THE EFFECTS OF TOTAL QUALITY MANAGEMNET ON OPERATIONAL PERFORMANCEIN ETHIOPIAN BANKING INDUSTRY: (THE CASE OF DASHEN BANK)

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THE EFFECTS OF TOTAL QULITY MANAGEMENT ON OPERATONAL PERFORMANCE IN ETHIOPIAN BANKING INDUSTRY: IN THE CASE OF DASHEN BANK S.C

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The work is original in nature and is appropriate for submission for the award of the Master of Science Degree in Management.

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DECLARATION

I the under signed, hereby declare that the thesis entitled "**The effects of total quality management on operational performance in Ethiopian Banking Industry: In the Case of Dashen Bank"** is my original work and has not been submitted to any other college, institution or university other than Addis Ababa University for the award of the Degree of Master Science in management at Addis Ababa and that all sources of material used for the study have been appropriately acknowledged.

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FINAL THESIS APPROVAL FORM

As members of the board of Examining of the final MS thesis open defense, we certify that we have read and evaluated the thesis prepared by **Metew Minaye Tefera** the title "**The effects of total quality management operational performance in Ethiopian Banking Industry: In the case of Dashen Bank"** recommends that the thesis be accepted as fulfilling the thesis requirement for the Degree of Master Science in management.

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Abstract

This research paper aimed at exploring the effect of TQM on operational performance through adopting a descriptive research and explanatory research design. Dashen bank staffs that are assigned and working at head quarter within different departments were selected as the population of this research. The research applied convenient sampling technique to distribute questioner for sampled respondents. The sample size of this thesis project was therefore 261staffs of Dashen Bank S.C. The study used first hand data that has been gathered through structured questionnaires. Correlation analysis was performed to determine the degree of relationship between TQM dimensions namely: Employee involvement, Technology adoption, continuous improvement, customer focus and leadership and operational performance. Multiple regression analysis was also done to evaluate the effect of the above mentioned independent variables on operational performance. The study established that at 5% level of significance, there is a positive association between TQM dimensions and operational performance. Furthermore, the study revealed that all the developed constructs have a significant impact on operational performance in the study area. Finally the research found that customer focus is the more significant factor that affects operational performance in Dashen Bank followed by employees' involvement, leadership, continuous improvement and technology adoption. Hence, the Bank should establish a well-designed customer focus strategy that can benefit both the bank and customers in the long run and should Involve employees in decision making and give them recognition for better performance.

Keywords: Operational performance, employee involvement, technology adoption, continuous improvement, customer focus, leadership**,** Dashen Bank

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Contents

List of acronyms

TQM – Total quality Management

SPSS - Statistical Package for Social Science

DB- Dashen Bank

EI- Employee involvement

TA – Technology Adoption

CI – Continuous Improvement

CF- Customer Focus

L – Leadership

OP – Operational performance

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Chapter One: Introduction

1.1 Background of the Study

Various literatures in the area of Total quality management (TQM) agreed that during the last couple of years, business organizations throughout the globe have been striving to cope with turbulent and rapidly changing business environment where it requires business leaders to work a lot to gain competitive advantage over their competitors. Marcel and Ayankeng (2015) showed that to endure new global challenges, majority of organizations have adopted new business strategies such as Total Quality Management and Business Process Re-engineering (BPR), to get a better result and to run the business in a productive manner. The Centeral driving objective behind these strategies is the optimization of the organization's business performance both internally and externally under its respective market focus.

Prajogo & McDermott, (2005) clearly mentioned TQM as a management tool, philosophy, and a set of principles which can be applied to all functions and processes of an organization to constantly advance the quality of products and services, to exceed customer satisfaction at any given period, as well as continuously reduce the cost of production. On the other hand Mahmud & Hilmi, (2014) referred TQM as the business process and management practices which are highly focused with how to improve the efficiency and effectiveness of a business organization.

Evans (2005) identified customer focus, process orientation, continuous improvement, empowerment and teamwork, management by fact, and visionary leadership as the fundamental management concepts of the philosophy of Total quality Management. According to him Customer focus meant that total quality management considers a customer as the one who evaluates and drives quality of a product of a service.

Corredor and Goñi (2011) explained that the main purpose of total quality management is to achieve and exceed customer expectation by "do it right the first time and every time, for customer satisfaction" meanwhile total quality management is aimed at exceeding customer needs through quality product and services. Thus, considering and translating customer desires and expectations into organizational business strategy is a backbone of TQM implementation (Kriengsak & Thanh, 2017).

Furthermore, according to Saleem, Khan, Hameed & Abbas, (2012) Total quality management should also involve employees in all levels of activities for continuous process improvement by using both bottom up and top down approach most importantly on the implementation stage.

The ever growing stiff competition and increasing interest of customers in demanding more quality of products and services have forced business organizations to recognize that the only means of survival in today's market is to provide improved quality service and products to meet and exceed customers' expectation. That is why many business firms are investing significant amounts of money in activities associated to improving products and services. The major applicability of TQM has made it to earn acceptance as one of the famous continuous improvement systems for quality. Egwu, (2014) suggested that Successful total quality management could be achieved when an organization is focusing in continuous improvement as one of essential dimension. It is obvious that the well known recent philosophy of continuous improvement which promotes inventive thinking is Kaizen. Kaizen is a Japanese word which purely refers "improvement" or "change for better" Customers are usually concerned on the product or service quality. Hence, business organizations are expected to introduce a quality system that enhances and improve quality continuously (Jadhav, Jamadar, Gunavant & Gajghate, 2014)

TQM enhances customer's satisfaction through employees involvement in all stages of total quality management (Demirbag, Tatoglu,Tekinkus & Zaim, 2006). According to Eriksson & Hansson, (2002), the Centeral purpose of total quality management is to implement a management system and organizational culture that ensures customer satisfaction to the expected level.

Service quality is a key for organization improvement and success. In today's highly competitive market quality has become inevitable for service giving institution specially, banks to work on enhancing quality within their functions, product and services and the way they manage their business. As mentioned by Islam. A. and Haque, A. F. M. (2012) quality refers an excellence in products and services, especially to the degree they conform to requirements and satisfy or exceeding customers' expectation. According to Adeoti j. O. (2003) Quality of service is more challenging for customers to measure than quality of products. Generally, despite the fact that

customers have limited characteristics and attributes in mind that he or she uses as a basis for comparison among service providers, Lack of one attribute in a bank may make the customers to choose another one. To stay competitive in the market, therefore, it is mandatory to deliver excellent service quality and it is also believed as a precondition to success of banking business (Talib F, Rahman Z& Qureshi M 2012). Many studies have revealed that the performance of banks is considerably and positively connected with the service quality and to attain the desired service quality in the banking business, the total quality management plays a significant role.

It is apparent that regardless of the sector, measuring organizational performance is becoming crucial for business firms to stay in the market in competitive way. The wide spread of Globalization has brought surprising changes to the economy as a result, many organizations are forced to look for better strategies or solutions to increase performance and to coup with unforeseen changes and crisis, particularly in the banking sector. In recent years the Ethiopian banking sector has experienced unstable financial times, it has got worst following the outbreak of covid -19 pandemic. Most of the challenges are: Lack of deposit or liquidity problem, lack of foreign currency, exchange rate, the increasing non-performing loans, so banks need to develop best strategies in order to deal with these challenges and enhance their performance.

The Ethiopian banking sector contributes a lion share to the service industry that serves the needs of different categories of customers who are highly demanding up to date, quick and high quality service. In Ethiopia as of now, there more than eighteen banks providing variety of banking services to wide range of customers. Currently, TQM has become the new method to maintain competitive advantages and to enhance organizational performance; it is the key element for company's success (Ooi et al., 2011). Total quality management business philosophy is crucial and can be implemented in all over the service industry especially in banking sector where the customer is treated as a king because customer for the bank mean everything for its success.

Vanniarajan (2007) statistically tested and establish that there is a positive and significant correlation between quality of banking services and operational performance of commercial banks. Thus, the satisfaction of customers is highly interdependent with the quality of service delivery in the banking sector (Joseph, 2003). These days banks are well informed about the fact that their achievement and continuation in globalized and extremely competitive business

environment is possible only through offering supper standard service for their customers (Wang&Hui, 2003).

In Banking Sector, Total quality management has a significant role for improving the efficiency of both technical and human resources. In Ethiopia, there are many banks which are working with really tough competition. Banks that provides better service will get success among other competitors and TQM is the best tool that can be used for performance improvement then to win customers.

Hence, this particular study has tried to show the influences of total quality management on operational performance in Ethiopian banking industry by taking Dashen bank as a study area.

1.2 Statement of the problem

The contribution of total quality management toward achieving operational performance through attaining the growing need of customers is very crucial. However, developing countries like Ethiopia in their customer service quality are not like that of developed countries. Because banking sector in Ethiopia has less than a history of three decades, banking service is at its growing stage and needs continuous improvement. The private banking industry in Ethiopia has only an experience of almost 25 years. Dashen Bank (DB) which is one of the pioneer private banks in Ethiopia banking history and has become operational since September 1995.

Implementing total quality management to customers is imperative for financial institutions especially, for banks where almost alike service is provided. In the history of the private banks, over the past two and half decades, eighteen banks were operational and there are significant number banks under formation and expected to start operation very soon. All of these banks typically offer the same type of banking services. They are also competing on the same business environment. This provides customers an opportunity of getting low switching cost. Unless business organizations deliver more satisfaction than competitors, with no doubt customers will switch to service providers who can meet their expectation better (Kotler, 2003).

According to Literature review even though various studies are have been carried out on the area of total quality management and its fact on organizational performance , there are only a limited number of research findings on the influences of TQM on operational performance in the

banking business sector. Various researchers in the area of total quality management such as (Ezenyilimba and Emmanuel, 2019), (Musran and Munizu, 2013), (Carolyne and Bichanga ,2014), Rawan Al-Ettayyem1 & Zu‟bi M. F. Al-Zu,2015) have strongly suggested that the need for undertaking a study in the banking industry aimed for understanding how banks conduct their business in way that exceeding customer expectation and to bring operational performance

More importantly, most empirical studies showed the influences of total quality management on firms' performance by taking diverse business environment. Thus, the aim of this reserch was to explore the effect of Total Quality Management (TQM) dimensions (employee involvement, technology adoption, continuous improvement, customer focus and leadership) on operational performance in the Ethiopian banking industry.

However, in spite of all these research findings the Ethiopian banking sector practice is not in accordance with the concept of total quality management. During a first round disccusion made with the strategy management team of Dashen Bank S.C on April 2021and referring to the bank's social media, the researcher have acknowledged that TQM is neglected by most of banks because of : their priority is how to increase their market share through acquisitions of new customers, and small emphasis is given for quality improvement. Consequently, they override the importance of investing on total quality management improvement areas, and that is why most banks lack service quality assurance function in their organizational setup. Thus, examining the effect of TQM practice on operational performance in the Ethiopian banking sector was found important.

This study attempted to investigate the effect of Total Quality Management (TQM) towards operational performance in the Ethiopian banking sector by taking Dasen Bank as a case study. Accordingly, the study has tried to discover the major dimensions of Total quality management that helps to achieve operational performance in the banking sector, more specifically in Dashen Bank S.C.

1.3 Research questions

This particular study take into consideration the below main research question

- What are the influences of TQM on operational performance in Dashen Bank S.C (DB)?

While the specific questions of this research are described as follows:

- To what extent employee involvement influence operational performance of DB
- How technology adoption does influences operational performance of DB?
- How continuous improvement does affect operational performance in DB?
- To what extent customer focus influence operational performance in DB?
- To what extent leadership influence operational performance in DB?
- Of the above listed TQM dimensions which factors have the upper hand influence on operational performance in DB?

1.4 Objectives of the Study

The aim of this research was to investigate the effects of TQM dimensions on operational performance in Dashen Bank S.C (DB). In specific terms, the objectives of this research are to:

- Determine the effect of employee involvement on operational performance in DB.
- Know the extent of technology adoption influence on operational performance in DB.
- Examine the impact of continuous improvement on operational performance in DB.
- Ascertain the effect of customer focus on operational performance in DB.
- Establish the extent of leadership influence on operational performance in DB.
- To examine which factor has more influence on operational performance in DB.

1.5 Significance of the study

The most important significance of this research was to explore the TQM dimension that possibly affects the operational performance in Ethiopian Banking Industry. All the way through developing appropriate research hypothesis and framework, this study will be able to provide a more detailed picture than before of how various dimensions of TQM affects the operational performance in the banking sector.

This paper also fills an important gap in the literature by specifically addressing the banking industry in Ethiopia. This study will help managers and professional workers in the service industry to understand how Total quality management may promote their business.

Further, the findings of this research is supposed to add knowledge to the existing literature and will be served as reference for future researchers who has an interest to undertake a research on the area of total quality management in local context.

1.6. The scope of the study

Theoretically, this research was restricted to ascertain the effects of Total quality Management on operational performance of in Dashen Bank S.C.

With regards to Geographical coverage, the study is delimited within the city of Addis Ababa, Dashen bank head quarter.

In Methodological aspect, a more representative sample size was determined and the influence of TQM on operational performance was analyzed by correlation and regression method of analysis.

1.7 Organization of the study

The other major parts of this research are structured under four sections.

Chapter two clearly states and presents the reviewed literatures. In this section of the paper key related literatures such as articles, journal, prior research findings and written materials have been carefully reviewed, and accordingly the research framework has been developed.

Chapter three clearly presents and provides adequate justification for the chosen research design, research approach, sampling technique and method of data analysis and the like.

Chapter four evidently talks about data presentation, analysis, interpretation, major findings and discussions. Reliability test, normality tests, regression assumption tests, Correlation analysis, regression analysis were carried out and the results of the research findings are interpreted and discussed in this chapter.

In the preceding part of the research, research findings; conclusions, recommendations and future research recommendations are discussed one after the other.

Chapter 2: Review of Related Literature

2.1 Introduction

In the light of the problem and objectives of the research, under this chapter of the study valuable literatures such as articles, journal, prior research findings and written materials have been carefully reviewed, and accordingly the research framework has been developed.

In the light of the problem and goals of the research, the study hypotheses can be formulated as following

2.2 Theoretical Literature Review

This part discusses the pertinent concepts which are carefully reviewed and that would be useful in supporting the researcher to carry out the research project. This thesis project was organized in line with the below theories which the writer believes essential to the concept under study.

2.2.1 Concept of Total Quality Management

Even though Total quality managements (TQM's) concept has emerged long time ago, it began to be broadly accessible and practiced even in developed states in the beginning of 90s to improve corporate flexibility and competitive capability to exceed customers' expectation Samson & Terziovski, (1999).

Referring to recent definition, TQM is linked with the business itself. It is not only a scientific approach but also a social arrangement. This is to mean that business institutions are not only technical system but also a social and human system (Pike and Barnes, 1996). As it was suggested by Oakland (1993) total quality management is an effort to advance the overall performances of an organization. The organizations overall performance can be measured in terms of efficiency, effectiveness and competitiveness. TQM is a modern management approach for endlessly enhancing the standard of goods and or services delivered to customers through employee participation or involvement (pfau, 1989).

As long as TQM definition is concerned , Reeves and Bender (1994) suggested four definitions of quality which are: **1**). ***quality is conformance to specifications, 2). quality meant satisfying***

or exceeding customers expectations, 3) quality is achieving excellence standards and the fourth one is quality is all about designing valued products, services and or process.

Besterfield (2003) explained Total quality management as modern management approach and principles intended to put into practice the ongoing enhancement process in any business..

More importantly, Evans and Lindsay (2008) described total quality management as a modern management approach that advances the achievement of organization through exceeding customers' expectation

As it has been mentioned by Anil and Satish (2019), Total Quality management is uninterrupted effort by the management members as well as staff members of a specific organization to bring last longing customer loyalty and customer satisfaction. Further, Anil and Satish (2019) have explained Total quality management as an incorporated management approach to accomplish enhanced customer satisfaction by incessantly improving the quality standard of process and then by products.

On the other hand Shafiq et al. (2019) have underlined the role of total quality management approach for the organizations towards improving the performance, not limited to satisfy and increase the number of customers but also to assist organizations to enhance operational performances such as financial performance by saving costs.

2.2.2 Benefits of implementing Total quality management (TQM)

Depending on four excellent models of total quality management awards, Abdullah et al., (2009) classified practices of total quality management further into two classifications: soft TQM practices and hard TQM practices. They are of the opinion that the soft practices contributes significant role on the implementation and results of TQM than hard factors. Soft practices include: communication, organizational learning, training, process management, leadership, organizational, teamwork.

Many authors for instance (Zakuan et al., 2008; Abdullah et al., 2009; Kaynak 2003; Samson and Tersioviski 1999) suggested that total quality management has positive influence on the overall performance of a business. More particularly Bon et al., (2012) focused on in service giving

companies and reached with the same conclusion that implementing TQM has a benefit of bringing operational excellence.

In accordance with the reviewed literature, trends of total quality management implementation illustrate that organizations fall under the two basic classifications: those implementing TQM and those that do not implement TQM (Hoang et al., 2010). Those organizations implementing TQM can easily get benefits such as improved customer service, high product quality, and improved process. Hoang and his colleagues added that company's with TQM implementation designed more innovated products and services and this intern helped them to gain more competitive advantage than smaller organizations in Asia. They also proved that organizations committed with total quality management business philosophy exceeded superior innovations and cover customer expectations.

To conclude with, So many studies have showed that total quality management has positive and strong correlation with operational performance. Their results indicated that organizations implementing TQM have achieved excellent operational performance through improved customer service, high standard product and enhanced process.

Thus, most researchers have recognized the effectiveness and the greater importance of TQM implementation on organization's performance respective of different sectors'. TQM was considered as the best tool to accomplish sustainable competitive advantage for organizations (Anil & Satish, 2019; Shafiq et al., 2019; Trang & Do, 2020).

2.2.3 Overview and impact of TQM implementation in service industries

Even though there is a considerable literature on TQM and its implementation in various service industries, the primarily focuses is on the parts of TQM and the steps taken to ensure a successful implementation of total quality management philosophy. It doesn't clearly show the effects of total quality management on operational performance.

A focal point in these literatures and findings is that TQM is a modern management approach that is characterized by the dimensions of customer focus, continuous improvement and teamwork (Wadsworth et al., 2002). It is widely acknowledged that total quality management is

a shared management approach intended at incessantly enhancing the performance of services and products through improved processes to exceed customer needs and expectations.

2.2.4 TQM in banking services

Banking services are possibly the largest industry that tries to address needs of various segments of customers. A recent research conducted by Al-Marri et al. (2007) found and examined the critical success factors of TQM implementation in the UAE banking sector. Empirical case studies were collected from 250 banks in UAE that have embarked on TQM successfully. According to the study, sixteen factors were identified as critical to TQM implementation success. The factors were: top management support, strategy, continuous improvement, benchmarking, customer focus, quality department, quality system, human resource management, recognition and reward, problem analysis, quality service technologies, service design, employees, service capes, service culture and social responsibility. The research contributes to studies of TQM and service quality in the banking sector context by considering soft issues in its implementation. Moreover, Vermeulen and Crous (2001) in their research highly focused to the training and education for TQM in the commercial banking industry of South Africa. Around 33 % of the respondents have agreed that their organizations have a well-developed TQM training curriculum. The researchers conclude that most organizations give more training in early implementation days and give little attention to continuous training. The results of their study showed that total quality management will only be successful if all employers, including top management and other managers, are carefully educated in all aspects of total quality. Similarly, the studies done by Ahmed (2002), Anderson et al. (1994), Neyer (2000), Herington and Weaven (2007) and Sureshchandar et al. (2002) are of interest in this area.

2.2.5 Total Quality Management Dimensions

According to Shahin and Dabestani, (2011) explanation total quality embraces everything in an organization, not limited to the quality of goods or service. According to them total quality management should consider but not limited to the suggestion of its end user customers, It should also consider its standing in the community at large.

Pillars of Total quality management as identified by Islam and Haque (2012) are: continuous improvement of processes, involvement of employees, Creation of quality management environment, Development of Teamwork, Practice of quality control tools and techniques,

customer focus, focus on supplier relationship and Benchmarking. This particular study, however, focuses on five dimensions namely: employee involvement, technology adoption, continuous improvement, customer focus and leadership as clearly described in the developed research framework.

1. Employee Involvement and operational Performance

Employee involvement is a fundamental element in TQM. Employee involvement means participating employees in decision making process, problem identification and solving and the success of the company while implementation of TQM. Thus, TQM calls members of individuals in the organization to become committed and align with the organization's goals and objectives (Collard, 1989). The key point is that everyone in the organization is accountable for producing goods and services with high standard, exceeding customer needs and expectations. According to Oliver, 1998), Involvement means to authorize employees, provide them information, boost their knowledge and prize quality performance.

It is oblivious that a company having employees involved in the TQM implementation process helps the organization to simply achieve the total quality management objectives. The firm needs to invite and empower in the decision making table process if the organization wants to be benefited from continuously improvement processes. Staff members of an organization usually do have important and innovative ideas which can make a difference if carefully used and managed by an organization. By involving employees, it is surely possible to achieve high productivity as a result of their improved enthusiasm to work diligently for the organization, (Bester field, Michina and Sacre 2010).

According to Bilich and Annibal (2000), Employees whom get participated in the organizations‟ TQM implementation have positive correlation with the organization quality and performance. In doing so, the organization expected to establish or design a platform where their work forces are motivated, monitored and involved.

In order to bring a better result, the organization's management needs to create conducive working environment that is appreciating the workforce to participate in the organization's quality of service deliveries. According to Mann (2009), there should be also clear communication about the stetted objectives and specific goal need to be achieved,

2. Technology Adoption

Information technology has brought remarkable changes in the demand patters of the society through innovation. In the 21st century where doing business is highly challenging, it is a must to adopt a cut age technology, since its adoption has shaped and advanced various institutions such as health, education and other institutions. Additionally, according to Tomei, (2005) these changes have brought about the adoption of innovative ways of doing business. Adopting latest technology enables organizations to achieve better performance through producing quality of goods and services more efficiently and effectively.

3. Continuous Improvement

The concept of Continuous improvement (CI) is widely practiced in several organizations globally. Different authors gave various definitions for continuous improvement in different times. For instance, Bessant et al. (2001) defined CI as "an organization-wide process of focused and sustained incremental innovation. On the other hand, Gertsen (2001) described Continuous improvement as "an improvement process that is methodically applied, handled in short steps, and to a large extent relies on employee participation", Similarly, Boer (2002) explained Continuous improvement as planned, organized and systematic incremental changes that influences the performance of an organization.

More importantly, according to Ehie & Sheu, (2005) continuous improvement is like an umbrella for a wide range of tools and techniques to enhance a firm's performance, It‟s mostly implemented to any management philosophy to boost the quality of the outcome.

And also continuous improvement can be can be described as the ongoing interaction between functional departments such as operations, innovation, learning that aims to reduce operational cost and increase efficiency, effectiveness and flexibility, (Davison & Hyland, 2006). Furthermore, Liker & Hoseus, (2010) argue that the employee's creativity ability and knowledge are the basis for continuous improvement.

TQM is mainly concerned with continuous improvement in all work, from high level strategic planning and decision-making, to detailed execution of work elements. The defects can be prevented, as it leads to continuously improving results of people, processes, and technology (Ijaz et al., 2012). The continuous improvement is a dynamic process, focus on improvement

programs, services, materials and their relationship with the organization‟s customers, suppliers, competitors, and capital markets (Jagdeep & Singh, 2013)

As per McManus, (2009) CI involves organizing a team that consists of representatives from all functional divisions or an organization. According to him, the team shall first engage on learning about its organization and other peer organizations. The team then suggests solutions to management for subsequent implementation. When that is ensured, controlling mechanisms must be established, which requires additional improvements for future operation.

4. Customer Focus

Marketing literature confirmed that Customer shall be treated as the 'king'. Confirming the customer's need and expectations is the essence for success in today's business organization.

The key point in TQM is that all products or services and processes should always consider customers. Quality should be appreciated by the customers and products or services and processes should always design in line with their needs and expectations. Understanding what customers really want and supply a service that exceeds these requirements can surely gain viable advantage and profit. Therefore, customer focus means, tries to search the customers' needs and values by either conducting market analyses or customer survey and then working to address the market expectations. Every employee has customers within the organization, internal customers, and in order to achieve organization objective customer desires and prospect have to be satisfied (Nagaprasad et al, 2009). For this, Total quality management philosophy requires an organization to incessantly scrutinize its quality structure and evaluate its weakness to witness if it is open to a dynamic customer expectation.

According to (Mitchell, 2013), market novelty prevails the enhancement of market target mix and how the customer needs in this market are fulfilled in an attempt to improve market potential and establish new strategies of serving the target markets. Market leaders who are innovative and strategic are quick to understand the specific buying trends of customers and will create their unique preferences. This can be achieved through customer segmentation and product differentiation.

5. Leadership

Leadership dimension is the core elements in TQM. In total quality management process, efficient leadership must build up a clear vision and mission statement and then design appropriate strategies to realize those corporate statements. Here, members of top management must lead properly the Total quality management effort. TQM demands that organization move away from 'management by control' to 'management by commitment'. This standard encompasses inclusive management, empowerment of all organizations' staffs to concentrate on and attains total quality objectives and dedication to organizational systems that are considered to guarantee total quality (Ugboro and Obeng, 2000). Unless the entire organization recognizes the duty and dedication of quality management, TQM process cannot be implemented effectively and successfully.

6. Operational performance:

The key point to accomplish successful organizational management process is the performance aspect. Li et al., (2006) argued that the performance of a firm have a positive correlation with its capacity to realize their strategic objectives.

According to NIST, (2010) Performance is the results of the relationship between what organizations achieve in terms of TQM practices and the results they accomplish in different KPI's. Alam & Yasin (2010), suggested that in a hypercompetitive environment, firms are progressively seeking development, innovation and to boost the quality of the product or service. Similarly, Zeng et al., (2010) recommends that Promoting superior quality and innovation should be the key priorities in any firm.

The performance of firms has been basically over sighted in past studies. Some of few researches such as (Katou, 2008), Stock et al. (2000) were focusing only on the organizational performance with respective to the financial performance. Whereas firms performance might be measured either depending on operational performance which includes customer satisfaction, financial performance and effectiveness of product or service quality (Brah et al.2000). Operational performance can be achieved with improved delivery performance, flexibility, reduced costs and errors and improved process (Nunnally, 1978).

2.3. Review of Empirical Studies

Lakhal et al.(2002);and Talha(2004)examined that TQM is significantly contributing in advancing the performance of firm's by reducing costs , boosting the engagement and commitment of employees , and decreasing the level of customer dissatisfaction.

Masood, Aamna, Saif and Sidra (2012) determined the degree of association between total quality management and performance through distributing a questioner for a sample of 171 respondents in Pakistan by taking manufacturing industry. The result of the study showed that TQM practice directly and significantly influences the firm's performance**.**

Ali and Abedulfattah (2013) determined the degree to which TQM influences organizational performances in Jordan Banks. The study used leadership, strategic planning, customer locus, and employee relation as TQM dimensions. The study conducted regressions analysis to evaluate the formulated hypotheses. The results of this study showed that there was a positive and significant association between total quality management and Organizational Performance.

And also Chin, Fang, Hung and Yen (2007) checked the level to which how total quality management influenced various levels of firm performance. The study selected around 95 small and medium size enterprises operating in Taiwan as a sample. Based on the respondents' response, the results of this study showed that an effective management leadership can positively and significantly influence human resource management, supplier management, and design management.

On the other hand Oluwatoyin and Oluseun (2008) empirically examined the benefit of TQM practice in the Nigerian Airline industry. The impact of Total quality management implementation was investigated using primary data. The research findings confirmed the benefits of TQM implementation. Further the study showed that TQM is a strategic tool which any organization can employ to stay competitive. It was also revealed that for the TQM to be appropriately implemented, each person in the organization including customers must be involved.

Sadikoglw (2009) and Brun (2010), on their study they have conclude that putting into practice TQM dimensions namely: training, process management, customer management, etc. boosts operational performance organization.

Gharakhani et al., (2013) also determined that total quality management affects the organizational performance greatly especially in their financial performance.

Similarly, Chukwu, Adeghe and Anyasi (2014) examined the effect of TQM on performance of by taking Nigerian Brewery Plc and Nigerian Bottling Company Plc. as study area. The results of this study proved that significant and positive relation was shown between Total quality management and operational performance.

Likewise, Carolyne and Bichanga (2014) empirically examined the effects of Total quality management on financial performance in national Bank of Kenya by taking the bank employees as the target population. The findings indicated the existence of positive correlation between total quality management elements namely: process and supplier relationship and financial performance**.** Further,

Marcel and Ayankeng (2015) studied the influence of TQM on Organizational Performance in manufacturing firms of Cameroon. Constructs used as elements of total quality management were customer focus, management commitment and leadership, employee training and benchmarking. While organizational performance was evaluated in terms of customer and employees' satisfaction and cost reduction. Multiple regression analysis was performed to investiagte the extent of influence of each variable and the finding revealed that only employment training and empowerment has a positive and significant influence on financial performance**.**

Ayandele and Akpan (2015) evaluated the practice, challenges and benefits of TQM in Nigerian manufacturing companies and the study showed that proper implementation of total quality management will improve the organizations performance.

Shanl. Ahmad and Nor (2016) examined the effects of total quality management on business performance and found that there is a relationship between total quality management and business performance.

Onyango (2016) established the influences of total quality management on the performance of commercial banks in Kenya. Based on the findings of this study, insignificant relationship was existed between TQM dimensions and operational performance.

Monirci (2016) examined the degree of association between total quality management and performance of organizations in the manufacturing industry in Kenya, Nairobi and the results of the study ascertain that customer focus dimension greatly influenced operational performance. It was also found that TQM has a significant influence to realize the vision of the organization as confirmed by majority of respondents.

Relatively in recent years, Mukhtar (2016) examined the relationship between some TQM dimensions and business performance on small and medium enterprises in Nigeria. The study in its findings revealed leadership has a positive and significant effect on business performance. And unfortunately, customer focus and continuous improvement appeared in significant relationship with business performance.

More recently, Kriengsak and Thanh (2017) studied the relationship between organizational culture and TQM by taking Vietnamese construction industry as a case study. The result proved that there is a significant relationship between total quality management and organizational culture and performance.

2.4. Research framework

This particular study primarily concentrated on the influence of total quality management on operational performance and it formulated a research framework through reviewing of related concepts. In doing so, a range of total quality management dimensions have been identified from the related concepts but only those that are considered important are incorporated in the research framework.

The under depicted research framework presents the relationship between TQM dimensions and operational performance.

Total Quality Management Dimensions

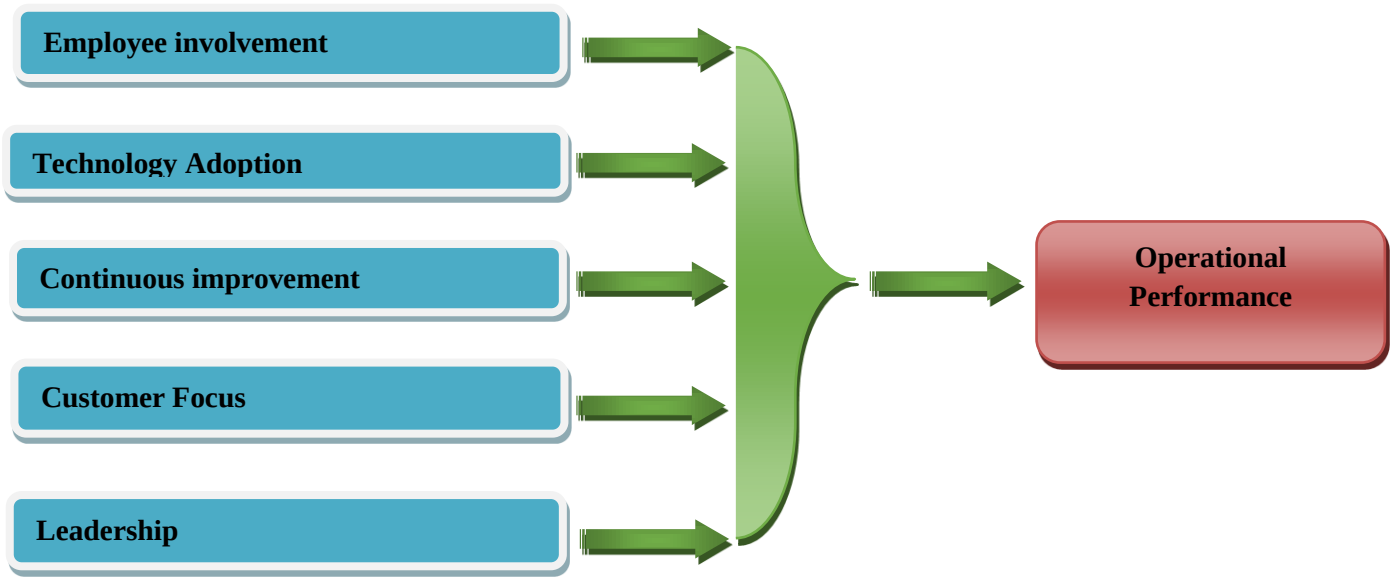


Figure: Research frame work

2.8 Hypothesis Development

Based on the above research framework which showed relationship between total quality management and operational performance, the study has developed the following five research hypotheses.

- H1: An Employees involvement dimension has a positive and significant effect on operational performance in DB.
- H2: technology adoption positively and significantly influences operational performance in DB.
- H3: continuous improvement dimension of TQM has a positive and significant effect on operational performance DB.
- H4: There exist a positive and significant relationship between customer focus Dimension and operational performance in DB.
- H5: There is a positive and significant correlation between leadership dimension and operational performance in DB.

Chapter Three: Research Design and Methodology

Introduction

This subsection of the research dealt with the research procedures employed for the study. It illustrates the research approach and design used, target population on which sample was taken, sample and sampling techniques, data collection instruments, methods of data analysis, model specifications, reliability and validity checking strategies.

3.1. Research approach and Design

3.1.1 Research Design

According to Kothari, (2004) research design is described as the conceptual arrangement within which the research is carried out. Thus, this research adopted explanatory and descriptive research design. As evidenced by various authors, for the purpose of examining the relationship between dependant and independent variables and to check the formulated hypothesis explanatory research design is the best design for this research. In addition to, explanatory research design, This study adopted and employed a descriptive research design because it aimed to extract information that describes existing situation by asking respondents about their perceptions,

3.1.2. Research Approach

With regard to research approach this study used quantitative approach since the collected data in the study was quantitative and analyzed using statistical method of method of Analysis such as regression and correlation. According to Sugiyono, (2008) quantitative approach is an approach that emphasizes testing theories or concepts through quantitative measurements and performing data analysis procedure with statistical tools and aims to test the hypothesis

3.2 Population and sample of the Study

The target population of this research comprises of 750 Dahsen Bank employees who are working at headquarter within different departments. This total population of 750 staff was considered appropriate because they were the ones in the TQM implementation practices.

3.3 Sampling techniques and sample size

3.3.1 Sampling Technique

The sample was taken from Dashen Bank the employees working at the head quarter. The researcher has vigilantly selected a sample which is relatively large and representative of the population from which it was taken.

The researcher used probability sampling techniques. The researcher selected Head quarter employees purposely because these staffs have sufficient knowledge of the issues related to services offered by the bank within the scope of Total Quality Management. And the study used convenient sampling method to float questionnaire for the selected respondent.

3. 3.2 Sampling Size

Kothari, (2004) defined a sample size as representative to be chosen from the population to comprise the sample, and this specifically addresses to what extent sampling units should be surveyed, it is clear that Large samples will produce more reliable results than small samples because of its high representation. This study used Yamane's (1967) formula of sample size determination with a 95 percent confidence level. Accordingly, the sample size was determined based on the below presented formula

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

Where;

- ❖ n stands for sample size
- ❖ N represents population size
- ❖ e refers to sampling error

Thus, the sample size will be,

$$n = \frac{750}{1 + 750(0.05)^2} = 260.869 \approx 261 \quad \ldots\ldots 2$$

The sample sizes of this research were therefore 261 employees of Dashen Bank who are working at head quarter under different departments.

3.4 Types and sources of data

For this research, the data was gathered from primary and as well as secondary sources.

Primary data and their sources: are Dashen Bank Staffs who are working at in different Departments at Head office level

Secondary data and their sources: were variety reference materials like theories, internet sources, articles, journals and written materials and from literature review.

3.5 Data collection tools

Instruments used for this research were questionnaires prepared by the researcher. Primary data was used in this research. The data was gathered from respondents using closed ended questionnaire. On the top of giving clear instruction, respondents were made aware of purpose of the research and were assured of their confidentiality. Each respondent received the same set of questions in exactly the same way.

3.6 Methods of data analysis

The first step was chronologically arranging the collected data in a way that it is easy for data encoding. And then the collected primary data was analyzed using descriptive, correlation and regression statistics with the support of Statistical Package for Social Sciences.

Multiple regression statistics was used to establish the relationship between TQM constructs and operational performance in Dashen Bank S.C .Correlation analysis was also performed to check the correlation between TQM constructs and operational Performance. Tools like tables, graphs and charts were also used in analyzing the data.

3.7 Model Specification

$Y = C + a1x1 + a2x2 + a3x3 + \ldots\ldots\ldots anxn + \varepsilon$

Where, Y = Operational Performance

C = y intercept

a1 = coefficient for Employee involvement

X1= Employee involvement

a2 = coefficient for Technology adoption

X2= Technology Adoption

a3 = coefficient for continuous improvement

X3= Continuous improvement

a4 = coefficient for customer focus

X4= Customer focus

b5 = coefficient for leadership

X5=Leadership

ε = error term

3.8 Validity and Reliability

3.8.1 Validity

Validity refers to the accuracy of an assessment, the ability of a scale or measuring instrument to measure what it is intended to measure.

To check the validity of instrument and determine if the items used in the research target their goal or not, the researcher has gone through the following steps:

1. After preliminary designing of the questionnaire, the related questions have been studied carefully in a great extent,
2. Questionnaires were evaluated from the point of being understandable, relevant to the stetted objective.
3. Omission of the irrelevant questions through consulting individuals who has research expertise and more importantly taking comments from my advisor,
4. Finally, The questionnaire was valid enough as for the contents after effecting the required modifications

3.8.2 Reliability

According to Burn and Bush (2014) reliability is the extent to which a respondent is consistent in his or her answers in connection with filling questionnaires. Therefore, we can generalize that reliability is the degree that indicates if the instrument is free from accidental errors and offers constant data, yielding consistent results.

For this study, reliability was measured by using cronbach alpha that determine the inter correlations between variables used in the study. Sekaran, (2013) the closer cronbach alpha is to 1, the higher the internal consistency, and the research tool constructs are reliable. The results of reliability tests of this study are shown in chapter four.

3.9 Research Ethics

Throughout the research all code of conducts of research are appropriately implemented. Any relevant concept in this research was properly acknowledged. Respondents are protected, their information which was collected via questionnaires from sample respondents, is kept confidential and has been only used for the intended purpose of this thesis project.

CHAPTER FOUR

Data Presentation, Analysis and Interpretation

Introduction

This chapter of this thesis project is consisting of data presentation, analysis, interpretation, and hypothesis testing and research findings. The first hand data gathered from research participants has been analyzed through the help of SPSS version 22 application. This subdivision consists of six important parts, which are reliability and normality test, correlation and regression analysis, test of hypothesis and discussion of findings.

4.1 Reliability Test:

The survey which designed in the form of questionnaire was takes placed within a figure counted days. From a total of 261 questionnaires distributed to selected respondents for about 231 were collected and only 30 of them were not collected due to various reasons. Therefore, 231 questioners were properly employed for analysis that indicated 88.5% response rate which is relatively high and acceptable to conduct a research.

Cornbach's Alpha Reliability is evaluating on the consistency of the study that helps the researcher to yield up reliable results Hair et al. (2006), The measurement of Cronbach's Alpha falls between 0 and 1 numbers. This implies that as Cronbach's Alpha value approaches to 1, better the internal consistency within items inserted.

Hence, this research used Cronbanch's Alpha reliability to check and evaluate the goodness of the items inserted. George and Mallery (2003), suggests the herewith described rules of thumb: >0.9-Excellent, >0.8-Good, >0.7-Acceptable, >0.6-Quesstionable, >0.5-Poor, <0.5-Unacceptable (as cited by Gleam and Rosemary, 2003). The reliability test results of this research are tabulated as described below

Table 4.1 reliability statistics result of variables

Variable Names	Cronbach's Alpha	N of Items used	Evaluation based on Cronbach's Alpha Value
Employee Involvement	.795	5	Acceptable
Technology Adoption	.764	4	Acceptable
Continuous Improvement	.726	4	Acceptable
Customer Focus	.899	8	Good
Leadership	.834	6	Good
Operational performance	.849	5	Good

Source: Own survey, (2021)

The above table, 4.1 illustrated the reliability of the data used for this research based on evaluation of Cronbach's alpha value. The goodness of the inserted constructs revealed that there is consistency within variables used for this research– being from 0.726 and 0.899(Within the range of acceptable and Good).

As per the internal consistency test result presented in the above table, all constructs are recognized as a variable since their value is beyond the minimum requirement result i.e. 0.70. According to the result, Customer focus TQM dimension has the maximum alpha value of 0.899 with 8 items. This is to mean that customer focus is the highest consistent variable among the independent constructs determining operational performance. .Leadership and employees involvement have the second top alpha value of 0.834 with 6 items and .795 with 5 items respectively, then followed by technology adoption and continuous improvement, with alpha value of 0.764 with a total of 4 items and alpha value of 0.726 with 4 items respectively. Moreover, the variable with 5 items is operational performance having alpha value of 0.849.

As far as the internal consistency test of the entered variables is concerned, it is possible to conclude that the level of reliability of items inserted is achieved and fulfilled as it was evaluated by Cronbach's Alpha value.

4.2 Validity

Validity refers to the correctness of an assessment, the ability of a scale or measuring instrument to measure what it is intended to measure.

To ensure the validity of instrument and determine if the items used in the research target their goal or not, the researcher has gone through the following steps:

1. After preliminary designing of the questionnaire, the related questions have been studied carefully in a great extent,
2. Questionnaires were evaluated from the point of being understandable, relevant to the stetted objective.
3. Omission of the irrelevant questions through consulting individuals who has research expertise and more importantly taking comments from my advisor,
4. Finally, The questionnaire was valid enough as for the contents after effecting the required modifications.

4.3 Descriptive Analysis

According to Hair et al. (2003) once the data have been collected and prepared for analysis, there are some basic statistical analysis procedures to carry out. The descriptive analysis help to find out what the entire set of responses are which were obtained in the form of numbers; that is, respondents provide their agreement and disagreement level in the form of numbers and these numbers are entered into the computer system to generate more meaningful statistics. Consequently, every set of data needs some summary information developed that describes the numbers it contains. Basic statistics and descriptive analysis were developed for this purpose (Hair et al, 2003).

The Descriptive Statistics table below shows the mean and standard deviation of the dependent variables (Employees involvement, Technology adoption, continuous improvement, customer focus and leadership) and the same actions for the dependent construct operational performance.

Table 4.2.1 Descriptive statistics for all variables

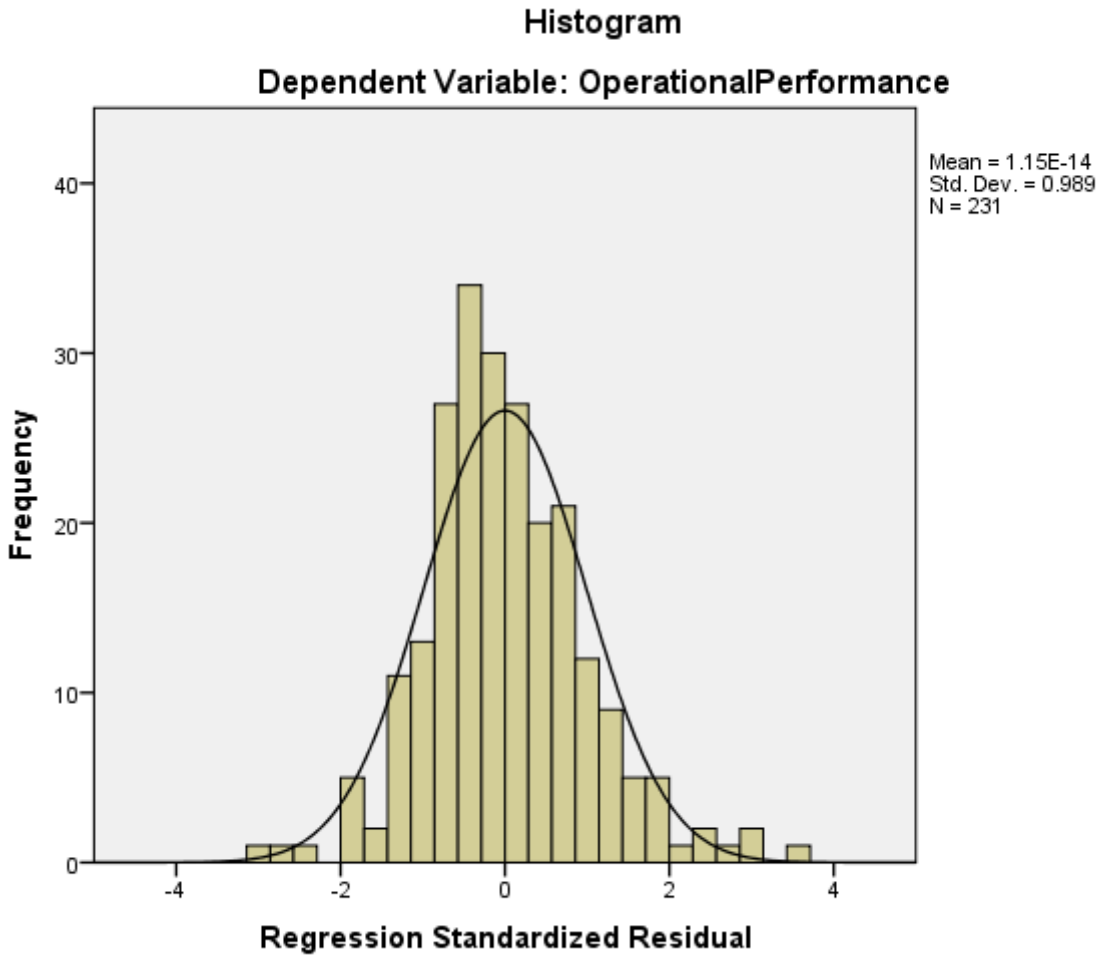
Descriptive Statistics			
	Mean	Std. Deviation	N
Operational Performance	4.7619	.38665	231
Employees Involvement	4.4788	.49469	231
Technology Adoption	4.4524	.48556	231
Continuous Improvement	4.4578	.47675	231
Customer focus	4.6061	.45562	231
Leadership	4.5325	.46473	231

Source: Own survey, (2021)

4.4. Multiple regression assumption tests

4.4.1 Normality Test

The histogram below indicates how the data is distributed. Accordingly, it is possible to state that the data are nearly normally distributed since the histogram has a close to bell shape



Source: Questionnaire survey, (2021)

4.4.2 No-auto correlation (Durbin Watson Test)

The auto correlation test was evaluated by using Durbin Watson result as described in the model summary of regression analysis. According to Field (2009), test statistic consider normal in

values that ranges between 1.5 and 2.5. In this research, the Durbin Watson statistic value is 1.626. Hence, it is considered normal and there is no auto correlation.

4.4.3 Multi-collinearity

According to **Hair et al., (2003),** the quality of the gathered data describes condition in which the explaining variables are highly associated among themselves is said to be multicollinearity. Multiple regressions are a method of analysis that determines the degree of explanation among a number of variables. More importantly, this method of analysis helps researchers to investigate the best possible weighting of two or more explaining variables to give up a highest correlation with a single dependent variable (Ary et al., 2010).

Multicollinarity is measured by Tolerance and variance inflation factor (VIF). Both tolerance limit and VIF result shows the extent to which each dependent variable is explained by explaining variables. Therefore, if the variance inflation factor is 10 or larger or the tolerance value is smaller than .10, multicollinearity is a problem (Hair et al., 2003).

Table 4.3 Bivariate correlation analysis: Coefficients of the variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.414	.174		2.381	.018		
	Employee Involvement	.204	.030	.261	6.695	.000	.748	1.338
	Technology Adoption	.150	.031	.188	4.784	.000	.732	1.366
	Continuous Improvement	.087	.037	.107	2.375	.018	.557	1.795
	Customer Focus	.305	.034	.359	8.839	.000	.686	1.458
	Leadership	.216	.042	.259	5.162	.000	.450	2.224

Source: Own survey, (2021)

Referring to the above table, the highest VIF value is 2.224 which is much lesser than 10 and the lesser tolerance value is 0.450 which is much bigger than 0.10. Hence, it is clear that in this

particular study, there are no explaining variables which are highly correlated among them. Thus, multicollinearity is not a problem in this research and will not affect the research findings.

4.5 Correlation Analysis

Correlation analysis is the basic analysis procedure that uses to know the direction and the level of association between the explaining variables and the dependant variable. Accordingly this research checked the correlation analysis result in order to know the relationships that exist between the TQM and the operational performance.

According to Hair (2003), the Pearson correlation coefficient measures the degree of linear relationship between two variables and its result fall under the range of –1.00 and +1.00, where 0 refers no relation exists between two variables, and –1.00 or +1.00 refers there is a perfect associations between the two variables. Further Sekaaran (2003) suggested that the Pearson correlation coefficient is suitable for interval- and ratio-scaled variables,

Accordingly, this study used Pearson correlation coefficient to know the relationships that exist between the total quality management dimensions and the operational performance.

This research used below rules of thumb to accurately evaluate the results of Pearson correlation coefficients of each explaining variables with the dependant variable, Operational performance.

Table 4.4 Rules of thumb about the strength of correlation coefficients of variables

Range of Coefficient	Description of Strength
±.81 to ±1.00	Very strong
±.61 to ±.80	Strong
±.41 to ±.60	Moderate
±.21 to ±.40	Weak
±.00 to ±.20	None

Source: Hair (2003)

Table 4.5. Pearson Correlation for the determinants of Operational performance

Correlations							
		Employee Involvement	Technology Adoption	Continuous Improvement	Customer Focus	Leadership	Operational Performance
Employee Involvement	Pearson Correlation	1	.371**	.312**	.366**	.433**	.608**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	231	231	231	231	231	231
Technology Adoption	Pearson Correlation	.371**	1	.321**	.430**	.386**	.574**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	231	231	231	231	231	231
Contentious improvement	Pearson Correlation	.312**	.321**	1	.267**	.657**	.515**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	231	231	231	231	231	231
Customer Focus	Pearson Correlation	.366**	.430**	.267**	1	.469**	.686**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	231	231	231	231	231	231
Leadership	Pearson Correlation	.433**	.386**	.657**	.469**	1	.684**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	231	231	231	231	231	231
Operational Performance	Pearson Correlation	.608**	.574**	.515**	.686**	.684**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	231	231	231	231	231	231

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

Source: Own survey, (2021)

The above correlations table revealed that employees' involvement, technology Adoption, continuous improvement, customer focus and leadership are statistically significant at the .000 level and correlated at .608, .574, 515, .686 and .684 respectively . These result showed that each of the five explaining variables namely: employees' involvement, technology adoption, continuous improvement, customer focus and leadership are moderately and strongly associated to operational performance—that is changes either in any of these variables leads to the changes in operational performance.

As evidently presented on the correlation analysis, all entered explaining variables are significantly and positively associated to one another. There are the five variables within the range of 0.515 - 0.686 which indicates strong and a moderate association.

Thus, to evaluate the formulated hypothesis, this research used the Pearson correlations coefficients and the results are presented here below in detail:

4.5.1 Correlation between employees' involvement and operational performance

Pearson correlation test was checked for employees' involvement and operational performance. As per the result employees' involvement and operational performance are evaluated and their value, .608, is significant at the 0.01 level (2-tailed). In accordance with the rules of thumb on the strength of the associations between the two variables, the coefficient value, .608 falls within the strong strength intensity level. Therefore employees' involvement and operational performance are correlated with a strong and positive relationship **(r = 0.608**).**

4.5.2 Correlation between Technology adoption and operational performance

Pearson correlation test was checked to evaluate the degree of association between the technology adoption dimension of TQM, and operational performance. The results of the correlation between these variables are already presented in the correlation matrix table. According to the result, there is a significant association between technology adoption and operational performance at significant value of 0.000 lower than 0.05. This means technology adoption dimension and operational performance are connected with a moderate relationship **(r = 0.574**).**

4.5.3 Correlation between continuous improvement and operational performance

Pearson correlation test was again checked to investigate whether the degree of association between continuous improvement and operational performance, and the results of the correlation analysis witnessed that there is a positive and a significant correlation between these two variables with a significant value of 0.000 lower than 0.05. Further result proved that continuous improvement and operational performance are correlated with a moderate relationship **(r = 0.515**).**

4.5.4 Correlation between customer focus and operational performance

For these two variables, customer focus and operational performance, Pearson correlation analysis was checked and the positive and a significant association was exist between customer focus and operational performance. The result of correlation analysis showed that customer focus and operational performance are connected with a strong relationship **(r = 0.686**).**

4.5.5 Correlation between leadership and operational performance

In order to evaluate the association between leadership and operational performance, Pearson correlation analysis was checked, and there exist a positive and significant connection between leadership and operational performance with a significant value of 0.000 lower than 0.05. In other words leadership dimension and operational performance are correlated with a strong relationship **(r = 0.684**).**

4.6 Regression Analysis

Regression analysis basic method of analysis which helps to know the degree of explanation or influences of independent variables has on the dependent variable. In light of the research objective this research conducted regression analysis to know to what extent operational performance is explained by TQM dimensions namely; employees' involvement, technology Adoption, continuous improvement, customer focus and leadership.

4.6.1 Regression analysis between TQM dimensions and operational performance

Regression analysis was performed by using SPSS tool and created three key tables namely: model summary, ANOVA and coefficients regression. The initial table presents model summary:

4.6.2 Multiple Linear Regressions

Multiple linear regressions were carried out to determine the degree of influence and to identify the higher independent construct that affected operational performance. This regression analysis was performed to evaluate and understand to what extent TQM dimensions namely; Employee Involvement, Technology adoption, continuous improvement, customer focus and leadership explains the operational performance. The study checked the Standardized Coefficients aimed for showing the influence of each TQM dimensions on operational performance. The out puts of the regression analysis are presented in the following three major tables.

Table 4.6 Regression analysis: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.863[a]	.745	.739	.19740	1.626

a. Predictors: (Constant), Leadership, Technology Adoption, Employee Involvement, Customer focus, Continuous Improvement

b. Dependent Variable: Operational Performance

Source: Own survey, (2021)

Table 4.6 above showed the model summary and Durbin-watson result. As it is clearly shown in the model summary, the adjusted R^2 of the model is .739 with the R^2 = .745 which has relatively higher value. This reveals that the linear regression model with the independent variables explains 74.5% of the variance of the dependent variable, operational performance. The rest which is 25.5% of Operational performance is explained by other variables which are not considered in this study. On the other hand, The Durbin-Watson result, D = 1.626, which is between the range of 1.5 and 2.5 ($1.5 < d < 2.5$), hence, the result clearly showed that there is no autocorrelation between independent variables used in this research. Therefore, the model is appropriate to conduct the study.

Table 4.7 .Regression analysis: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.617	5	5.123	131.488	.000[b]
	Residual	8.767	225	.039		
	Total	34.385	230			

a. Dependent Variable: Operational Performance

b. Predictors: (Constant), Leadership, Technology Adoption, Employee Involvement, Customer focus, Continuous Improvement

The F-test or ANOVA result of this particular research is tabulated above. The F-Test uses to check the significance level of a model in multiple linear regressions. The F-test has the null hypothesis that there is no linear relationship between the variables (in other words $R^2=0$). As described above, The F-test of the Model is highly significant, thus we can conclude that there is a linear relationship between constructs in this model

Table 4.8. Regression analysis: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.414	.174		2.381	.018		
	Employee Involvement	.204	.030	.261	6.695	.000	.748	1.338
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	Customer Focus	.305	.034	.359	8.839	.000	.686	1.458
	Leadership	.216	.042	.259	5.162	.000	.450	2.224

Source: Own survey, (2021)

The multiple regression Coefficients table above shows the influence of each independent variable has on the dependent variable which is operational performance. The regression coefficient each variable along with the intercept helps to predict or estimates the dependent variable. Hence, operation performance can be predicted as :

OP = .414+ .261 (EI) + .188 (TA) + .107 (CI) + .359(CF) + .259(L) +. 174 (avg. error in prediction)

Where: OP = Operational performance
EI = Employee Involvement
TA=Technology Adoption
CI =Continuous Improvement
CF= Customer Focus
L = Leadership

As shown above, for every increase in customer focus, the operation performance will increases by 0.359. Correspondingly, for every increase in employees involvement, leadership, technology adoption and continuous improvement, Operational performance will also increases by .261, .259, .188, and .107 respectively.

Hence, of the total quality dimensions used in this study, Customer focus found a higher influence on operational performance than the rest explaining constructs used in the study.

4.7 Hypothesis Testing

The Pearson correlation analysis presented in the analysis part showed the strength and dimension of association between total quality management dimensions and operational performance. According to the result, a positive relationship was appeared between the independent variables (Customer focus, employees' involvement, leadership, technology adoption and continuous improvement and dependent variable, operational performance.

This research examined the Standardized Coefficient β value along with the significant value to support or not to support the developed hypothesis. According to the coefficients of variables, all the developed hypotheses are supported by the research finding as shown below.

Accordingly:

- ✓ **H_1**, – Employee involvement positively and significantly influences operational performance is supported with the research finding because β=.261; p < .000. Similarly,
- ✓ **H_2**, – Technology adoption positively and significantly influences operational performance is supported because β = .188 and p < .000.
- ✓ **H_3**,–Continuous improvement positively but less significantly influences operational performance is supported as the β = .107 and p < .000.
- ✓ **The fourth hypothesis, H_4**– Customer Focus positively and significantly influences operational performance is also supported since β = .359 and the p < .000.
- ✓ **Finally, H_5**,– Leadership positively and significantly affects operational performance is supported as a result of its β = .259 and p < .000 values.

4.8 Hypotheses Results

The effects of TQM on operational performance

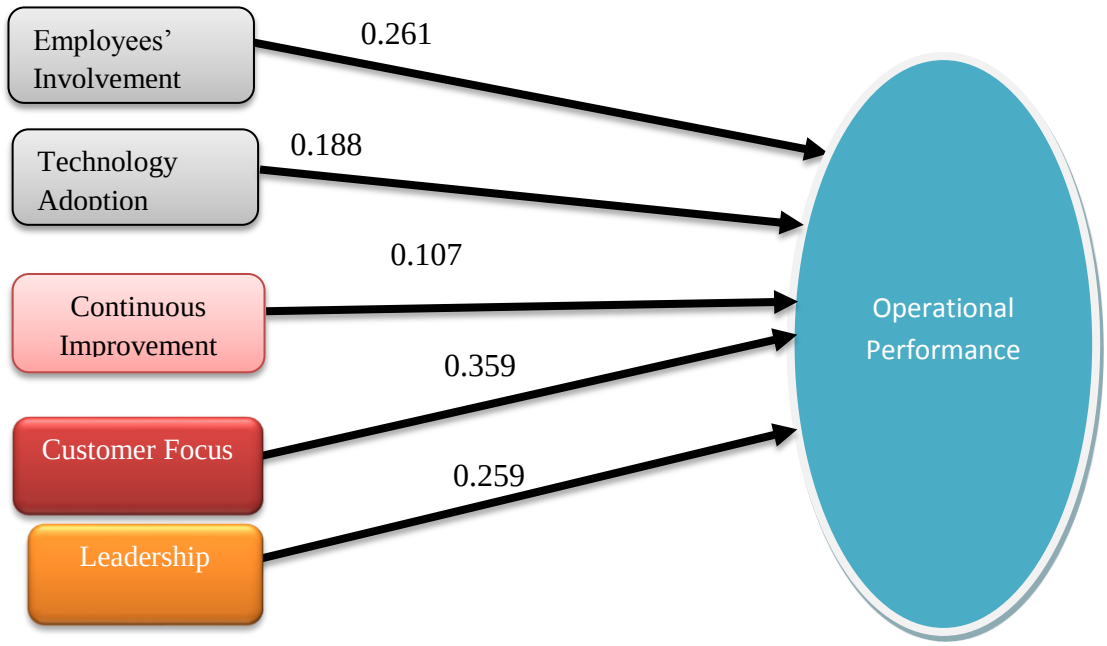

Figure 4.4: findings on the constructs

4.9 Discussion

The findings showed that the identified explaining variables significantly influence operational performance.All explaining variables namely: Employees involvement, Technology adoption, continuous improvement, customer focus and leadership have strong influences on operational performance.

As most empirical studies are discussed in the literature review part, this research also showed the association between total quality management and operational performance. Hence, research finding is in agreement with those research findings. Thus, the influence of the independent variables, TQM dimensions on operational performance in this research is can be modeled as:

OP = .414+ .261 (EI) + .188 (TA) + .107 (CI) + .359(CF) + .259(L) +. 174 (avg. error in prediction

From the results of the five hypotheses tested, this study found that TQM has significant effect on operational performance in Dashen Bank. In this particular research operational performance is highly influenced customer focus with the highest value of .359, followed by employee involvement and leadership with standardized beta value of .261and .259 respectively. The contribution of technology adoption (.188) and continuous improvement (.107) though their effect on operational performance are significant but very minimal as compared to the other independent variables having higher beta value. From these it is clear that customer focus is the most significant factor among the independent variables of operational performance used in this research, and then employee involvement is the next most significant factor influenced operational performance.

This research finding is found in line with previous studies in the area of TQM and operational performance. This finding is consistent results of previous studies such as Chin, Fang, Hung and Yen (2006) who showed that leadership can positively influence organizational performance.

Abusa (2013) in his research finding showed that that continuous improvement practices positively and significantly influenced operational performance in Pakistani Industrial Sector.

Similarly, Talib et al. (2013) showed that continuous improvement significantly determines organizational performance

On the other hand, Oluwatoyin and Oluseun (2008) examined the benefits of implementing total quality management. The findings of this study revealed that total quality management is a business strategy that a firm can put in place to remain competitive.

Also, Masood, Aamna, Saif and Sidra (2012) empirically tested that TQM practices positively and significantly influences on performance of an organization.

Likewise, Ali and Abedulfattah (2013) on their study they found that organization performance was influenced by TQM dimensions such as customer focus and leadership.

The other important study which was conducted by Chukwu, Adeghe and Anyasi (2014) evidenced the existence of positive and significant association between continuous improvement and organization performance.

Alike to this particular reserch various researchers such as Such as Llorens-Montes &Verdu-Jover 2004; and Yasin et al., 2004 eastablished that customer focus has a significant influence on operational performance.

With the same token various studies made by Wang et al., 2012; Zehir et al, 2012; Zhang, 2000 empirically examined the influences of total quality management on firms' performance and found a positive result.

The result of this particular research statistically confirmed the significance of total quality management practice in Dashen Bank S.C in meeting its objectives and improved performance. Therefore, it is rational to generalize that organizations that achieved TQM practices would able to get benefits such as effectively managing customer complaints, ensuring customer satisfaction, improved people and process system and enhanced performance.

CHAPTER FIVE

5. Summary, Conclusion and Recommendation

Summary of research findings, conclusions, recommendations drawn based research findings and finally future research directions are presented in a formative way as follows:

5.1 Summary

The aim of this paper was to ascertain the influence of TQM dimensions on operational performance. The researcher employed descriptive and explanatory research design. With regards to approach, this research followed quantitative research approach. The sample size was extracted from Dashen Bank employees. From this a sum of 750 Dashen Bank head office employees, 261 were sampled and geographically, the study was limited in the city of Addis Ababa. After identifying TQM dimensions that are Customer focus, employees' involvement, leadership, technology adoption and continuous improvement, the researcher had formulated and checked the below hypotheses:

- H1: There exist a positive and significant association between employees' involvement dimension and operational performance in DB.
- H2: There exist a positive and significant association between technology adoption dimension and operational performance in DB.
- H3: Continuous improvement has a positive and significant influence on operational performance in DB.
- H4: Customer focus has a positive and significant influence on operational performance in DB.
- H5: There is a positive and significant relationship between Leadership and operational performance in DB.

As it has been discussed in chapter four of this research, all formulated hypotheses were supported by the research result. In this section of the study, the research findings which are extracted from respondents are presented shortly.

The respondents were invited to provide their degree of agreement and disagreement on the influence of TQM dimensions on operational performance. The researcher have evaluated the validity of questionnaires and conducted reliability before making analysis and the finding revealed that, the coefficient alpha for this reserch was found consistent. On the top of validity and reliability tests, the degree of association between dependant and independent variables was conducted using correlation.

Accordingly, the analysis produced the following results, as per the results of correlation analysis; constructs have exhibited moderate and strong relationship with operational performance.

Correlation analysis result

- **Employees involvement and operational performance**

  Employees involvement and operational performance are connected with a strong relationship (**r = 0.608**).**

- **Technology adoption and operational performance**
  The construct Technology adoption and operational performance have exhibited a moderate relationship (**r = 0.574**).**

- **Continuous improvement and operational performance**

  Similarly, continuous improvement has a moderate relationship with operational performance (**r = 0.515**).**

- **Customer Focus and operational performance**

  Customer focus dimension and operational performance are associated with a strong relationship (**r = 0.686**).**

- **Leadership and operational performance**

  Finally, the construct leadership and operational performance have a strong relationship (**r = 0.684**).**

In addition to correlation analysis, the study examined the degree of explanation of TQM dimensions on operational performance jointly by using multiple regression analysis and the

result showed that all variables have a significant effect on operational performance. The researcher has also tested Multicollinearity using VIF results and does not exist in this study data.

In this research factors influencing operational performance are thoroughly reviewed and analyzed. The correlation strength and direction between total quality management dimensions and operational performance were identified. The TQM dimensions used in this study are: Customer focus, employees' involvement, leadership, technology adoption and continuous improvement. According to the finding, Customer focus has been found a key factor influencing operational performance.

Thus, customer focus has been identified as a key variable to predict operational performance; that is; operational performance can be expressed in terms of customer focus, followed by employee involvement, leadership, technology adoption and continuous improvement respectively.

The Multiple regression analysis result concludes that:

- ✓ All the developed variables jointly explain 74.5 % of operational performance
- ✓ Operational performance were expressed in terms Customer focus, employee involvement ,leadership, technology adoption and continuous improvement, individually with.359 ,.261,.259,.188 and .107 respectively

5.2 Conclusions

This study examined the effect of TQM dimensions on operational performance in the case of Dashen Bank S.C by using Customer focus, employee involvement, leadership, technology adoption and continuous improvement as a major determinants of operational performance. The empirical research findings of this study showed that TQM dimensions have positive and significant influence on operational performance and vice versa.

To sum up with, the research findings of this study showed that:

- ✓ All the identified explaining variables have significantly and positively influences operational performance. Customer focus is the most leading factor to the existence of operational performance because it has the highest beta coefficient.
- ✓ Employee Involvement is the next most important factor which can predict operational performance, followed by leadership, technology adoption and continuous improvement.

5.3 Recommendations

Even though the data was collected only from Dashen Bank, the finding of this empirical study can be generalized to Ethiopian Banking Industry because of the following reasons: operation in the banking industry is the same, banking products and service are almost similar and relatively adequate primary data was gathered from respondents.

Hence, Banking institutions generally and Dashen Bank S.C specifically, are highly recommended to:

- ✓ Establish a well-designed customer focus strategy that can benefit both the bank and customers in the long run. Emphasis shall be given all customers while designing products and services. Shall Place the customer at the centre of its activities, with the aim to deliver excellent service experience to customers across all its chosen segments. The Bank shall implement a strategy that achieves the following objectives:
    - Develop a clear vision and strategy around customer experience
    - Create alignment between customer experience strategy and employee culture
    - Effectively capture and embed feedback from the 'voice of the customer'
    - Understand the Bank's customers' end-to-end journey
    - Leverage customer insights to transform their value propositions.
- ✓ Involve employees in decision making and give them recognition for better performance. Treating employees as a valuable resource increases their loyalty to the firm, motivates them and makes them proud of their jobs, improves their work related performances, decreases absenteeism, and reduces intentions to quit.

- ✓ Leverage technology for operational excellence. To drive customer experience and operational efficiencies, Dashen Bank shall develop an application landscape that will effectively perform against the requirements and expectations and integrate seamlessly with capabilities that might be provided by third party platforms.

- ✓ Conduct ongoing improvement of products, services or processes through incremental and breakthrough improvements. This could be achieved through Continuously provide training on customer experience to all staff, Continuously leverage data analytics to improve the Bank's propositions –products and services.

5.4 Future Research Directions

Because of time and finance restraint, the study has limited to Dashen Bank S.C However, there are other commercial banks providing banking service in the banking sector. Therefore, other researchers are recommended to include and study other commercial banks operation in Ethiopia

Furthermore, this research was focused some of TQM dimensions namely: Customer focus, employee involvement, leadership, technology adoption and continuous improvement. Nevertheless, there might be other determinant constructs that will have an influence on operational performance. Hence, other researchers are recommended to consider variables which are not included in this study.

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APPENDIX

Appendix 1

ADDIS ABABA UNIVERSITY

Questionnaire

Dear respondent, I would like to thank you for taking your time to fill the questionnaire. The purpose of this research is to study **the effects of total quality management on operational performance in the case of Dashen Bank S.C**Th.is survey is designed as part of my work for a Master of Science in management at Addis Ababa University. All the information will be kept confidential and used **strictly** for academic purposes only.

Instruction:

Please, mark using (☑) selection method based on your convenience in the appropriate box for your choice. Please, also make sure that your choice is visible.

Part I. General Information

1. How old are you?

☐18-25 ☐ 31-40 ☐ Above 50

☐ 26-30 ☐ 41-50

2. What is your maximum education level?

☐ Diploma ☐ Doctoral

☐ Degree ☐ Professor

☐ Masters ☐ Other

3. What is your gender?

☐ Male

☐ Female

4. How long have you been working in the bank ? _____ (Years)

☐1-5 ☐ 11-15 ☐ Above 20

☐ 6-10 ☐ 16-20

Part II: The Effects of Total Quality Management on Operational Performance

Please answer each statement below by putting a circle around the number or mark ((☑), (☒), or (⊡)) that best reflects your degree of agreement or disagreement with each statement.

Key:

1 = SD-: Strongly Disagree

2 = D: Disagree,

3 = N: Neutral,

4 = A: Agree,

5 = SA: Strongly Agree,

1.	Employee Involvement	SD	D	N	A	SA
1.1	The bank's human resource policy encourages employee involvement					
1.2	The bank encourages employee career development through training and education					
1.3	The bank motivates rewards and looks after the employee well-being					
1.4	The bank conducts performance appraisal and gives feedback to employees					
1.5	The bank encourages employees to set their own goals, judge their performance and take full responsibility for their actions					

2.	Technology Adoption:	SD	D	N	A	SA
2.1	The bank has workable technologic al facilities					
2.2	The bank has automated its critical success factors and critical processes					
2.3	The bank has proper mechanism of system automation					
2.4	The bank has in place monitoring mechanism of automation process					
3.	Continuous Improvement	SD	D	N	A	SA
3.1	The bank has developed and published a clear corporate mission, beliefs and objectives.					
3.2	The bank always comes up with clear and effective strategies for achieving the mission and objectives.					
3.3	The bank uses customers' requirements as the base for quality improvement					
3.4	The bank manages Information to support the quality improvement					
4.	Customer Focus	SD	D	N	A	SA
4.1	The bank has the capacity to satisfy customer needs and wants					
4.2	The bank services meet the customer's specific needs					
4.3	The bank has embarked on a continuous improvement process to meet customers' needs					
4.4	The bank evaluates its service delivery for future a continuous improvement.					
4.5	The bank values internal customers					
4.6	The bank values external customers					

4.7	The bank has attracted new customers					
4.8	The bank strives to retain its existing customers.					
5	Leadership	SD	D	N	A	SA
5.1	Employees are stimulated to help implementing changes in the organization					
5.2	Managers motivate their employees and help them to perform a high level work					
5.3	The bank leadership has provided a healthy and conducive environment for continuous improvement					
5.4	Managers provide necessary guidelines to employees.					
5.5	The bank leadership is committed to allocate the necessary resources for successful implementation on TQM					
5.6	Leaders took responsibility for efficiency and effectiveness of work.					

Part III- Operational performance related questions

Please, also indicate your agreement or disagreement level for the next statements, using the same method of selection as the previous section.

6.	Operational Performance	SD	D	N	A	SA
6.1	There is improved service delivery in the bank.					
6.2	There is increased bank competitiveness and bigger market share					
6.3	The bank's quality service delivery is enhanced					
6.4	There is Waste reduction in operations					
6.5	There is Improved employee operation efficiency thus reducing operation costs					

Thank you again for your participation in this research,

Metew MinayeTefera

Appendix II

SPSS DATA OUTPUT

1. Reliability

Scale: Employee Involvement

Reliability Statistics

Cronbach's Alpha	N of Items
.795	5

Scale: Technology Adoption

Reliability Statistics

Cronbach's Alpha	N of Items
.764	4

Scale: Continuous Improvement

Reliability Statistics

Cronbach's Alpha	N of Items
.726	4

Scale: Customer Focus

Reliability Statistics

Cronbach's Alpha	N of Items
.899	8

Scale: Leadership

Reliability Statistics

Cronbach's Alpha	N of Items
.834	6

Scale: Operational Performance

Reliability Statistics

Cronbach's Alpha	N of Items
.849	5

Scale: All Variables

Reliability Statistics

Cronbach's Alpha	N of Items
.835	6

2. Correlations

Correlations

		EmployeeI	TechnologyA	ContImprovement	Custfocus	Leadership	OperationalPerformance
EmployeeI	Pearson Correlation	1	.371**	.312**	.366**	.433**	.608**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	231	231	231	231	231	231
TechnologyA	Pearson Correlation	.371**	1	.321**	.430**	.386**	.574**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	231	231	231	231	231	231
ContImprovement	Pearson Correlation	.312**	.321**	1	.267**	.657**	.515**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	231	231	231	231	231	231
Custfocus	Pearson Correlation	.366**	.430**	.267**	1	.469**	.686**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	231	231	231	231	231	231
Leadership	Pearson Correlation	.433**	.386**	.657**	.469**	1	.684**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	231	231	231	231	231	231
OperationalPerformance	Pearson Correlation	.608**	.574**	.515**	.686**	.684**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	231	231	231	231	231	231

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

3. Regression

3.1Descriptive Statistics

	Mean	Std. Deviation	N
OperationalPerformance	4.7619	.38665	231
EmployeeI	4.4788	.49469	231
TechnologyA	4.4524	.48556	231
ContImprovement	4.4578	.47675	231
Custfocus	4.6061	.45562	231
Leadership	4.5325	.46473	231

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.863[a]	.745	.739	.19740	1.626

a. Predictors: (Constant), Leadership, TechnologyA, EmployeeI, Custfocus, ContImprovement

b. Dependent Variable: OperationalPerformance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.617	5	5.123	131.488	.000[b]
	Residual	8.767	225	.039		
	Total	34.385	230			

a. Dependent Variable: OperationalPerformance

b. Predictors: (Constant), Leadership, TechnologyA, EmployeeI, Custfocus, ContImprovement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.414	.174		2.381	.018		
	EmployeeI	.204	.030	.261	6.695	.000	.748	1.338
	TechnologyA	.150	.031	.188	4.784	.000	.732	1.366
	ContImprovement	.087	.037	.107	2.375	.018	.557	1.795
	Custfocus	.305	.034	.359	8.839	.000	.686	1.458
	Leadership	.216	.042	.259	5.162	.000	.450	2.224

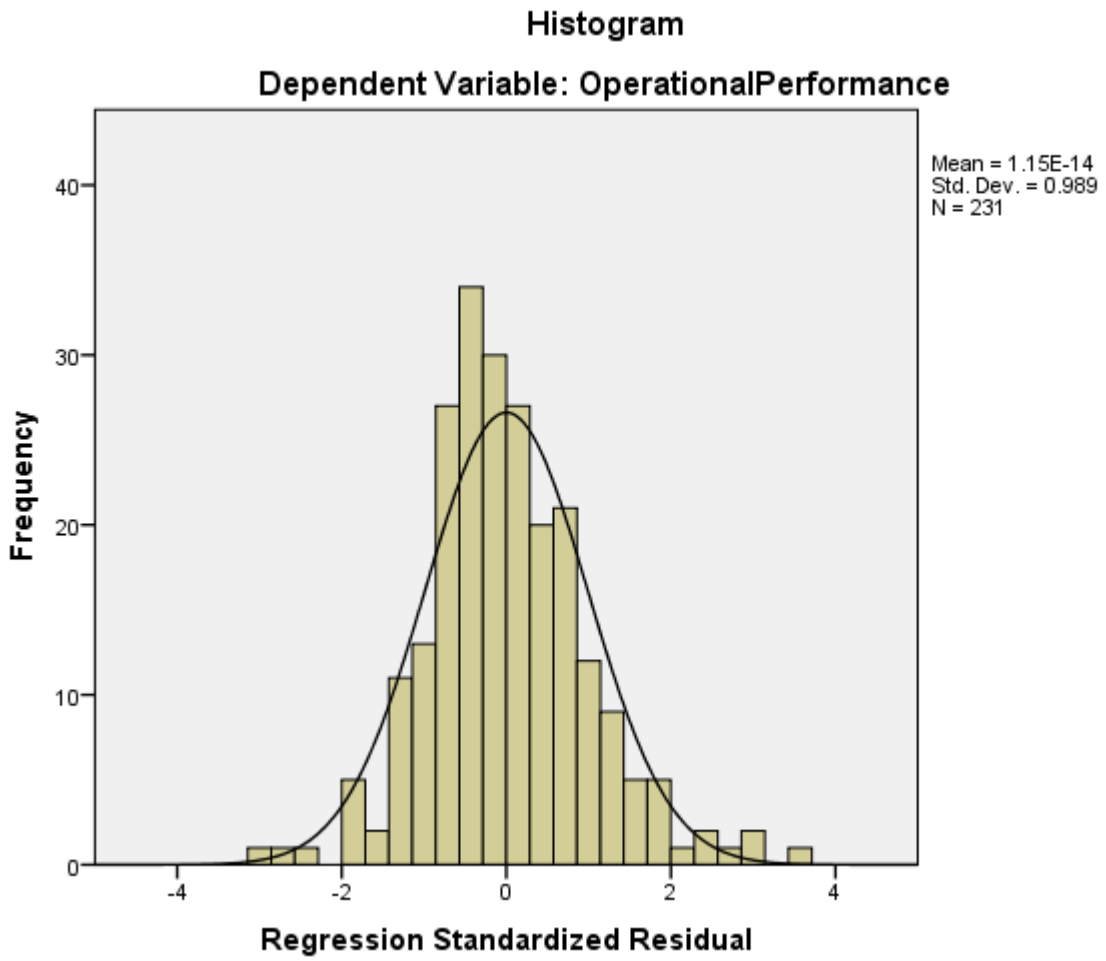
a. Dependent Variable: OperationalPerformance

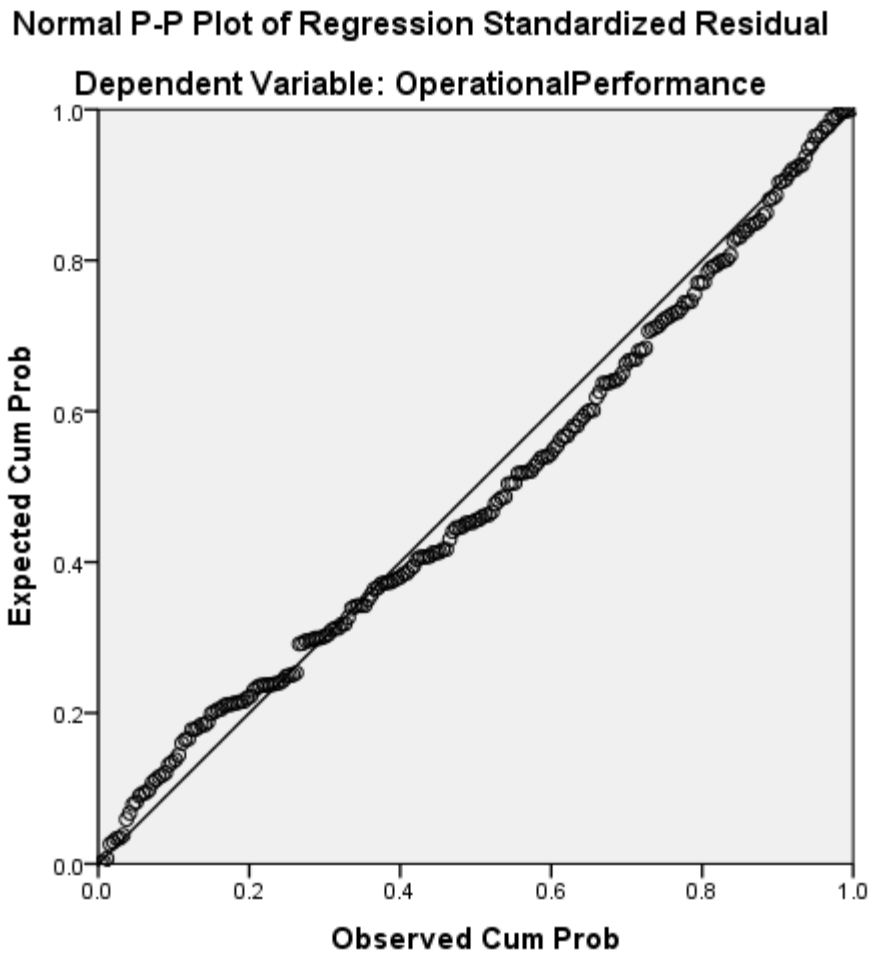
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.4835	5.2182	4.7619	.33374	231
Residual	-.60722	.71051	.00000	.19524	231
Std. Predicted Value	-3.831	1.367	.000	1.000	231
Std. Residual	-3.076	3.599	.000	.989	231

a. Dependent Variable: Operational Performance

Charts




Normal P-P Plot of Regression Standardized Residual
Dependent Variable: OperationalPerformance
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0