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**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF TOTAL QUALITY MANAGEMENT ON  
OPERATIONAL PERFORMANCE IN ZAMZAM BANK HEAD OFFICE**

**BY: JEMAL ENDRIS WOLDE**

**JUNE, 2023**

**ADDIS ABABA, ETHIOPIA**

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**ADVISOR:**

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE  
STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF BUSINESS ADMINISTRATION**

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**APPROVED BY BOARD OF EXAMINERS**

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## DECLARATION

I, the undersigned, declare that this thesis is my original work, presented under the guidance of Tewodros Mekonnen (Dr.) All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher institution for the purpose of earning any degree.

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Name

\_\_\_\_\_

Signature

**St. Mary University, Addis Ababa**

**JUNE, 2023**

## **ENDORSEMENT**

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Tewodros Mekonnen (Dr.)

\_\_\_\_\_

Advisor

Signature

**St. Mary University, Addis Ababa**

**JUNE, 2023**

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## **LIST OF ACRONYMS**

**OP-** operational performance

**TQM** – Total quality management

**TMC-** Top Management Commitment

**ETE-** Employee Training and Education

**EI-** Employee Involvement

**QF-** Quality Focus

**CPI-** Continuous Process Improvement

**ANOVA** - Analysis of Variance

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## ABSTRACT

*The purpose of this study was to examine the effect of total quality management on operational performance in the case of Zamzam Bank Head Office. The study focused on five independent variables such as top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement and also focus on operational performance. The study used quantitative approach to give complete picture of the study and the researcher has employed explanatory research design to objectively answer the research questions. judgmental sampling method was employed in order to select respondents from employees. The study distributed 200 structured questioners, but collected 181 questioners. In line with this, 5 point Likert scale questionnaire used with closer assistance of the researcher. Then, the data were processed through SPSS analyzed via stating descriptive and inferential statistics. The findings indicate that out of the proposed five variables that could affect operational performance, top management commitment, employee training and education, quality focus, employee involvement and continuous process improvement have significant and positive effect on operational performance. Finally, on the basis of the research findings, the bank must provide relevant and timely base training for all employee's. recommendations along with implications for further studies have been forwarded.*

***Keywords: Top management commitment, training and education, continuous process improvement.***

# **CHAPTER ONE: INTRODUCTION**

## **1.1. Background of The Study**

Total quality management (TQM) is a firm-wide management philosophy of continuously improving the quality of the products and services by focusing on the customers' needs and expectations to enhance customer satisfaction and firm performance (Sadikoglu & Oclay, 2014).

As Sutrisno (2019) defined, operation performance is related to the organization's internal operations processes such as productivity, product /service quality and customer satisfaction. Regardless of the type of sector in which a firm operates the practical knowledge of TQM, coupled with a clear appreciation of the organizational goals, value proposition, resource (human & capital) are key to achieving the TQM goals (Alofi & Younes, 2019). Practicing TQM implies that workers are taught and empowered thus; they are dedicated and take responsibility of their job that may assist a business to prevent rework, wastages, recycling and inspections.

Effective TQM implementation could accomplish the internal benefits such as improving quality, enhancing productivity or realizing better operating income (Lee & Lee, 2014). In the case company, ZamZam Bank, the ever improving global competition and increasing requests for more qualified products by customers have caused organizations to understand that the only way of survival in the market is to deliver better quality products to meet customers' needs. Many organizations, therefore, spend considerable amounts of their funds in activities related to improving products and services. The vast applicability of Total Quality Management (TQM) has made it to earn recognition as one of the most popular continuous improvement systems for quality. TQM increases customer's satisfaction through the participation of all personnel. The main aim of TQM is to implement a management system and organizational culture that ensures the customer satisfaction since customers who are more sensitive to quality standards improve their expectations continuously (Demirbag et al, 2006)

Banking industry in the world need to improve the quality of their products & services so as to remain competitive & cope up with increasing business challenges. To meet the challenge of global competition, many businesses have invested substantial resources in adapting and implementing Total Quality Management (TQM) strategies globally. Leaders or managers in different

organizations obtain satisfaction from satisfying the needs of customers which is the central philosophy of Total Quality Management (TQM) practices. Globalization of market economies has urged corporations in all sectors to concentrate on maintaining a sustainable competitive edge which is directly related to the upkeep of quality both in terms of services as well productivity (Kumar et al. 2014) cited in Ephantus, (2015)

Total Quality Management practice in Africa plays a major role. All sectors are used total quality management especially in banking industry without total quality management the banks is not compete and survive so continuous quality improvement and the overall process improvements and change is the main task of every management of the organization.

Characteristics of total quality management customer focused, involved employees, process oriented, strategic approach, continuous improvement, effective communication and mutually dependent system.

Organizations require sustainable management tools to take the advantage of competitiveness and develop the performance to be effective and efficient. The notion of Total quality management (TQM) is then introduced by management professionals to promote such an approach (Kluaypa&Onuh, 2010). It is a Japanese management phenomenon that has proved to be a viable competitive tool on a worldwide scale (Jonah, Ornguga&Torsen, 2018). It was further developed in the 1940s led by the Americans, such as Deming, Juran and Feigenbaum (Samson, 2017).

According to Su Mi, (2015) total quality Management is a management philosophy for continuously improving overall business performance based on top management commitment, product design, continuous process improvement, employee involvement, education and training, and quality focus.

Ethiopia has registered development in the past five years. According to government's reports two digit rates of economic development have been achieved. Development, progresses, changes and mainly the efforts are clearly seen. Now, it is understandable by most of the stakeholders that quality related problems are obstacles for majority of the industries (Birhanu& Daniel, 2014). Therefore, this study is designed to examine the effect of total quality management practice on operational performance in the case of ZamZam Bank.

Currently, In the banking industry (ZamZam Bank) implementing total quality management and incorporating it as a part of their overall system plays valuable role to boost the operational performance of the bank. So, this study will be motivated to investigate the effect of TQM (Top management commitment, employee education and training, employees' involvement, Continuous Improvement, and Quality Focus) implementation on operational performance in ZamZam Bank.

## **1.2. Statement of The Problem**

Banking today face changes in the environment posted by globalization. These changes can present an opportunity or threat to firms. Bank must adopt effective strategies to react to the changes in the surrounding. Banking industry endeavor to accomplish more elevated amount of operational performance. Operational performance has been done out in the developed countries. The implementation of TQM by organization has been held back due to noncompliance with the practice of TQM implementation some organization run TQM like a program that they supposed to function and perform. Literature review proposes a lot of exploration work has been done on TQM and relationship of TQM and organizational performance, yet just a small figure of studies have been done on the impact of TQM usage in banking industry.

Over the year the banking sector have constantly been characterized by present operational inefficient and poor customer problem of poor service and in order to address the problem of efficiency in service delivery these organizations are fast adapting TQM in order to make them effective in meeting public demands (Manivannan& Premila 2011). Therefore, many banks quality problems are still in their inefficiency having in the past operated in an environment where there was limited competition and customer satisfaction was not a cardinal business objective. However, many banks are frequently unclear in articulating specific objectives in implementing quality problem.

As per annual meeting report of ZamZam Bank (2022), the bank mentioned that annual deposit, customer base and profit amount were significantly less than the other bank Hence, one of the reasons to have this, performance is weakness of top management in order to awake and forces employees to work aggressively. On top of this most pertaining problem related to TQM is related to that of employee training and education. For instance, when the bank introduces new banking service to its customers through print and electronic Medias, they are not well consumed by

customers as some employees do not even know how to operate and deliver the new introduced service to customers.

Sadique and Walob (2014) did a research on the impact of TQM on different measures of performance. In addition, the study came across several barriers and reasons of the TQM implementation in Nigeria. The research established that various elements of TQM interfere with final result of the outcomes. The obstacles faced by firms in implementing TQM are the inadequate information and commitment by employees, insufficient employee involvement, insufficient of resources and inappropriate business structure. The conclusion was that firms should strive to improve on firm structure, staff involvement/commitment/awareness to TQM and make available enough facilities to eliminate the obstacles that hinder proper use of TQM practices. This research established the link between TQM and performance while the present research sought to determine the effect of TQM practices on operational performance.

The function of Total Quality Management (TQM) is ratified as a critical factor in contribution of business sustainability for both manufacturing and service organizations especially in today's business competitive environment (Lee & Chang, 2006). The banking sector has consistently been characterized by persistent operational inefficiency and poor customer services and in order to address the problems of inefficiency in performance these organizations are fast adopting TQM in order to make them effective in meeting public demands (Maxwell, 2011).

Moreover, as far as the researcher knowledge, most of researches conducts in Ethiopia were only focused on the total quality management practice, for instance Birhanu & Daniel (2014) conducted their research on the title an assessment on quality management practice in Ethiopia. Thus, due to the severity of the issue and absence of sufficient empirical studies on this issue pertaining to this topic incorporating crucial variables and using qualitative operational performance measurement collectively is what motivated the researcher to examine the effect of total quality management practice on operational performance in the case of Zamzam Bank in Addis Ababa.

The quality management practice has more than ten dimensions and concise understanding of every element needs precision and accuracy. Five mainstream dimension of quality management have been identified that have immense impact on operational performance. Top management

commitment, training and education, employee's involvement, quality focus and continuous process improvement have been taken into account.

Most researchers studied on manufacturing sector but little study on service sector specially in banking sectors this leads to create gap because have not enough evidence and study on the effect of total quality management on operational performance. so the research is need to be updated and outdated. Mostly researcher focus on external customer satisfaction not considers the internal customers, so, internal customers are the asset of the organization there is needed to examine the effect of quality management practice. The study has established gaps on theories, variables used and the methodology from the previous studies. in ZamZam Bank S.C compliance approach has changed from the traditional enforcement to focus more on customer facilitation. It is imperative that zamzam bank reflect on the strategies needed to enable it deliver on its mandate more effectively and efficiently. Deming theory of profound knowledge and kanter model of change management guided this study. The study therefore focused on the effect of total quality management on operational performance in zamzam bank.

### **1.3. Objective of The Study**

#### **1.3.1. General Objectives**

- ❖ The general objective of this study is examine the effect of total quality management on operational performance in ZamZam Bank head office.

#### **1.3.2. Specific Objectives**

- ❖ To determine the effect of top management commitment on operational performance in ZamZam Bank.
- ❖ To examine the influence of employee training on operational performance.
- ❖ To identify the effect of employee involvement in work on operational performance.
- ❖ To analyze the effect of quality focus on operational performance.
- ❖ To examine the effect of continuous process improvement on operational performance.



#### **1.4. Significance of The Study**

This study would help to the banks simply identify customer needs and preferences, the banks understand how to improve customer satisfaction, better knowledge about how to reduce cost and customer retention.

This study has great significance for ZamZam Bank. Because, this research give better understanding and full knowledge about successful implementation of TQM, better efficiency, improve operational performance, the organization gain competitive advantage, this study would provide direction for the organization reduce redundant and unnecessary activities and also finally this thesis would help the organization simply becomes productive and profitable by understanding and implementing the overall change and quality management and also Administration could be interested in identifying indicators of success and failure to take the necessary actions to improve total quality management practice in the company and choose the right decision.

This study is very essential for employees because, employees have better knowledge about the effect of total quality management, the impacts, levels, relationship between TQM and OP, this investigation will increase employee self-development, improve employee morale, facilitate good work culture, increase employee satisfaction his study would also appreciate employee's creativity, innovation, change management and reduce resistance to change.

This study also helps for Customer have full knowledge about total quality management practice, service quality and continuous improvement and this study also provided knowledge for customers for quality assurance that the customers would get they expect as well as a process. Customers may possibly involve in knowing the ability of the effect of the total quality management practice on operational performance. Moreover, this research has significant role to play in shading light on how to better understand what variables that have an impact on operational performance of ZamZam Bank.

This study help Academicians could have a chance to know about the effect of the total quality management practice on operational performance and have new or full insight about the topic which supports students to be familiar with it and find out a solution on their teaching and learning process.

This study would also very important for government. Government might be concerned in knowing which companies operate successfully or failed to take the necessary measures so as to avoid crises of the bankruptcy in this company.

### **1.5. Scope of The Study**

The scope of this study was focused on the effects of total quality management (TQM) on operational performance in ZamZam Bank. The study covers December 2022 and June 2023. The study geographically would be limited in studying ZamZam Bank only in Addis Ababa. The principles and practices associated with TQM and Operational activities are broad; the study only focused on some variables of TQM practices the company follows and operational performance. The research sample would not include all the employees in the bank only includes clerical staff. Conceptually five TQM success factors identified in the study: which are top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement and four operational performance indicators i.e. quality, cost, time and delivery was examined. Methodologically the study employed quantitative research approach and explanatory design.

### **1.6. Organization of Papers**

The study was organized into five chapters, the first chapter present introduction of the study, define back ground of the study, statement of the problem, background of the organization, research objectives, research question, significance of the study, scope of the study, operational of key terms. Chapter two describes and discusses relevant theoretical and empirical review of related literature on total quality management, hypothesis development and conceptual framework of the study. The third chapter describes the research methodology such as research approach, research design, data type and data source, sampling determination and sampling technique, data collection instrument, validity and reliability instruments, method of data analysis and interpretation and ethical consideration. Chapter four presents the result and discussion of study. Finally, chapter five presents summery of finding, conclusion and the recommendation of the research study and suggestion for future study area

## CHAPTER TWO: RELATED REVIEW OF LITRATURE

**Total quality management (TQM):** According to William Deming TQM is an approach to organizational management that focuses on improving process and standards that translate to customer satisfaction.

**Top management commitment:** Flynn et al (1995) indicated the necessity of top management commitment, as top management has a large influence on the overall attitude and strategic direction of the organization.

**Continuous Process Improvement:** Fryer Karen J. Antony Jiju and Douglas Alex (2007) see continuous improvement as where all members of the organization work together on an ongoing basis improving processes and reducing errors to improve overall performance for the customer.

**Quality Focus:** Dean and Bowen (1994) also stated that the goal of satisfying customers is fundamental to TQM and is expressed by the organization's attempt to design and deliver products and services that fulfill customer needs.

**Operational Performance:** Salaheldin (2009) indicated that operational performance reflects the company's internal operating performance in terms of cost and reducing waste, improving product quality, new product development, improves delivery performance, and increased productivity.

TQM is belief system which is focused on the accomplishment of client need. TQM oblige organization to build up a customer centered operational technique and in the meantime conferring the asset the position clients and meeting their desire beneficially. this suggest a methodology of changing the corporate society of an organization to be client driven TQM requires viable change in authorities' society which is upgraded by the profound duty of organization. Open correspondence in addition to collaboration all through the association; expansive representative interest, backing and pledge during the time spent quality administration. Forerunners in a TQM context see the firm as a structure which should strengthen worker improvement, shape up a multipoint association among the personnel, administrators, and customers and use data proficiently and adequately. In addition, pioneers support worker interest in choice making and enable the workers to be innovative (Kathaara, 2014).

Total Quality Management (TQM) There is denial of agreement on the significance of quality. Consideration of quality has been portrayed in unmistakable courses by various researchers. The gurus of the Total Value Management disciples, for instance, Juran, Crosby, Deming, Ishikawa and Feigenbaum described the thought of value and Total quality management in unmistakable ways. Garvin in like manner perceived eight credits to evaluate quality Juran described quality like "wellbeing for use". Juran focused on an arrangement of three of value organizing, quality control, and quality change. Crosby portrayed quality as "conformance to essentials or determinations". As demonstrated by Crosby, requirements are considering purchaser needs. Crosby recognized 14 stages for a zero disfigurement quality change plan to achieve performance change (Munizu, 2013)

TQM requires compelling learning administration in order to guarantee that workers get convenient dependable, steady, exact, and important information in addition to information as they have to transmit out their employ adequately and effectively in the firm. TQM is worried with the ceaseless change in all the procedure of outline and operation, from the levels of arranging and choice making to the execution of work by the bleeding edge staff. The emphasis on ceaseless change prompts the progress of imposing group whose membership is controlled by their work on the point by point information of the process, and their capacity to make change move. TQM likewise infers diminishing and reorganization the seller base to support supervision dealer connections, creating key organizations jointly with suppliers, functioning with vendors to undertaking that client needs are met (Kathaara, 2014).

TQM also implies reducing and streamlining the supplier base to facilitate managing supplier relationships, developing strategic alliances with suppliers, working with suppliers to ensure that customer expectations are met (Saadia, 2018).

## **2.1. Importance of Total Quality Management**

**Less product defect:** one of the principles of TQM is that creation of products and service is done right the first time. this means that products ship with fewer defects, which produce recalls, future customer support overhead and product fixes.

**Satisfied Customers:** high quality product and services that meet customers need result in higher customer satisfaction, in turn can lead to increased market share, revenue growth via upsell and word of mouth marketing initiated by customers.

**Lower Cost:** As a result of less product defects, companies save cost in customer support, product replacement, field service and the creation of product fixes. The cost saving flow to the bottom line and creating higher profit margins.

**Well defined cultural values:** organization that practice TQM develop and nurture core values around quality management and continuous improvement. the TQM mindset pervades across all aspect of an organization from hiring to internal process to product development.

## **2.2. The TQM Measurement Models**

Quality management is a controversial issue and how to do it, authoritative and unbiased counsel is needed to assist most firms. (Knowles, 2011). So, the organizations business excellence Models in the worlds is Malcolm Baldrige National Quality Award, Deming Prize model, and the European Foundation for Quality Management model (Veselova, 2018). management standards developed by the International Organization for Standardization (ISO) to ensure they can match their consumers' expectations as a result of globalization Dhanorkar&Linderman, 2015).

### **2.2.1. Deming's Prize Model**

Deming's Prize Model in recognition of Deming's friendship and contributions to Japan, the Deming Prize was established in 1951 to encourage the development of quality control in Japan Khoja, Panjwani& Ray, 2017). Deming has made three main contributions to the development of quality. These are the fourteen points for transformation of an organization, the deadly of an organization and the system of profound knowledge (Knowles, 2011). With these the Deming prize was developed to ensure that good results are achieved through the implementation of company-wide control activities, and is based on the application of a set of principles and statistical techniques (Dale, Bamford& van der Wiele, 2016).

### **2.2.2. The European Foundation for Quality Management Framework**

The European Foundation for Quality Management Framework Model was first used in 1992 with the effort to improve the position of European companies in the competitive fight on global markets. It is a model with fixed scale of criteria, on the grounds of which it is not only possible to objectively evaluate individual companies, but especially mutually compare them

(benchmarking) (Jankal, &Jankalova, 2016). Its comprehensiveness comes from the fact that it is built on achieving excellence in performance, customers, employees, and society by implementing appropriate policies and strategies for employees, resources, and processes (Al-Majali&Almhirat, 2018).

### **2.2.3. The Baldrige Model**

In 1987, Malcolm Baldrige National Quality Award was introduced by the U.S. Congress and presented six categories: manufacturing, services, SMEs, health care, education, and non-profits. The assessment is based on a group of criteria from the point of view: customer, strategy, leadership, measurement, analysis and knowledge management, workforce, operations, and the organization's result (Purba, 2021).

## **2.3. ISO Quality Management Standards**

The implementation of International Organization for Standardization (ISO) standards occurs simultaneously with a comparable focus on continuous improvement. It is based on the description and optimization of the organization in order to define the minimum requirements that influence product quality and customer satisfaction directly (Bacoup,Michel, Habchi&Pralus, 2018).

It is an international quality management standard that specifies the quality assurance criteria, the procedure for maintaining the quality standard, the regular monitoring of the quality evaluation process, the identification of factors that obstruct quality, and strategies for removing those factors that obstruct quality. As a result, this quality management strategy helps to maintain consistency while also serving as a source of improvement and prevents mistakes from being repeated (Habtegeorgis, Maheshwari&Yadav, 2020)

## **2.4. Ethiopian Quality Standard and Quality Award**

The Ethiopian Standards are formed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association and other stakeholders (ESA, 2021). The quality award granted to organizations that

can fulfill the criteria of leadership, policy and strategy, resources management, process management, customer satisfaction, business performance and impact on the society. The evaluation process of the EQA starts from application and ends in award winners' selection. It has eight stages. Application, self-assessment, submission of self-assessment report, independent and subsequent consensus evaluation by the technical committee, short-listing, second registration, site visit review, technical committee recommendation, judge's recommendation, and EQA board approval are the steps involved (Beshah&Kitaw, 2014).

## **2.5. Aspects of Total Quality Management Practice**

### **I. Top Management Commitment**

Executive commitment, an open organization, and employee empowerment, produce significant Correlations to financial performance made up of sales, growth, profitability, and revenue growth. (Powell, 1995). Top Management in organizations maintains the leadership responsibility for the quality management systems, with involvement of all organizational staffs. This responsibility includes; ensuring the availability of resources to all staff to ensure improved service delivery is achieved for the realization of the organization's vision and mission. Establishing and reviewing the quality policy and quality objectives quarterly to ensure compliance to the quality standards.

(Soltani, 2005). McLeod and MacDonell (2011) emphasize the importance of top management in projects as it plays various roles in the organization such as influencing attitudes, encouraging user participation, creating a positive context for change, overseeing the development of the project, managing political conflicts, and ensuring the availability of resources. Therefore, the need for full commitment of top management should be understood, communicated, implemented and maintained at all levels in the organization. The importance of quality management practices should begin to be emphasized at the top, where serious commitment to performance must be demonstrated through vision framework which comprise the organization's guiding philosophy, core values and beliefs, purpose and mission

(Terziovski et al., 2003). The magnitude of a successful project depends on the level of top management committed. The three main facets of top management support which are crucial in quality management practice and project realization include: showing interest by participating in team meeting, willingness to spend time with people and listen to feedback as well as willing to

help resolve problem. Providing necessary resources, including training and other crucial resources and providing leadership by helping to translate plan into action, regular review of project program and official commissioning of project leaders and project team. The fact that top management are. From the above discussion it is considered that the literature supports that training and education have positive relationship with operational performance. Therefore, this study proposes the hypothesis that: -

**H1:** top management commitment has positive and significant effect on operational performance.

## **II. Employee training and education**

As Goetsch& Davis (2014) stated Training is an organized and systematic sets of activities which has a direct relation on the job performed by those trainees to enhance their knowledge, skills and understanding of motivation. Education is a broader term which tends to be more philosophical and theoretical and less practical than training.

According to Sandru (2009), stated that managers employees and workers need to be familiar with the tools and techniques of TQM in order to success the implementation. Training helps increase the ability of employees to do a better job and keep up with the changing trends. Organizations that are able to fully utilize the skills of its employees are strategically positioned towards achieving its objectives (Singh & Dhalla, 2010).

Any organization should highly value its employees as they are the most strategic asset regardless of the number. Better performance will be derived from better employees. Employee education will help cultivate better performance. Therefore, organizations should embrace continuous training of employees' in order to improve their skills and knowledge which eventually will result in efficiency and effectiveness. Due to radical change in technology and globalization, innovative ways are required so as to keep up the trends and this can only be achieved through employee education and training programs (Cervena, 2011).

As Mahadevan& Yap (2019) argued it is those employees who participated in training programs proved to be more competent than to those who did not. A Well trained employee performs their tasks efficiently and effectively. Organizations always look forward to improve their performance, and this cannot be achieved if their employees not skilled-up. Therefore, as Sweis, Elhawa&Sweis



(2019) indicate organizations should have to educate their staff by training and implementing knowledge and skills, in order to create more effective and efficient work place. Therefore, from the above discussion it is considered that the literature supports that training and education have positive relationship with operational performance. Therefore, this study proposes the hypothesis that: -

## **H2: Training and education have positive and significant effect on operational performance**

### **III. Employee Involvement**

By a firm having its employees involved in the TQM implementation process enables her to easily meet the TQM goals. It shouldn't be just involving them, however the firm needs to empower them as they are invited over to the decision making table and the end result of this is a firm benefiting from continuously improving her processes and systems (Saadia, 2018). The traditional employee involvement was narrow-minded; its main focus was on the job than the process. The TQM strategy, on the other hand, incorporates the interests, participation, and contributions of employees in the quality management process (Keinan&Karugu, 2018).

Its objective is to encourage and enable employees to have constructive thoughts and creative thinking on administrative and technical issues in order to meet customer needs and total quality standards (Sweis, Obeidat&Kanaan, 2019). An organization is greatly depending on its employees who are properly managed and engaged into its daily activities for the level of its performance and competitiveness (Tortorella, Miorando, Caiado, Nascimento, &Portioli, 2018). Employees who have got the support, power, chance and acceptance by the organization will give their full effort, time and energy to serve customers well and to attain the organization's objectives (Mukwakungu, Mankazana, &Mbohwa, 2018). Those employees who increase their engagement in the overall quality strategy of the organization bring an increase in the flow of information and knowledge and contribution for its well-being through problem solving (Awuor&Kinuthia, 2013). This also leads to quicker, more responsive decisions, continuous performance improvement, and greater employee flexibility, commitment and satisfaction (Wanza, Ntale&Korir, 2017). Therefore, based on the above literature, the researcher proposes the hypothesis that employee involvement has an effect on operational performance.

## **H3: Employee involvement has a positive and significant effect on operational performance**

#### **IV. Quality Focus**

An organization Main objective in designing its products or services is to fulfill and or exceed customer expectations and at the same time make a reasonable profit. It is because of customers that products and services are designed. Any organization that is customer focused and oriented has the advantage of maintaining a competitive advantage. Quality's primary focus is meeting the requirements of customers and striving to exceed their expectations. An organization which is able to attract and retain the confidence of its customer and other stakeholders acquires sustained success (ISO, 2000:9001). The processes involved in service delivery in organizations which is as a set of interconnected activities that results in products or services to be offered to customers must add value to the customers (Singh & Dhalla, 2010).

This results in one activity (the process) having a direct effect on the other entity (customer). When variations that are not in conformity with quality standards occur, then the quality of the output or service is affected. It is therefore imperative to maintain a strong check on aspects such as customer complaints then adjust where necessary. Some of the key indicators of a service include safety/risk of service, courteousness/employees' friendliness, procedures of preparing invoices and bills, approachability of service provider, responsiveness to requests and appearance of physical facilities, honesty, the willingness to listen to customer demands and requests and the ability to communicate clearly.

Thus, customer focus happens where value is delivered to customers through enquiry of what satisfaction looks like and means in the face of customers (Cravens & Piercy, 2013).

Therefore, based on the above literature, the researcher proposes the hypothesis that customer focus has an effect on operational performance

**H4: Customer Focus positively and significantly affects operational performance.**

#### **V. Continuous process improvement**

Continuous improvement is the philosophy of improvement initiatives that increases success and reduces failure and must be integrated into the management of all systems and processes' Awuor&Kinuthia(2013).

It gains advantage from the methods of controlling situations before happening and developing in time through the integration and cooperation of all units of the organization to eliminate wastage and to improve resource utilization, to have better quality product/service and to optimize performance (Singh & Singh, 2015).

Work processes in quality management settings are constantly checked to reduce mistakes and waste of materials that can improve the effectiveness of the organization (Mahmood& Ahmed, 2014).

Continuous improvement, through managing the risks of eliminating the unnecessary variation and valueless work activities, can enable organizations to control costs of products/services and hence this leads to have higher operational and financial performance with an increase in customer value and satisfaction (van Assen, 2020) Therefore, from the above discussion it is observed that the literature supports the relationship between continuous improvement and operational performance. Therefore, this study proposes the hypothesis that: -

**H5 Continuous improvement positively and significantly affects operational performance.**

## **2.6. Operational Performance**

Operational performance is the measurable aspects of the outcomes of an organization's processes (Azim, Ahmed & Khan, 2015). It deals with the process and measures the performance of internal operation of the company by cost, customer services, delivery, quality, flexibility, and product-/service-process quality (Mohammed, Brahma, Jagadish&Aderaw, 2019).

Operational performance is measured on the efficiency and effectiveness of the operations that are responsible for the delivery of the products and services. Efficiency and effectiveness of the operations is realized through the ability to timely deliver products and services according to customer's expectations (Chauke, Edoun&Mbohwa, 2019).

Organizations want to enhance their performance through the combined usage of management perspectives, and an appropriate improvement methodology that can give best achievements. One of these methods is total quality management (TQM) (Saleh&Sweis, 2017).

TQM help managers to improve organizations' performance and effectiveness in achieving global markets (Sutrisno, 2019). It allows increasing organizations market share, customers' and employees' satisfaction, as well as efficiency and quality by improving internal processes (Álvarez García, Cruz Del Río Rama, Vila Alonso & Fraiz Brea, 2014

The main criteria of measuring success could be defined as quite a wide concept that evaluates the ability to achieve the organization's targets successfully. Performance can be evaluated with qualitative criteria such as job satisfaction, organizational Commitment, perception of justice and quantitative criteria such as profitability, investment return ratio, sales growth in the studies (Dawit, 2017). Hence, the study used operational performance measurement based on Paul (2015) and Omar & Stephen (2018) empirical evidences. Determinants of operational performance Pierre Leconte (2019) listed the following key performance indicators (KPIs) as a determinant of operational performance for banking industry.

**1. Client Survey Score:** Bank performance as measured by customer feedback. Many banks send out client surveys to gather performance-related feedback; tracking these responses with some type of internal scorecard is helpful. You can even create categories for response types (e.g. employee communication, variety of products/offers, speed of service, etc.) and track them individually, as well as your overall customer satisfaction score.

**2. Average Time to Close Issues:** Length of time from when a problem is identified to when it is solved. Issues may originate internally (operations, technology, etc.) or externally (customers). **3. New Account Setup Error Rate:** The total number of new customer accounts created containing an error (e.g. typo or incorrect address, name, account type, etc.) divided by the total number of new customer accounts set up at the same point in time, shown as a percentage. This metric will ultimately link to the previous "Average Time to Close Issues" KPI.

**4. Accounts Opened with Insufficient Documentation:** The total number of new accounts opened with insufficient documentation divided by the total number of new accounts opened over the same period of time, shown as a percentage. This is similar to the previous KPI for banks, but in this case, the information is missing versus incorrect.

**5. Total Volume of Accounts:** The total number of accounts managed by your bank, tracked by financial timeframes. There are many types of accounts you can track; such as deposit or money market accounts.

**6. AUM Per Employee:** The total dollar value of assets being managed by the bank divided by the number of employees. This is an HR-related measure that helps analyze workload.

**7. Operating Profit Per Employee:** The total dollar amount of operating profits divided by the total number of employees. This is a high-level bank KPI that, in the simplest sense, helps you compare money earned to money spent on staff.

## **2.7. Total Quality Management Practices and Operational Performance**

As per Blecken (2009), total quality management is a management philosophy which emphasizes the devolution of authority to the front line staff. It ensures the participation of everyone in the decision making process through activities such as quality cycles and team work.

The implementation of TQM ensures that every worker in the organization does his work with quality the first time, thus improving the efficiency of operation and avoiding some cost associated with waste. This in turn will offer more value to customers in terms of price and service quality, thus making them satisfied. Implementation of TQM further ensures that organizations change how they perform activities so as to eliminate inefficiency, improve customer satisfaction and achieve the best practice. TQM helps in improving the quality of products and also reduces and establishes a stable production process. Continuous improvement which is a feature of TQM is said to reduce the product cycle time thus improving performance. Many other TQM practices such as training, information system management, relationship with suppliers have a positive impact on operational performance.

The efficient management handling of these practices will improve efficiency and no doubt affect the profitability of the firm through efficient quality provision Saravanan (2007), In another study Terziovski and Samson (2006) tested the impact of company size on the strength of the relationship between TQM and organizational operational performance. They confirmed that TQM has a significant and positive relationship with most of the dimensions of operational performance, but also concluded that larger companies tend to gain greater benefits from TQM than smaller firms.

Some authors focused on the relationship between TQM implementation and specific type of operational performance:

Agus and Hassan (2000), for example, confirmed the positive relationship between the length of TQM adoption and financial performance, while other theorists proved the positive impact of TQM implementation on the long-run stock price performance.

Karia and Asaari (2006) examined the impact of TQM practices on employees' work-related attitudes. The results of their empirical study indicated that training and education have a significant positive effect on job involvement, job satisfaction, and organizational commitment. Empowerment and teamwork significantly enhance job involvement, Job satisfaction, career satisfaction, and organizational commitment. Finally, continuous improvement and problem prevention significantly enhance customer satisfaction and organizational performance. Numerous researchers also recognized that successful implementation of TQM and the scale of the potential benefits that can be obtained through this approach depend on several factors. Hoogervorst (2005) argued that TQM approach requires focus on employee behavior, attention to organizational culture, management practices, and organizational structures and systems. The research on TQM practice in Kenyan Commercial banks looks to make a unique contribution to the existing body of quality literature by addressing Total Quality Management practices from a different environmental set up, namely: critical eight factors of QM practices and their influence in the financial performance.

## **2.8. Empirical Reviews**

Sadique and Walob (2014) did a research on the impact of TQM on different measures of performance. The obstacles faced by firms in implementing TQM are commitment by employees, insufficient employee involvement, insufficient of resources and inappropriate business structure. The conclusion was that firms should strive to improve on firm structure, staff involvement/commitment/awareness to TQM and make available enough facilities to eliminate the obstacles that hinder proper use of TQM practices.

Gelan & Dange (2021) on their study tried to identify the effect of total quality management on operation performance in manufacturing industry in Dire Dawa Administration. seven TQM

success factors identified in the study; which are Top Management Support, Process Management, People Management, Supplier Quality Management, Continuous Improvement, Customer Focus and Product Design & their impacts on contemporary operational performance measures i.e. Quality, Cost, Delivery & Flexibility to volume performances were examined.

According to Ang (2011), he carried out a research to analyze the effects of TQM tendencies on the learning organization and consumer orientation in the Malaysian service industry.

Sadique and Walob (2014) did a research on the impact of TQM on different measures of performance. The research established that various elements of TQM interfere with final result of the outcomes.

According to Paul (2015) study made on the effect of Total Quality Management on operational performance on the targeted population 41 commercial banks in Mombasa Country. The results showed that all the five (5) TQM practices as independent variables had a significant relationship with operational performance. As per the findings, effective TQM produces high operational performance for commercial banks in Mombasa County. Overall, TQM has been adapted to a moderate extent and the effect of TQM on operational performance is also moderate.

Anton et al (2013) conducted a study to examine the extent of total quality management (TQM) practices implemented in Palestinian hospitals and their relationship to organizational performance using the Malcolm Baldrige National Quality Award criteria. Finally, the results showed that TQM constructs used in this study are positively related to hospital performance and for the most part the relationship was significant; Three elements were found to be strongly significant predictors of performance- people management, process management, and information and analysis.

As per study made by Birhanu & Daniel (2014) on importance of total quality management practice in Ethiopia and they reflected that Competitiveness in the global market is becoming fierce. The importance of total quality management is growing to increase customers' satisfaction and as a result to win the market in the long term.

According to Omar & Stephen (2018) study conducted on the effect of total quality management practices on operational efficiency of container depots in Mombasa County. The study adopted a findings revealed that three elements of total quality management practices (top management

commitment, training, teamwork and employee commitment, customer focus and quality focus) had a significant relationship with operational efficiency. individual total quality management practices were considered, top management commitment, training, teamwork and employee commitment, customer focus and quality focus also had a strong positive correlation with operational efficiency.

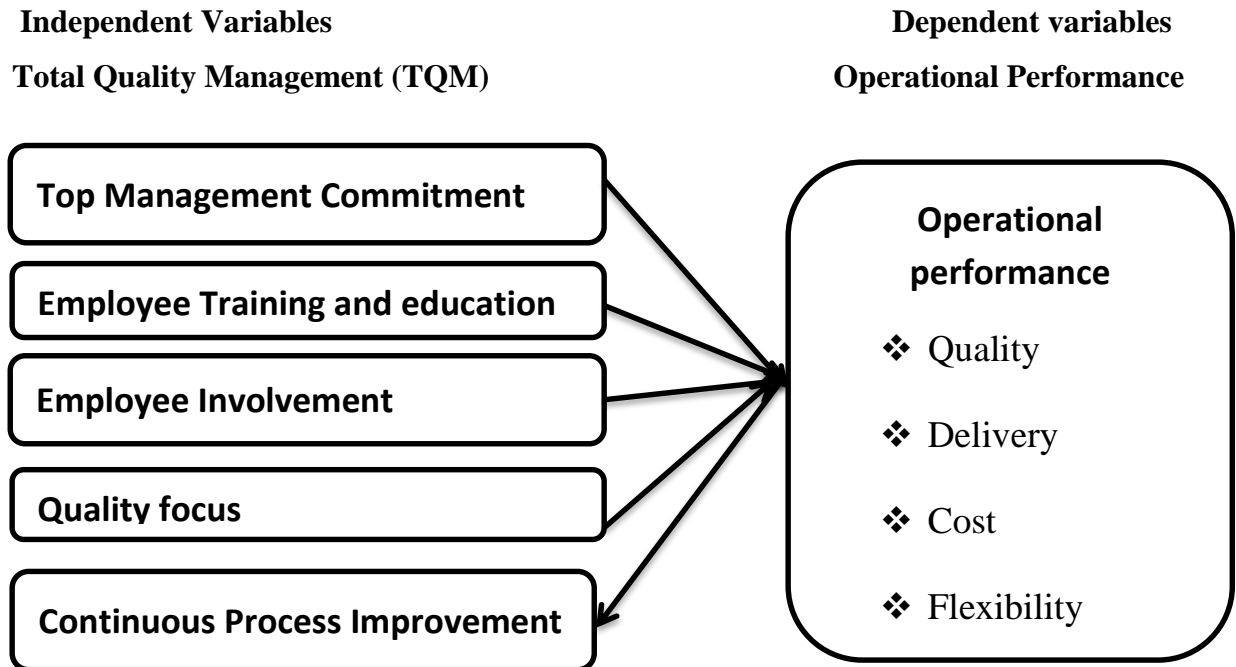
As per Saadia (2018) study made on effect of total quality management practices and performance of Commercial banks in Garissa County, Kenya. Different questions were used to give the respondents a wide variety and give room for respondents to answer the objectives in question as exhaustively as it is established.

Study conducted by Carolynne & Bichanga (2014) on the effect of total quality management on financial performance in the banking sector: a case study of national bank of Kenya. This study was limited to establishing how the pillars of TQM, namely supplier relationship, customer relationship, processes and top management involvement relate to financial performance. The four pillars of TQM formed the independent variables of this study while financial performance was the dependent variable. These variables were studied to fill the gap of explaining how the use of TQM in NBK affects its financial performance.

## **2.9. Conceptual Framework**

Depending on the previously assessed related literatures, the researcher has selected the under explained factors as measurement scales for the study under investigation about the effect of total quality management on operational performance in the case of ZamZam Bank in head office only.





**Figure 2.1. Conceptual framework**

Source: - Compiled by the researcher mainly based on Paul (2015), Anton et al (2013), Kua (2016), Omar & Stephen (2018), Saadia (2018) and Carolyne & Bichanga (2014).

## **HYPOTHESIS**

- ❖ **H1:** Top management commitment has significant and positive effect on operational performance.
- ❖ **H2:** Employee training and education has significant and positive effect on operational performance.
- ❖ **H3:** Employee involvement has significant positive effect on operational performance.
- ❖ **H4:** Quality focus has significant and positive effect on operational.
- ❖ **H5:** Continuous process improvement has significant and positive effect on operational performance.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Research Approach**

When conducting a research, there are different ways of approaching the problem. According to Creswell (2009), there are three approaches of research; quantitative, qualitative and mixed. The Quantitative research is a means for testing objective theories by examining the relationship among variables. On the other hand, qualitative research approach is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem with intent of developing a theory or pattern inductively. Finally, mixed methods approach is an approach in which the researchers emphasize the research problem and use all approaches available to understand the problem (Creswell, 2003). Hence, based on the above discussions of the three research approaches and by considering the research problem and objective, the researcher would use quantitative approach. Because, quantitative research approach produces objective data that can be clearly communicated through statistics and numbers.

### **3.2 Research Design**

Research design is a strategy for answering your research question using empirical data and also the overall strategy that you choose to integrate the different component of the study in a coherent and logical way there by ensuring you will effectively address the research problems.

There are three different types of research design explanatory, descriptive and exploratory research design. in this study the researcher used explanatory or casual types of research design because this study will show the cause and effect relationship between dependent and independent variables so, the main purpose of this study would be examine the effect of total quality management on operational performance in case of ZamZam Bank.

### **3.3 Data Types and Data Sources**

For this research, both primary and secondary data were utilized to generate quantitative data for its successful accomplishment considering that using primary data instead of secondary data would be more credible. The researcher would collect primary data by distributing a structured questionnaires' for the employees of ZamZam Bank. On the other hand, the secondary data would

be collected from sources like prior research, journals articles, books, internet, website and different manual and document of the bank. Even if secondary data are less reliable, time consuming and costly compared to primary data. The researcher was collect secondary data for complementing the data that would be obtained from the primary sources.

### **3.4 Sampling Technique and Sample Size Determination**

#### **3.4.1 Target population**

A research population can be defined as a well-defined collection of individual or objects (unit of analysis) which are known to have similar characteristics that the researcher wishes to study. The total population of ZamZam Bank in Head Office and outlying branches is above 1000 (one thousand) staff or employees totally. But the target population of this study would be 400 (Four hundred) employees from Addis Ababa head office. The researcher was only take head office not use other branches or districts Because Total Quality Management is only implemented only in head office. So the researcher was use only head office as samples and a target population.

#### **3.4.2 Sample Size**

By applying the formula of Taro Yamane (1967) sample size selection method with a probability of 95 % free error, a total of 200 samples was drawn from the total target population.

$$n = \frac{N}{1 + N(e)^2}$$

Where **n** is the required sample size,

**N** is the population size

**e** is the level of precision.

$$n = \frac{400}{1 + 400(0.05)^2} = \mathbf{200}$$

So, from the target population of 400 employees, the researcher was select 200 employees as sample to distribute the questionnaires for only head office employees.

### **3.4.3 Sampling Technique**

The researcher was used judgmental sampling technique to distribute the questionnaires' for respondents. The rationale behind using judgmental sampling is the researcher select units to be sampled based on their knowledge and professional judgment.

### **3.5. Data Collection Instrument**

The main data collection instrument utilized in this study was a questionnaire.

It is inexpensive, easy to administer to a large number of employees and less time consuming and normally gets more consistent and reliable result than other instruments and some open ended question would be included to strengthen the finding. Leary (2004)

The question in this study was closed ended question. Because, respondents were asked to indicate their level of agreement using a five Likert rating scale measurement where strongly disagree (SD) =1, disagree (D) =2, neutral (N) = 3, agree (A) = 4, strongly agree (SA) =5

### **3.6. Method of Data Analysis**

The data was collected from employees through questionnaires was analyzed mainly with the help of micro soft excel and SPSS. After that, the collected data would be rearranged, edited and calculated to become complete; it would be analyzed using descriptive statistics and multiple linear regression analysis. Descriptive statistics (mean, frequency, percentage and standard deviations) was used to analyze the general trends of the data. The descriptive statistics would be analyzed using SPSS. And Multiple Linear regression was employed to know the cause and effect of the relationship between variables and in Addition to these, Pearson correlation was used to determine the relationship between the independent and dependent variables with the help of SPSS.

### **3.7 Validity and Reliability of data collection instruments**

#### **3.7.1 Validity**

Validity is concerned with whether the findings are really about what they appear to be about (Sounders et. al., 2003). Validity defined as the extent to which data collection method or

methods accurately measure what they were intended to measure (Sounders et. al., 2003). To ensure the validity of the study

### 3.7.2 Reliability Test

Reliability is the degree to which the measure of a construct is consistent or dependable (Bhattacharjeend, 2012). To measure internal consistence Cronbach's alpha is the most widely used measure to assess the reliability. In this study Cronbach's coefficient alpha will be executed. Alpha coefficient ranges in value from 0 to 1. The higher the score, the more internally reliable the generated scale is Cronbach's coefficient alpha value over 0.7 is believed to be acceptable reliability coefficient (Pallant, 2005).

**Table 3-1. Cronbach Alpha Coefficient for each item**

	No of item	Cronbach's Alpha if Item Deleted
OP	7	0.748
TMC	6	0.896
ETE	5	0.803
EI	5	0.869
QF	6	0.784
CPI	7	0.752
<b>Total</b>	<b>36</b>	<b>0.809</b>

*Source: Own Survey, 2023*

The above table illustrates that the values of Cronbach's alpha for each of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's alpha ranged between 0.748 and 0.896 which is highly acceptable according to Malhotra, et.al. (2007). In addition to these the overall

reliability statistics for six items is 0.809. So based on the above reliability statistics, it is above the minimum required threshold and showed that the high reliability of the questionnaire.

### **3.8. Ethical Considerations**

Participants of the study were informed to participate voluntarily and their privacy and anonymity would be kept in secret and this study is used only for academic purpose. According to Creswell (2012), “as the researcher anticipate data collector, the need to respect the participants and sites for the research”. In this study the researcher tried to maintain objectivity, courtesy and no falsification, alteration or misrepresentation of data for political or other purposes. Moreover, the use of offensive, discriminatory or other unacceptable languages was avoided in the formulation of questionnaires.

## CHAPTER FOUR: DATA PRESENTATION AND INTERPRETATION

### Introduction

This chapter deals with the results and analysis of the findings and it contains three sections. The first section presented descriptive and correlation analysis on variables of the study; the second section presented fulfillment of the assumptions; the third section laid down the results of regression analysis that constitute the main findings of this study.

#### 4.1. Response Rate

The primary focus of the study was to test the effect of total quality management on operational performance in case of ZamZam Bank S.C particularly in head office. Therefore, this chapter presents the analysis of responses that were received via questionnaires distributed to selected 200 employees. The researcher was able to get back one hundred eighty-one (181) out of 200 questionnaires administered which gives 90.5 % response rate. This was done in order to obtain a larger response rate.

**Table 4-1. Response Rate**

Response	Frequency	Percentage (%)
Response	181	90.5
Non response	19	9.5
<b>Total</b>	<b>200</b>	<b>100</b>

Source: Field data (2023)

#### 4.2. Demographic Profile of Respondents

The questionnaire included a segment on employee's profile, as an assortment of demographic and other factors which likely to influence the total quality management on operational performance. The demographic profile of the respondents is described in the under the table.

**Table 4-2. Demographic Profile for selected employees**

No.	Demographics		Frequency	Percentage %
1	Gender	Male	113	62.4
		Female	68	37.6
		<b>Total</b>	<b>181</b>	<b>100.00</b>
2	Educational level	Bachelor degree	163	90
		Master's degree	13	7.2
		Above Masters	5	2.8
		<b>Total</b>	<b>181</b>	<b>100.00</b>
3	Your Current position	Higher Managerial Position	38	21
		Section Heads	31	17.1
		Senior officers	83	45.9
		Junior officers	29	16
		<b>Total</b>	<b>181</b>	<b>100.00</b>
4	How long you have worked in your company	Less than 1(one) year	63	34.8
		More than one and half year	118	65.2
		<b>Total</b>	<b>181</b>	<b>100</b>

**Source: Own Survey, 2023**

As shown from the above table the gender distribution indicates that covers 62.4% were males and the remaining 37.6 % were female. Related to the educational level of the respondents, 90% of the respondents were Bachelor degree, 7.2% of respondents were Master's Degree holders and 2.8% of respondents were above masters and also in line with position the table indicates that higher



managerial levels covers 21%, 17.1% covers section head, 45.9% covers senior and 16% were covered by junior officer.

In line with employee experiences, most of employees have worked for more than one and half years which covers 65.2 %, next to this employee who worked less than one year covers 34.8%. In addition to this, from the above demographic data, males have more coverage than females and most the respondents are bachelor degree holder than others. Besides, most of respondents are found in senior positions than other and also most of them they have worked above one and half years as compare to other employee's years of experiences.

### 4.3. Total Quality Management Practice

#### 4.3.1. Mean

Neil J. Salkind (2010) Mean is a parameter that measures the central location of the distribution of a random variable. Descriptive statistics (mean and standard deviations) of the respondents' scores were computed and analysis has been done by comparing these mean scores among respondents. The reason for using descriptive statistics is to compare the effect of total quality management on operational performance in case of ZamZam Bank in head office by using means.

**Table 4-3. Mean**

	Mean
	Statistic
OP	4.190
TMC	4.016
ETE	4.017
EI	4.060
QF	4.022
CPI	4.052
<b>Grand Mean</b>	<b>4.056</b>

**Source: Own Survey, 2023**

The table suggests that all operational performance determinant rated as above satisfactory. As far as the mean values are concerned, out of the determinant top management commitment (mean of

4.190), employee training and education (mean of 4.017), employee involvement (mean of 4.060), quality focus (mean of 4.022) and continuous process improvement (mean of 4.052) have major roles on operational performance. As the above table depicted, all explanatory variables play a fundamental role for operational performance in selected samples.

#### **4.4. Effects of TQM on Operation Performance**

Like the descriptive statistical methods, i.e. demographic and other related factors, the scale typed questionnaire has been entered to the Microsoft excel and inferential statistics methods such as: simple correlation and multiple regression methods has been employed to test the hypothesis. The objective of the study is to examine the effect of TQM practices on the operational performance of zamzam bank to do so, the research had applied statistical inferences of correlation and regression analysis. However before making the analysis, the study's model was tested by the regression assumptions of normality, linearity, Multicollinearity, Autocorrelation and Homoscedasticity as follows: -

##### **I Normality**

The single most important distribution in statistics is the normal distribution. It is the basis of the familiar symmetric bell-shaped curve. The test of Normality was done to determine whether the error term is normally distributed. This study indicates that the residuals or error terms are normally distributed. Therefore, the normality assumption was not violated.

##### **II Multicollinearity**

High (but not perfect) correlation between two or more independent variables is called multicollinearity (Wooldridge, 2016). It occurs when there is a relationship between two or more explanatory variables (Brooks, 2008). The most common ways of testing multicollinearity are value of tolerance and variance inflation factor (VIF). To avoid the problem of multicollinearity the values of tolerance must be above 0.10 and VIF must be below 10. The result of the study as shown on table 4.4 indicates that the value of tolerance and VIF of the independent variables are above and below the standards. Therefore, there was no problem of multicollinearity on the study.

**Table 4-4 Multi Collinearity Diagnosis**

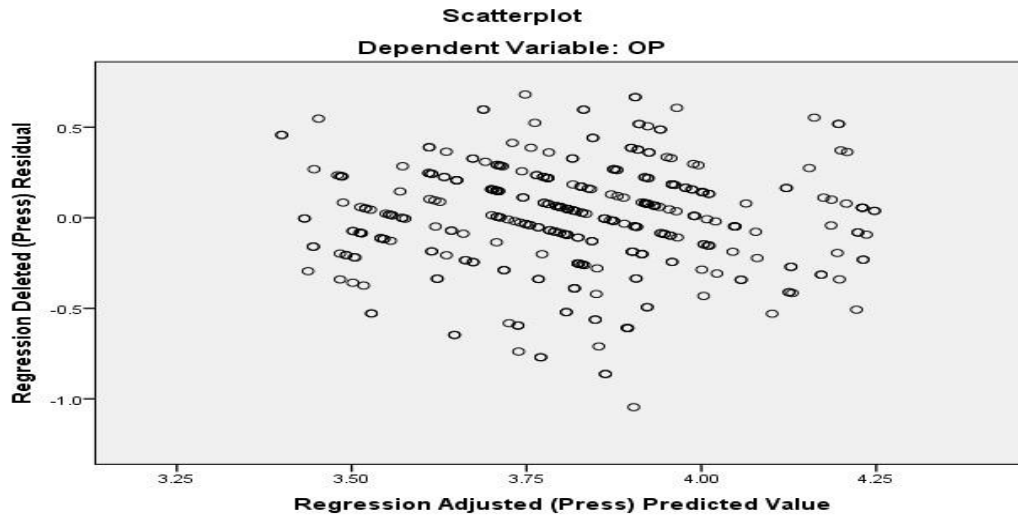
Model		Collinearity statistics	
		Tolerance	VIF
	TMC	0.236	3.973
	ETE	0.423	2.916
	EI	0.850	1.213
	QF	0.345	2.767
	CPI	0.247	3.945

**Source: Own Survey 2023**

### **III Homoscedasticity**

The linear regression model is based on the premise of homoscedasticity. It represents a situation in which the error term (random disturbance in the link between the independent variables and the dependent variables) is the same for all independent variable values. A by a scatter plot diagram can be used to test assumptions.

The output plots the values predicted by the model against the residuals collected. The variation in the residuals should be fairly comparable as the expected values increase. The graph appears to be a random collection of dots. As a result, the model is homoscedasticity.

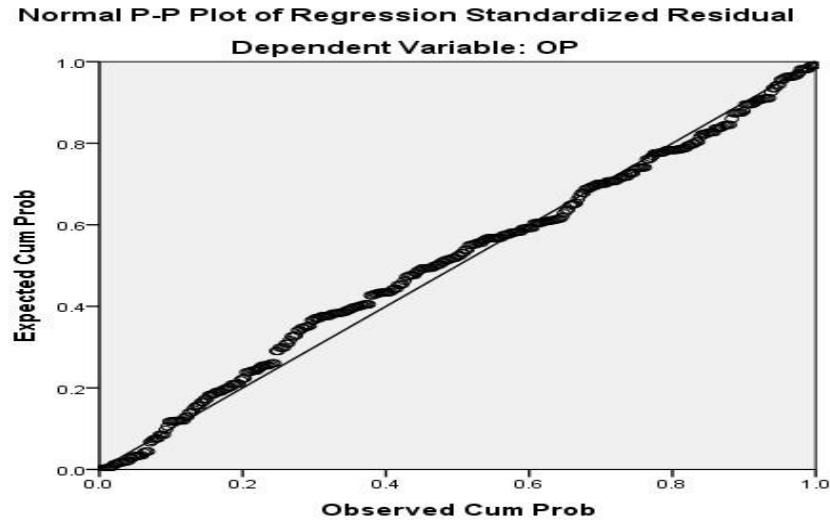


Source: Own Survey, 2023

**Figure 4-1 Homoscedasticity Test**

#### **IV Linearity**

Linearity is most simply thought of as data that is a straight line when graphed. It means that the relationship between variables must be capable of being expressed diagrammatically using a straight line (Brooks, 2008). The linearity of the dependent and independent variables of the study was made by the normal probability plot of residuals using SPSS. As shown on the plot below the points lie in a straight line from left to right. Therefore, the assumption of linearity is not violated.



Source: Own Survey, 2023 computed in SPSS, 2023

**Figure 4-2. Normal Point Plot of Standardized Residual**

#### **V Autocorrelation**

The Durbin–Watson statistic is one measure of autocorrelation and thus it measures the extent to which the assumption is violated. The Durbin–Watson (DW) statistic is scaled to be between 0 and 4. Values close to 2 indicate very little autocorrelation, values below 2 indicate positive autocorrelation, and values above 2 indicate negative autocorrelation (Albright, Winston & Zappe, 2010). The result as shown below on the model summary table, the value is closer to 2.00. Therefore, the autocorrelation assumption is not violated.

**Table 4-5. Autocorrelation Test**

Mo del	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.786 <sup>a</sup>	0.689	0.613	0.899	2.373

## 4.5. Correlation Analysis

Pearson correlation test was conducted to know the degree of relationship between the independent variables i.e. top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement and dependent variable i.e. operational performance. Based on the questionnaires which were filled by the employees and the results of correlation analysis between these variables are shown in table below.

**Table 4-6 Correlation Analysis Matrix**

		<b>TMC</b>	<b>ETE</b>	<b>EI</b>	<b>QF</b>	<b>CPI</b>	<b>OP</b>
<b>TMC</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
<b>ETE</b>	Pearson Correlation	.697**	1				
	Sig. (2-tailed)	.000					
<b>EI</b>	Pearson Correlation	.651**	.761**	1			
	Sig. (2-tailed)	.000	.000				
<b>QF</b>	Pearson Correlation	.617**	.721**	.740**	1		
	Sig. (2-tailed)	.000	.000	.000			
<b>CPI</b>	Pearson Correlation	.574**	.731**	.753**	.710**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
<b>OP</b>	Pearson Correlation	.518	.520**	.594**	.535**	.616**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

Correlation is significant at the 0.01 level (2-tailed).

**Source: Own Survey, 2023**

As the results shown in Table 4.6, the independent variables (top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement) are significantly and positively correlated with the dependent variable (top management commitment (Pearson Correlation = 0.518,  $p < .005$ ), employee training and education (Pearson Correlation = 0.520,  $p < .005$ ), employee involvement (Pearson Correlation is 0.594,  $p < .005$ ), and quality focus (Pearson Correlation = 0.535,  $p < .005$ ) and continuous process improvement (Pearson Correlation = 0.616,  $p < .005$ ).

The results of correlation analysis show positively and significantly correlated with the dependent variable i.e. operational performance at 95 percent confidence level ( $P < 0.05$ ). The finding on table

above further indicates that all independent variables have the significant relationship and also relationship found between continuous process improvement and operational performance have very high positive significant relationship Correlation = 0.616, the level of significance is less than 0.05.

#### 4.6. Regressions Analysis

A regression model was applied to determine the relationship between top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement and dependent variable i.e. operational performance. From the analysis, the regression model was established.

**Table 4-7. Regression Analysis Results for total quality management on operational performance**

	Unstandardized coefficients		Standardized coefficients	t	Sig
	B	Std Error	Beta		
<b>(Constants)</b>	2.028	0.411		4.934	0.000
<b>TMC</b>	0.951	0.201	0.121	4.731	0.000
<b>ETE</b>	0.594	0.130	0.074	4.569	0.000
<b>EI</b>	0.307	0.118	0.193	2.601	0.000
<b>QF</b>	0.525	0.132	0.068	3.977	0.000
<b>CPI</b>	0.601	0.134	0.218	4.485	0.000

**Source: Own Survey, 2023**

$$Y = \alpha + \beta_1(\text{TMC}) + \beta_2(\text{ETE}) + \beta_3(\text{EI}) + \beta_4(\text{QF}) + \beta_5(\text{CPI}) + \varepsilon$$

$$\text{OP} = 2.028 + 0.951 \text{ TMC} + 0.594 \text{ ETE} + 0.307 \text{ EI} + 0.525 \text{ QF} + 0.601 \text{ CPI}$$

Meaning that for every unit increase in TMC, OP will change by 0.951. Similarly, a unit increase in ETE, OP will change by 0.594, a unit increase in EI, OP will change by 0.307, and a unit increase in QF, OP will change by 0.525. Lastly a unit change increase in CPI, OP will change by 0.601. All the  $\beta$  coefficients have a positive relationship with operational performance.

The model shows that TMC, ETE, EI, QF and CPI are positively related to OP as shown by their coefficient values. From this model it can also be inferred that none of the components of the total quality management on operational performance is significant since all their p-values are greater than the significance of 0.05.

**Table 4-8 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	0.786 <sup>a</sup>	0.689	0.613	0.899

**Source: Own Survey, computed in Excel, 2023**

- a. Predictors, (constant), TMC, ETE, EI, QF, CPI
- b. Dependent Variable: Operational Performance

Results indicate that  $R^2 = 68.9\%$ , which shows that 68.9% of the variance in operational performance was explained by the five dimensions of total quality management. The results indicate that all independent variables contribute about 68.9% to the operational performance, while 31.1% of operational performance is explained by other variables. This indicates that there are other variables that contribute to the employee's motivation that are not considered in this study. According to Hair et al. (2010), cited by Ramesh Tharu (2019), the value of adjusted R square is higher than the benchmark of 0.5, which is sufficiently explainable for the regression model. Beta weights were also computed to assess the unique contributions of each independent variable of the study, which are effects of the dependent variable, which is the operational performance.

**Table 4-9. ANOVA Analysis**

Mode	Sum of squares	Df	Mean squares	F	Sig
<b>Regression</b>	9.405	5	5.881	31.619	0.000 <sup>b</sup>
<b>Residual</b>	37.344	174	0.214		
<b>Total</b>	46.749	179			

**Source: Own Survey, 2023**



The ANOVA table above had shown the analysis between the independent variables of TQM and the dependent variable operation performance. From the result seen on table above, the ANOVA had F-ratio 31.619 and p-value 0.000 ( $P < 0.05$ ). Since the p-value is less than the significant level the model was statistically significant and fit to explain the analysis. Therefore, it is concluded there exists a statistical significant and positive relationship between the dependent and independent variables under studied.

#### **4.7. Discussion of Findings**

According to the regression result of top management commitment has a positive and significant relationship with operational performance a coefficient estimate of 0.951. This means that holding other independent variables constant and when one percent increases in top management commitment, consequently it improves operational performance by 95.1%.

According to the regression result of employee training and education has a positive and significant relationship with operational performance a coefficient estimate of 0.594. This means that holding other independent variables constant and when one percent increases in employee training and education, consequently it improves operational performance by 59.4%.

According to the regression result of employee involvement has significant and positive relationship with operational performance with a coefficient estimate of 0.307. This means that holding other independent variables constant and when one percent increases in employee involvement, consequently it cannot improve operational performance by 30.7%.

According to the regression result of quality focus has significant and positive relationship with operational performance with a coefficient estimate of 0.525. This means that holding other independent variables constant and when one percent increases in employee involvement, consequently it cannot improve operational performance by 52.5%.

According to the regression result of continuous process improvement has significant and positive effect with operational performance a coefficient estimate of 0.601. This means that holding other independent variables constant and when one percent increases in continuous process improvement, consequently it improves operational performance by 60.1%.

The main issue addressed in this study is effects of total quality management on operational performance, in Zamzam Bank head office. The main objective was to establish the relationship between total quality management and operational performance in Zamzam Bank head office. Generally, there was positive relationship between total quality management and operational performance.

**Table 4-10 Summary of the overall outcome of the research hypotheses**

<i><b>Hypothesis</b></i>	<i><b>Result</b></i>	<i><b>Reason</b></i>
<b>H<sub>1</sub></b> : Top management commitment has significant and positive effect on operational performance	<b>Accepted</b>	$\beta = 0.951$ $p < 0.05$
<b>H<sub>2</sub></b> : Employee training and education has significant and positive effect on operational performance	<b>Accepted</b>	$\beta = 0.594$ $p < 0.05$
<b>H<sub>3</sub></b> : Employee involvement has significant and positive effect on operational performance	<b>Accepted</b>	$\beta = 0.307$ $p < 0.05$
<b>H<sub>4</sub></b> : Quality focus has significant and positive effect on operational performance	<b>Accepted</b>	$\beta = 0.525$ $p < 0.05$
<b>H<sub>5</sub></b> : Continuous process improvement has significant and positive effect on operational performance	<b>Accepted</b>	$\beta = 0.601$ $p < 0.05$

## CHAPTER FIVE: SUMMERY, CONCLUSION AND RECOMMENDATION

This chapter summarizes the study and identifies researcher's conclusions, recommendations and limitations on the research and give suggestive measure for further studies. Indeed, one tool that has been used by many of the banks in the competitive market has been quality service. To find out how important this tool is to Zamzam Bank head office. The study revealed that Zamzam Bank has been in operations for the past two years.

### 5.1. Summary of Findings

- ❖ According to the background information of respondents, the majority of the respondents are male, which accounts for 113 (62.4%) of the total respondents. The majority of 163 (90%) hold a first degree and that the majority of respondents, 118(65.2%), had greater than one and half years of experience.
- ❖ The relationship between operational performance and independent variables like top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement was analyzed using correlation and regression analysis.
- ❖ The correlation analysis result indicates that top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement have a strong and significant correlation with operational performance.
- ❖ From the Multiple Regression Analysis model summary result, it is observed that top management commitment, employee training and education, employee involvement, quality focus and continuous process improvement have statistically significant contributions operational performance which is less than the alpha value of 0.05. The study has found that operational performance at zamzam bank is 68.9% because, all independent variables contribute to the operational performance, while 31.1% of operational performance is explained by other variables.
- ❖ The findings of the present study showed that top management commitment had significant and positive effect on operational performance with values ( $\beta = 0.951$ ,  $t = 4.731$ ,  $p < 0.05$ ). So, the alternative hypothesis was accepted.

- ❖ The findings of the present study also revealed that employee training and education had a positive and significant effect on operational performance with values ( $\beta = 0.594$ ,  $t = 4.569$ ,  $p < 0.05$ ). Thus, the proposed hypothesis was accepted. The value of beta showed that 1 unit change in employee training and education will bring 0.594 unit change in operational performance.
- ❖ The findings of the present study also revealed that employee involvement had a significant effect on operational performance. With values ( $\beta = 0.307$ ,  $t = 2.601$ ,  $p < 0.05$ ). Which revealed that The value of beta showed that 1 unit change in employee involvement will bring 0.307 unit changes in operational performance. So, the alternative hypothesis was accepted.
- ❖ The findings of the present study also revealed that quality focus had a significant effect on operational performance. With values ( $\beta = 0.525$ ,  $t = 3.977$ ,  $p < 0.05$ ). Which revealed that The value of beta showed that 1 unit change in quality focus will bring 0.525 unit changes in operational performance. So, the alternative hypothesis was accepted.
- ❖ The findings of the present study also revealed that continuous process improvement had a significant effect on operational performance. With values ( $\beta = 0.601$ ,  $t = 4.485$ ,  $p < 0.05$ ). Which revealed that The value of beta showed that 1 unit change in continuous process improvement will bring 0.601 unit changes in operational performance. So, the alternative hypothesis was accepted.
- ❖ In accordance with the Five research objectives of the study, the result of the study examines how total quality management affects operational performance in Zamzam Bank. This is given by the descriptive statistics of perception towards total quality management variables and operational performance where respondents have reflected their attitude towards total quality management variables and operational performance with the following results of means score:
- ❖ The general mean for the perception of top management commitment is 4.016, indicating that the majority of respondents are towards agreeing level of agreement as it is rated above satisfactory.
- ❖ The general mean for the perception of employee training and education is 4.017, indicating that the significant respondents are towards agreeing level of agreement which is rated above satisfactory.

- ❖ The overall mean for the perception of employee involvement is 4.060, indicating that the majority of respondents are towards agreeing level of agreement with the statements specified in the study.
- ❖ The overall mean for the perception of quality focus is 4.022, indicating that the majority of respondents are towards agreeing level of agreement which is rated above satisfactory.
- ❖ The overall mean for the perception of continuous process improvement is 4.052, indicating that the majority of respondents are towards agreeing level of agreement which is rated above satisfactory by respondents.

## **5.2. Conclusions**

- ❖ The study indicated that top management commitment and continuous process improvement are most dominant factor influencing operational performance. The major variables in my study of total quality management consists of top management commitment, employee training and education, quality focus, continuous process improvement and employee involvement were examined. From the research, it is found that there exists significant relationship between operational performances.
- ❖ The result indicates that top management commitment has significant and positive significant effect on operational performance which implies that an increase in top management commitment inevitably lead to enhance operational performance. The result point out employee training and education has significant and positive effect on operational performance which implies that an increase in employee training and education certainly lead to improve operational performance.
- ❖ In general, top management commitment, employee training and education, quality focus, employee involvement and continuous process improvement have significant and positive effect on operational performance.

### 5.3. Recommendation

- ❖ The findings of the study showed that top management commitment, employee training and education and continuous process improvement have significant and positive effect on operational performance. So, focusing and taking the necessary action on these variables could improve the probability containing the effect on operational performance. Based on the findings which are obtained from regression analysis, the researcher has drawn the following recommendations.
- ❖ top management commitment has a significant and positive effect on operational performance, so that Zamzam Bank is working on this area by making the top managers being committed on their duties and responsibilities activities implementation and the bank must strictly assure and follow the top managers whether they are real committed or not while they perform their duties. In conclusion, by keeping the above activities, Zamzam bank head office can easily enhance his operational performance.
- ❖ The regression analysis indicated that employee training and education has a significant and positive effect on operational performance, therefore zamzam Bank has to provide relevant and timely base training for all employees according to their position. In addition, the bank must encourage and gives incentives for employees in order to improve their educational background. By doing so and making related programs, Zamzam Bank can enhance his operational performance.
- ❖ The finding explained that employee involvement has significant and positive effect on operational performance. So, the bank should encourage and provide opportunities to employees to be involved in making and decisions process. In addition, the bank's management must develop an environment that is encouraging employees to get involved in the firm's quality activities. Such an environment should mainly aim at establishing a positive attitude amongst the employees, there should also be communication on what goals are need to be achieved and the goals should mainly address both organization and individual needs. Finally, by keeping the above activities, Zamzam bank can easily enhance his operational performance.
- ❖ The result shows that that quality focus has a significant and positive effect on operational performance; therefore, Zamzam Bank must focus on quality by making its main objective in

designing its products or services is to fulfill and or exceed customer expectations and at the same time make a reasonable profit. So that, by implementing these activities. Zamzam Bank can improve his operational performance.

- ❖ The analysis indicated that continuous process improvement has a significant and positive effect on operational performance, therefore Zamzam Bank must often involves creating a team that includes representatives from all areas of the company and this can attract more employees into this concept which in turn leads to the continued search for more improvements. By doing so, Zamzam Bank can improve his operational performance. Therefore, Zamzam Bank should effectively consider the above determinants by performing more work on those factors to have a better operational performance.

#### **5.4. Future Research**

This study was conducted solely in Zamzam Bank head office and the composition of the sample may not be analogous to the whole out lets in Ethiopia. Therefore; additional studies in main branches and different regions of the country are needed to investigate the hypotheses. Moreover, this study investigates the effect of total quality management on operational performance using only non-quantitative operational performance measurements. In addition, variables included in the study were not exhaustive and future researches should be carried out to determine the effect of other variables which are not identified in the present study but affect operational performance regarding banking industry.

## REFERENCES

- Adinolfi, P. (2003). Total Quality Management in public health care: a study of Italian and Irish hospitals. *Total Quality Management & Business Excellence*, 14(2), 141-150.
- Agus, G., and Hassan, D., (2000). Total quality management practices and business outcome: evidence from small and medium enterprises in Western Australia, *Total Quality Management*, 12(2), 201- 210.
- Ang, K. (2011). The effects of TQM tendencies on the learning organization and consumer orientation in the Malaysian service industry.
- Anton, R. & Rami, K & Omar, O. (2013). The extent of total quality management (TQM) practices implemented in Palestinian hospitals and their relationship to organizational performance. *International Journal of Operations & Production Management*, 12,14871505.
- Barney, J. (1991), Firm resources and sustainable competitive advantage. *Journal of Management*, 17, 99-120.
- Belay, S.,& Abdinasir. F. (2015). *Research Methodology*. Addis Ababa
- Bhattacharjeend, K. (2012). *Business Research Methods*. New York: Oxford University Press Inc.
- Birhanu, B., & Daniel, K. (2014). Quality management practice in Ethiopia. *African Journal of Business Management*. 8(17), 689-699.
- Blecken, H. (2009). Relationship between total quality management and performance of Singapore companies- *International journal of quality and reliability*.
- BrahA.S, Tee, L.S, Rao M.B (2002). Relationship between total quality management and performance of Singapore companies. *International journal of quality and reliability*.
- Brown, S. (2013). Operations master's series: an interview with wickham skinner, emeritus professor at Harvard Business School, *International Journal of Operations & Productions Management*, 1(104-1).
- Burr, J.T. (1993). A new name for a not-so-new concept. *Quality Progress*, 26(3), 87-88.
- Carolyne, M., &Bichanga, W. (2014). Effects of total quality management on financial performance in the banking sector: a case study of national bank of Kenya. *Journal of Economics and Finance*,3(2), 34-40.



- Cervena, K. (2011). Effectiveness of education in the Slovak republic. Paper presented at Humanization of education at technical Universities scientific papers proceeding, Bratislava.
- Cole, K., & Phil, F. (2011). The service quality dimensions and satisfactory relationships in South Korea.
- Cooper, D & Schindler, P. (2003). Business Research Methods. 8th edn, McGraw-Hill, New York.
- Cravens, D., & Piercy, N. (2013). Strategic Marketing. 10th Edn. McGraw-Hill.
- Creswell, W. (2003). Research design, qualitative, quantitative and mixed methods approaches, 2nd edn, Sage Publications, California.
- Creswell, W. (2009). Research design: quantitative, qualitative and mixed methods approaches, 3rd edn. Sage Publications, California.
- Dawit. M (2017). Impact of information technology investment on performance of commercial banks in Ethiopia. Unpublished Master's thesis in Addis Ababa University.
- Dean, J., & Bowen, D. (1994). Management theory and total quality: improving research and practice through theory development. Academy of Management Review, 19, 392-418.
- Demirbag, M., Tatoglu, E., Tekinkus., M. & Zaim, S. (2006). An analysis of the relationship between TQM implementation and organizational performance evidence from Turkish SMEs, Journal of Manufacturing Technology Management, 17(6), 829-847.
- Eng, Q., & Yusof, S. (2003). A survey of TQM practices in the Malaysian electrical and electronic industry. Total Quality Management & Business Excellence, 14 (1), 63-77.
- Field, L. (2009). Examining Product Quality Attributes That Influences Customer Satisfaction Most When Price was discounted: A Case Study of Kuching Sarawak. International Journal of Business and Social Science. 3 (23), 221-236.
- Fiol, V. (2010). Impact of Operational Efficiency on Overall Profitability- A Case Study of GIPCL. Working Paper No.136/2012.
- Garson, J. (2012). Emotional effects of advertising on young adults of lower social economics status.
- Hashim, B. (2010). TQM: terrific quality marvel or tragic quality malpractice, The TQM Magazine, 17(4), 309-21.
- Hoogervorst, D. (2005). The relationship between total quality management practices and operational performance. Journal of Operations Management, 17(4), 393- 409.

- Islam, A., & Haque, A. (2012). Pillars of TQM implementation in manufacturing organization- an empirical study. *Journal of Research in International Business and Management*, 2(5) 128141.
- Jaafreh, A., & Al-abedallat, A. (2012). The effect of quality management practices on organizational performance in Jordan: An empirical study. *International Journal of Financial Research*, 4(1), 93.
- Joiner, G., and Brian, F. (2007). Identifying potential barrier to total quality management using principle component analysis and correspondence analysis. *International Journal of Quality & Reliability Management*, 14,391-408.
- Juneja, D., Ahmad, S., & Kumar, S. (2011). Adaptability of Total Quality Management to Service Sector. *International Journal of Computer Science & Management Studies*, 11(2), 93-98.
- Kanji, P. (2008). Creating a new organizational culture: the key to total quality management in the public sector", *International Journal of Public Administration*, 18(4), 675-709.
- Karia, J., and Asaari, T. (2006). National customer satisfaction indices: an implementation in the Turkish mobile telephone market. *Marketing Intelligence & Planning*, 23(5), 486-504.
- Kothari, G. (2004). An integrated system theory of information security management. *Journal of Information Management & Computer Security*, 5, (243-248).
- Kua, C. (2016). The effect of total quality management (TQM) and work-life balance towards jobsatisfaction. Unpublished thesis Universiti Tunku Abdul Rahman, Malaysia.
- Lai, W., & Chau, R. (2000). Service Quality Perspectives & Satisfaction in Privet Banking. *The journal of Service marketing*, 14(3), 244-71.
- Lee, M., & Chang, T. (2006). Applying TQM, CMM and ISO 9001 in knowledge management for software development process improvement. *International Journal Services and Standards*, 2(1).
- Lenka, U., Suar, D., & Mohapatra, P. (2010). Soft and Hard Aspects of Quality Management Practices Influencing Service Quality and Customer Satisfaction in Manufacturing-oriented Services. *Global Business Review*, 11(1), 79-101.
- Malhotra, K., & Birks, F. (2007). *Marketing Research: An Applied Approach* (Third European Edition). England: Prentice Hall, Inc., a Pearson Education company.

- Mark, S., Phillip, L., & Adhrian, T. (2007). *Research Methods for Business Students*, 4th edn. Prentice Hall, financial times.
- Maxwell, K. (2011). The Relationship between TQM Practices, Quality Performance, and Innovation Performance: an Empirical Examination. *International Journal of Quality and Reliability Management*, 20(8), 901-918.
- McLeod, R., & MacDonell, R. (2011). *TQM in Service Sector*, Jaico Publishing House, Mumbai, India. Mohanty,
- Mehta, P. (2000). President's quality program honors government organizations. *Quality Progress*, 33(8), 57-62.
- Murphy, F., & Elana, M. (2006). Quality practices of Indian organization: an empirical analysis. *International Journal of Quality and Reliability Management*, 11(1) 38-52.
- Nwabueze, U. (2001). The implementation of TQM for the NHS manager. *Total Quality Management*, 12(5), 657-675.
- Olorunniwo, K., & Udo, F. (2002). Organizational capability: creating competitive advantage. *Academy of Management Executive*, 5(1).
- Omar, M. & Stephen, O. (2018). Effect of total quality management practices on operational efficiency of container depots in Mombasa County. *European Journal of Business and Strategic Management*, 3(6) 66 - 84.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS windows (version 12)*, 2nd edition, Allen & Unwin, Sydney.
- Paul, M. (2015). The effect of Total Quality Management on operational performance commercial banks in Mombasa County, Kenya. Unpublished thesis, University of Nairobi, School of Business.
- Pierre Leconte (2019). 17 Key Performance Indicators Every Bank Should Track; <https://www.clearpointstrategy.com/bank-kpis/>
- Porter, M. (1998). *Competitive strategy: techniques for analyzing industries and competitors: with a new introduction (1st Free Press ed)*. New York: Free Press.
- Powell, L. (1995). Quality makes a splash. *Quality Progress*, 34(9), 43-48.
- Powell, P. (1995). The impact of design management and process management on quality: an empirical examination. *Journal of Operations Management*, 18, pp. 549-575.

- Priem, D., & Butler, C. (2010). What Is Quality? An Integrative Framework of Processes and States. *Journal of Marketing*, 76, 1-23.
- Provost, L., & Quayle, R. (2001). Quality makes a splash. *Quality Progress*, 34(9), 43-48.
- Saadia, A. (2018). Total quality management practices & performance of Commercial Banks in Garissa Country, Kenya. *International Academic Journal of Human Resource and Business Administration*, 3 (1), 52-67.
- Sadique, R., & Walob, N. (2000). Total quality management and sustainable competitive advantage. *Journal of quality management*, 5(1), 5-26.
- Sadique, F., and Walob, T. (2014). Impact of TQM on different measures of performance In Nigeria.
- Sandru, O., & Sandru, I. (2009). Regarding education quality management problems as dynamic system theory problems. Paper presented at the 20th International Danube-Adria Association for Automation and Manufacturing (DAAAM) Symposium.
- Saravanan, J., & Rao, R. (2007). An Instrument for Measuring the Critical Factors of Quality Management. *Decision Sciences*, 20(4), 810-829.
- Saunders, M., Lewis, P., & Thornhill, A., (2009). *Research methods for business student's fifth edition*. Edinburgh Gate Harlow, England: Pearson Education Limited.
- Singh, S., & Dhalla, R. (2010). Effect of total Quality management on performance of Indian Pharmaceutical Industries. *Proceeding of the 2010 International Conference of Industrial Engineering and operations management Dhaka, Bangladesh*.
- Soltani, A., (2005). Total Quality Control in The Asian Division of a Multinational Corporation. *International Journal of Quality & Reliability Management*, 6, (60 74).
- Sounders, J & Harun, A. (2003). *The Effect of Brand Image on Overall Satisfaction & Loyalty Intention in the Context of Color Cosmetics*. Cambridge, UK: MacMillan.
- Spencer, B. (1994). Models of organization and Total Quality Management: comparison and critical evaluation. *Academy of Management Review*, 19(3), 446-471.
- Talib, F., Rahman, Z., & Qureshi, M. (2012) Impact of Total Quality Management and Service Quality in the Banking Sector. *J, Telecommunications System & Management*.
- Terziovski, D., and Samson, T. (2006). TQM Gives Companies a Way to Enhance Position in global Market Place. *Industrial Engineering*, 21 (4), 77-87.

- Terziovski, M., Tornow, W., & Wiley, J. (2003). Service quality and management practices: A look at employee attitudes, customer satisfaction, and bottom-line consequences. *Human Resource Planning*, 14(2), 105-115.
- Thai,H., Igel, B., &Laosirihongthong, T. (2006). The impact of total quality management on innovation: Findings from a developing country. *International journal of quality & reliability management*, 23(9).
- Ugboro, C., & Lean, P. (2011). The service quality dimensions and satisfactory relationships in South Korea.
- Vecchi, A., & Brennan, L. (2011). Quality management: a cross-cultural perspective based on the GLOBE framework.*International Journal of Operations & Productions Management*, 31(5).
- Vokurka, R. &Lummus, R. (2003). Better supply chains with Baldrige. *Quality Progress*, 36(4), 51-57.
- Wilkinson, A., &Witcher, B. (1993). Holistic Total Quality Management must take account of political processes. *Total Quality Management*, 4(1), 47-55.

## APPENDIX

### Questionnaire for Employees

#### ST. Mary's University School of Graduate Studies

#### Business Administration Management: Post Graduate Program

This questionnaire is designed to carry out a research on the effect of total quality management on operational performance in the case of ZamZam Bank and its main purposes are: to the effect of total quality management on operational performance and as partial fulfillment of the requirements for the degree of Master in Business Administration.

The data will be used only for academic purpose and your response is not forwarded to other third party and it is kept confidential, please answer each questions with no fear of consequence. No need of writing your name.

I thank you in advance for your cooperation.

Please feel free to contact me @ any time for further clarification if any!

Jemal Endris Tel 0929063348

#### **Part I: Demographic or Personal Information**

Please read each statement carefully and encircle your choice for the questions indicated in the table.

Question		Response
1	Gender	1. Male 2. Female
2	Educational level	1. Bachelor degree 2. Master's degree 3. Above Masters
3	Your current position	1. Higher Managerial position 2. Section Heads 3. Senior officers 4. Junior officers
4	How long you have worked in your company	1. Less than one year 2. More than one and half year

**Part: II Examining the effect of Total Quality Management on operational performance offered by the bank**

The following question aims to examine the effect of total quality management practice on operational performance offered by the bank. Please tick (√) the number that you feel most appropriate number using the scale below (from 1 to 5 alternatives in the Likert scale).

No	Dimensions of Total Quality Management Practices	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
<b>1. Top Management Commitment</b>						
1.1	Senior managers actively encourage change					
1.2	Leadership proactively pursue continuous improvement					
1.3	Top management clearly understands the fundamental spirits and principles of quality management					
1.4	Company's plan always incorporates external customers, suppliers and other stakeholders					
1.5	Management create synergy, interdependence and interconnections					
1.6	Top management believes and appreciates team work					
<b>2. Employee Training and Education</b>						
2.1	Employee of your bank are given adequate training on total quality management					
2.2	Training programs are constantly revised or update to fit with changing environment					
2.3	The training programs always bring change in employees quality commitment					

2.4	The training programs given to employees are customized to your respective duty					
2.5	Resources are provided for employee training in quality					
<b>3. Employee Involvement</b>						
3.1	I am provided with substantial autonomy and responsibility					
3.2	Employees are involved in design and planning of their work					
3.3	I am encouraged to develop new ways to provide better services					
3.4	I am provided with sufficient information to arrive at good quality suggestions					
3.5	Employees are involved in planning their work evaluation					
<b>4. Quality Focus</b>						
4.1	There is a strong commitment to quality at all levels of this bank					
4.2	Employee in this company are aware of its overall mission and vision					
4.3	Staff Members of the bank show concern for the need for quality					
4.4	Continuous quality improvement is important goal of this bank					
4.5	Top Mangers here try to plan ahead for changes that might affect our quality performance					
4.6	Quality products and services produced meet the customer demands effectively					



5. Continuous Process Improvement					
5.1	When designing processes, the bank carefully considers the quality of service				
5.2	Before applying new procedures or delivery processes, the bank conducts comprehensive tests to assure quality				
5.3	The bank has appropriate management measures to control and improve delivery processes				
5.4	The bank continuously improves its delivery processes, to enhance the overall service quality development				
5.5	Individual departments work to improve their processes				
5.6	Process improvement initiatives are shared among departments				
5.7	Our associates(employees, supervisor, and managers) in the bank analyze their work process to look for ways of doing a better job				
6. Operational Performance measurement					
1.1	The bank maintains consistent quality standards for providing services				
1.2	Customer visit of our branch has increased				
1.3	Our bank employee as have increased error free transactions				
1.4	Customer complaints have been reduced				
1.5	Customer retention has been improved				
1.6	New Customer visits has been increased				
1.7	Customer waiting line has been reduced				