

## Assessing the effect of the TQM practices on operational performance in HFC Bank

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### **Statement of the Problem**

TQM has been identified as a vital factor sustainable competitive advantage in the currently challenging business environment (Yusof and Aspinwall, 2010). Unfortunately, organisations find it difficult to adopt it as a result of noncompliance with procedures and principles of TQM implementation (Naeem et al., 2008; Reed, Lemak, & Montgomery, 2012). While some firms run TQM as a program which they expect to function and perform the magic by itself, others have used half-hearted approach to it, by using some bits and pieces of the principles. This has accounted to the failure of most organisations to successfully implement this ideology (Oakland, 2010). A preliminary study to establish the extent to which TQM has been adopted in the Ghanaian banking sector reveal that research work on the implementation of TQM in the Ghanaian banking sector is scanty. Most studies on TQM are focused on the manufacturing industry (Al-Mansour, 2007; Ahire, 2012; Adza-Awude, 2012). The few studies that were done in the service sector in Ghana focused on higher education (Samson, & Terziovski, 2013). Moreover, (Kannan & Tan, 2011) established that banks can embrace quality management principles and implement them successfully to be able to delight their customers through efficient quality service. This study therefore seeks to bridge this knowledge gap by assessing factors that affects effective implementation of TQM principles in commercial banks in Ghana.

### **I. INTRODUCTION**

This article presents a review of literature on the implementation of TQM in business organizations. It summarizes relevant information from other researchers who have conducted their research in a similar field of study. It covers by a comprehensive review of both theoretical and empirical review of existing literature. The theoretical critique has helped build an in-depth understanding of the current body of knowledge leading to the research model adopted for this study. The empirical literature review also provided an in-depth understanding of what other related studies have found and proposed in their recommendations. The section further presented the intended gap this study seeks to bridge.

#### **A. The Concept of Total Quality Management**

The principle of TQM has surfaced as one of the most obvious key alternatives in the 1990s and has been largely deployed worldwide (Rad, 2013). TQM however, in the service zone is still infantile and at the ranks of developmental theory (Sinclair & Zairi, 2011). Generally, TQM has been explained and expressed in many regards, for example, a search for “excellence”, exploring a “right first time” approach, “zero defects” and impressing the client (Moore and Brown, 2014). TQM is basically an industry-wide strategy, where employees are encouraged and equipped to do the things right first time subsequent times, to review what they do and to advance in what they do (Flynn, Schroeder & Sakakibara, 2010). Flynn (2012) explained TQM as strategy to attaining and maintaining high quality results, concentrating on the sustenance and continuous enhancement of processes and error avoidance at all ranks and in all roles of the company, so as to meet or go beyond client needs.

According to Prajogo and Sohal (2014), TQM is a means of striving to enhance the flexibility, competitiveness and effectiveness of an enterprise as a whole unit. It is also a way of pruning loss, by including everybody in enhancing the way of doing things. Hackman and Wageman (2015) logically critiqued the three quality capos’ (Deming, Juran, and Ishikawa) perspectives about TQM. According to the results of their review, the five ensuing mediations are the pillars of TQM: creation of supplier partnership; explicit identification and measurement of customer wants and needs; use of process management heuristics to enhance team effectiveness; use of scientific methods to monitor performance and identify points of high leverage for performance improvement; use of functional teams to identify and solve quality problems.

Prajogo and Sohal (2014) mentioned ten TQM factors: commitment, leadership, continuous improvement, total customer satisfaction, training and education, total involvement, ownership, error prevention, reward and recognition, teamwork and cooperation. Waldman (2014) listed eight vital TQM attributes: a broad definition of quality as meeting customers’ expectations, top leadership determination to place quality as a top priority, the development of a quality

culture, TQM values and vision, an orientation toward managing-by-fact, involvement and empowerment of all organizational members in cooperative efforts to achieve quality improvements, the commitment to continuously improve employees' capabilities and work processes through training and benchmarking, customers involved in TQM efforts and attempts to get external suppliers. For the past three decades, the principle of quality has developed very fast beginning with the profiling of the quality management magnates Deming, Crosby, Feigenbaum, Juran, Ishikawa, Taguchi, amongst others. Nevertheless, the concept of TQM has been encountering positive inputs in terms of theory modification from many investigators. Despite the large volume of study carried out, TQM is still at the primary levels of theory development (Kaynak, 2013).

Currently, several models have been established for TQM initiatives implemented by various industries to be founded on their potentialities willing to attain their own objectives through their cultural situation. Otherwise stated, TQM methodology has no singular model; rather, it is being fashioned by various institutions to suit their operations and projected targets (Fine, 2013). In modern business climates, banks, like other institutions, are not left out in terms of quality. Like other industries, banks are expected to encounter uncertain environment, critical customers with high quality service demands and global business challenges (Al-Mansour, 2007). Hence, banks have been advised to apply nouvelle initiatives to guarantee their buoyancy and business development. In the literature of TQM, minimal consideration has been given to the factors affecting TQM practice in banks. Most of the investigations initiated have been case studies or theoretical in nature.

According to Morrow (2010), the stress has been mounting on various business organizations to offer quality services. He argued that with each rise in level of economic purchasing power, education and consumer awareness, modern clients are craving for higher quality merchandise, be it in the service or manufacturing circles. Universally, there has been an appreciable comprehension of the usefulness of TQM methodology for business performance; thus many institutions make great attempts in the adoption of TQM as a reaction to the stern universal contention and aware-and-quality-minded clients.

### ***B. Stages of TQM Implementation***

Dale (2013) established six distinctive stages of TQM implementation, these includes: drifters, uncommitted, improvers, tool pushers, award world class and winners. According to them, these levels do not categorically capture the steps by which businesses travel on their TQM mission. These stages according to Dale et al are to assist businesses in pointing out their frailties and prescribing remedies to them via the adoption of continuous enhancement.

**Uncommitted:** This step symbolises business institutions that have not begun an official process of quality enhancement. Enterprises at this level see quality enhancement as an extra cost and therefore have no stake in quality enhancement drives such as educating of workforce. The top leadership of these business enterprises are distinguished by a focus on net asset employed and revenue.

**Drifters:** These are companies that are involved in a process of quality enhancement within three years and have practiced the prevailing counsel and prudence of TQM. The top leadership of the institutions at this level seem to critique the operation of the organisation on grounds of the implementation of TQM and desire prompt payoffs from it.

**Tool pushers:** Business associations in this block perceive quality enhancement activities but in most instances default in applying such logistics rightly. They apply quality management mechanisms such as quality improvement groups, quality cycles. These associations usually ascribe the ineffectiveness of TQM on the mechanisms employed.

**Improvers:** Enterprises in this stage have engrossed themselves in a procedure of quality enhancement for periods between five and eight years and during these years made significant progress (Dale, 2013). They are aware that total quality includes futuristic cultural transformation and have considered the need for cultural transformation and the need for quality enhancement.

**Award Winners:** These corporations are called award winners for reason being that they have risen to a stage in their TQM growth where the employee involvement, values and trust capabilities relationship and kind of culture and has become absolute in nature and cover the whole institution (Dale, 2013).

**World class:-** According to (Dale, 2013) these business associations are denoted by the total quality enhancement and business methodologies to the satisfaction of clients. The businesses that have hit this level are constantly searching for possibilities to enhance their products to delight clients. Furthermore, it was intimated that the attention of TQM here is on improving competition by enhancing the views of clients to the organisation by the endless creativity of the service delivery.

### ***C. Factors that Affect the Implementation of TQM in Banks***

**Top Management Commitment:** Leadership is the capacity to garner assurance and assistance among those required to attain corporate targets (Dooley, 2013). Anderson and Rungtusanatham (2014) highlighted the principle of leadership as: the capacity of top executives to carve, utilize, and champion a futuristic dream for the company, determined by altering client preferences, as against a closed-circuit management command duty. Leadership is therefore portrayed by long-term orientation, clarity of vision, participative change, coaching management style, planning, implementing organizational change and employee empowerment. Quality leadership by the top brass has been stressed and championed by several researchers as the foundation for excellent implementation of TQM in a bid to attain job satisfaction, customer satisfaction, continuous improvement and quality product (Anderson and Rungtusanatham, 2014). In a quest to attain total quality it is required that the top executives vividly clarify the quality goals and also handle quality as a vital segment. They are requested to establish quality as a prerogative whilst committing sufficient inputs to continuous quality enhancement and assessing the workforce in line of their achievements (Burrows, 2012).

Several corporations have defaulted in implementing TQM due to the unwillingness of the top executives in arrogating some powers and motivate workers (Burrows, 2012). This is a very critical section because if the top brass are determined in motivating the workers, the latter would accept the challenge for the quality of their output and this will in the long-run improve continuous advancement. TQM initiative scheme, always dwell on the need for top leadership as the main torchbearer of TQM initiatives.

Lawler (2013) further explained that targets must be set by the top brass by making sure that dedication to the philosophy of TQM is present in all subsidiaries of their firm. Similar proponents of TQM such as Deming (1982) postulated that most quality impediments are originated by top management and the programs they initiate and run (Minjoon, 2012). Pearson (2013) argued that managerial leaderships demand management at all stages to switch their duty from autocratic decision makers to coaching facilitator.

According to Juran and Gryna (2013), particular duties of top leadership can be listed as follows: establish and deploy quality goals, establish quality policies, stimulate improvement provide resources and provide problem-oriented training. The European Quality Award (1994) and the Malcolm Baldrige Quality Award (1999) acknowledge the critical functions of management in creating the values, systems and goals that drive the quest for continuous performance enhancement. A significant plot in quality management literature is that great dedication from leadership is important. The basis of an exemplary leadership quest is top dedication. Exhibiting such dedication is thus a fundamental leadership philosophy for accomplishing TQM. Inadequate top leadership dedication is part of the reasons for the collapse of TQM programs (Harvey and Brown, 2013).

That notwithstanding, top leadership dedication in itself is inadequate. It is more crucial that leadership actively engage in several quality management initiatives. Moreover, it must greatly advocate worker inclusion in quality management programs. According to Dooley (2014), an essential management culture is to empower people to meet the height of quality. To be a competent manager in most emerging companies, the executive leader should press on in developing and learning. Insight of the organisation and progressive learning are critical catalysts to competent leadership (Dooley, 2014). The widespread literature review by (Anderson, 2014) recommended that if leadership wants to initiate administrative cultures that will be adaptable to learning, they should provide the instance by becoming learners themselves and including other people in the learning activity. Hence, a learning conglomerate will be created. Empowerment is the act of assigning decision-making power to subsidiary levels within the company. Particularly notable is ammunition of the workforce (Gryna, 2013), which is important since this may engender creativity (Dooley, 2014). In a pursuit to competently lead the organisation, the executive arm must inspire the labour force to remedy the problems they encounter. To this end, employees can assume the call to tackle challenges and prevent their repeat in the long term.

Additionally, to competently manage a corporate institution, top managers have to be committed to allocating adequate inputs for workers' training and education and maintaining trustworthy relations with workers. Chief administrators

have to be committed to allocating sufficient inputs in a bid to dodge, and also remove impediments related to quality. It should dwell on quality frequently; for example, by giving speeches on the matter and deriving solutions to challenges associated with quality at every staff meeting.

Management is the yardstick for implementing TQM programs, to enhance a business enterprise's operations and building systems, values and goals and processes to meet client demands (Rad, 2012). It is notable for giving direction and approval to the organisation (Walsh, 2012). Commitment on the part of top leadership is essential for the quality improvement of the institution since, with their support and provisions, sufficient resources will be allocated to enhance training exploits resulting in improved quality measurement, improved customer satisfaction and benchmarking.

It is essential that HFC Bank will implement decision process, succession policy, quality culture, partnership to direct the program and leader. Quality visions must be projected. An annual program on quality improvement should be enforced that must involve inputs from all workers. TQM is a continuous phenomenon that must be shrouded in the institutional culture. It is however not a one-sided endeavour; hence, it must be open to everyone (Juran, 2013). Top leadership participation and contribution is crucial to building a culture of quality service. This vision and impact is also critical in creating and using a methodology for total quality management. Lack of devotion on the side of leadership could spark service deficiencies or cause service breaches to occur.

Triggering the success of quality management in an organization means exporting quality from an auxiliary management function to a prime function of management. Although the bulk of research investigations reinforce the need for dedication on the side of leadership, renowned quality guru Philip Crosby believes he does not require "commitment" from top management, he demands "participation". According to Crosby (2010) TQM integrated basic management processes, assets and its implementation arrive as both a resource and a challenge to leadership. Enforcement of TQM, and the impacts that these cultures have on comparative edge, is an adaptable process, thus quality of product is a crucial characteristic of clients (Bester, 2009). Henceforth, it is imperative for corporate bodies to improve the product quality and items in order to attain highest client satisfaction and at the end enhance conveyance of service (Agus, 2012). Schonenberger (2010) proposed that the success of quality management efforts depend on the proper integration of several management systems.

Mann (2013) opined that the phenomenon of excellent and continuous enhancement (Deming's philosophy) demand firm to purchase, not from the least applicant, but rather from providers who have given proof that their productions churn out peak quality. The reason in selecting the suppliers should be on the basis of quality and not on costs. Now, with the mounting burden from the firm's own clients from greater quality or their own self-imposed quality standards, businesses are placing higher responsibility on their suppliers in terms of quality of component parts, finished items and incoming materials.

Most significantly, workers in the business setup must be consistently polished and given sufficient education and training on methods, prescriptions and the phenomenon of quality, which mostly includes team skills, problem-solving and TQM principals. Training techniques should be constantly updated to ensure that activities are provided on time and are relevant to the organization.

**Customer Focus:** This is a principal theory of Total Quality Management. In the recent years, it has been established that organisations will make most of their profits from 60 percent of their current clients. The highest aim of TQM methods is to gratify the demands of clients and cater for their varying anticipations. If the TQM approach enforcement does not benefit the clients, the TQM approach is classified as a nonstarter. In view of meeting the expectations of customers, there needs to be a progressive and efficient feedback between businesses and clients and clients must be promptly considered in the design of service and products (Kaynak, 2013). To enable one to obtain the absolute inclusion of clients in all the trading processes, there must be long-term partnership program with clients through direct communication. Furthermore, every business institution, particularly banks must establish trustworthy client-related information on clients 'expectations and needs as well as consistent supervision of their level of gratification. Because banks are absolutely influenced by clients and pursue their comfort via creative and top quality outputs, customer centred principle of TQM strategy is required to assists banks to attain greater accomplishment (Naeemet al., 2008).

The survival of any organisation depends on its clients. Organisations in the service sector strive to capture as many clients as practicable since they directly relate to revenue. Clients influence revenue measures based on their

conceptualisation of service quality. In brief, quality affects revenue, and clients alone represent and ascertain what that quality is and should be (Edward, 2012). TQM strategy was fundamentally established on the principle that it is a management school of thought that sorts to gratify clients via consistent advancements it can aid banks to meet the expectations of their client and reward the faith of customers reposed in them. Advanced service quality rendered by banks must be largely premised on obtaining profound data about the clients' requirements, expectations and needs.

To get such information, there must be a comprehensive information exchange between the banking staff, including middle and top executives, and as a critical element of the quality systems (Al-Mansour, 2007). Regarding the heightening rivalry among banks, the winning banks are dependent on their capacity to meet the expectations of both external and internal clients. It is based on this foundation that banks must take the responsibility of conducting researches into marketing trends to discover clients' tastes and preferences. Moreover, banks must create an atmosphere whereby the clients are persuaded to be actively engaged in implementing and assessing the products they require situated on their changing expectations (Al-Mansour, 2007).

In a research work done by Sampson (2010) Customers are settling on banks offering better products and services, are not too difficult working with, and those banks that have on offer quality packages over certain weak factors including longevity in business operations, and brand pioneer roles. These factors are indications that total quality management is soaring in significance in terms of how banking clients select their banks. According to John A. Young, President and CEO, Hewlett - Packard (2010), *"Our one major goal is to create satisfied customers. Hence, all systems, objectives, and measurements are designed to improve customer satisfaction."* Service companies that employ TQM must monitor, as a matter of necessity, those that are important to the client. Goals and benchmarks that are of importance to clients are: duration of processing of leading services and products, like new accounts, loans, credit cards; waiting moments like downtime and queuing time; friendliness and efficiency of staff; customer complaints, written or verbal; accuracy and timeliness of statements of accounts and records; promptness in responding to customer inquiries such as in answering the phone, the number of rings before phone is picked up, and number of transfers before the caller talks to the right person and attention to lost customers and accounts; effective interest rates, inclusive of all service and hidden charges (Olabode, 2013).

Service and manufacturing industries are using client fulfilment as the yardstick for assessment of quality. This principle is captured in the Malcolm Baldrige National Quality Award, in where client gratification suffices for 300 out of the 1000 maximum points. A business organization needs to offer its clients a quality service or package that satisfies their needs, at affordable price, timely service delivery, and incredible service. It has been established in modern businesses that if TQM would have any aims; it is gaining clients and keeping them excited (Dale, 2013). Paying attention to the clients and reacting smartly to their changing expectations, tastes and preferences is one of the fundamental strategies of TQM. By being on a level ground with their clients, organisations can establish the needs of client; collect data on clients' demand patterns and establishing benchmark on them with their rival organisations. This can be a smart move aimed at roping in fresh clients and sustaining the loyalty of clients (Edward, 2012).

Clients' reaction is a sensitive area that service companies must be attentive to. According to a report on client behaviour (TARP) on American clients delivered to the White House: ninety six percent of unfulfilled clients do not grumble about unruly or ill treatments. Ninety percent of clients or more who are disillusioned with the service they are offered will not buy or come back again (TARP, 2010). The TARP report indicates further that every one of the disillusioned client shares his or her experience with not less than nine other folks, it also discovered that thirteen percent of those unimpressed previous clients will voice their agonies out to 20 people or even more. The effects of slow service and processing on revenue could also be terrific. In the productions sector, the cost of quality, or the cost of not putting the right stuff right the first time, is projected at 15%-35% of revenue of any organization (TARP, 2010).

Absolute client gratification also means keeping an astute attention on the internal client. Before external clients can be fulfilled, impediments encountered by internal clients need to be cleared first of all. This is in view of the fact that company staffs are the treasure and part of the company's process. It is essential to establish a positive condition of work needed for them to create and grind out quality by giving them efficient information, training, empowerment and tools needed for self- management to function perfectly. By so doing, all the employees can rightfully be deployed via strong contributions from dedicated and self-motivated workers (Edward, 2012).

**Continuous Improvement:** The Kaizen theory is a Japanese school of thought and activity that desires progressive in advancement in engineering, management and production processes. Kaizen strategies have been utilised in the management of a group of industries, including banking and government. The philosophy of Kaizen tackles the duties and outputs of the entire workforce, from the president and CEO to workers at the lower ranks. Kaizen sets out to lessen loss and TQM increase performance by improving standardization (AI Marri, 2007). Fundamentally, the principle has been explained as the management philosophy that desires to gratify the clients via efforts geared towards progressive advancements at all ranks of an organization. Hence, businesses must spread out their progressive advancement efforts to comprehend all sorts of procedures spanning management functions and styles (Benavent, 2012). From the viewpoint of operations, there are various activities in banks that might be as a result of quality advancement. These sections such as the procedure of opening new accounts, service processing time, ATM, loan application, credit cards, timeliness of financial records and waiting times and accuracy. Time to react to clients' questions and assisting lost clients are seen as part of the operations that need sustainable advancements (Kaynak, 2013).

Progressive advancement of all schemes and operations in a business institution is important for the manifestation of TQM. A progressive advancement structure directs the business towards achievement of the mandate. The advancement scheme should not only be consistently used, but also sustainably, all through the business structure (Ngware, 2012). Before it could be fruitful, progressive advancement attempts need a system established on trust, with all and sundry in the business entity working hard to advance the organisation. However, it has been observed that several business entities in Asia specifically Malaysia default in their commitment to progressive advancement. Loss has been associated to failing to realize that continuous improvement is a journey not a destination, poor strategy alignment and poor coordination by management (Arawati, 2010).

For progressive advancement to be successful, Deming proposed a system of progressive revolution that comprises 5 steps. The sequence begins by clarifying the mandate or motive of the business. Top management specifies the mandate, with contributions from everybody. Then everybody in the business aligns his particular motive to furnish the larger mission. By so doing, the target and prerogatives of the foresight are clarified, built, comprehended and approved by everybody (Naem, 2008).

The next step after clarifying their mandate involves stating down all advancement procedures. It is essential to get a sound comprehension of the system of establishing a medium of advancement at this phase. Clients, both within and without, are singled out and their desires and prospects appreciated. Suppliers also are aligned with customers. Any prospective challenges are isolated at this stage (Kaynak, 2013).

For the third step of choosing improvement opportunity, particular advancement chances are chosen depending on the crucial procedures that have the highest influence on client fulfilment. These challenges are addressed by employing a principled strategy such as process analysis, statistical process control and quality function deployment and should be used continuously to accomplish a task, advance a procedure and address limitations throughout the business organization. The last phase is Shewhart or Deming's Plan Do Check Act cycle (PDCA), the outcomes for the effect of advancements are assessed in view of the overall target. Here, a sixth phase can be included as a memorial: Do it many, many, many times. The sequence is never resulting in a consistent advancement scheme (Kaynak, 2013).

**Employee Empowerment:** A portion of the TQM school of thought seeks to equip all workers to uncover quality-related bottlenecks and deem to remedy them. With the ancient perception of quality, workers were reluctant to figure out business barriers for fear of victimisation. Often low quality was shoved on to somebody else, so as to make it "someone else's problem." The new generation view of quality, TQM, provides motivation for workers to highlight quality barriers. Workers are incentivised for highlighting quality challenges, not reprimanded (Saunders, 2012). Ahire (2014) explained human resource management as a subset of TQM strategy to be the employee empowerment, employee training and employee involvement. However, Arawati (2013) postulated that the human resource of a business entity is the yardstick for competitive advantage. In view of that, it has been generally accepted by advocates of change and change management that TQM establishment involves changing the organizational culture to assist the convenient TQM structure employed by a business entity.

To make gains from true quality strategies, any business institution should construct a favourable TQM framework founded on HRM practices that support all the workers to acknowledge and successfully practice any planned quality programs (Magutu, 2010). In TQM strategies, the human factor has been pivotal as workers are the instruments behind

the progressive advancements that are to be passed on to clients to obtain their gratification and then patriotism which is the bane of successful organisation. In the team strategy to employee empowerment, TQM emphasises that quality is an organizational drive. To expedite the tackling of quality challenges, it places high premium on teamwork. Using methodologies such as quality control tools, discussion and brainstorming, teams work constantly to remedy challenges. The inputs of teams are seen as critical to the welfare of the firm. In this regard, firms reserve time in the workday to attend team meetings (Shenawy, 2013).

Worker inclusion is a strategy for motivating employees of a business organization to make decisions and to address challenges commensurate with their ranks in the institution. Empowerment is equally useful in service companies, where most often client conception of quality is upheld or flattened premised on the choice of the worker in a close contact with the client. This can be attained by making the worker part of the business organization, which is important to the progress of the institution. Workers who trust they are essential will be empowered to be certain that their contributions are sustainable and dependent on the inputs made (Saunders, 2010). Education and training supply the needed knowledge and skills - the capacity to ensure it does succeed. This activity is a venture that must be embarked upon. According to Naeem (2008) Estonia, India and Japan are said to commit between 65 and 80 hours per annum for every training and educational programs per worker. They perceive that gratification of the labour force and subsequently empowerment and capacity to push as a productive segment in the cycle of progressive advancement thrives on training and education.

Particular job that requires training should be given and regularly modified to show the updated process. Too often top leadership challenges workers to get things right first time, to function well in quality improvement teams and to engage in the non-stop prospecting for perfection. Nevertheless, they usually default in providing the tools, training, empowerment and information useful for self-management to operate efficiently. For it to be workable, it is expedient that all preparations be directed towards precise, concise aims; it must be done as timely as possible as it is needed and must be buttressed to ensure the output required to succeed. It should be noted that education and training are endless for everybody in the company. Progressive improvement is defined as learning and firms seeking to adopt TQM need to become learning organizations (Bilich & Neto, 2012).

Recognition and reward must be commensurate with the rank by being rank-ordered, the greater the accomplishment, the bigger the reward. It could range from bonuses, change in title or promotion and upward salary adjustment. In a TQM atmosphere, there should be a difference in the normal acknowledgement process. One must offer appreciation for energy invested, not just for achieving a stated objective. This acknowledgement of effort offers a strong inducement for everybody to become part of quality improvement.

### **III. THEORETICAL FRAMEWORK**

Kaziliunas (2013) proposed theory as a means of defining phenomena by stating constructs and the principles that blend these constructs with each other. The logic behind TQM is chiefly associated to a number of quality bigwigs: Ishikawa (1985), Crosby (1979), Juran (1993), Feigenbaum (1991) and Deming (1986). In spite of the fact that each illustrates a distinctive approach to TQM and with different emphasis, it is evident that they all embrace similar principles and practices. Their propositions are the foundation for understanding the concept of TQM.

#### ***A. Philip Crosby's Approach to TQM***

Crosby (1979) identified a number of important principles and practices for a successful quality improvement program, which include: management participation, management responsibility for quality, employee recognition, education, reduction of the cost of quality (prevention costs, appraisal costs, and failure costs), emphasis on prevention rather than after-the-event inspection, doing things right the first time, and zero defects. Crosby claimed that mistakes are caused by two reasons: lack of knowledge and lack of attention. Education and training can eliminate the first cause and a personal commitment to excellence (zero defects) and attention to detail will cure the second. Crosby also stressed the importance of management style to successful quality improvement. The key to quality improvement is to change the thinking of top managers; to get them not to accept mistakes and defects, as this would in turn reduce work expectations and standards in their jobs. Understanding, commitment, and communication are all essential.

#### ***B. Karou Ishikawa's Approach to TQM***

Ishikawa (1985) argued that quality management extends beyond the product and encompasses after-sales service, the quality of management, the quality of individuals and the firm itself. He claimed that the success of a firm is highly dependent on treating quality improvement as a never-ending quest. A commitment to continuous improvement can

ensure that people will never stop learning. He advocated employee participation as the key to the successful implementation of TQM. Quality circles, he believed, are an important vehicle to achieve this. Like all other gurus he emphasized the importance of education, stating that quality begins and ends with it.

### ***C. Edwards Deming's Approach to TQM***

The theoretical essence of the Deming approach to TQM concerns the creation of an organizational system that fosters cooperation and learning for facilitating the implementation of process management practices, which, in turn, leads to continuous improvement of processes, products, and services as well as to employee fulfilment, both of which are critical to customer satisfaction, and ultimately, to firm survival (Anderson, 2014). Deming (1986) stressed the responsibilities of top management to take the lead in changing processes and systems. Leadership plays an important role in ensuring the success of quality management, because it is the top management's responsibility to create and communicate a vision to move the firm toward continuous improvement. Top management is responsible for most quality problems; it should give employees clear standards for what is considered acceptable work, and provide the methods to achieve it. These methods include an appropriate working environment and climate for work free of fault-finding, blame or fear.

Deming (1986) also emphasized the importance of identification and measurement of customer requirements, creation of supplier partnership, use of functional teams to identify and solve quality problems, enhancement of employee skills, participation of employees, and pursuit of continuous improvement. Anderson (2014) developed a theory of quality management underlying the Deming management method. They proposed that: the effectiveness of the Deming management method arises from leadership efforts toward the simultaneous creation of a cooperative and learning organization to facilitate the implementation of process-management practices, which, when implemented, support customer satisfaction and organizational survival through sustained employee fulfilment and continuous improvement of processes, products, and services. The means to improve quality lie in the ability to control and manage systems and processes properly, and in the role of management responsibilities in achieving this.

### ***D. Armand Feigenbaum's Approach to TQM***

Feigenbaum emphasized that efforts should be made toward the prevention of poor quality rather than detecting it after the event. He argued that quality is an integral part of the day-to-day work of the line staff, and operatives of a firm. There are two factors affecting product quality: the technological i.e. machines, materials, and processes; and the human i.e. operators, foremen, and other firm personnel. Of these two factors, the human is of greater importance by far. Feigenbaum considered top management commitment, employee participation, supplier quality management, information system, evaluation, communication, use of quality costs, and use of statistical technology to be an essential component of TQM. He argued that employees should be rewarded for their quality improvement suggestions, quality is everybody's job. He stated that effective employee training and education should focus on the following three main aspects: quality attitudes, quality knowledge, and quality skills.

### ***E. Joseph M. Juran's Approach to TQM***

TQM is the system of activities directed at achieving delighted customers, empowered employees, higher revenues, and lower costs (Juran, 1993). Juran believed that quality problems are due to management rather than workers. The attainment of quality requires activities in all functions of a firm. Firm-wide assessment of quality, supplier quality management, using statistical methods, quality information system, and competitive benchmarking are essential to quality improvement. Juran's approach emphasizes on teams i.e. QC circles, self-managing teams and project work, which can promote quality improvement, improve communication between management and employees coordination, and improve coordination between employees. He also emphasized the importance of top management commitment and empowerment, participation, recognition and rewards.

### ***F. The EFQM Framework***

The European Foundation for Quality Management Model is built upon nine TQM principles. Of the nine principles, five of them mainly capture what a company does whilst the other four basically tackle what a company accomplishment. The result of this is that this EFQM model eschews prejudice of preferring one particular strategy that can spur on an organisation to accomplish quality management in its activities but ties up a platoon of strategies that can allow an institution employ TQM strategies in her running. This model has the following guiding principles: an insistence on results that is a company's primary role is to delight all its partners. Customer-centred that is ensuring clients are delighted by satisfying their demands in a progressive format. Focus on leadership that has the prime objective of initiating, leading and observing structures and processes that will support the company to post revenue



in the long run. Workers welfare, which usually articulates the need for a company to ensure her employees obtain the most quality education and additionally engaging them actively in the administration of the company. Constant knowledge acquisition; all the employees must be afforded the chance of upgrading themselves with much attention on skills modification. Formation of workers' groups; a company will immensely gain from this as it gives them an opportunity to tap knowledge and experience from their colleagues in which ways they can improve their firm's operations hence utilizing the gains of joining those synergistic collaborations. Eventually, an enterprise must initiate a philosophy of forming collaborations with the state with the view of developing their host communities into a more advanced society as this strongly has a positive bearing on the society.

#### IV. DATA ANALYSIS

To address this objective, the study carried out a multiple regression assessment to examine the associations between the six quality improvement variables and operational performance as measured by Return on Asset. Secondary data extracted from the bank's income statements spanning five years (5) was used for the analysis (Appendix c). The statistical package for social scientists (SPSS) was applied to code, enter and calculate the dimensions of the multiple regressions for the research. The results are calculated in Tables 4.6, 4.7, and 4.8 respectively.

**Table 4.6: Model Summary**

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.864	0.752	0.684		0.563

*Source: Researcher's Fieldwork, 2017*

- a. Predictors: (Constant), Continuous improvement, business process re-engineering, ISO series, benchmarking, lean, six sigma
- b. Dependent variable: ROA

The findings in Table 4.6 show a correlation coefficient rate of 0.864. This indicates a good linear dependence between ROA and the six predictor indicators. An R-square rate of 0.752 was achieved in the regression model and further adjusted to 0.684. The coefficient of determination rate (R) of 0.864 suggest that the six independent indicators contribute 86.4% to the changes of operational performance even as other indicators that were not included in the model explained 13.6% of ROA.

The research further carried out an Analysis of Variance (ANOVA) examination to make simultaneous comparisons between the study indicators so as to establish the significant association between the research variables. This analysis also helped the research to determine the significance of the regression model adopted for the study. Table 4.7 depicts the ANOVA results.

**Table: 4.7: ANOVA Results**

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.923	8	1.052	7.425	.000 <sup>a</sup>
	Residual	8.621	63	1.921		
	Total	10544	71			

*Source: Researcher's Fieldwork, 2017*

- a. Dependent variable: ROA
- b. Predictors: (Constant), Continuous improvement, business process re-engineering, ISO series, benchmarking, lean, six sigma

The ANOVA findings above show the regression association was significant in anticipating how the six quality improvement practices contributed to ROA as showed by the p-value of .000. The findings established that the regression model is significant statistically as proved by the computed F-value of 7.42 which is greater than the critical F-value of 2.04.

**Model coefficient**

The research also examined the coefficients to determine the direction of the relationship (either negative or positive) among the quality improvement measures and operational performance. The results are presented in Table 4.8 below.

**Table 4.8: Coefficient of determination**

Model		Under standardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	Constant	1.023	0.1125		4.253	.000
	Continuous improvement	0.654	0.0952	0.1257	5.684	.010
	Six sigma practices	0.485	0.2863	0.1432	3.084	.000
	ISO series	0.511	0.1824	0.1901	2.621	.000
	Lean	0.321	0.1621	0.0832	2.421	.001
	Business process re-engineering	0.245	0.152	0.624	2.2845	.004
	Benchmarking processes	0.215	0.092	0.621	2.621	.002

*Source: Researcher’s Fieldwork, 2017*

a. Dependent variable: ROA

The regression model beneath was attained from the model coefficient Table above.

$$ROA = 1.023 + 0.654X_1 + 0.485X_2 + 0.511X_3 + 0.321X_4 + 0.245X_5 + 0.215X_6$$

Per the above equation, the research established that Continuous improvement, business process re-engineering, ISO series, benchmarking, lean and six sigma practices explain a positive association with ROA. The results demonstrate that these variables were statistically significant at 95% confidence level. Established on the results, continuous improvement had a p-value of (p=0.010), six sigma practices gained a p-value of (0.000), ISO series recorded a p-value of (p=0.000), lean practices had a p-value of (0.001), business process re-engineering recorded a p-value of (0.004) and ultimately, benchmarking processes had a p-value of (p=0.002). These values are less than 0.05, and accordingly regarded as significant statistically. The overall outcome of the findings means that continuous improvement, six sigma, ISO series, lean practices, business process re-engineering and benchmarking processes are capable of improving operational performance if the bank continues to follow these strategies.

**III. CONCLUSION**

This research assess the effect of the TQM practices on operational performance at HFC bank. The conclusions and recommendations made were founded on dealing with the three research objects developed in chapter one which were;

With regard to the research objective, the research discovered that HFC bank has adopted six major TQM practices to improve operational performance. The research objective found top management commitment, customer focus, continuous improvement, employee involvement and employee empowerment as the key factors that promote effective implementation of TQM at HFC bank. The third research objective has assessed the effect of the TQM practices on operational performance at HFC Bank. Majority of the respondents (87%) as per the findings pointed out that the TQM practices followed by HFC bank has resulted in improved operational performance to a great extent.

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