovered that organizations with or without Total Quality Management practices were both client and worker centered. Moreover, the study revealed that there was no impact of TQM on client focus and employee focus among sampled organizations through the chi square test.

Jha & Sunand (2012) sought to investigate the impacts of Total Quality Management on employee satisfaction. The study concluded that to achieve worker creativity and potential, minimizing bureaucratic structures and improving the society, Total Quality Management can be a useful tool

to harness the benefits that come along with it. TQM is pivoted on quality, seemingly an apprehension of both senior managers and employees, and improvements in the system must remove inefficient administrative undertakings, reduce cost, and readily avail employees for their fundamental activities, precisely customer service.

Lilly & Maheshwari (2014) scrutinized the satisfaction level of the employees towards the TQM practices in the organization after applying total quality management system. It was found out that most of the employees were satisfied with the TQM practices of the organisation. Amongst the TQM practices the employees were highly satisfied with included working culture of the organization, incentives provided by the organization and superiors' relationship with the respondents. Others included encouragement and resources for training programs, crisis management, freedom and authority given in the organization, communication process, encouragement and recognition of team work efforts.

Alsughayir (2014) made an inquiry into the influence of Total Quality Management practices on worker job satisfaction in private firm in Saudi Arabia. The study showed that TQM practice has a substantial positive influence on the internal customer satisfaction. Furthermore, organizational culture was identified to be an overriding TQM practice, which has a major influence on raising levels of job satisfaction.

Yee, Yeung, and Cheng (2008) likewise looked to explore whether employee satisfaction had any effect on operational performance in high contact service industries. The study was based on a sample size of 206 service shops in Hong Kong. The study sought to investigate the relationship existing among worker satisfaction, service quality and profitability. The study concluded that worker satisfaction had a positive relationship with service quality and customer satisfaction while the latter thusly impacts profitability.

A study by Janicijevic et al (2013) to assess how health sector worker satisfaction affects patient satisfaction. It also included which elements of health sector worker satisfaction affect health service quality and patient satisfaction. The outcome of their study therefore revealed that notwithstanding the general acceptance that health sector worker satisfaction had a substantial influence on the satisfaction of the patient (customer). The outcome of the study also point to the relationship factor between employee and patient satisfaction is relatively low. Janicijevic et al (2013) concluded that by understanding the significance of certain elements of healthcare worker satisfaction and its impact on patient satisfaction, it is conceivable to make inferences about elements that will have to be improved so as to increase customer (patient) satisfaction to the maximum level.

Peltier & Dahl (2009) explored the satisfaction of employees in a major hospital in New York City to determine the degree to which employee satisfaction relates to the quality of the patient experience. The study concluded that, in addition to what health care workers do, management needs to place importance on how the staff feel about what they do. Patient experiences will not be worthy if employees are not happy.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter begins with the profile of the Upper West Regional Hospital. The study identifies the TQM practices in the Upper West Regional Hospital and tries to find its impact on customer satisfaction in the Upper West Region Hospital. The findings would help staff and management of health facilities and health authorities to improve efficiency and effectiveness of health care administration in Ghana. This chapter consist of the research design, population, sampling procedures/techniques, data collection tools/procedure and data analysis/presentation procedure. Main issues of consideration are the source of the data; study approach and purpose; sampling techniques; data collection method; and data preparation and analysis. The chapter provided an overview of the methodological approach and the research design selected for the study. The methodology to be in this study included the data and their sources and how the analyses are outlined.

3.2 Profile of Upper West Regional Hospital.

The upper west regional hospital which serves as the only referral centre for the region is located in the heart of Wa town, the regional capital of the upper west region. The hospital was established in 1919 as a health centre, rose to a district hospital status in 1955 and was designated as a regional hospital in 1985, three years after creation of the region (Wa Regional Hospital, 2015).

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It has 200 beds capacity with various units and departments and provides secondary services to the people of the region and client from neighboring countries like Burkina Faso and Ivory Coast. It also provides services to patients from neighboring regions (Wa Regional Hospital, 2015).

Range of services provided according to Upper West Regional Hospital (2015) are grouped under units/wards/departments which render out-patients and in-patient services such as:

Accidents and emergencies, Obstetrics and gynecological services, Pediatrics internal medicine, Physiotherapy, Dental, Eye care, Surgical, Laboratory, E.N.T, CT/ART, Psychiatric, Public health, Radiological (X-ray and ultrasound), Mortuary and Catering (in – patient feeding) (Wa Regional Hospital, 2015).

3.3 Research Design

A research design is "the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure" Selltiz et al, (1962) in (Kothari, 2004). Kothari (2004) further suggested that the research design is used in identifying what the research philosophy, purpose, approach, logic and outcome is. Research design also ensures that the outcome of the research clearly answers the already stated research questions of the study. Research design deals with a logical problem and not a logistical problem. The design is the fundamental framework of the study. Research design basically includes the main ideas such as strategy, sample, and the tools and procedures which will be used for collection and analysis of empirical data (Edu, 2013). The role of research design is to connect the research questions to the data.

The descriptive analytical approach was used in conducting the study by the researcher. This research is dependent largely on data gathered from primary sources through questionnaires and is therefore classified under applied research.

I. Questionnaires were used to gather data from the target population.

II. A cover letter was accompanied by the questionnaires which presented a definition of Total Quality Management in order to minimize the misunderstanding amongst the responders.

III. Secondary sources such as journals, books, previous research papers and business letters were used to gather information on literature.

IV. Questionnaires were analyzed using statistical tools such as mean, standard deviations, frequencies and percentages.

V. The results of the statistical analysis were critically scrutinized and the research conclusions and recommendations were articulated basically on the findings from the analysis of the study.

VI. Further studies were recommended by the researcher.

3.4 Population and Sample size

In developing the sample design it is imperative to clearly outline the set of objects, theoretically called the population or the universe to be studied which can be finite or infinite. In finite universe the total number is known by the researcher, but in case of an infinite universe the number of items is immeasurable, thus the total number of items is unknown when it is infinite (Kothari, 2004). Babbie (1998) in Opoku (2013) defines population as the "aggregate of the study elements from which the sample is actually selected and from whom to draw conclusions."

The staff strength of the Upper West Regional hospital as at December 1, 2015 was 427. For the purpose of this study the various departments in the hospital have been put into three groupings considering the numerous departments in the hospital and convenience of data analysis. The researcher therefore grouped them into the following with their population:

Table 1: Classification of Employees

CLASSIFICATION	POPULATION
Management	5
Medical	291
Administration	131
TOTAL	**427**

Source: Upper West Regional Hospital, 2015

The medical class of the population include doctors, nurses, ward assistants, orderlies, pharmacists, biomedical scientists, laboratory technicians, pharmacy technicians, dispensing technicians, physiotherapists, physician assistants and medical herbalists in the hospital. The category of administration include who are not directly linked to Medicare in the hospital. They include staff in the administration, catering staff, biostaticians, artisans, drivers among others

Additionally, the researcher considered the in-patients as the target population for the clients. The researcher settled on them because they spend a considerable amount of time at hospital and therefore other things being equal experience the services delivered by the hospital than the Out-Patients. Therefore the In-patients will be judges of customer satisfaction. The average daily occupancy at the hospital is 175.

Sampling is broadly categorized into two main types which includes probability and non-probability sampling. Probability Sampling comprises of sampling techniques such as simple random sampling, stratified sampling, systematic sampling, cluster sampling, and multi-stage sampling. Non-probability sampling techniques also includes convenience samples, Purposive sampling, Snowball sampling, and Quota sampling are some of the methods employed. The most widely used sampling technique is the probability sampling which allows for precision and representativeness (Adusa-Poku, 2014).

The researcher will adopt the simple random sampling technique for the study. For the sample size of the staff. The staff will be classified into Management, Medical and Administration strata.

The sample size for staff of the hospital used in this study is 81 out of a population size of 427 using the formula to determine the sample size from the population of the of the hospital staff. To get the sample size, Taro Yamane's method was employed:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n= Sample size

N= Population size

e= Level of significance (error)

1= A constant number

For the purpose of this study, our level of significance (e) = 10% or 0.01 that is 90% confidence limit.

Since n= 427

e= 10% or 0.1

Substituting the above values into the formula, we have that:

$$n = \frac{427}{1 + 427(0.01)^2}$$

$$= \frac{427}{1 + 427(0.01)^1}$$

$$n = 81.02$$

$$n = 81$$

The sample size of the population is 81 and the researcher issued the same number of questionnaire to the staffs of the hospital to answer. Bowely's proportional allocation formula was applied thus:

$$n1 = \frac{n1(n)}{N}$$

Where: n1 =Number of each department

n= Total sample size

N= Population size

For Management

The researcher decided to purposively administer questionnaires to all the core members of management because of their number (5). Therefore the sample population for the staff of the hospital will be 76 (i.e. 81- 5).

For Medical

$$n1 = \frac{291(76)}{427}$$

$$n1 = 52$$

For Administration

$$n2 = \frac{131(76)}{427}$$

$$n2 = 24$$

The sample size for the in patients of the hospital used in this study is 175 out of a population size of 427 using the formula to determine the sample size from the population of the of the hospital staff. Taro Yamane's method was employed using the same confidence level as that of the staff to compute for the sample size:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{175}{1 + 175(0.01)^2}$$

$$n = 63.64$$

$$n = 64$$

The sample size of the survey is summarized below:

Table 2: Sample Size Classification

CLASSIFICATION	POPULATION	Sample Size
Management	5	5
Medical	291	52
Administration	131	24
In-patients	175	64
TOTAL	**602**	**145**

3.5 Data Collection Instrument

The questionnaires was administered to management, staff and in-patients of Upper West Regional Hospital who were selected at random to answer questions on Total Quality Management practices at the study area. According to Kotler and Keller (2006) in Adza-Awude (2012) a questionnaire is referred the set of questions presented to the research respondents. The questionnaires will be taken as a guideline for the assessment of the study. Respondents will individually be required to answer a set of questions from the questionnaires.

Questions are both closed-ended and open-ended. For the closed-ended questions, respondents are answerable by marking one of numerous preset responses and open-ended needing respondents to in their own words give answers.

The reason for choosing questionnaire was due to its relative benefits to this research. Costs of printing, collection, distribution, analysis are low, in relation to other known methods such as interviews. Respondents also have the freedom to respond to the questions at their own

convenience. Respondent's responses will be kept wholly confidential. Kothari (2004) summarizes the advantages of the usage of questionnaire in projects. He points out that:

1. It is less expensive even when the population is geographically widespread and large.
2. It wholly represents the respondents' viewpoint and free from the interviewers prejudice.
3. It allows for adequate time for respondents to respond to questions.
4. It also allows for Respondents who are difficult to approach to be reached conveniently.
5. The results are dependable and reliable since it can accommodate large samples.

The researcher designed three separate questionnaires for management, staff and clients (patients). The questionnaire for management is to assess the extent to which TQM practices are adopted by the Upper West Regional Hospital. The questionnaire for management was segregated into two sections. Section A of the questionnaire dealt with the personal data of the respondents which include Age, Gender, Qualification, Working experience with the hospital and Job position. Section B of the questionnaire investigates the extent of TQM practices of the Upper West Regional Hospital. This study utilized the core elements of TQM as explained in the previous chapter to measure the extent of TQM practice in the hospital. The core elements include leadership, employee training and empowerment, continuous improvement, employee involvement, focus on patients, recognition and rewards and teamwork. The responses to the questions under the core elements of TQM were designed according to the Likert 5 point scale. The respondents were to indicate how they agreed to the statements under each TQM element. The following represented their level of agreement with each statement: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

The staff questionnaire is to measure staff satisfaction based on the employee involvement, reward and recognition and team work principles of TQM. The researcher intended to determine the level

to which Wa Regional Hospital employees were satisfied with their job. The Job Descriptive Index was used as indicator for job satisfaction by the researcher (Smith et al. (1969), Jacobs & Solomon (1977), Kounser, (2011)). The Job descriptive index is widely used in researches concerned with psychology or organizational behavior. The questionnaire is segmented into two main sections. The Section A of the questionaire entails the personal details of the respondents while the Section B is based on a seven broad areas which include employees Salary and job threat, relationship with co-workers, recognition, authority and responsibility, working conditions and employees loyalty based on the Job Descriptive Index (Smith et al. (1969), Jacobs and Solomon (1977), Balzer et al. (1997)). The section is also based on 5 point Likert scale to measure the level of employee satisfaction in the Upper West Regional Hospital. The following represented their level of satisfaction with each statement: 1-extremely dissatisfied, 2- dissatisfied, 3-neutral, 4- satisfied and 5- extremely satisfied.

The client questionnaire measures patient satisfaction which was based on the five service dimensions using the SERVQUAL instrument, namely, tangibles, reliability, responsiveness, assurance, and empathy. The questionnaire is also divided into two sections. Section A of the questionnaire requires the personal details of the patients which included age, gender and educational qualification. Section B of the questionnaire uses the SERQUAL instrument to measure patient satisfaction using a 5 point Likert scale. The respondents of this questionnaire were required to specify their level of agreement to the statement under each service quality dimension. The following represented their level of agreement with each statement: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

3.6 Analysis of Data

Data obtained from the questionnaire, interviews, and the informal observations will be coded and enumerated, and then chronicled on summary sheets, following the format required by the SPSS and Microsoft Excel computer softwares. In addressing the research questions, the data was later converted into standard deviations, means, frequency counts and simple percentages. Data obtained from the open-ended questionnaires, observation and interview were therefore subjected to narrative description.

The researcher in analyzing responses from the Likert scale adopted the Best rating criteria where the means of the standard ranking scale were used to measure patient and employee satisfaction levels at the Upper West Regional Hospital. The same criteria was used to measure the level of Total Quality Management implementation at the hospital. The Best rating criteria is ranked and interpreted as follows:

Table 3: Best Rating Criteria

Index of Satisfaction	Level of Satisfaction
4.50 – 5.00	Reflects that satisfaction level is highest
3.50 – 4.49	Reflects that satisfaction level is high
2.50 – 3.49	Reflects that satisfaction level is average
1.50 – 2.49	Reflects that satisfaction level is low
1.00 – 1.49	Reflects that satisfaction level is lowest

Source: Best, (2005).

3.7 Ethical Considerations

The scientific community encourages researchers to be professional and must be ethical in reporting the outcomes of the study. In this case, the researcher worked as a professional in the areas of plagiarism and research fraud. The researcher avoided the falsification of or altering data or the approaches of gathering data or plagiarizing other researcher's works. The researcher tried not also depart from the universally accepted scientific practices of research reporting. Finally, the researcher did invent data but honestly reported the outcome of the research.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter provides a summary and interpretation of the responses obtained from the questionnaire administered. The questionnaires sought to collect information on Total Quality Management (TQM) practices, the satisfaction level of staff and clients (patients) at the Upper West Regional Hospital. It also includes analysis of personal information of respondents by the researcher.

4.2 Background of Respondents

This section include analysis of personal data of respondents which include the age of respondents, gender and educational qualification of the respondents. It also includes the work experience and department of respondents especially the staff. The response rate for the study included 80.00 percent for management, 88.16 percent for employees of the hospital and 96.86 percent for the patients. Additionally, the alpha coefficient for respondents which included management, employees and patients for the study were 0.79, 0.86 and 0.78 respectively suggesting that the items have relatively high internal consistency. It is important to stress that a reliability coefficient of .70 or higher is considered "acceptable" in most social science research situations (Nunnally, 1970).

4.2.1 Age of respondents

Table 1 illustrates the ages of the respondents for the study. The data is presented in frequencies and percentages for patients, staff and core management of the Upper West Regional Hospital. The data presented indicates that majority of the respondents were above age 30 which implies that the respondents were matured enough to respond appropriately to the questions given in the questionnaires. For the patients it can be deduced that majority of people who access medical care are the youth since 74 percent of the respondents are 40 years and below.

Table 4: Age of Respondents

Variables	**Patients**		**Employees**		**Core management**		**TOTAL**	
	frequency	%	frequency	%	Frequency	%	Frequency	%
Below 30 years	23	37.10	25	37.30	-	-	48	36.09
31-40 years	23	37.10	27	40.30	-	-	50	37.59
41-50 years	5	8.10	13	19.40	1	25.00	19	14.29
Above 50 years	11	17.10	2	3.00	3	75.00	16	12.03
	62	**100**	**67**	**100**	**4**	**100**	**133**	**100**

Source: Author (2016).

4.2.2 Gender of respondents

The results of the study revealed that collectively, majority of the respm ondents were females. Females represented 55.64 percent of the total people interviewed for the study. Nonetheless, males dominated when it comes to the staff of the hospital. 35 representing 52.20 percent of the respondents were males. The results for the staff affirms the common assertion of male dominance of the workforce in Ghana. Table 2 illustrates the gender of respondents for patients, staff and core management of Upper West Regional Hospital.

Table 5: Gender of Respondents

variables	Patients		Employees		Core management		TOTAL	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Male	22	35.50	35	52.20	2	50	59	44.36
Female	40	64.50	32	47.80	2	50	74	55.64
TOTAL	**62**	**100**	**67**	**100**	**4**	**100**	**133**	**100**

Source: Author (2016).

4.2.3 Educational qualification

The study also revealed that most of the respondents have had some form of basic education therefore possessed the ability to read and write. Overall, 76.69 percent the respondents had at least Senior High School education. Results for the staff also revealed that only 9 representing 6 percent of the staff have only Senior High School education with the remaining having at least

college/ university education. The respondents of the staff and core management questionnaires have higher educational status. The results of the educational status is presented in table 6 below.

Table 6: Educational Qualification of Respondents

variables	Patients		Employees		Core management		TOTAL	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Never	12	19.40	-	-	-	-	12	9.02
Primary	4	6.50	-	-	-	-	4	3.01
JHS	15	24.20	-	-	-	-	15	11.28
SHS	14	22.60	6	9.00	-	-	20	15.04
College/ University	13	21.00	51	76.10	2	50.00	64	48.12
Post graduate	4	6.50	10	14.9	2	50.00	18	13.53
TOTAL	**62**	**100**	**67**	**100**	**4**	**100**	**133**	**100**

Source: Author (2016).

4.2.4 Work Experience

Work experience only relates to the staff and core management of the Upper West Regional Hospital for this study. Table 7 illustrates the work experience of employees and core management members of the Upper West Regional Hospital. The data presented reveal that aggregately, 62 percent of the workforce which include the staff and core management of the Upper West Regional

Hospital have at least 5 years work experience at the hospital. This implies that Upper West Regional Hospital has a low labour turnover rate thereby has the ability to retain its staff.

Table 7: Work Experience of Respondents

Variables	Employees		Core management		TOTAL	
	Frequency	%	Frequency	%	Frequency	%
Less than 5 years	25	37.30	2	50	27	38.03
5-10 years	33	49.30	-	-	33	46.48
Above 10 years	9	13.4	2	50	11	15.49
TOTAL	**67**	**100**	**4**	**100**	**71**	**100**

Source: Author (2016).

4.2.5 Departments

The study revealed that 35 out of the 67 representing 52.20 percent were in the medical unit of the hospital. These include the doctors, nurses and orderlines in the hospital. 17 and 13 of the respondents said they were in the administration and specialist respectively. The remaining 2 representing 3 percent were categorized under the others. Table 8 demonstrating respondents departments is presented below. It is also important to note that this data only relates to staff only (thus excludes the respondents to the patients and core management questionnaire's).

Table 8: Respondents Department

Variables	Frequency	%
Medical	35	52.20
Administration	17	25.40
Specialist	13	19.40
Others	2	3.00
Total	**67**	**100**

Source: Author (2016).

4.3 Total Quality Management

The researcher targeted all the 5 core management of the Upper West Regional Hospital, out of the lot 4 were available during the period of questionnaire administration. The response rate for the survey was 80 percent. The questionnaires were utilized measure the extent of Total Quality Management practices at the Upper West Regional Hospital. The Total Quality Management practices utilized for the study included leadership, employee training and empowerment, continuous improvement, employee involvement, focus on patients, recognitions and awards and teamwork. Each principle is embedded with three questions with five responses. The results of these questions are depicted in table 9 presented below. The results are presented in mean scores and standard deviations for the various variables. The aggregate mean score for the Total Quality Management practices was 4.11. The results indicates a high level of Total practices at the Upper West Regional Hospital.

Table 9: Total Quality Management Practices

Variables	Mean	Standard Deviation
Leadership		
Top management discusses many quality related issues in top management meetings.	5.00	0.00
Top management provides adequate resources for employee education and training.	4.00	0.00
Top management is committed to quality issues	4.75	0.50
Employee training and employment		
Hospital staffs are encouraged to undertake education and training.	5.00	0.00
Resources are available for employee education and training in the hospital	3.00	1.15
Quality awareness education is given to hospital staff	4.50	0.58
Continuous improvement		
Hospital equipment is well maintained according to the maintenance plan.	3.00	1.41
The hospital evaluates performance and takes measures to improve on it.	4.00	0.82
The hospital uses inspection, quality assurance and clinical auditing extensively for process for process control and improvement.	4.75	0.50
Employee involvement		
Most employee suggestions are implemented after evaluation.	4.00	0.00
Reporting work problems is encouraged in our hospital	4.25	0.50
The hospital implements quality improvement suggestions extensively.	4.25	0.50
Focus on Patients		
The hospital has a complaints and suggestion box for patients.	3.25	1.71
Patients and clients concerns are dealt with.	3.50	1.73

Hospital has data to measure client satisfaction.	3.50	1.73
Recognition and Awards		
Promotions are based on work quality in the hospital.	2.75	1.26
The hospital has allowance packages to motivate packages staff.	4.50	0.58
Recognition and reward activities effectively stimulate employee commitment to quality management.	4.25	0.96
Teamwork		
Hospital staff are encouraged to work in teams	5.00	0.00
Management rewards team efforts.	4.00	1.41
Management encourages effective communication among teams.	5.00	0.00

Source: Author (2016).

Additionally, besides the grand mean of 4.11, the researcher explored the average means of the Total Quality Management practices at the Upper West Regional Hospital. Results from the study depicts that all the Total Quality Management practices explored by the researcher scored high mean when using the Best criteria as a gauge. It further revealed that, teamwork recorded the highest mean among the Total Quality practices with a mean score of 4.67 with leadership closely following with a mean score of 4.58. The findings of the study is consistent with (Lai, 2012). Table 10 illustrates the average means of TQM practices at the Upper West Regional Hospital.

Table 10: Summarized Total Quality Management Practices

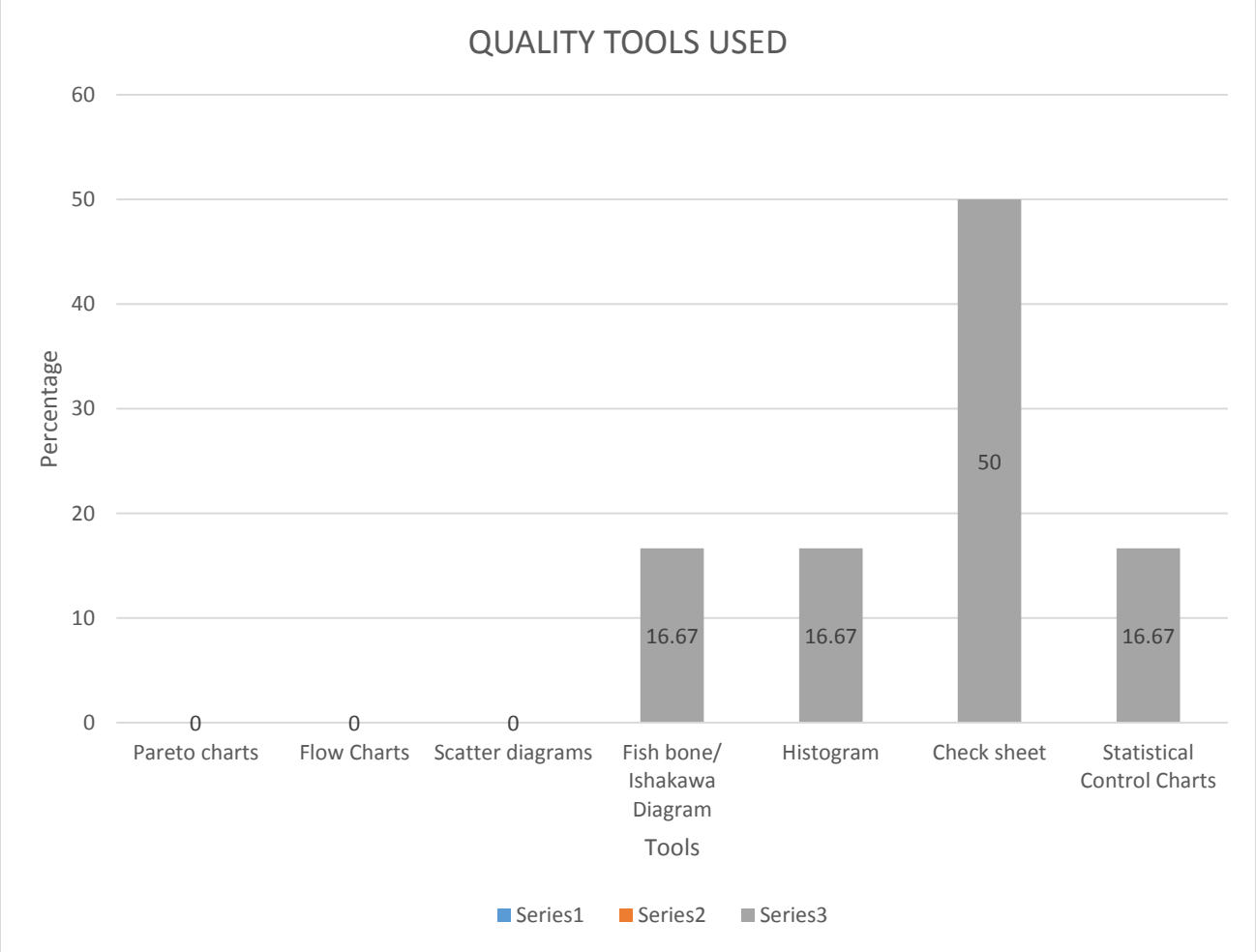
Variables	Mean	Standard deviation
Leadership	4.58	0.17
Employee training and empowerment	4.17	0.58
Continuous improvement	3.92	0.91
Employee involvement	4.17	0.33
Focus on patients	3.42	1.72
Recognition and awards	3.83	0.93
Teamwork	4.67	0.38
Total Quality Management	**4.11**	**0.72**

Source: Author (2016).

4.3.1 Quality Tools Used

The figure presented below show the quality tools used to detect defects and flaws at the Upper West Regional Hospital. These tools also aid in process control at the hospital. The study revealed check sheet was the most frequent used quality tool at the Upper West Regional Hospital. Check sheet recorded 50 percent of the frequency count of the results. Fish bone, Histogram and Statistical Control Charts are had 16.67 percent of the quality tools used. Figure 16 presented below indicates a bar chart illustrating quality tools used at the Upper West Regional Hospital.

Figure 16: Quality Tools Used



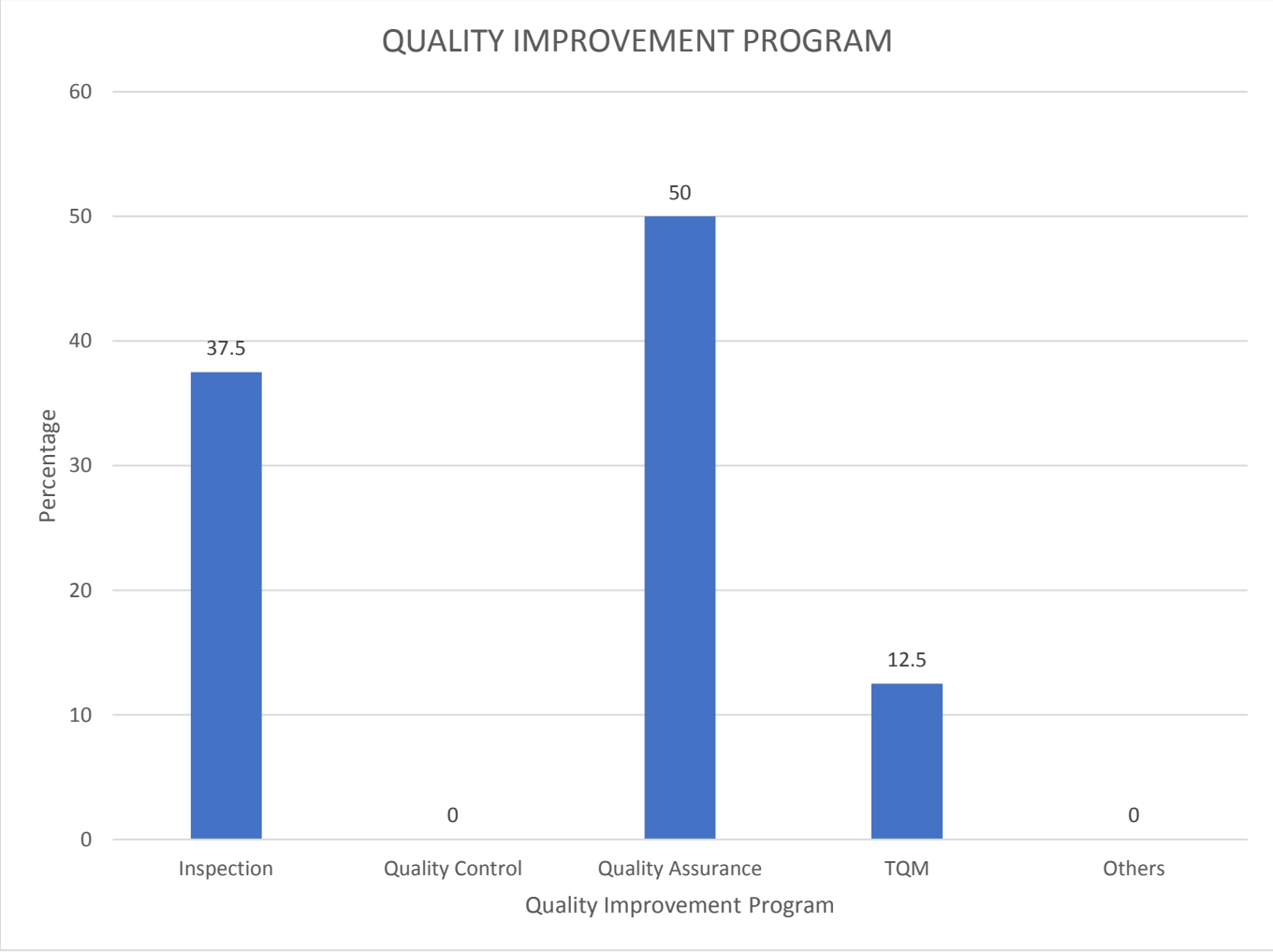
Source: Author (2016).

4.3.2 Quality Improvement Program

Results from the study reveals that the hospital mostly uses Quality Assurance and Inspection for quality improvement. Quality assurance and Inspection cumulatively recorded 87.5 percent of the total results of the study. The researcher observed that the audit department and the procurement department of the Upper West Regional Hospital mostly use inspection in the discharge of their duties. Quality Assurance recorded 50 percent of the results of the results of the study. The study

further revealed that the hospital adopts TQM as a quality improvement program. The results implies that the Upper West Regional hospital has not fully adopted TQM as a quality improvement program. The hospital embraces quality assurance because it is in line with the ministry of health quality policy for Ghana. Figure 17 presented below indicates a bar chart illustrating quality improvement programs adopted at the Upper West Regional Hospital.

Figure 17: Quality Improvement Program



Source: Author (2016).

4.3.4 Challenges in implementing TQM Practices

This section determines the obstacles which can hamper or prevent the effective application of TQM practices at the Upper West Regional Hospital. It is also important to note that the researcher only enumerated the views of top management and unit heads at the Upper West Regional Hospital. Among the various enumerated challenges the hospital faces regarding the implementation of the quality improvement programs, funding was the recurring challenge at the Upper West Regional Hospital. Management observed that without the necessary funding, the hospital will find it difficult to embark on planned quality program. The challenge of funding to champion quality issues is affirmed by (Edu, 2013). In relation to the funding challenge, the study also revealed that the National Health Insurance Scheme (NHIS) was a contributing factor to the woes of the hospital regarding funding. According to a top management member at the Upper West Regional Hospital*:*

> *"the failure of the National Health Insurance Authority to reimburse claims submitted to the hospital on time is gradually bringing service delivery to a halt and will one day send us back to the cash and carry era".*

The research also identified lack of commitment of the top management in the pursuit of quality at the Upper West Regional Hospital. The study revealed that management who according to the principles of TQM are to champion the ideas of quality are failing to do so. This is because of the foremost challenge of funding to champion the course of quality at the hospital. As a result, quality related issues are relegated by management to cater other pressing issues. The head of finance in a formal chart with the researcher stressed that:

"the hospital cannot be campaigning for quality because we have huge debts to settle and at the moment the hospital is struggling to raise the needed funds to pay those overheads".

The researcher observed that this revelation is a diversion from the likert scale results of the leadership principle of TQM. Leadership score an average score of 4.58 which suggested that top management readily made resources available for quality related issues.

Additionally the research outlined political interference as a major hindrance to the implementation of Total Quality Management practices at the hospital.

4.4 Patient satisfaction

The table 11 presented below illustrates the average means and standard deviation scores for the responses of patients about their perception of service delivery at the Upper West Regional Hospital using the SERVQUAL model of service quality. The results of the survey revealed that cumulatively patient satisfaction level at the Upper West Regional Hospital was average, thus scoring an aggregate mean score of 2.59. "The hospital offers 24 hour services for its clients "received the highest mean score 3.94 with "patients don't wait for a long time before receiving medical treatment" scoring the least mean score of 1.84. The aggregate score of 2.59 indicates that management will have to do more to improve the service delivery at the hospital.

Table 11: Patient Satisfaction Results

Variables	Mean	Standard Deviation
Tangibles		
1. Upper West Regional Hospital's equipment's are well maintained and up-to-date.	2.24	0.94
2. The hospitals environment is clean and hygienic.	2.58	0.95
3. The doctors and nurses appearance are neat	3.76	0.76
Reliability		
4. 4. Doctors and nurses show interest in solving patients problems	2.39	0.80
5. The doctors, nurses and other staff do not waste time in their duties.	2.06	0.85
6. Doctors explain to patients about their health conditions.	2.00	0.79
Responsiveness		
7. Doctors and nurses are willing to help patients.	2.71	1.01
8. Patients don't wait for a long time before receiving medical treatment.	1.84	0.73
9. The hospital offers 24 hour service for its clients.	3.94	0.92
Assurance		
10. The hospital is well equipped to provide quality health care.	1.94	0.79
11. The patients are confident when receiving treatment.	2.44	0.80
12. Doctors and nurses have sufficient knowledge and competence in performing their duties.	3.34	0.77
Empathy		
13. Doctors and nurses are caring.	2.26	0.92
14. Doctors and nurses are willing to listen to patients concerns.	2.48	0.94

15. Doctors and nurses are able to communicate well with the patients.	2.95	0.93

Source: Author (2016).

The survey also of the participants of the survey had average satisfaction level regarding the various dimension of service quality. Tangibles recorded the highest mean score of 2.86. Responsiveness followed closely with a mean score of 2.86. Reliability therefore recorded the least mean score of 2.15. Reliability is the only variable regarded as having a low level of satisfaction by the respondents. The results for reliability implies that the respondents were not sure if the hospital could meet or match the promises it has assured them. Thus the Upper West Regional Hospital fails to deliver the promised services dependently and accurately. The results also indicate that with tangibles recording a higher mean score, the hospital priorities on appearances than the other dimensions of service quality. These findings support earlier studies by Bozorgi (2006) who claimed that customer satisfaction levels were average. However, the findings of this study is contrary to studies Chunluka (2010) and Sriyam (2010) whose research findings were high levels of customer satisfaction using the SERVQUAL model to measure customer satisfaction. Table 12 below illustrates the dimensions of service quality at the Upper West Regional Hospital and their corresponding mean scores.

Table 12: Dimensions of Service Quality

Variables	Mean	Standard deviation
Tangibles	2.86	0.88
Reliability	2.15	0.81
Responsiveness	2.83	0.89
Assurance	2.57	0.79
Empathy	2.56	0.93
Patient satisfaction	**2.56**	**0.86**

Source: Author (2016).

4.4.1 Tangibles

The study revealed that respondents rated the satisfaction level for tangibles in the hospital as average. The mean score for tangibles for the study was 2.86 which is greater than the aggregate mean score for the SERVQUAL model (2.59). Even though the Tangibles scored the highest mean score amongst the other service quality dimensions, the hospital needs to do more to ensure clients (patients) appreciate the physical outlook of the hospital and staff. "Upper West Regional hospitals equipment's are well maintained and up-to-date" had a mean of 2.24 which represents low level satisfaction with regards to Best (2005) rating criteria. "The hospital environment is clean and hygienic" recorded a mean of 2.58. "The doctors and nurses appearance are neat" also recorded a mean of 3.76 representing a satisfaction level of high. The results for tangible supports Wong et al, (1999) in (Sriyam, 2010). It was found out that service quality was connected to tangibles and therefore the best predictor of service quality was the tangible dimension. The table 13 below represents tangible variables of service quality of the Upper West Regional Hospital.

Table 13: Tangible Dimension of Service Quality

Variables	Mean	Standard deviation
1. Upper West Regional Hospital's equipment's are well maintained and up-to-date.	2.24	0.94
2. The hospitals environment is clean and hygienic.	2.58	0.95
3. The doctors and nurses appearance are neat	3.76	0.76
	2.86	**0.88**

Source: Author (2016).

4.4.2 Reliability

The results from the study showed the satisfaction level for reliability is low. The mean score for reliability for the study was 2.15 which is the least amongst the dimensions for service quality. Respondents (patients) don't seem to be convinced with the ability of the hospital to perform and render the promised services dependably and accurately. "Doctors explain to patients about their health conditions" received the least mean score of 2.00 while "Doctors and nurses show interest in solving patients problem" scoring a mean score of 2.38 being the highest for reliability. "The doctors, nurses and other staff do not waste time in their duties" also received a mean of 2.06. The researcher made an observation that all the variables for reliability had a rating of low level of satisfaction by the respondents. The findings is consistent with Karunaratne & Jayawardena (2010) where the reliability dimension of service quality ranked least amongst the other dimension of service quality. Table 14 presented below illustrates the variables of reliability and their means and their corresponding standard deviation for the study.

Table 14: Reliability Dimension of Service Quality

Variables	Mean	Standard deviation
1. Doctors and nurses show interest in solving patients problems	2.38	0.80
2. The doctors, nurses and other staff do not waste time in their duties.	2.07	0.85
3. Doctors explain to patients about their health conditions.	2.00	0.79
	2.15	**0.81**

Source: Author (2016).

4.3.3 Responsiveness

This section explores the willingness of the staff of the Upper West Regional Hospital to help patients, patient waiting time and the ability of the hospital to render 24 hour services to its clients. This dimension of service quality recorded a mean score of 2.86. Respondents (patients) were of the strong of the strong view that the hospital was offering 24 hours services for its clients, thereby scoring a mean score of 3.94. Patients don't wait for a long time to receive medical care treatment recorded a mean score 1.84 which is the least in this category. This is so because of the challenge of limited facilities the Upper West Regional Hospital is bedeviled with resulting in huge queues by patients in order to access health care. The respondents rated the hospital average level of satisfaction on this dimension of service quality by scoring a mean score of 2.83. Table 15 illustrates the data on responsiveness at the Upper West Regional Hospital.

Table 15: Responsiveness Dimension of Service Quality

Variables	Mean	Standard deviation
1. Doctors and nurses are willing to help patients.	2.71	1.01
2. Patients don't wait for a long time before receiving medical treatment.	1.84	0.73
3. The hospital offers 24 hour service for its clients.	3.94	0.92
	2.83	**0.89**

Source: Author (2016).

4.4.4 Assurance

As already discussed, assurance deals with the knowledge and courtesy of employees and their ability to inspire trust and confidence through competence, courtesy, credibility and security. The researcher in determining assurance looked at how adequately the hospital is equipped to provide quality health care and the confidence patients have when receiving treatment at the hospital. Additionally, the researcher explored the know-how and competence level of the doctors and nurses in performing their duties. Assurance was rated average by respondent on their satisfaction level. The study revealed that assurance had a mean score of 2.57. The variable "Doctors and nurses have sufficient knowledge and competence in performing their duties" received the highest rating with a mean of 3.34. Table 16 presented below illustrates the results of the variables of assurance as a dimension of service quality.

Table 16 Assurance as a dimension of service quality

Variables	Mean	Standard deviation
1. The hospital is well equipped to provide quality health care.	1.94	0.79
2. The patients are confident when receiving treatment.	2.44	0.80
3. Doctors and nurses have sufficient knowledge and competence in performing their duties.	3.39	0.77
	2.57	**0.79**

Source: Author (2016).

4.4.5 Empathy

This dimension like most of the other dimensions of service quality recorded average level of satisfaction by the respondents. The average mean score for empathy for the study was 2.56. "Doctors and nurses are able to communicate well with the patients" recorded a mean of 2.95. The study also revealed that "Doctors and nurses are caring" recorded a mean of 2.26 with "Doctors and nurses are willing to listen to patients concerns" having a mean of 2.95. Table 17 presents results of the study which illustrates the variables of empathy and their corresponding mean scores and standard deviation.

Table 16: Empathy Dimension of Service Quality

Variables	Mean	Standard deviation
1. Doctors and nurses are caring.	2.26	0.92
2. Doctors and nurses are willing to listen to patients concerns.	2.48	0.94
3. Doctors and nurses are able to communicate well with the patients.	2.95	0.93
	2.56	**0.93**

Source: Author (2016).

4.5 Employee Satisfaction

The results of the study indicates that the staff of Upper West Regional Hospital were satisfied with most of the variables of the employee satisfaction. The study recorded a grand mean of 2.88 for the respondents of the employee satisfaction survey at the Upper West Regional Hospital. The results also indicate an average level of satisfaction using the Best (2005) rating criteria of satisfaction as a benchmark for measuring satisfaction for this study. This also implies that the respondents (employees) expressed positive views regarding the various variables of the employee satisfaction survey conducted. Other outcomes of the study revealed the highest mean score of 3.63 for the variable "employees are concerned about the perception of the clients and patients with regards to the hospital". The least variable mean score for the study was 2.31 (employees are generally involved in decisions which directly affect their work). Table 17 presented below illustrates the results of the employee satisfaction survey conducted at the Upper West Regional Hospital.

Table 17: Employee Satisfaction Survey

Variables	Mean	Standard deviation
Salary and Job threat		
1. Hospital staff have a good salary structure	3.05	0.91
2. In this hospital people feel that there is no threat to their jobs	2.75	0.99
Relationship with co-workers		
3. In this hospital people trust each other	2.75	1.20
4. In this hospital employees are not afraid to express or discuss their feelings with their supervisor.	2.42	1.00
Recognition		
5. Management encourages and recognize team- work effort	3.09	1.08
6. In this hospital management rewards employee on the basis of ability, performance and experience.	3.04	1.12
Authority and responsibility		
7. In this hospital when seniors delegate authority, juniors use it as an opportunity for development.	2.79	0.83
8. Training of employees is given due importance	2.88	0.86
Working Conditions		
9. Hospital quality of physical working conditions provides comfort and convenience while at work.	2.36	0.98
10. Employees are generally involved in decisions which directly affect their work.	2.31	0.89
Employee loyalty		
11. Employees here are loyal, committed to and concerned for the future of the hospital.	3.51	0.79
12. Employees are concerned about the perception of the clients and patients with regards to the hospital.	3.63	0.93

Source: Author (2016).

Additionally, the results of the employee satisfaction survey are summarized in table 16. The variables are classified under salary and job threat, relationship with co-workers, recognition, authority and responsibility, working conditions and employee loyalty. Extracts from the study indicates that almost all the above mentioned variables rated average level of satisfaction with the exception of working conditions and employee loyalty which had 2.34 and 3.57 means respectively. The results of "working condition" (2.34) represents a low level of satisfaction by the respondents. Meanwhile that of "employee loyalty" (3.59) represented a high level of satisfaction. The finding support earlier studies by Kounser (2011) which found employee loyalty and recognition as the two highest ranked indicators for employee satisfaction. Table 18 given below illustrates the summarized employee satisfaction at the Upper West Regional Hospital.

Table 18: Employee Satisfaction

Variables	**Mean**	**St. deviation**
Salary and Job threat	2.90	0.95
Relationship with co-workers	2.58	1.10
Recognition	3.07	1.10
Authority and responsibility	2.84	0.85
Working condition	2.34	0.94
Employee loyalty	3.57	0.86
Employee satisfaction	**2.88**	**0.97**

Source: Author (2016).

4.6 Hypothesis Testing

4.6.1 Null Hypothesis 1: Total Quality Management (TQM) practices have no statistical significant effect on client (patient) satisfaction.

In response to hypothesis 1 "Total Quality Management (TQM) practices have no statistical significant effect on client (patient) satisfaction", a linear regression was performed utilizing TQM as predictor in order to determine patient satisfaction at the Upper West Regional Hospital. The analysis was found to be statistically insignificant and a negative relationship with (F (1, 12) = 3.4639, $p > .05$, indicating that TQM is not a good predictor of customer satisfaction at the Upper West Regional Hospital. This linear regression accounted for 22.4% of the variability, as indexed by the R^2 statistic. TQM predicted patient satisfaction is equal to 4.6560 -0.2240 units when patient satisfaction is measured. Patient satisfaction decreased 0.2240 points for each TQM practice. Based on the results of the regression analysis conducted below the null hypothesis was therefore not rejected. Table 17 given below illustrates the simple linear regression, anova and coefficient analysis for TQM and patient satisfaction at the Upper West Regional Hospital. Table 19 shows the simple linear, Anova and Coefficient Analysis for TQM and Patient Satisfaction.

Table 19: Simple Linear Regression Analysis

Regression Statistics	
Multiple R	0.4733
R Square	0.2240
Adjusted R Square	0.1593
Standard Error	0.3596
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.4480	0.4480	3.4639	0.0874
Residual	12	1.5520	0.1293		
Total	13	2.0000			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.6560	0.3653	12.7444	0.0000	3.8600	5.4520	3.8600	5.45200
TQM	-0.2240	0.1204	-1.8612	0.0874	-0.4862	0.0382	-0.4862	0.03823

Source: Author (2016).

4.6.2 Null Hypothesis 2: Total Quality Management (TQM) practices have no statistical significant effect on employee satisfaction.

In response to hypothesis 2 "Total Quality Management (TQM) practices have no statistical significant effect on employee satisfaction", a linear regression was performed utilizing TQM as predictor in order to determine patient satisfaction at the Upper West Regional Hospital. The analysis was found to be statistically insignificant and a negative relationship with ($F(1, 10) = 1.9091$, $P > 0.05$), indicating that TQM is not a good predictor of customer satisfaction at the Upper West Regional Hospital. This linear regression accounted for 17.5% of the variability, as indexed by the R^2 statistic. TQM predicted patient satisfaction is equal to 4.5000-1250 units when patient satisfaction is measured. Employee satisfaction decreased 0.1250 points for each TQM practice. Based on the results on the regression analysis on the statement "Total Quality Management (TQM) practices have no statistical significant effect on employee satisfaction", this null hypothesis is therefore not rejected Table 20 given below illustrates the simple linear regression, Anova and coefficient analysis for TQM and employee satisfaction at the Upper West Regional

Hospital. Table 20 shows the simple linear regression, Anova and coefficient analysis for TQM and employee satisfaction.

Table 20: Simple Linear Regression Analysis

Regression Statistics	
Multiple R	0.4183
R Square	0.1750
Adjusted R Square	0.0833
Standard Error	0.2887
Observations	12

ANOVA

	Df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.1591	0.1591	1.9091	0.2004
Residual	9	0.7500	0.0833		
Total	10	0.9091			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	4.5000	0.3086	14.5817	0.0000	3.8019	5.1981	3.8019	5.19812
TQM	-0.1250	0.0905	-1.3817	0.2004	-0.3297	0.0797	-0.3297	0.07965

Source: Author (2016).

4.6.3 Null Hypothesis 3: Employee satisfaction has no statistical significant effect on patient satisfaction

Again hypothesis 3 of the study "Employee satisfaction has no statistical significant effect on patient satisfaction" was tested. A linear regression was performed utilizing employee satisfaction as predictor in order to determine patient satisfaction at the Upper West Regional Hospital. The analysis was however found to be statistically insignificant and a positive relationship with ($F(1, 9) = 0.2121$, $P > 0.05$), indicating that employees' satisfaction is not a good predictor of customer satisfaction at the Upper West Regional Hospital. This linear regression accounted for 2.3% of

the variability, as indexed by the R^2 statistic. TQM predicted patient satisfaction is equal to 2.7368+ 0.1842 units when patient satisfaction is measured. Patient satisfaction increased 0.1842 points for each employee satisfaction at the Upper West Regional Hospital. Table 19 given below illustrates the simple linear regression, Anova and coefficient analysis for employee satisfaction and patient satisfaction at the Upper West Regional Hospital. Table 21 shows the simple linear regression, Anova and coefficient analysis for employee satisfaction and patient satisfaction.

Table 21: Simple Linear Regression Analysis

Regression Statistics	
Multiple R	0.1517
R Square	0.0230
Adjusted R Square	-0.0855
Standard Error	1.0513
Observations	12

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.2344	0.2344	0.2121	0.6560
Residual	9	9.9474	1.1053		
Total	10	10.1818			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95%*	*Upper 95%*
Intercept	2.7368	1.2059	2.2695	0.0494	0.0088	5.4649	0.0088	5.46487
Empl Sat	0.1842	0.4000	0.4606	0.6560	-0.7206	1.0890	-0.7206	1.08900

Source: Author (2016).

Considering the tests of the three hypotheses 1, 2 and 3 above, we concluded that:

Total Quality Management (TQM) practices have no statistical significant effect on client (patient) satisfaction; Total Quality Management (TQM) practices have no statistical significant effect on

employee (internal customer) satisfaction; and Employee (Internal Customer) satisfaction has no statistical significant effect on client (patient) satisfaction at the Upper West Regional Hospital.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes and concludes the entire study. It presents recommendations and the direction for future research. The purpose of the research was to assess TQM practices and its effect on patient and employee satisfaction at the Upper West Regional Hospital. This study sought to achieve the following objectives: The first objective is to identify TQM practices in the healthcare services in hospitals. The secondly the study is to assess the extent to which TQM practices are adopted by the Upper West Regional Hospital. The third objective of the study is to evaluate whether the employees and patients of Upper West Regional Hospital are satisfied with its services. The study further sought to identify the implementation challenges of TQM at Upper West Regional Hospital. Finally the study is to recommend ways to improve TQM practices at Upper West Regional Hospital.

5.2 Summary of Findings

An examination of the demographic data it was established that the majority of the respondents were female (55.64), meanwhile males dominated when it comes to the staff of the hospital. Most of the respondents were youthful since 73.68 percent were below the ages of 40. Again when it comes to the educational background of the respondents, majority of them have had at least secondary education which presupposes that most of them were literate.

5.2.1 TQM practices

The first objective of the study was to identify the Total Quality Management practices been implemented at the Upper West Regional Hospital. The study identified the following practices:

1. Leadership and Top Management Commitment
2. Teamwork
3. Employee Training and Empowerment
4. Continuous Improvement
5. Employee Involvement
6. Focus on the Customer
7. Recognition and Awards

The researcher through the use of questionnaires attempted to measure the extent of Total Quality Management practices at the Upper West Regional Hospital. The TQM practices were used as parameters to measure the extent of TQM at the hospital (using a five point Likert Scale). The means of each parameter was measured. The outcome of the study revealed an aggregate mean score of 4.11, an indication of a high level of TQM practices at the Upper West Regional Hospital. The study further revealed that teamwork was the highest ranked TQM practice at the Upper West Regional Hospital. TQM recorded a mean of 4.67. Check sheet was identified as the most frequently used quality tool at the hospital. Additionally, inspection and quality assurance appeared to be the quality improvement programs used to identify and correct problems or defects at the Upper West Regional Hospital.

The study also identified two major challenges to the implementation of TQM at the Upper West Regional Hospital. These include funding and commitment on the part of both management and

employees of the Upper West Regional Hospital. On funding, the research outlined the delays in the reimbursement of the National Health Insurance Scheme claims to the Hospital as a major contributory factor.

5.2.2 Patient Satisfaction

In line with objective three of the study (To evaluate whether the employees and patients of Upper West Regional Hospital are satisfied with its services of this study), the researcher sought out to determine whether the clients (patients) of the Upper West Regional Hospital were satisfied with the services they were receiving. The SERVQUAL instrument by Parasuraman et al (1990) was used to measure the level of patient satisfaction. It was found out that, patients of the hospital were averagely satisfied with the services being rendered by the Upper West Regional Hospital. Results from the study revealed an aggregate mean of 2.56. Again, tangibles received the highest rank among the service dimension.

5.2.3 Employee Satisfaction

Secondly, to answer objective three, the researcher used the indicators from the Job Descriptive Index (Smith et al. (1969), Jacobs and Solomon (1977), Balzer et al. (1997)). The outcome of the study revealed an aggregate mean of 2.88 for employee satisfaction which implies average satisfaction.

5.3 Conclusions

This study identified a number of significant findings on the extent to which TQM is been practiced in Ghana. Empirical evidence from the study suggests that the Upper West Regional Hospital implements some Total Quality Management practices, uses quality tools like the check sheet to detect quality problems. Again, quality improvement programs like inspection and quality assurance are the commonly used at the Upper West Regional Hospital. The major challenges confronting the implementation of TQM practices at the Upper West Regional Hospital were funding and commitment.

Patient and employees are averagely satisfied with the services being rendered by the Upper West Regional Hospital. Responses from the study indicated means of 2.56 and 2.88 respectively, the results when gauged against the Best (2005) rating criteria rated average satisfaction.

Besides, the three null hypotheses tested in this work included the following:

1. H_0: Total Quality Management (TQM) practices have no statistical significant effect on client (customer) satisfaction.
2. H_0: Total Quality Management (TQM) practices have significant effect on employee (internal customer) satisfaction.
3. H_0: Employee (Internal Customer) satisfaction has significant effect on client satisfaction.

The results of the regression analysis proved that TQM practices have no statistical significant effect on both internal and external customer satisfaction (both employee and patient satisfaction). These findings suggests other factors other than TQM practices affect customer satisfaction at the

Upper West Regional hospital. It also presupposes that management of the Upper West Regional Hospital should consider other factors other than quality management to attain customer satisfaction which include political interference, employee under-staffing among other challenges to TQM implementation outlined in this study.

The study however affirmed the general notion of a positive relationship between employee satisfaction and patient satisfaction. Management of the hospital should therefore embark on programs that increase employee satisfaction which will subsequently increase patient satisfaction at the Upper West Regional Hospital.

The study however revealed that, although the extent of TQM practice at the Upper West Regional Hospital was high, employee and Patient satisfaction remained at an average rate using Best (2005) satisfaction rating criteria. The researcher observed that it was as a result of a disconnection between the management policies and employees of the hospital. There seem to be no clear quality policy at the hospital and no deliberate policy targeted at motivation of employees at the hospital. As already revealed by the study, employee satisfaction has a positive relationship with patient satisfaction. If employees are motivated, their satisfaction will increase thereby resulting in an increase in patient satisfaction.

5.4 Recommendations

In the light of the findings and conclusions, the following recommendations are hereby proposed by the researcher:

Leadership must appropriately embrace TQM as a management philosophy with emphasis on work process and people, with the major aim of satisfying patients and improving employee performance at the Upper West Regional Hospital.

The study also revealed a challenge of commitment towards TQM implementation. Top management must therefore introduce quality policy, launching and set out quality goals, providing the needed resources, providing problem-oriented training and stimulating improvement.

It is therefore also necessary that the Upper West Regional Hospital creates an internal quality awareness programs which must be aimed at educating and training employees within. The training program should target creating quality awareness in the entire hospital. Arming all staff with the necessary abilities and know how as well as influencing the attitude, values and behaviors of people is crucial to impact positively on service delivery. The training should include doctors and nurses educated on customer relationship management to improve customer satisfaction at the hospital.

5.5 Suggestions for Further Research

Further research should be conducted in order to enrich the appreciation of the practices and concepts of Total Quality Management in the health sector, how they are measured because they are very significant for health service administration and delivery in term of customer satisfaction especially in Ghana. A similar study could also be conducted with a larger sample size so that results could be generalized to a larger population. This should include empirical studies on all the ten regional hospitals and other teaching and specialist hospitals in the country. The study in

addition recommend for a mixed approach to study this topic both from qualitative and quantitative perspective.

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APPENDIX A

QUESTIONANAIRE FOR PATIENTS (CUSTOMERS) OF UPPER WEST REGIONAL HOSPITAL

This questionnaire is designed to help the researcher to conduct a survey as part of research on Total Quality Management: The Perspective of Upper West Regional Hospital. Your assistance is kindly being sought to participate in this exercise by completing this questionnaire as frankly as possible.

Please be assured that information provided in this questionnaire is purely for academic purpose and therefore would be treated with utmost CONFIDENTIALITY.

Thank you.

INSTRUCTIONS FOR COMPLETION OF THE FORM

Please read each question and tick the statement or choose the number that clearly reflects your view, you can also express your views where necessary.

SECTION A:

PERSONAL DETAILS

1. Age:

a. Below 30 ( ) b. 31- 40 ( ) c. 41-50 ( ) d. above 50 ( )

2. Gender: male ( ) female ( )

3. Educational Qualification

Never ( ) Primary ( ) JHS ( ) SHS ( ) College/University ( ) Post Graduate ( )

SECTION B

PATIENT SATISFACTION

4. Using the 5 point Likert scale please indicate how much you agree with the following statements.

(1-Strongly Disagree: 2- Disagree: 3- Neutral: 4- Agree: 5- Strongly Agree)

INDICATORS	**1**	**2**	**3**	**4**	**5**
TANGIBLES					
Upper West Regional Hospital's equipment's are well maintained and up-to-date					
The hospitals environment is clean and hygienic					
The doctors and nurses appearance are neat					

RELIABILITY					
Doctors and nurses show interest in solving patients problems					
The doctors, nurses and other staff do not waste time in their duties					
Doctors explain to patients about their health conditions					
RESPONSIVENESS					
Doctors and nurses are willing to help patients					
Patients don't wait for a long time before receiving medical attention					
The hospital offers 24 hour services for its clients					
ASSURANCE					
The hospital is well equipped to provide quality health care					
The patients are confident when receiving treatment					
Doctors and nurses have sufficient knowledge and competence in performing their duties					
EMPATHY					
Doctors and nurses are caring					
Doctors and nurses are willing to listen to patients concerns					

Doctors and nurses are able to communicate well with the patients					

5. Additional comments or recommendations for further improvement of in the customer service at Upper West Regional Hospital

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APPENDIX B

QUESTIONANAIRE FOR MANAGEMENT OF UPPER WEST REGIONAL HOSPITAL

This questionnaire is designed to help the researcher to conduct a survey as part of research on Total Quality Management: The Perspective of Upper West Regional Hospital. Your assistance is kindly being sought to participate in this exercise by completing this questionnaire as frankly as possible.

Please be assured that information provided in this questionnaire is purely for academic purpose and therefore would be treated with utmost CONFIDENTIALITY.

Thank you.

INSTRUCTIONS FOR COMPLETION OF THE FORM

Please read each question and tick the statement or choose the number that clearly reflects your view, you can also express your views where necessary.

SECTION A:

PERSONAL DETAILS

1. Age:

a. Below 30 ( ) b. 31- 40 ( ) c. 41-50 ( ) d. above 50 ( )

2. Gender: male ( ) female ( )

3. Qualification

Senior High School ( ) College/ University ( ) Post Graduate ( )

4. How long have you worked at the hospital?

Less than 5years ( ) 5-10 years ( ) above 10years ( )

5.

Position……

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SECTION B

TOTAL QUALITY MANAGEMENT PRACTISES

5. Using the 5 point Likert scale please indicate how much you agree with the following statements.

(1-Strongly Disagree: 2- Disagree: 3- Neutral: 4- Agree: 5- Strongly Agree)

	1	**2**	**3**	**4**	**5**
LEADERSHIP					
Top management discusses many quality-related issues in top management meetings					
Top management provides adequate resources for employee education and training					

Top management is committed to quality issues					
EMPLOYEE TRAINING AND EMPOWERMENT					
Hospital staff are encouraged to undertake education and training					
Resources are available for employee education and training in the hospital					
Quality awareness education is given to hospital staff					
CONTINUOUS IMPROVEMENT					
Hospital equipment is well maintained according to the maintenance plan					
The hospital evaluates performance and take measures to improve on it					
The hospital uses inspection, quality assurance and clinical auditing extensively for process control and improvement					
EMPLOYEE INVOLVEMENT					
Most employees‘ suggestions are implemented after an evaluation					
Reporting work problems is encouraged in our firm					

The hospital implements quality improvement suggestion extensively					
FOCUS ON PATIENTS					
The hospital has a complaints and suggestion box for patients					
Patients and clients concerns are dealt with.					
Hospital has a data to measure Client Satisfaction					
RECOGNISION AND AWARDS					
Promotions are based on work quality in the hospital					
The hospital has allowance packages to motivate staff					
Recognition and reward activities effectively stimulate employee commitment to quality management					
TEAMWORK					
Hospital staff are encouraged to work in teams					
Management rewards team efforts					
Management encourages effective communication among teams					

7. Which of these seven quality tools does the hospital use in identifying a defect/problem?

Pareto charts( ) Flow Charts( ) Scatter Diagram ( ) Fish Bone/ Ishikawa Diagram ( )

Histogram ( ) Check Sheet ( ) Statistical Control Charts ( )

8. Apart from the above what other tools does the hospital use in identifying product defect/problem?

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9. What quality improvement program do you have?

Inspection ( ) Quality Control ( ) Quality Assurance ( ) Total Quality Management ( ) Others ( ) specify……..

10. What are the challenges faced by the hospital in the implementation of total quality management (TQM)?

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11. Any Additional comments

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APPENDIX C

QUESTIONANAIRE FOR STAFF OF UPPER WEST REGIONAL HOSPITAL

This questionnaire is designed to help the researcher to conduct a survey as part of research on Total Quality Management: The Perspective of Upper West Regional Hospital. Your assistance is kindly being sought to participate in this exercise by completing this questionnaire as frankly as possible.

Please be assured that information provided in this questionnaire is purely for academic purpose and therefore would be treated with utmost CONFIDENTIALITY.

Thank you.

INSTRUCTIONS FOR COMPLETION OF THE FORM

Please read each question and tick the statement or choose the number that clearly reflects your view, you can also express your views where necessary.

SECTION A:

PERSONAL DETAILS

1. Age:

a. Below 30 ( ) b. 31- 40 ( ) c. 41-50 ( ) d. above 50 ( )

2. Gender: male ( ) female ( )

3. Qualification

Senior High School ( ) College/University( ) Post Graduate( )

4. Department:

Medical( ) Administration( ) Specialist( ) Others( )

5. How long have you worked at the hospital?

Less than 5years ( ) 5-10 years( ) above 10 years( )

SECTION B

STAFF SATISFACTION

6. Using the 5 point Likert scale please indicate the perceived overall employee satisfaction level in the hospital. (1-Extremely unsatisfied: 2- Unsatisfied: 3- Neutral: 4-Satisfied: 5-Extremely Satisfied).

EMPLOYEE SATISFACTION SURVEY	**1**	**2**	**3**	**4**	**5**
Salary and Job threat					
Hospital staff have a good salary structure					
In this hospital people feel that there is no threat to their jobs					

Relationship with co-workers (Seniors, peers & Juniors)					
In this hospital people trust each other					
In this hospital employees are not afraid to express or discuss their feelings with their supervisors					
Recognition					
Management encourages and recognize team-work effort					
In this hospital mgt. rewards employee on the basis of ability, performance and experience					
Authority and responsibility					
In this hospital when seniors delegate authority , juniors use it as an opportunity for development					
Training of employees is given due to importance.					
Working conditions					
Hospital quality of physical working conditions provide comfort and convenience while at work.					
Employees are generally involved in decisions which directly affect their work.					
Employees Loyalty					
Employees here are loyal, committed to and concerned for future of the hospital.					
Employees are concerned about the perception of the clients and patients with regards to the hospital.					

7. Any Additional comments

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