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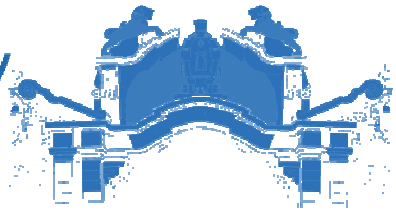

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

The Effect of Total Quality Management (TQM) OnOperational Performance of Cash Register Machine Suppliers:The Case of Jupiter Trading

A Thesis Submitted in Partial Fulfillment of Requirements of the Degree of Master of Science in Management-Specialization in Quality Management and Organizational Excellence

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June, 2021

Addis Ababa, Ethiopia

DECLARATION

I, NatnaelGudeta, declare that the thesis entitled '***The Effect of Total Quality Management (TQM) On Operational Performance of Cash Register Machine Suppliers: The Case of Jupiter Trading***' is my original work that is done under the guidance and supervision of my advisor Dr. AsresAbitie. The study has not been submitted before for any institutions and all the sources of the materials in the research paper have been duly acknowledged.

Declared by

Name: - **NatnaelGudeta**

Signature_____

Date_____

Advisor: - **AsresAbitie (PhD)**

Signature_____

Date_____

APPROVAL

This is to certify that the thesis paper, entitled ***'The Effect of Total Quality Management (TQM) On Operational Performance of Cash Register Machine Suppliers: The Case of Jupiter Trading'***, which is submitted for the partial fulfillment of the degree of Master of Science in Management complies with the regulations and meets the standards of the institution.

Approved by the Examiners:-

_____	_____	_____
Name of the Advisor	Signature	Date
_____	_____	_____
Name of Internal Examiner	Signature	Date
_____	_____	_____
Name of External Examiner	Signature	Date

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ABSTRACT

In today's work, organizations are in need of operating in highly dynamic environments where key resources are scare and uncertainty in business opportunities is common. In addition to these, the intense competition and ever changing customer demands forced organizations to practice TQM for better performance. The objective of this paper was to examine the effect of TQM practices on operation performance of Jupiter Trading.The research adopted a descriptive and explanatory research design. To collect the data needed a closed ended survey questionnaires were distributed to 175 targeted respondents using a simple random sampling technique. To analyze the data collected, the study used Pearson correlation coefficient, regression analysis and SPSS version 23. The finding of the study revealed and concluded that TQM practices had positive and significant effects on operational performance. Hence, the entire hypotheses formulated were accepted. The variables applied on the model explain operational performance 49.2%. The study recommended that the organization should give a great emphasis on the TQM practices applied on the study and should make additional research on finding the other potential variables that have a significant effect.

Key words: - TQM practices, Leadership, Training and Education, Employee Empowerment, Continuous Improvement, Customer Focus, Operation performance

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ACRONYMS

- TQM Total quality management
- ERCA Ethiopian Revenues and Customs Authority
- MBNQA Malcolm Baldrige National Quality Award
- EFQM European Foundation for Quality Management
- SMEs Small & Medium Enterprises
- ESA Ethiopian Standards Agency
- ANOVA Analysis of Variance
- β Beta Coefficient
- SPSS Statistical Package for the Social Sciences

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

In recent times, organizations have experienced a period of great change in their markets and operations. International as well as domestic competition has meant that many organizations have faced an increasingly turbulent and hostile environment. Globalization, intense worldwide competition and ever changing customer demands have dramatically changed the business environment during the past decades (Al-Damen, 2017). The pace of technological change has quickened to lightning speed, customers have become more demanding and competition has become more intense and sophisticated (Oakland, 2014). Companies need to operate in highly dynamic environments where key resources are scare and uncertainty in business opportunities is common. The market imposes high efficiency standards and firms that fail to meet them are quickly marginalized (Battistoni, Bonacelli, Fronzetti&Schiraldi, 2013).

Organizations require sustainable management tools to take the advantage of competitiveness and develop the performance to be effective and efficient. The notion of Total quality management (TQM) is then introduced by management professionals to promote such an approach (Kluaypa&Onuh, 2010).It is a Japanese management phenomenon that has proved to be a viable competitive tool on a worldwide scale (Jonah, Ornguga&Torsen, 2018). It was further developed in the 1940s led by the Americans, such as Deming, Juran and Feigenbaum (Samson, 2017).It is widely practiced by firms for continuous enhancing the quality among services, products, and practices by taking customer's requirements into consideration to enhance customer satisfaction as well as performance of the firm (Khan, Mirza&Khushnood, 2020). It allows companies to increase their market share, the customers' and employees' satisfaction, as well as the service efficiency and quality by improving their internal processes (García, Del Río & Alonso, 2014).

Performance is a concept that quantitatively and qualitatively determines the result of intended and planned activities (Subramani, Jan, Arumugam&Sasikala, 2019). As Sutrisno (2019)defined,

operation performance is related to the organization's internal operations processes such as productivity, product /service quality and customer satisfaction. Regardless of the type of sector in which a firm operates the practical knowledge of TQM, coupled with a clear appreciation of the organizational goals, value proposition, resource (human & capital) are key to achieving the TQM goals (Alofi&Younes, 2019). Practicing TQM implies that workers are taught and empowered thus; they are dedicated and take responsibility of their job that may assist a business to prevent rework, wastages, recycling and inspections.Effective TQM implementation could accomplish the internal benefits such as improving quality, enhancing productivity or realizing better operating income (Lee & Lee, 2014).

In the sector and the case company, Jupiter trading, in supplying cash register machine and providing the necessary service there was no study made on the practice of quality management. There was lack of knowledge and information about TQM practices. They didn't take account about its principles. There was an increase in the number of Traders whom are forced to use this machine in their daily activities. To fulfill these needs there are also a number of suppliers of the machine, software and technology related developers in competition. Hence, the company faces a great challenge in the business. Therefore, the researcher aimed to explore, saw and fill the gap on the company's existing TQM practices and its operational performance.

1.2. Background of the Organization

Jupiter business group was established in 1993 by two visionary, hardworking and dedicated brothers with a single photocopy machine and some stationery materials to sell. Through time the company was among the first four companies in the IT Industry in the country. Now the business group is organized under three sister companies. These are, Jupiter International hotel, Hadero coffee and Jupiter trading with a capital of 80 million birr having more than 465 employees.

Jupiter international Hotel is a close-Knit group of two hotels at cazanchis and bole positioned at proximity to shopping destinations, sightseeing spots and travel hubs in the city of Addis Ababa. They thrive to give their guests a contemporary take on luxury living. Hadero coffee is a subsidiary of Jupiter hospitality holdings. It is primarily engaged in coffee roasting, grinding and

is developing a chain of retail outlets. At the roaster, a coffee museum/gallery has been curated in order to teach the public about the business of coffee in Ethiopia.

Jupiter trading is engaged on marketing IT products including; Dell (certified enterprise partner), HP (gold partner), Epson (authorized retailer), Tally Genicom (authorized distributer), InfoSec UPS System (authorized distributer), Optima cash register (authorized distributer), Eltrade cash register (authorized distributer), LexMark (authorized distributer), Toshiba (authorized distributer), Microsoft (certified solution provider),Cisco Router and Switched (re-seller) and the like.

The use of sales registration machines began in Addis Ababa, Ethiopia in February 2008 and its use had expanded significantly throughout the country. Jupiter trading was among the 15 cash register machine and software providers in the country accredited by the Ethiopian Revenues and Customs Authority (ERCA) to supply the sales register machines. The suppliers are also responsible for machine configuration, offering training to customers on how to operate the machines, maintenance for the machines should they failed to work correctly and upgrading. As a cash register machine provider, the case company has currently 154 employees, 1,194 active cash register machine users and 129 software users as customers in Addis Ababa.

1.3. Statement of the Problem

The government of Ethiopia facilitates the use of cash register machine in the business to make the tax collection process convenient, easy to administer and free of illegal activities. For these purpose the government granted accreditations to suppliers of the machine. Their main duties are for delivery, installation, inspection, repair and maintenance. Over the years suppliers have experienced innovations in technology, change of demand from customers and pressures that comes from the regulatory body.

As a well-known management philosophy, TQM focuses on continuously improving the quality of products and services to satisfy customer needs and wants as per their requirements and also improve performance (Saud, 2019). Applying its concepts helps an organization to acquire excellence, superior value and competitiveness (Goetsch& Davis, 2014). Organizations in the developed countries have excelled in quality and competitiveness by realization of TQM approach. However, organizations in the developing countrieshave little experience with the

approach (Khan, Mirza&Khushnood, 2020). Its principles are still unfamiliar for managers and employees (Sutrisno, 2019).

The limited studies conducted previously on cash register machines were mainly focused on tax related issues, not on the management aspects of their daily operational activities on the suppliers' side. The quality management beliefs in Ethiopia were found to be low in all its practices (Beshah&Kitaw, 2014). Even the studies made on TQM practices in the country were merely focused on manufacturing industries. The service industry, especially the sector where the case company is engaged on, lacks a formal study on its TQM practices. Hence, based on customers and staffs complaints and the researcher's own observation the low level of attention given to the TQM practices of the company, takes the largest share for lack of consistent in supplying the machine to customers, the difference in the understanding of proclamations between officers and customers regarding sales equipment and service delivery, complaining over the inconvenience and difficulties of the use of the machine. Therefore, there is a gap in assessing the effect of TQM practices in the case company, Jupiter Trading, in particular and the industry in general.

Based on the above reasons the researcher is motivated to conduct the currentstudy on the practice of TQM in the company to be studied and to forward suggestion that will improveJupiterTrading competitive capabilities and help to acquire greater market share in the business it operates and ultimately satisfying its customers.

1.4. Research Question

- Does Leadership in TQM affect operational performance in Jupiter Trading?
- Do Training and Educating employees and customers affect the operational performance of the case company?
- Does Employee Empowerment in TQM affect operational performance in Jupiter Trading?
- Does applying Continuous Improvement affect the operational performance of the case company?
- Does focusing on customer by the case company affect its operational performance?

1.5. Objective of the Study

1.5.1. General Objective

The general objective of the study is to examine the effect of TQM practices on the Operational performance of Jupiter trading.

1.5.2. Specific Objectives

The lists of the specific objectives the study is focused on are:-

- To examine whether Leadership as a TQM practice affect operational performance in Jupiter Trading
- To look over whether Training and Education in TQM affect operational performance in Jupiter Trading
- To determine whether Employee Empowerment in TQM affect operational performance in Jupiter Trading
- To find out whether Continuous Improvement as a TQM practice affect operational performance in Jupiter Trading
- To determine whether Customer Focus as a TQM practice affect operational performance in Jupiter Trading

1.6. Significance of the Study

The study provides an important issues and concepts on total quality management practices and operational performance. The research gives ideas and understandings to suppliers, tax payers and the governing body ERCA on methods, techniques and different knowhow of handling the machine. It helps Jupiter trading on evidence based information on the different mechanism that can help to achieve its competitive advantages.

The study serves as a source of an empirical data for researchers of the same topic and also for others too.

1.7. Scope of the Study

There are a number of Suppliers and software developers in the industry and the case company also has different branches to give the necessary services to its customers. The study was done on Jupiter trading Addis Ababa office. It didn't include the branch offices outside Addis. It was also limited only on Jupiter trading from the 15 cash register machine providers. The finding of the research will not be generalized for all the suppliers.

The principles and practices associated with TQM and Operational activities are broad; the study only focused on some variables of TQM practices the company follows and operational performance.The research sample didn't include all the participants in the cash register machine operational activities. It was conducted on some concerned bodies from the Jupiter trading and its customers.In regard to methodology, the study limits itself to employing cross- sectional study and quantitative research design.

1.8. Limitation of the Study

Due to time, budget and research manageability, the study was conducted only on Jupiter trading to examine its total quality management practices and their effects on operational performance in the Addis Ababa's service center.

The principles and practices associated with TQM and Operational activities are broad; the study only focused on some variables of TQM practices the company follows and operational performance. As a result, not considering the other dimensions of TQM could be seen as a limitation; however scholars on the subject are advised to cover the concepts.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

Under this section the research discussed about the different concepts and principles of TQM practices and operational performance based on previously written literatures and empirical evidences. A framework containing each variablewere developed and studied.

2.2. The Development of TQM

TQM is an endless journey in pursuit of a delighted customer. In recent years, the word "quality" itself has changed meaning. It has come to mean more than the reliability and price/performance of a product or service, as essential as those are. It is more than a program. It encompasses every aspect of customer satisfaction, including how fast a solution is delivered, its usability, availability of support, efficiency of service, and even the simplicity of bills and prompts, courteous telephone responses. TQM needs to be integrated into everything the business does (Cangemi, 1993)

Quality management has and continuous to evolve from a rigid, structured function founded exclusively to monitor manufacturing processes to a more well-rounded function of total organizational performance. The traditional view of quality as a manufacturing –specific organizational cost center is rapidly becoming obsolete and being replaced by a more holistic approach to the functional definition of quality (Westcott, 2013).

Quality has progressed via four distinct levels, namely inspection, control, assurance, and total quality management. It should be noted that the words are used to denote different levels in a quality management hierarchy. (Dale, Bamford& van der Wiele, 2016).

A. Inspection

The quality inspection stage started about 1910 when the Ford motor company, then one of the world's largest manufacturers employed teams of inspectors to check the quality of T-model car (Bergquist, Garvare, &Klefsjö, 2007) .The Company created assembly line in its newly opened factory in Highland Park, Michigan due to the influence of the scientific management of Fredrick

W. Taylor. This resulted in Ford increasing its manufacturing volume. Ford's assembly line was copied by many manufacturing companies. However, companies turned their attention to control product-related quality issues. Since manufacturers were more “product-focused” in that time, the quality concept was, therefore, aimed at “conforming to the standards and specifications of a product”. This in turn, impelled quality engineers in manufacturing industries to implement the method of “inspection” so as to control the quality of a manufactured product (Yang, 2017)

Under a simple inspection based system, one or more characteristics of a product , service or activity are examined , measured, tested or assessed and compared with specified requirements to assess conformity with a specification or performance standard. The inspection system is an after –the event screening process with no prevention content other than, perhaps , identification of suppliers, operations, or workers, who are producing non-conforming products/services. There is an emphasis on reactive quick-fix corrective actions and the thinking is department based. Simple inspection based systems are usually wholly in house and do not directly involve suppliers or customers in any integrated way (Dale, Bamford, & van der Wiele, 2016).

B. Quality Control

Quality control is basically concerned with complying with requirements by inspecting the products and eliminating non-conforming items. It is defined as a system that maintains a desired level of quality, through feedback on product/service characteristics and implementations of remedial actions, in case of a deviation of such characteristics from a specified standard (Mitra, 2016).

Quality control is providing techniques and performing activities that focus on controlling or regulating processes and materials to fulfill requirements for quality. The focus is on preventing defective products or services from being passed on (Westcott, 2013). It was adopted in order to identify problems earlier and control the manufacturing process, instead of rejecting or repairing afterwards (Bergquist, Garvare, &Klefsjö, B., 2007). Quality was controlled through supervised skills, written specifications, measurement and standardization. Statistical quality control by inspection was then developed to separate the good products from the bad products(Dahlgaard, Kristensen&Kanji, 2008).

C. Quality Assurance

Quality assurance is broadly the prevention of quality problems through planned and systematic activities (Oakland, 2014). It could be considered as the focal point for the formal development of quality management systems. The quality conformance had changed from product to process standards in the operational system, emphasis was on multi-skilled labor, the idea of systematic documentation and review of quality policies, procedures and responsibilities were brought and the principle of customer orientation had evolved (Hamid, Isa, Chew&Altun, 2019).

The quality assurance focuses on pre-production activities and relies on quality standards or instructions to assist with the reduction of the risk of failures and mistakes in the processes used to produce a product or service (Bergquist, Garvare&Klefsjö, 2007)

D. Total Quality Management

Total quality is a much broader concept that encompasses not just the results aspect but also the quality of people and the quality of processes (Goetsch& Davis, 2014). Quality has different meanings for different people. It is meeting customer requirements, gives people in different functions of an organization a common language for improvement (Oakland, 2014). It is a philosophy with dimensions and can be summed up as ‘doing things properly’ for competitiveness and profitability. TQM involves the understanding and implementation of quality management principles and concepts in every aspect of business activities. It demands that the principles of quality management must be applied at every level, every stage and in every department of the organization. (Dahlgaard, Kristensen&Kanji, 2008).

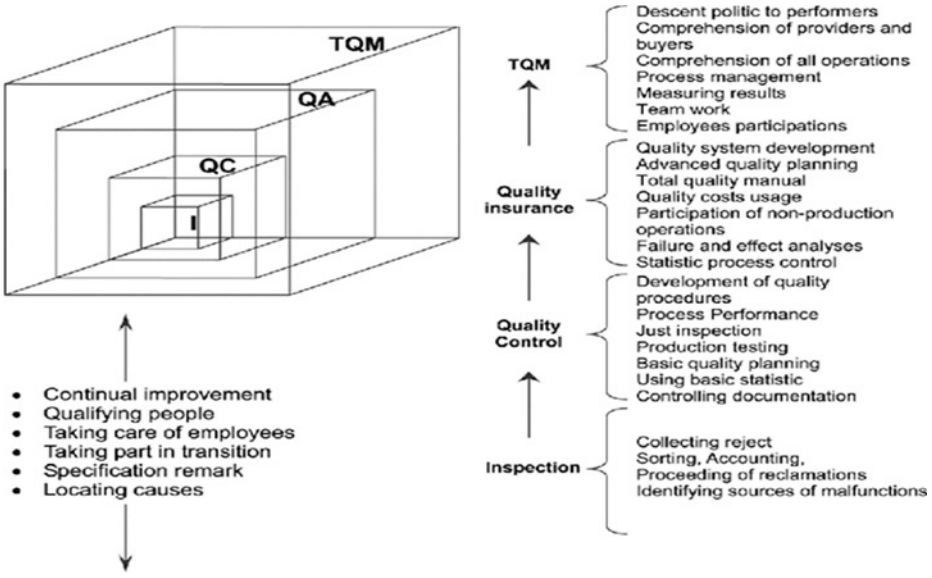


Figure 1:- The four levels of the evolution of TQM by Dale, Bamford& van der Wiele, 2016,P-16.

2.3. The TQM Measurement Models

Quality management is a controversial issue, and with so many varied perspectives on what to do and how to do it, authoritative and unbiased counsel is needed to assist most firms make sense of it (Knowles, 2011).To do so, organizations base their fundamental concepts on widely used business excellence Models in the world namely, Malcolm Baldrige National Quality Award (MBNQA), Deming Prize model, and the European Foundation for Quality Management (EFQM) model(Veselova, 2018).And also Organizations are progressively implementing management standards developed by the International Organization for Standardization (ISO) to ensure they can match their consumers' expectations as a result of globalization (Su, Dhanorkar&Linderman, 2015).

2.3.1.Deming's Prize Model

In recognition of Deming's friendship and contributions to Japan, the Deming Prize was established in 1951 to encourage the development of quality control in Japan (Khoja, Prajapati, Khoja, Panjwani& Ray, 2017).Deming has made three main contributions to the development of quality. These are the fourteen points for transformation of an organization, the deadly diseases of an organization and the system of profound knowledge (Knowles, 2011). With these the

Deming prize was developed to ensure that good results are achieved through the implementation of company-wide control activities, and is based on the application of a set of principles and statistical techniques (Dale, Bamford& van der Wiele, 2016).

2.3.2. The EFQM Framework

The EFQM Excellence Model was first used in 1992 with the effort to improve the position of European companies in the competitive fight on global markets. It is a model with fixed scale of criteria, on the grounds of which it is not only possible to objectively evaluate individual companies, but especially mutually compare them (benchmarking) (Jankal, &Jankalova, 2016).Its comprehensiveness comes from the fact that it is built on achieving excellence in performance, customers, employees, and society by implementing appropriate policies and strategies for employees, resources, and processes (Al-Majali&Almhirat, 2018).

2.3.3. The Baldrige Model

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

Criteria	Deming Prize	EFQM	MBNQA
Leadership	√	√	√
Policy & Strategy		√	√
People Management	√	√	√
Resources		√	
Processes	√	√	√
Customer Satisfaction		√	√
People Satisfaction		√	
Impact on Society		√	
Business Results	√	√	√
Information & Analysis	√		√
Standardization	√		
Quality Assurance	√		
Maintenance	√		
Improvement	√		
Future Plans	√		

Table 1: Quality Measurement Models (Garza-Reyes et al., 2015)

2.3.4. ISO Quality Management Standards

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

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

2.3.5. Ethiopian Quality Standard and Quality Award

The Ethiopian Standards are formed by national technical committees which are composed of different stakeholders consisting ofeducational Institutions, research institutes, government organizations,certification, inspection, and testing organizations, regulatory bodies, consumer association and other stakeholders (ESA, 2021). The quality award granted to organizations that can fulfill the criteria's of leadership, policy and strategy, resources management, process management, customer satisfaction, business performance and impact on the society. The evaluation process of the EQA starts from application and ends in award winners' selection. It has eight stages. Application, self-assessment, submission of self-assessment report, independent and subsequent consensus evaluation by the technical committee, short-listing, second registration, site visit review, technical committee recommendation, judge's recommendation, and EQA board approval are the steps involved (Beshah&Kitaw, 2014).

2.4. Theoretical Review on TQM Practices and Hypothesis Development

Many quality management philosophies, methodologies, concepts and practices were created by quality gurus to manage quality of products and services in an organization. These practices have developed overtime to create sustainable sources of competitive advantage. New challenges

faced by managers are addressed to improve performance and future competition (Kim-Soon, 2012)

According to Dahlgaad, Kristensen and Kanji (2008), they characterized the TQM principles as five. Management commitment (leadership), focus on the customer and the employee, focus on facts, continuous improvement (Kaizen) and every body's participation.

Kim-Soon (2012) in the book he had edited reviewed different authors and come up with a representative constructs of 10 TQM concepts. These are leadership, customer focus, process management, people management, partnership development, social responsibility, continuous improvement, strategic alignment, agility and communication.

Goetsch& Davis (2014) characterized the TQM principles as strategically based, customer focus obsession with quality, scientific approach, long term commitment, team work, continual process improvement, education and training, freedom through control, unity of purpose, employee involvement and empowerment and peak performance.

Totally the concept of TQM practices have been studied according to the nature of the research and the organization under studied. In many ways TQM is difficult to encapsulate, primarily because it has never clearly defined industry wide. For some, it provided a framework for continuous improvement and an abundance of tools; for others, a philosophy of value to the society. Therefore, because of the nature of the research and the specific practice of the company under study, the research focused on some lists of TQM practices.

2.4.1. Leadership

Leadership is from those who are in power to visualize those tasks and functions in order to make the organization sustainable, develop, successful and efficient (Yıldız, Baştürk&Boz, 2014). The realization and successful implementation of TQM practice in an organization can be achieved mainly through the support and commitment, the abilities to direct, influence and improve the skills and capabilities of employees by top level management. Their commitment can increase and strengthen performing quality and performance (Saffar&Obeidat, 2020)

Leadership performs a fundamental role in building trust with employees. It makes and sets strategic objectives, leads those employees to accept quality responsibility, to maintain quality

assurance, to focus on market demands, to improve quality, productivity, profitability and overall performance of the organization (Sweis, Elhawa&Sweis, 2019).The main aim of many companies is to accomplish its strategic objectives; hence, there is a need of effective leaders for coordinating and motivating the employees (Al Khajeh, 2018). Effective leaders develops a working environment through encouraging , those employees who work together, to share their attitudes, beliefs and values to achieve the strategic goals and desired performance of the organization (López-Fernández, 2018).

A leadership which is supportive provides the opportunity to those concerned bodies or stakeholders to express their views, ideas and thoughts early in the process of problem solving and decision making (Deshpande, 2019). Their goal is to run the business they operate in the direction to achieve the strategic goals effectively, to equip employees with the necessary resources and capabilities and to deliver products/services based on customer expectation (Ahoy, 2009).

Therefore, based on the above literature, the researcher proposes the hypothesis that leadership has an effect on operational performance through playing a great role in motivating employees to achieve strategic goals and objectives, enhance the use of adequate resources in the accomplishment of customers' expectations, empowering employees in every activity and realization of performance

H1: Leadership has a positive and a significant effect on operational performance

2.4.2. Training and Education

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

Employees are the main resources and backbone of every organization. It is invested huge amounts of money on them because their performance will have an immediate impact on the organization (Khan, Khan, & Khan, 2011). Their active role in accomplishing organizations success cannot be underestimated. As a result, equipping them through effective training

programs becomes imperative in order to maximize their performance (Nassazi, 2013). Training not only develops employees' efforts but also help an organization to make best out of them in order to get competitive advantage (Daniel, 2018).

Employees' effective knowledge and learning capability will provide organizations to have sustainability in the application of quality management. Furthermore, it helps them to adapt the ever changing business environment, to develop unique characteristics, which distinguishes them from others and enables them to obtain better success from competitors (Sadikoglu&Olcay, 2014). Employees that have the knowledge, the skills, expertise and experience to organize the strategic activities are those who are more valuable for the organization because they can help to achieve its goals and to become more effective (Mishra, 2019). Organizations with better skilled and creative employees can easily avoid or reduce unnecessary investment to improve their efficiency and performance (Naqvi& Khan, 2013).

As Mahadevan& Yap (2019) argued it is those employees who participated in training programs proved to be more competent than to those who did not. A Well trained employee performs their tasks efficiently and effectively. Organizations always look forward to improve their performance, and this cannot be achieved if their employees not skilled-up. Therefore, as Sweis, Elhawa&Sweis(2019) indicate organizations should have to educate their staff by training and implementing knowledge and skills, in order to create more effective and efficient work place.

Therefore, from the above discussion it is considered that the literature supports that training and educationhave positive relationship with operational performance. Therefore, this study proposes the hypothesis that:-

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

2.4.3. Employee Empowerment

The rapid increase in competition in the changing business environment has forced organizations to focus on their employees in order to get their full commitment at workplace (Hanaysha, 2016).Empowerment is the process of giving employees the full power to exercise control, to take responsibility, to make decisions, to solve work related problems, to enrich and motivate them through delegation (Sahoo& Das, 2011).

Empowerment is strongly linked to ownership. It means giving employees the genuine ownership of the processes they run. It allows them to make decisions about how to do their jobs, how to best serve customers and what actions are needed for the best interests of the company (Knowles, 2011). It is one of the effective techniques used to improve the productivity, capacity and capability of employee in the organization (Mishra, 2019)

The traditional employee involvement was narrow-minded; its main focus was on the job than the process. The TQM strategy, on the other hand, incorporates the interests, participation, and contributions of employees in the quality management process (Keinan&Karugu, 2018). Its objective is to encourage and enable employees to have constructive thoughts and creative thinking on administrative and technical issues in order to meet customer needs and total quality standards (Sweis, Obeidat&Kanaan, 2019)

An organization is greatly depends on its employees who are properly managed and engaged into its daily activities for the level of its performance and competitiveness (Tortorella, Miorando, Caiado, Nascimento, &Portioli, 2018). Employees who have got the support, power, chance and acceptance by the organization will give their full effort, time and energy to serve customers well and to attain the organization's objectives (Mukwakungu, Mankazana, &Mbohwa, 2018).

Those employees who increase their engagement in the overall quality strategy of the organization bring an increase in the flow of information and knowledge and contribution for its well-being through problem solving (Awuor&Kinuthia, 2013). This also leads to quicker, more responsive decisions, continuous performance improvement, and greater employee flexibility, commitment and satisfaction (Wanza, Ntale&Korir, 2017)

Therefore, based on the above literature, the researcher proposes the hypothesis that employee empowerment has an effect on operational performance.

H3: Employee empowerment has a positive and significant effect on operational performance

2.4.4. Continuous Improvement

Changes and challenges are occurring in our world. Today's realities and tomorrow's possibilities are in greater uncertainties, by the endless change and transformation, for us all (Davis, 2018). Customer needs are continually changing. A product which is special and

innovative today will be considered just routine tomorrow. A product cost that is cheap today will be too high to compete tomorrow (Goetsch& Davis, 2014).

The rapid change in competition and the needs of customers for qualified products/services have forced organizations to deliver better quality products/services to meet customers need and to survive in the market (Ezenyilimba, Ezejiofor&Afodigbueokwu, 2019). To achieve this, the most important intellectual asset, advancement In IT & knowledge, is needed. It helps the organization to have innovative growth and to adapt to change (Lee & Lee, 2014). Continuous improvement is designed to utilize these resources of the organization to achieve a quality driven culture (Besterfield, Besterfield-Michna, Besterfield-Sacre, Besterfield&Urdhwareshe, 2011).

'Continuous improvement is the philosophy of improvement initiatives that increases success and reduces failure and must be integrated into the management of all systems and processes' Awuor&Kinuthia(2013). It gains advantage from the methods of controlling situations before happening and developing in time through the integration and cooperation of all units of the organization to eliminate wastage and to improve resource utilization, to have better quality product/service and to optimize performance (Singh & Singh, 2015).

Work processes in quality management settings are constantly checked to reduce mistakes and waste of materials that can improve the effectiveness ofthe organization (Mahmood& Ahmed, 2014). Continuous improvement, through managing the risks of eliminating the unnecessary variation and valueless work activities, can enable organizations to control costs of products/services and hence this leads to have higher operational and financial performance with an increase in customer value and satisfaction (van Assen, 2020)

Therefore, from the above discussion it is observed that the literature supports the relationship between continuous improvement and operational performance. Therefore, this study proposes the hypothesis that:-

H4: Continuous improvement positively and significantly affects operational performance.

2.4.5. Customer Focus

Customer focus is the kind of thinking that ensures to provide products and services which are excellent and competitive in quality to satisfy the needs and wants of a well-defined market

segment (Pyzdek& Keller, 2013). To focus on customers mean trying to find out their needs and values by conducting market analysis and then trying to fulfill the market expectations (Ezenyilimba, Ezejiofor&Afodigbueokwu, 2019).

The current business environment today forces organizations to place customer as their main focus (Hadli, 2017). They depend on customers, so they must understand their current and future needs, achieve their needs, and work to exceed their expectations (Al-Damen, 2017). Knowing them through their voice is critical in designing the product or service 'offer'. When they are heard and their needs are successfully accomplished, satisfaction is likely to be high (Lasrado& Pereira, 2018). Then this will immediately increase the sales and market share of the organizations (Sadikoglu&Oclay, 2014).

Treating customers by respecting their time, keeping promises, providing the necessary information, delivering products and services at the time of purchase and showing the interest of satisfying their needs can pay the organization the successful dividends (Ng, K. S. (Ed.), 2012). Customer satisfaction leads to the firm's performance (Chauke, Edoun&Mbohwa, 2019).

Customer focus and satisfaction is an integral element of quality management aimed at meeting customer requirements and satisfying customer needs (Hadli, 2017). However, satisfying them only is not enough because competitors may also fulfill customer needs. Therefore the organization must strive for total customer satisfaction or customer delight. A concept that focus on providing products or services with attractive and quality incentives than competitors to keep them loyal to the organization (Yang, 2017)

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

H5: Customer Focus positively and significantly affects operational performance.

2.5. Operation Performance

Operations are parts of an organization processes which are used in the transformation of input resources into outputs of goods and services (Brandon-Jones, Slack, & Johnson, 2016). Goods are physical items that include raw materials, parts and sub-assemblies whereas services are

processes that provide some combination of time, location, form or psychological value (Stevenson, 2015).

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

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

Organizations want to enhance their performance through the combined usage of management perspectives, and an appropriate improvement methodology that can give best achievements. One of these methods is total quality management (TQM) (Saleh&Sweis, 2017). TQM help managers to improve organizations' performance and effectiveness in achieving global markets (Sutrisno, 2019). It allows increasing organizations market share, customers' and employees' satisfaction, as well as efficiency and quality by improving internal processes (ÁlvarezGarcía, Cruz Del Río Rama, Vila Alonso&Fraiz Brea, 2014).

2.6. Empirical Review

On their study, Kiprotich, Njuguna&Kilika (2018) investigate the relationship between TQM practices and Operational performance in Kenyan Revenue Authority. The frameworks used to determine the relationship includes training, continuous improvement and system automation of TQM practices as independent variable and the operational performance dimensions of efficiency, effectiveness, customer satisfaction and employee satisfaction as dependent variable. To collect the necessary data both primary and secondary data were used. The sampling technique used, to determine the sample size, was purposive sampling technique. The analysis for the qualitative data was by content analysis method and for the quantitative by using SPSS. To determine the relationship between the variables correlation and multiple regression analysis methods were adopted. It is concluded that the TQM practices used on the study are the major

forces behind organizational competitiveness. They have a significant effect on the dependent variable, operational performance.

Hagos and Pramila(2020) carried out a study to evaluate the effect of TQM practices on operational performance of the plastic industry in Addis Ababa, Ethiopia. The variables used on the side of TQM practices are leadership, knowledge and process management, training, supplier quality management, customer focus and strategic quality planning. The instrument used to collect the necessary data was survey questionnaires. The sample was collected from different departments of the organization using simple random sampling technique. To analyze the data and the relationship between the variables regression analysis was used. Based on the study, the result indicated that only two variables, training and supplier quality management had a significant effect on operation performance. The others were rejected.

On their study, Mohammed, Brahma, Jagadish&Aderaw(2019), tried to examine the impact of TQM system on the operational performance of Ethiopian pharmaceutical manufacturing plants. As independent factors for TQM practices, they looked at top management support, customer focus, people management, process management, continuous improvement, product design, and supplier quality management and quality, delivery, cost and flexibility as dependent variables for operation performance. The study was done on all the 13 Ethiopian pharmaceutical manufacturing companies. Since all companies were considered on the study, the sampling technique was census approach. Both primarily and secondary data were used and they were analyzed and interpreted using correlation and multiple regression analysis. The result on the hypothesis concluded that all TQM variables included on the study had a significant impact on every operation performance variables.

Gelan&Dange (2021) on their study tried to identify the effect of total quality management on operation performance in manufacturing industry in Dire Dawa Administration. seven TQM success factors identified in the study; which are Top Management Support, Process Management, People Management, Supplier Quality Management, Continuous Improvement, Customer Focus and Product Design & their impacts on contemporary operational performance measures i.e. Quality, Cost, Delivery & Flexibility to volume performances were examined. A descriptive survey research design was adopted using both quantitative and qualitative methods. Simple random sampling technique was used to select

manufacturing industry while purposive sampling was used to select the Management Staff, and stratified sampling was used to select the Employees. Data analysis was made using frequencies, percentages and inferential statistics such as Ordinal logistic regression analysis. The findings suggested that there was a significantly associated with Operational Performance of manufacturing industries but Supplier Quality Management and Continuous Improvement there was no significantly associated with Operational Performance of manufacturing industries.

Pal (2016) examined empirical evidences on the relationship that exist between TQM practices and operational performance in both service and manufacturing industries. the TQM factors involved on the study were leadership, process management, employee management, continuous improvement, and customer focus. The data was collected from respondents by using survey method. The collected Data was tested by using various tests such as frequency tests, descriptive, SEM analysis, correlation, multiple regression analysis tests etc. The study results found that the operational performance views the entire TQM variable as statistically significant in both kinds of industries. Hence the study concluded that the application of TQM practices in both service and manufacturing industries is necessary to maintain the quality of the work as well as enhance the competition level in society.

Totally as it was indicated on the previously assessed empirical evidences TQM practices more or less have a great impact on performance. Some variables are strongly and significantly affect performance. Some others are insignificant too.

2.7.Conceptual Framework

The Independent and dependent variables studied are:-

Independent variables **Dependent**

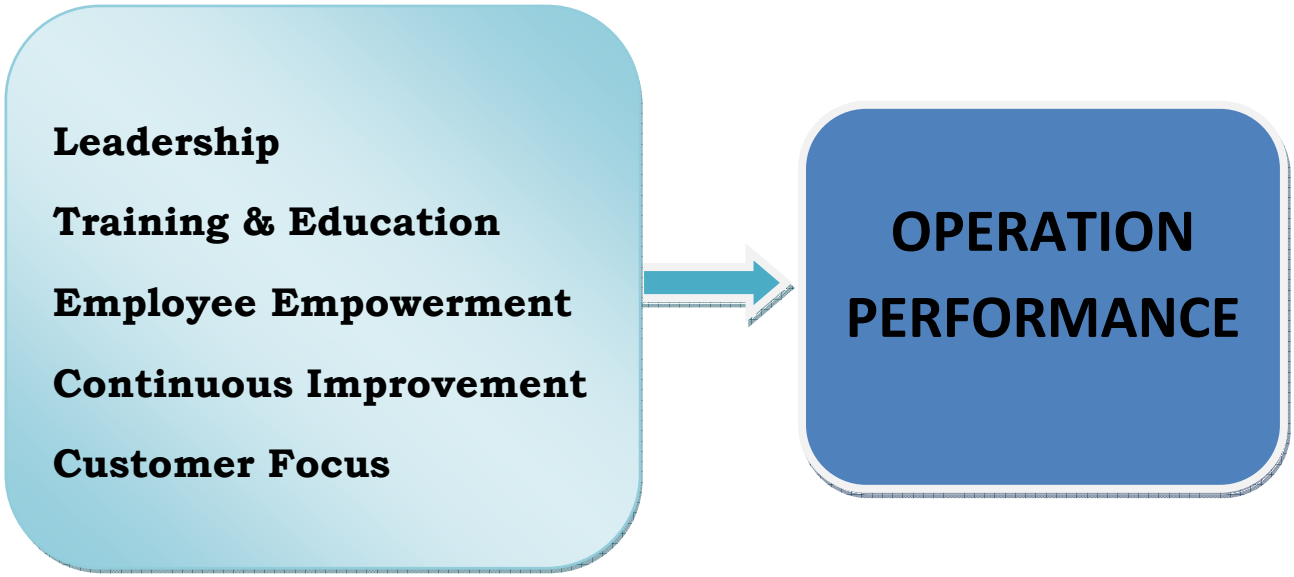


Figure 2:- Conceptual framework

CHAPTER THREE

METHODOLOGY OF THE STUDY

Under this portion aspects including: the research design, sample design and the sources of data, the data collection methods and analysis along with the appropriate justification are presented.

3.1. Research Design

When the purpose of a study is accurate description of a situation or of an association between variables (or in what are called the descriptive studies), accuracy becomes a major consideration and a research design which minimizes bias and maximizes the reliability of the evidence collected is considered a good design (Kothari, 2004)

The study is designed to examine and explain the effect of TQM practices on operational performance of cash register machine providers. To get the necessary information about the study closed ended questionnaires' was developed. The study uses a single survey questionnaire to collect the data at a single point of time, hence, the research is a cross sectional type (Zikmund, Carr & Griffin, 2013).

For the description of the numerical data on the study using statistical inferences and to explain the cause and effect relationship that existed on the variables both descriptive and explanatory research design are suitable (Kothari, 2004). Therefore the study used descriptive research design to explain the data using mean and standard deviation. On the other hand, explanatory research designs using statistical tools (Pearson correlation and regression analysis) have been employed to explain the cause and effect relationships between the variables on TQM and operational performance.

3.2. Sample Design

3.2.1 Target Population

A population is the member of the study where inferences are to be made. These inferences are statements which have numeric characteristics of the population (Albright, Winston, &Zappe,

2010). The entire population in the study was among the employees of the company who have direct or indirect involvement in the company's operation and its customers. The company has cash register machine service center and sales outlets in Addis Ababa, Adama and Hawassa. But this study only focused on the Addis Ababa's service center and sales outlets. The population size is 154 employees and 1194 active customers in Addis Ababa.

3.2.2 Sampling Technique

Sample techniques are basically of two types-probability sampling and non-probability sampling. The probability sampling indicates that every item on the population has an equal chance to be included in the sample. Whereas, non-probability sample the items for the sample are selected purposely by the researcher (Kothari, 2004).

The study had used probability sampling technique of both stratified sampling and simple random sampling techniques. The target population on the study was categorized to a homogenous group as employees and customers according to the position they had with the company. In order to get the appropriate sample representative from the strata, the study employed a stratified sampling technique. Within each stratum alsothe sample representatives were taken using simple random sampling technique.

3.2.3 Sample Size

Based on the cost of data collection and sufficient statistical power, sample size can be determined by many approaches. These include using census for small population, imitating from similar studies, using published tables and applying formulas (Singh &Mauku, 2014).The research used Carvalho (1984) sample size determination table. According to the nature of the study, the target population under study has customers which are dispersed throughout the capital city. It was difficult to get them in a given time when the researcher was in need of them.A sample size of 10% or more of the target population is adequate for a study. The sample size that was determined using the table was above the recommended 10% of the target population. Therefore, due to time and financial limitations the sample size was determined using Carvalho (1984) sample size determination table.

Population Size	Small	Medium	Large
51 – 90	5	13	20
91 – 150	8	20	32
151 – 280	13	32	50
281 – 500	20	50	80
501 - 1,200	32	80	125
1,201 - 3,200	50	125	200
3,201 - 10,000	80	200	315
10,001 - 35,000	125	315	500
35,001 - 15,000	200	500	800

Table2:- Carvalho sample size determination Table

According to table 1 of each stratum had the following size:

Position	Population	Sample Size	Percentage
Employees	154	50	32.47
Customers	1194	125	10.47
Total	1348	175	12.98

Table3:- Sample size

Based on Carvalho (1984) sample determination table explained above, the total number of sample size obtained is 175.

3.3. Sources of Data

Basically there are two sources of data namely primary and secondary sources. For the study, both sources were used. The primary data was collected from top management, employees and customersof the company. The secondary sources were from documents in the company, published materials and from existing researches.

3.4. Methods of Data Collection

The method that was used to collect the necessary data was survey questionnaires. The Close-ended questionnaires on a 5 point Likert scale were designed in such a way that they include all

the relevant sections and information on the study. They were translated into Amharic to make the participants to be confortable and answer it carefully. Finally they were distributed to the top management, employees and customers of the company.

3.5. Methods of Data Analysis

Data analysis is the application of reasoning to understand the data that have been gathered. In its simplest form, analysis may involve determining consistent patterns and summarizing the relevant details revealed in the investigation(Zikmund, Babin, Carr & Griffin, 2009).

The questionnaires that were found appropriately filled and fit for analysis were entered into using the SPSS software. Since the Closed-ended questionnaires were quantitative data the researcher applied descriptive method using mean, standard deviation and frequency and also the inferential statisticsto show the effect of independent variables on the dependent variable by using SPSS version 23 software.

The objective of the study was to show the effect of TQM on operation performance. Finding a relationship among variables is arguably the most important task in data analysis (Albright, Winston &Zappe, 2010). To do this the study applied the inferential statistics of Pearson correlation and regression analysis.

The regression analysis is the study of how a dependent variable Y is related to two or more independent variables (Anderson, Sweeney, Williams, Camm& Cochran, 2013), and the regression equation has been given by

$$Y= \beta0+\beta1\ X1+\ \beta2X2+\beta3X3+\beta4X4+\beta5X5+\mu,$$

Where, Y= Operational performance, X1 = Leadership, X2= Training and education, X3= Employee empowerment, X4= Continuous improvement, X5= Customer focus,β0 to β5 are correlation coefficients of every variables and μ is the error term.

3.6. Reliability on the Data Collected

The research design must make enough provision for protection of bias in order to have a reliable data for concerned on the completion of the research study (Kothari, 2004).From the statistical measurement tools the Cronbach's alpha coefficient is the most common tool to test reliability

and consistency on the survey questionnaire. The value of the coefficient should be more than 0.7 (George and Mallery, 2003).

Scale	Cronbach's Alpha	No of Items
Leadership	.723	5
Training & Education	.769	4
Employee Empowerment	.885	5
Continuous Improvement	.944	5
Customer Focus	.754	5
Operation Performance	.905	5

Source: - Own Survey (2020)

Table 4:- Reliability Coefficient

As it was indicated on the above reliability result table 2 the alpha coefficients of all the variables collected from 10 respondents were greater than 0.7. Therefore, the survey questionnaires were reliable and consistent.

3.7. Ethical Consideration

To collect the necessary data a letter was written the administration of the organization and a welcoming permission was given to the researcher. The HR manager also made instructions to the concerned bodies to facilitate all the conditions needed to collect the data.

The respondents were also informed why the data was collected, the purpose of the study, their responses was used for and it was kept in safe and privately. And the data collected had been used only for the study

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1. Introduction

Under this chapter, data collected from employees and customers of the organization in Addis Ababa were analyzed, presented and interpreted. It attempted to organize and analyze the collected data using tables, narratives and descriptions to show and explain the effect of TQM practices on operational performance of Jupiter Trading. The variables involved in the study and the estimated model are presented in this part.

4.2. Response Rate

The target sample size chosen to respond the questionnaires was 175. Out of this 169 representing 96.57% of the questionnaires distributed were returned with full response and the rest 6 representing 3.43% questionnaires were not returned to the researcher. Therefore the response rate was adequate.

Response	Frequency	Percentage
Returned	169	96.57
Not Returned	6	3.43
Total	175	100

Source: - Own Survey (2020)

Table 5:- Response Rate

4.3. Respondents Demographic Characteristics

This part discussed about the demographic characteristics of the sampled respondents based on Gender, Age, Educational qualification and their position with the organization.

4.3.1. Gender

As table 6 below indicated the gender distribution, out of the 169 respondents 108 (63.90%) were male respondents and the rest 61 (36.10%) were female respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	108	63.9	63.9	63.9
	Female	61	36.1	36.1	100.0
	Total	169	100.0	100.0	

Source: - Own Survey (2020)

Table 6:- Gender Distribution

4.3.2. Age

The respondents were asked to indicate their age within the intervals put in to be filled. The result of the study as shown in Table 7 below stated the number of respondents who filled their responses in the intervals listed. Those who were in years of age between 18-30 are 68 (40.20%), 31-40 are 74 (43.80%), 41-50 are 21 (12.40%) and 50 years and above are 6 (3.60%) respectively.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	68	40.2	40.2	40.2
	31-40	74	43.8	43.8	84.0
	41-50	21	12.4	12.4	96.4
	50+	6	3.6	3.6	100.0
	Total	169	100.0	100.0	

Source: - Own Survey (2020)

Table 7:- Age Distribution

4.3.3. Educational Qualification

The respondents were asked to indicate their level of educational qualification. As shown in table 8, 88 respondents(52.10%) had diploma; 43 respondents (25.40%) had degree, 23 respondents (13.60%) had certificate, 14 respondents (8.30%) are 12 complete and only 1 respondent (0.6%) had Master's qualification. This indicates that majority of the respondents have a college diploma and above educational background. It means that the respondents can understand the instruments and able to respond the needed information well.It is because their level of qualification may differ, the researcher translates the questionnaire to Amharic to be equally filled by all the respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12_complete	14	8.3	8.3	8.3
	Certificate	23	13.6	13.6	21.9
	Diploma	88	52.1	52.1	74.0
	Degree	43	25.4	25.4	99.4
	Masters+	1	0.6	0.6	100.0
	Total	169	100.0	100.0	

Source: - Own Survey (2020)

Table 8:- Distribution of respondents by educational qualification

4.3.4. Current Position

The respondents were asked to describe their position within the organization under studied. As the result shown in Table 9 below, 2.4% of the respondents were from the administration group, 27.2% were officers and 70.4% were from customers of the organization. This shows that majority of the respondents were customers of the organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Management Team	4	2.4	2.4	2.40
	Officer	46	27.2	27.2	29.60
	Customer	119	70.4	70.4	100.00
	Total	169	100.0	100.0	

Source: - Own Survey (2020)

Table 9:- Respondents distribution by Position

4.4. Descriptive Analysis of Variables

The researcher attempted to find how the TQM practices affected the operational performance of Jupiter trading. All the variables rose on the question with their likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), were presented using their mean and standard deviation. According to Zaidatol and Bagheri (2009)rule of thumb approach the mean score of <= 3.39 is low, from 3.40 up to 3.79 is moderate and > 3.80 is high. To measure the outcomes of the respondents a descriptive statistic was applied.

4.4.1. Variables Rating on Leadership as TQM practice

The study on table 10 below established to determine the effect of leadership on operational performance through the presented five likert scale questions.

As the result shown on table 10 below, from the statements used to evaluate the role of leadership, two statements had got a mean score of 3.53 and 3.34 below the average and the other three statements had got mean scores of 3.96, 3.84 and 4.01 which were above the average. According to the result leadership had got average score of 3.74. This indicates majority of the respondentsagreedthat the practice of Leadership in the organization is moderate.

STATEMENT	N	Mean	Std. Deviation
The organization has made clear its mission, beliefs, and goals	169	3.53	.707
The organization ensures that its products and services meet customer expectations	169	3.96	.392
The organization processes and operations are standardized	169	3.84	.527
The organization provides the necessary resources to maintain the quality of its products and services	169	3.34	.778
The organization allows employees to make their own decisions	169	4.01	.450
AVERAGE SCORE		3.74	0.57

Source: - Own Survey (2020)

Table 10:- Distribution of response on Leadership

4.4.2. Variables Rating on Training & Education as TQM Practice

The respondents were asked to rate the level of training and education in the company studied through the presented four likert scale statements. According to the result shown on table 11 below the respondents agreed that training and education had got average mean score of 4.18 which means that many of the respondents are familiar with the training and educational mechanisms of the organization. The role of training and education in the organization is also high.

STATEMENT	N	Mean	Std. Deviation
Training has been vital to the company's operational activities	169	4.93	.258
Employees have sufficient knowledge and skills to perform their duties	169	4.12	.796
The organization trains its employees or customers for better performance	169	3.99	.607
Resources are available to cover employees or customers training needs	169	3.69	.803
AVERAGE SCORE		4.18	0.62

Source: - Own Survey (2020)

Table 11:- Distribution of response on Training and Education

As it was illustrated above many of the respondents highly agreed on the statements that for better practice and to achieve great performance in the organization, training is essential. Among the four statements listed, the it was only one instrument that is the availability of necessary resources in the organization had got a mean value which was moderate and the other three had got a high level agreement between the respondents.

4.4.3. Variables Rating on Employee Empowerment as TQM Practice

The study set out to determine the level of respondents about employee empowerment in the organization affecting operational performance through the presented five statements of likert scale items.

STATEMENT	N	Mean	Std. Deviation
Employees at all levels make their own decisions about what to do	169	4.15	.607
There is a clear channel of communication between staff and senior managers	169	3.63	.651
Employees are motivated to improve and give quality operation	169	4.02	.786
All employees believe that quality is their responsibility	169	3.98	.798
Employees have developed the experience of working as a team	169	3.93	.795
AVERAGE SCORE		3.94	0.73

Source: - Own Survey (2020)

Table 12:- Distribution of response on Employee Empowerment

As it is depicted on table 12, Employee Empowerment had got an average mean score of 3.94. It implied the respondents had a high level agreement on the role of empowerment in the organization. From the statements listed, three of them had got a mean value which was above the average mean and the other two statements were below the average. Only one statement which is 'There is a clear channel of communication between staff and senior managers' is moderate and the rest of other statements had got a mean values which were high level.

4.4.4. Variables Rating on Continuous Improvement as TQM Practice

The respondents were asked to rate the questions about the practice of continuous improvement on affecting operation performance through the listed five instruments of likert scale questions.

As it is revealed on table 13, the respondents agreed that the extent of practicing improvement in the organization is high as the average mean scoring 3.97 indicated. However, from the statements seen on the table, three of them which are 'The organization makes preventive and immediate corrective actions for any mistakes, 'The organization deeply inspects its operations with the aim of improving the overall quality of its products and services' and 'there is always improvement in its operational processes'got mean value which were above the average mean and the respondents' level of agreement was high. The other two statements 'the organization applies up to date technological innovations' and 'The organization implements a variety of techniques to reduce waste'had got a mean value which were below the average and the respondents' level of agreement was moderate.

STATEMENT	N	Mean	Std. Deviation
The organization makes preventive and immediate corrective actions for any mistakes	169	4.22	.790
The organization deeply inspects its operations with the aim of improving the overall quality of its products and services	169	4.22	.711
There is always improvement in its operational processes	169	4.07	.583
The organization applies up to date technological innovations	169	3.75	.724
The organization implements a variety of techniques to reduce waste	169	3.60	.735
AVERAGE SCORE		3.97	0.71

Source: - Own Survey (2020)

Table 13:- Distribution of response on Continuous Improvement

4.4.5. Variables Rating on Customer Focus as TQM practice

The study desired to obtain whether the practice focusing on Customer affect the operational performance of the organization studied through the presented five likert scale questions. The results are shown on table 14.

STATEMENT	N	Mean	Std. Deviation
The organization believes, it is my main responsibility to ensure customer satisfaction	169	4.02	.545
The organization always meets customer needs and expectations	169	3.90	.542
The organization use various methods to build relationship with customers	169	3.91	.453
The organization has a system for collecting complaints	169	3.66	.663
The organization measures customer satisfaction systematically and regularly	169	2.60	.693
AVERAGE SCORE		3.62	0.58

Source: - Own Survey (2020)

Table 14:- Distribution of response on Customer Focus

As it is illustrated on table 14 above, the average mean of customer focus was 3.62. It indicated that the level of agreement among the respondents on the practice of customer focus in the organization was moderate. One statement was below the average mean. The other four statements were above the average score. As the result revealed, many of the respondents agreed that the organization in measuring customer satisfaction is very low scoring a mean value of 2.60.

4.4.6. Variables Rating on Operational Performance

The study was determined to ask their level of agreement on the organization's operational performancethrough the presented five likert scale questions. The result was shown on table 14below.

STATEMENT	N	Mean	Std. Deviation
improved the relationship between the organization and its customers	169	3.83	.636
improved employee motivation and operational efficiency	169	3.96	.672
Reduce waste and interruption in operating daily activities	169	3.41	.869
improved the organization's competitiveness by offering less value than its competitors	169	3.49	.646
satisfied customers with timely delivery of quality products and services	169	3.43	.898
AVERAGE SCORE		3.62	0.74

Source: - Own Survey (2020)

Table 15:- Distribution of response on Operational Performance

As the result shown on the above table, the average mean score of the respondents were 3.62. They agreed that the operational performance of the organization was moderate. From the

statements on operation performance three of them were below the average mean. The other two, which were in high extent, were above the average mean.

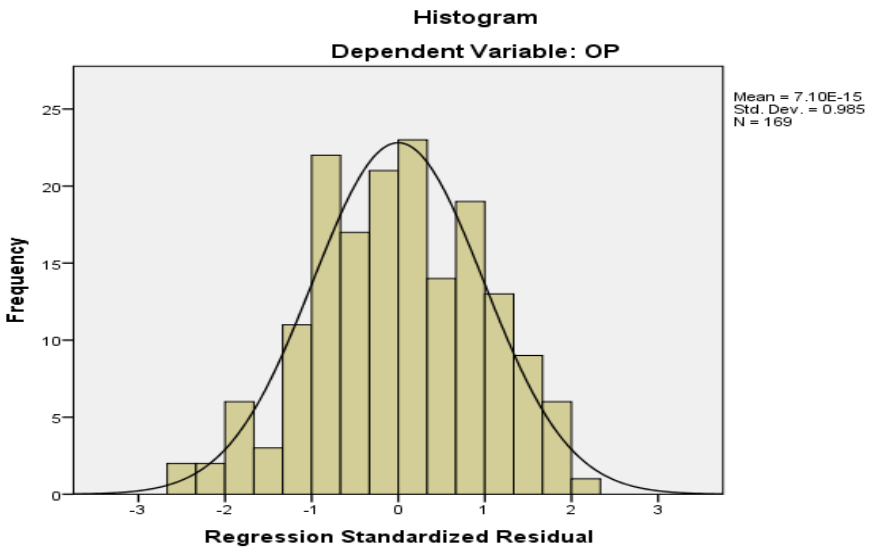
Totally as it was indicated on the average mean value of all the variables above, leadership and customer focus had got mean values of 3.74 and 3.62 which had moderate level of agreement among the respondents. Training and education, employee empowerment and continuous improvement had got mean values of 4.18, 3.94 and 3.97 which had high level of agreements between respondents. Among all the independent variables it was training and education with high mean score 4.18 and the least was customer focus with mean value of 3.62. The average score value and the respondents' level of agreement indicates that the organizations operational performance is moderate. Therefore, it should be given a great emphasis to make it competitive and high.

4.5. Statistical Test

The objective of the study is to examine the effect of TQM practices on the operational performance of Jupiter trading. To do so the research had applied statistical inferences of correlation and regression analysis. However before making the analysis, the study's model was tested by the regression assumptions of normality, linearity, Multicollinearity, Autocorrelation and Homoscedasticity as follows:-

4.5.1. Normality

The single most important distribution in statistics is the normal distribution. It is the basis of the familiar symmetric bell-shaped curve. The test of Normality was done to determine whether the error term is normally distributed. As it was seen on fig 3 below the histogram is closely bell shaped. It indicates that the residuals or error terms are normally distributed. Therefore the normality assumption was not violated.

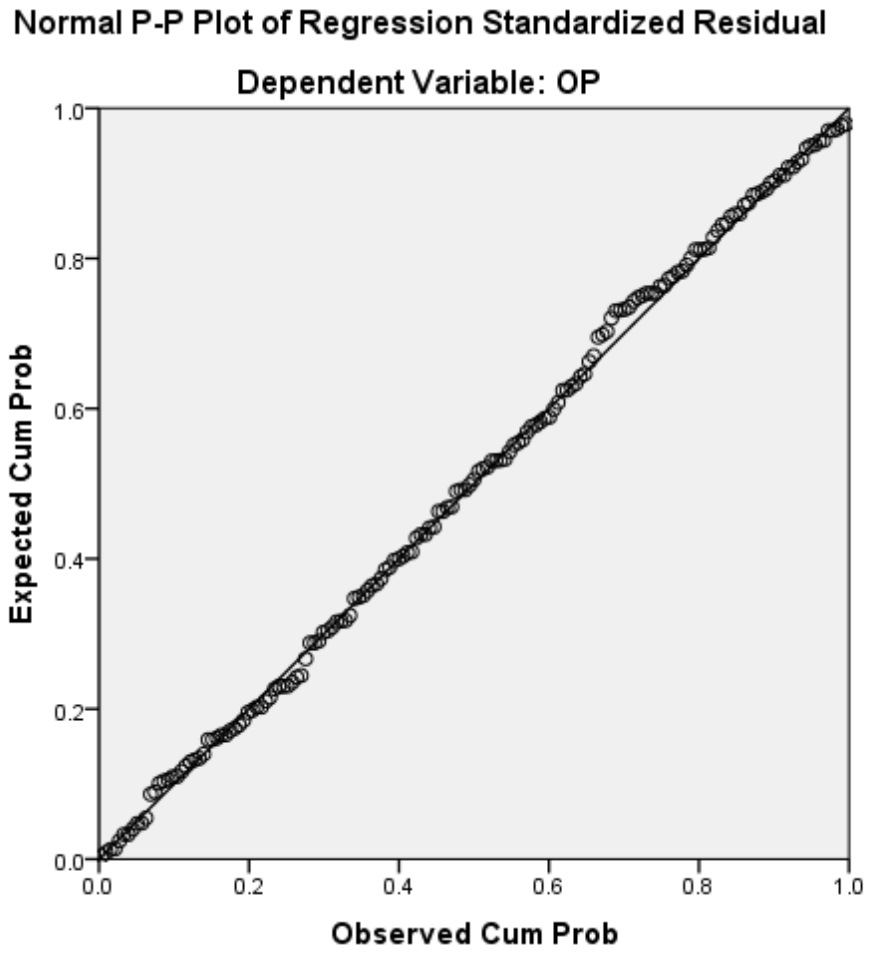


Source: - Own Survey (2020)

Figure 3:- Normality Test

4.5.2. Linearity

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



Source: - Own Survey (2020)

Figure 4:- Linearity Test

4.5.3. Multicollinearity

High (but not perfect) correlation between two or more independent variables is called multicollinearity (Wooldridge, 2016). It occurs when there is a relationship between two or more explanatory variables(Brooks, 2008). The most common ways of testing multicollinearity are value of tolerance and variance inflation factor (VIF). To avoid the problem of multicolliniarity the values of tolerance must be above 0.10 and VIF must be below 10. The result of the study as shown on table 16 of co-linearity; the value of tolerance and VIF of the independent variables are above and below the standards. Therefore there was no problem of multicollinearity on the study.

Model	Statistics	
	Tolerance	VIF
Leadership	.766	1.305
Training & Education	.696	1.437
Employee Empowerment	.593	1.686
Continuous Improvement	.640	1.561
Customer Focus	.802	1.247

a. Dependent Variable: OP

Source: - Own Survey (2020)

Table 16:- Collinearity

4.5.4. Autocorrelation

The assumption is that residuals (error terms) are probabilistically independent. However, when they are often correlated with nearby residuals it is calledauto correlated.One output given automatically in many regression packages is the Durbin–Watson statistic. The Durbin–Watson statistic is one measure of autocorrelation and thus it measures the extent to which the assumption is violated. The Durbin–Watson (DW) statistic is scaled to be between 0 and 4. Values close to 2 indicate very little autocorrelation, values below 2 indicate positive autocorrelation, and values above 2 indicate negative autocorrelation (Albright, Winston &Zappe, 2010). The result as shown on the model summary table 17 below, the value is closer to 2.00. Therefore the autocorrelation assumption is not violated.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.702[a]	.492	.477	.39895	2.093

a. Predictors: (Constant), CF, E, LD, T, C

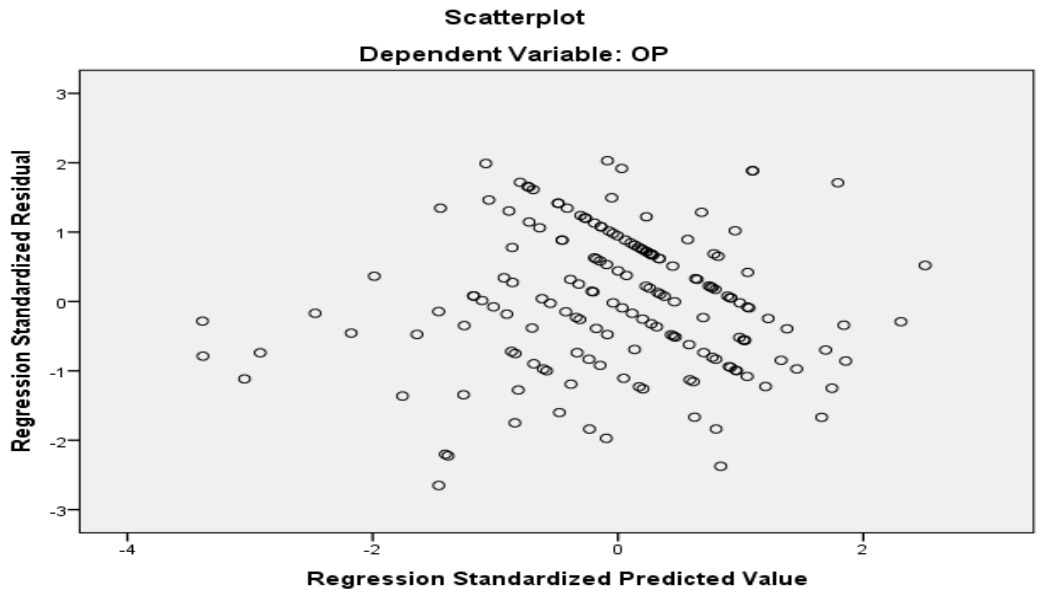
b. Dependent Variable: OP

Source: - Own Survey (2020)

Table 17:-Autocorrolation Model Summary[b]

4.5.5. Homoscedasticity

Homoscedasticity is an assumption that the residuals (error terms) do have constant variance (Brooks, 2008). The suggested tool to test the assumption of homoscedasticity is the plot of the predictive values and residual values using SPSS. When the plot shows the spread of these values the assumption is not violated. Otherwise it is heteroschedasticity. As the result shown on the plot below (fig-3) the values were spread all over the plot. Therefore the rule of homoscedasticity is not violated.



Source: - Own Survey (2020)

Figure 5:-Homoscedasticity Test

4.6. Correlation Coefficients

Correlationis a linear relationship between two variables. The most widely used method of measuring the degree of relationship between two variables is Karl Pearson's coefficient of correlation (Kothari, 2004).

		LD	T	E	C	CF	OP
LD	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	169					
T	Pearson Correlation	.398**	1				
	Sig. (2-tailed)	.000					
	N	169	169				
E	Pearson Correlation	.406**	.501**	1			
	Sig. (2-tailed)	.000	.000				
	N	169	169	169			
C	Pearson Correlation	.309**	.304**	.493**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	169	169	169	169		
CF	Pearson Correlation	.222**	.214**	.189*	.422**	1	
	Sig. (2-tailed)	.004	.005	.014	.000		
	N	169	169	169	169	169	
OP	Pearson Correlation	.413**	.469**	.493**	.522**	.494**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	169	169	169	169	169	169

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

*. Correlation is significant at the 0.05 level (2-tailed).

Source: -Own Survey (2020)

Table 18:- Correlations Coefficients

The correlation coefficient analysis main purpose is to examine and indicate the strength and direction that exist between the dependent and independent variables of the study.It shows the extent to which a change in one variable depends on a change in other variable (Zikmund, Carr & Griffin, 2013). The Pearson's coefficient of correlation 'r' normally ranges from -1.0 to +1.0. The positive sign indicates as one variable increases the other variable also increases. Whereas, the negative sign indicates as one variable increases the other variable decreases.

Therefore in order to determine the relationship between the TQM practices (leadership, training and education, employee empowerment, continuous improvement and customer focus) and operation performance, the study adopted Pearson's coefficient of correlation. According to the result as shown on table 18 above there were a statistically positive and significant relationship between operation performance and theindependent variables at $p<0.01$ significant level. Operation performance, among the TQM practices, had a strong and significant correlation with continuous improvement with $r = 0.522$, $p<0.01$ and less significant correlation with leadership with $r = 0.413$,$p<0.01$.

All the indicated correlation coefficients between the dependent variable and the predictors were below r=0.9. Therefore, the study variables were not correlated and the assumption of multicollinarity was not violated.

Therefore it can be said that operation performance was positively and significantly correlated with the TQM practices at $p<0.01$.

4.7. Multiple Regression Analysis

Multiple regression analysis is adopted when the researcher has one dependent variable which is presumed to be a function of two or more independent variables. The objective of this analysis is to make a prediction about the dependent variable based on its covariance with all the concerned independent variables (Kothari, 2004). Therefore in order to determine the influence of TQM practices on operational performance the study adopted multiple regressions.

4.7.1. Goodness of Fit Model

The model summery had been used to determine the correlation between TQM and operational performance of Jupiter Trading. It was used to evaluate the extent of the predictorson affecting the dependent variable.

As itisshown on table 18below the value of R, R-square and adjusted R-squareon the model was 0.702, 0.492 and 0.477.The value of r=0.702 indicates that there exists a strong correlation between the independent variables (TQM practices) and the dependent variable (operational performance). The result concluded based on the value of R-square that 49.20% of the variation on the operation performance of Jupiter Trading was influenced by the variables of TQM mentioned on the study. The rest 50.80% variation on operational performance of the organization was explained by other variables.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702[a]	.492	.477	.39895

a. Predictors: (Constant), CF, E, LD, T, C

Source: - Own Survey (2020)

Table 19:-Goodness of fit Model Summery

4.7.2. Analysis of Variance (ANOVA)

ANOVA is used to compare the mean scores of more than two groups or variables. Its basic principle is to test the differences among the means of the populations by examining the amount of variation with in each of those samples, relative to the amount of variation with in each of those samples (Kothari, 2004)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.162	5	5.032	31.619	.000[b]
	Residual	25.943	163	.159		
	Total	51.105	168			

a. Dependent Variable: OP
b. Predictors: (Constant), CF, E, LD, T, C
Source: - Own Survey (2020)

Table 20:- ANOVA[a]

The ANOVA table above had shown the analysis between the independent variables of TQM and the dependent variable operation performance. From the result seen on table20, the ANOVA had F-ratio 31.619 and p-value 0.000 (P<0.05). Since the p-value is less than the significant level the model was statistically significant and fit to explain the analysis. Therefore it is concluded there exists a statistical significant and positive relationship between the dependent and independent variables under studied.

4.7.3. Regression Coefficients

Regression coefficients are those that measure the standard deviation change in the dependent variable given a one standard deviation change in an independent variable (Wooldridge, 2016). They are denoted by beta value (β). A high beta value and a small p-value less than 0.05 indicate the predictor values had a statistical significant on the model.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.627	.461		-3.528	.001
Leadership	.229	.113	.129	2.031	.044
Training & Education	.251	.084	.199	2.977	.003
Employee Empowerment	.192	.076	.183	2.521	.013
Continuous Improvement	.218	.074	.204	2.930	.004
Customer Focus	.477	.098	.302	4.840	.000

Source: - Own Survey (2020)

Table 21:- Regression Coefficient

The regression equation from the study based on the table 21 above was:-

$Y= -1.627+0.229X_1+0.251X_2+0.192X_3+0.218X_4+0.477X_5$,

Y= operation performance

X_1-Leadership, X_2-Training and Education, X_3-Employee Empowerment, X_4- Continuous Improvement and X_5- Customer Focus.

Based on the result indicated on the equation and on table 21 above the β values of the independent variables indicate that

- keeping the other variables constant, a unit change in leadership would lead to an increase on operation performance by 0.229 units
- A unit change in training and education lead to an increase on the organizations operational performance by 0.251 units through making the other independent variables constant.
- A unit change that occurred on employee empowerment by making the other dimensions constant can lead to an increase on the dependent variable by 0.192 units.
- On making the other independent variables constant, a unit change on continuous improvement would lead to an increase on operation performance by 0.218 units.
- keeping the other variables constant, a unit change on customer focus would lead to an increase on operation performance by 0.229 units

Hence all the independent variables had positive coefficients; they all predict the dependent variable, operation performance, positively. However by taking all the TQM variables value zero, the operational performance of Jupiter Trading would decrease by unit value of 1.627.

On the other hand, table 21 had shown that the predictor's p-values were leadership 0.001, training and education 0.003;employee empowerment 0.013, continuous improvement 0.004 and customer focus 0.000. Hence all the independent variables' p-values were less than the significant value 0.05. Therefore, there existed a significant relation between the dependent and independent variables on the model.

Based on the result indicated on the regression equationand table 21 above each of the independent variables had the following results:-

- **Leadership**

The result of leadership on table 21 of the regression coefficient result indicated that, it has a positive β coefficient 0.229 and p-value 0.044 ($p<0.05$). Hence it is statistically significant and has a positive effect on the operation performance of Jupiter Trading. The result is also supported by empirical evidences done by Ibrahim and Daniel (2019) whose study revealed that leadership has positive and significant effect on the entire performance of a coca cola company in Abuja, Nigeria and Haile Shitahun (2019) whose study indicate that leadership has a significant and positive effect on performance in Bahir Dar Textile S.C.

- **Training and Education**

Training and Education has a statistical significant effect on the operation performance of Jupiter Trading. It has a positive β coefficient0.251 and p-value 0.003 ($p<0.05$).The result shows similarities with previously done studies by Hagos and Pramila (2020) who carried out a study to evaluate the degree of TQM practices in the plastic industry of Addis Ababa, Ethiopia and its major impact on operational performance and the research made byKiprotich, Njuguna and Kilika (2018) under their investigation about the TQM practices and operational performance of Kenya Revenue authority. As they indicate the result on their respective study, training employees in an organization have a positive and significant effect on performance.

- **Employee Empowerment**

The employee empowerment on the regression coefficient result indicated that, it has a positive β coefficient 0.192and p-value 0.013($p<0.05$). Therefore it is statistically significant and has a positive effect on the operation performance of Jupiter Trading. Existing studies that collaborate in support of the result were made by Nadeem, Zia-uD-din, Riaz, Shafique and Sattar (2018) and Mukwakungu, Mankazana and Mbohwa (2018) on their study about the effect of employee empowerment on the entire performance of an organization.

- **Continuous Improvement**

The regression coefficient result indicated that Continuous improvement has a positive β coefficient 0.218and p-value 0.004($p<0.05$). Hence it is statistically significant and has a positive effect on the operation performance of Jupiter Trading. The result is also supported by evidences

done by Singh and Singh (2015) and Kiprotich, Njuguna and Kilika (2018). They concluded that continuous improvement becomes a key competitive strategy that can lead an organization to success in a highly competitive environment.

- **Customer Focus**

The result of customer focus on the regression coefficient result indicated that, it has a positive β coefficient 0.477and p-value 0.000($p<0.05$). Therefore it is statistically significant and has a positive effect on the operation performance of Jupiter Trading. The result is also supported by previously studies done by Haile Shitahun (2019) and Pambreni, Khatibi, Azam and Tham (2019) whose studies indicate that customer focus has a significant and positive effect on performance.

Totally the TQM practices constructed on the study have a significant effect on operation performance. They all have a positive β coefficient and p-value less than 0.05.

4.8. Hypothesis Test Result

Hypothesis Test is a statistical test that provides a system to make quantitative decisions about a process or processes. Its main purpose is to make inferences by analyzing differences between observed sample statistic and the results one expects to obtain if some underlying assumption is true (Dahiru, 2008). By considering the objectives of the study five hypotheses were developed. The test was made whether to accept or reject the hypothesis based on the unstandardized coefficient (β) and the p-value on the regression coefficient table 19. Their test results were

- **H_1: Leadership has a positive and significant effect on operational performance**

The result on the regression coefficient table 21 above described that the β value of leadership is 0.229and its p-value (0.044) is below 0.05. The coefficient (β) indicated that a unit change in leadership lead to 0.229 changes in operation performance.

Since the coefficient (β)was positive and the model was statistically significant, it could be said that leadership had a positiveeffect on operational performance. Therefore, the hypothesisformulatedis accepted.

- **H_2: Training and Education have positive and significant effect on operational performance**

The regression coefficient table 21 above described that training and education had a positive effect on operation performance. The coefficient β on the model indicated that a unit change in training and education had 0.251units of changes in operational performance.

Since the β value was positive and the p-value (0.003) is below the significant value 0.05, the model is statistically significant and training and education had a positive effect on operation performance. Therefore, the hypothesisis accepted.

- **H_3:Employee empowerment has a positive and significant effect on operational performance**

The regression coefficient table 21 described that the coefficient β on the model had a positive value. A unit change in employee empowerment had 0.192units of changes on operational performance.

It could be said that the p-value (0.013) was below the significant value 0.05 and the β value was positive, the model was statistically significant. Therefore, employee empowerment had a positive effect on operation performance and the hypothesisis accepted.

- **H_4:Continuous Improvement has a positive and significant effect on operationalPerformance**

Based on the regression coefficient table 21 above, the coefficient β on the model had a positive value .218. It indicated that a unit change oncontinuous improvement had .218units of changes on operational performance.

The p-value (0.004) on the model was below the amount of the significant value 0.05 and the β value was positive. Therefore, the model was statistically significant. Hence continuous improvement had a positive effect on operation performance and the hypothesis is accepted.

- **H_5:Customer Focus has a positive and significant effect on operationalPerformance**

The regression coefficient table 22 described that the coefficient β on the model had a positive value. A unit change in customer focus had .477units of changes on operational performance. The p-value (0.000) on the model was below the amount of the significant value 0.05 and the β

value was positive. Therefore, the model was statistically significant and it can be concluded that customer focus had a positive effect on operation performance. Hence, the hypothesisis accepted.

No	Description	Reason		Result
		β value	p-value	
1	Leadership has positive effect on operation performance	.229	.044	Accepted
2	Training and Education have positive effect on operation performance	.251	.003	Accepted
3	Employee empowerment has positive effect on operation performance	.192	.013	Accepted
4	Continuous improvement has positive effect on operation performance	.218	.004	Accepted
5	Customer focus has positive effect on operation performance	.477	.000	Accepted

Table 22:- Hypothesis Test summery

The hypothesis table summary above indicated that the entire alternative hypotheses formulated were accepted by the study. It means that the TQM dimensions applied on the study positively and significantly affect the operational performance of Jupiter trading.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

This chapter summarizes the study findings based on the objectives of the research and the analyzed variables. Discussions of results, conclusion and recommendations are presented below. Finally the suggestions are made for future studies.

5.1. Summary of Findings

The summarized results from the objectives and analysis of the study are:-

- Gender: - majority of the respondents were male (63.9%)
- Age: - many of the respondents were in the age interval between 31-40 years of age constituting 43.8%
- Educational Level: - majority of the respondents were diploma holders (52.10%)
- Position on the organization: - it was customers of the organization (70.4%) who responded the questionnaires of the study.
- The average mean score of the independent variables were leadership (3.74), training and education (4.18), employee empowerment (3.94), continuous improvement (3.97) and customer focus (3.62). This result implies the respondents agreed that the independent variables leadership and customer focus were moderate in practicing TQM, also agreed that the operation performance seen in the organization is moderate too. It is not that much satisfactory having a mean score of 3.62.
- On the finding of the study, the statistical tests of the assumptions of normality distribution, linearity, multicollinearity, autocorrelation and homoscedasticity were not violated.
- Thevalues of the correlation coefficient of the independent variables were below 0.9 and their p-value less than 0.01. It implies that there existed a significant positive relationship between operation performance and the TQM practices. From the independent variables it was continuous improvement that had a statistical significant and positive correlation with operation performance followed by customer focus, employee empowerment, training and education and leadership respectively.

- The main objective of the study was to examine the effect of TQM on operational performance. From the study result on table 15 the average mean of operational performance was 3.62. It indicated that the variables on TQM practices moderately affected the operation performance of Jupiter trading. From table 19 and 20, it was indicated that R-Square = 0.492, F=31.619 & p-value less than the significant level ($p<0.05$) meaning that the practice of TQM had a significant effect on operation performance. The variation on operation performance can be influenced by the independent variables applied on the study 49.2%.Other variables predicted the variation 50.8%. From the ANOVA table the p-value is less than $p<0.05$ and the model is statistically significant. Therefore it can be said that TQM practices have a positive and significant effect on operation performance.
- From the specific objectives perspective of the study the finding of the study on table 21 of the regression coefficient indicate thatthe independent variables are positively correlated with the dependent variable. Among the variables it is customer focus which has a statistical significant effect on operation performance with p-value 0.000 followed by training and education 0.003, continuous improvement 0.004, employee empowerment 0.013 and leadership 0.044. Therefore, the research question can be answered that all the TQM practices on the study do have an effect on operation performance. Hence they all have a statistical significant effect;all the hypotheses formulated are accepted.

5.2. Conclusion

The main objective of the study was to examine the effect of TQM practices on operation performance. The practices indicated on the study were leadership, training and education, empowerment, continuous improvement and customer focus.

Based on the study findings indicated on Pearson coefficient, the variables have a significant correlation with operation performance. Based on their correlation level it was continuous improvement that had great correlation with performance followed by customer focus, employee empowerment, training and education and the last leadership. Hence the researcher concluded from this that the organization is practicing TQM and it has a significant relation with operation performance.

From the regression analysis, the result indicates that all the variables have positive and statistical significance in affecting operation performance. From all the variables it was customer focus that had a leading effect on operation performance than the others.

Therefore, the researcher concluded from the objective and finding of the study that the practice of TQM in the organization have a significant effect on performance. Hence the research questionsare answered that the TQM variables do have an effect on operation performance.

5.3. Recommendation

The researcher made the following recommendations based upon the findings and conclusions of the study in order to have better operational performance at Jupiter Trading.

- The study revealed that the TQM practices applied are strongly correlated and they are statistically significant in affecting the operational performance of the case company. Therefore the organization should intensively apply and practice them in order to enhance its capabilities and to realizeoperationperformancein a very good extent.
- Leadership as TQM dimension on the study is strongly correlated and has a significant effect on operation performance. However its role in the organization is moderate. The industry where the case company is engaged on is sensitive; it needs a great attention both by the management and the entire participants. Therefore the organization should give an emphasis on the role of its top managements in the operation.
- Training and education is positively correlated and has a significant effect on performance. According to the result on the study, for better operation and handling off all the activities on the business where the case company engaged on, training and education plays a great part. Therefore the organization should facilitate the necessary resources and opportunities in order to train and upgrade the stakeholder's know-how of the operation.
- Empowering employees in their activities helps an organization to perform its activities in the intended time and quality. On the result empowerment is strongly correlated and has a significant effect on operation performance. The respondents agreed on the study that the organization grants the power to perform their duties by their own. However it lacks on a formal and adequate channel of communication between the management and

the subordinates throughout its structure. Therefore in order to have a proper channel, to assign the right person at the right place, to grant the duties along with the necessary power the organization should focus on its structures.

- The result indicates that continuous improvement is strongly correlated and statistically significant variable. However in the descriptive part of variables the result shows that the organization lacks on updating its technological innovation. In this vast dynamic environment where competition is intense the organization should focus on the environment where changes occur day to day. Unless otherwise its competitive capabilities will be obsolete.
- Among all the independent variables applied on the study, the result shown that the operation performance of the organization was greatly influenced by the practice of Customer Focus. However the respondents agreed that the organization lacks on knowing its customers position whether they are satisfied or not. There for in this vast competition sector the organization needs to have a great attention in handling its customers over all needs and wants to keep the current customers and to exploit others.

5.4. Suggestions for Future Studies

- The variables studied on the research only explained the variation on performance 49.2%. It means that there are other variables on influencing operation performance. Therefore, the organization should consider in finding out and practicing those potential variables of TQM that were not included and studied on the research.

- The result on the study limited only on the case company. Therefore a related research should also be undertaken throughout the sector in order to tackle problems that are similar in influencing the operational performance of cash register machine suppliers and software developers of the sector.

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APPENDIX-I

Addis Ababa University

College of Business and Economics

Department of Management

Dear Sir/Madam

This questionnaire is designed to collect data from the top management, the employees and customers of the company for the purpose of master's research on the effect of TQM practices on operational performance of Jupiter trading. You are chosen to be part of this research. For the successful accomplishment of the research, your response will be used as a valuable and primarily input for the study and will be treated confidentially. Therefore, without mentioning your name I kindly request you to respond to each item of the question very carefully. Tick '√' for the appropriate answer in the box.

PART-1:- PERSONAL DETAILS

1. Sex/Gender:- Male ☐ Female ☐
2. Age:- 18-30 ☐ 31-40 ☐ 41 above ☐
3. Educational Qualification

   12 complete ☐ Certificate ☐ Diploma ☐

   Degree ☐ Masters and above ☐
4. Your Current Position

   Management Team ☐ Supervisor ☐

   Officer ☐ Customer ☐

PART-2:- Using the following likert scale of 1-5 under the columns, please indicate the level of your agreement on the following statements related to TQM practices by the sign '√' , Where 5- Strongly agree, 4- Agree, 3- Neutral, 2- Disagree & 1- Strongly disagree

No.	Statement	1	2	3	4	5
A- LEADERSHIP						
1	The organization has made clear its mission, beliefs, and goals					
2	The organization ensures that its products and services meet customer expectations					
3	The organization processes and operations are standardized					
4	The organization provides the necessary resources to maintain the quality of its products and services					
5	The organization allows employees to make their own decisions					
B- TRAINING AND EDUCATION						
1	Training has been vital to the company's operational activities					
2	Employees have sufficient knowledge and skills to perform their duties					
3	The organization trains its employees or customers for better performance					
4	Resources are available to cover employees or customers training needs					
C- EMPLOYEE EMPOWERMENT						
1	Employees at all levels make their own decisions about what to do					
2	There is a clear channel of communication between staff and senior managers					
3	Employees are motivated to improve and give quality operation					
4	All employees believe that quality is their responsibility					
5	Employees have developed the experience of working as a team					

D- CONTINOUS IMPROVEMENT						
1	The organization makes preventive and immediate corrective actions for any mistakes					
2	The organization deeply inspects its operations with the aim of improving the overall quality of its products and services					
3	There is always improvement in its operational processes					
4	The organization applies up to date technological innovations					
5	The organization implements a variety of techniques to reduce waste					
E- CUSTOMER FOCUS						
1	The organization believes, it is my main responsibility to ensure customer satisfaction					
2	The organization always meets customer needs and expectations					
3	The organization use various methods to build relationship with customers					
4	The organization has a system for collecting complaints					
5	The organization measures customer satisfaction systematically and regularly					

PART-3:- Use the previous likert scale to indicate the extent to which you agree with the list of statements about operation performance of the company based on the above TQM practices

No.	OPERATIONAL PERFORMANCE	1	2	3	4	5
1	improved the relationship between the organization and its customers					
2	improved employee motivation and operational efficiency					
3	Reduce waste and interruption in operating daily activities					
4	improved the organization's competitiveness by offering less value than its competitors					
5	satisfied customers with timely delivery of quality products and services					

Thank you for your time and response!!!