COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT, M.SC. IN MANAGEMENT

THE EFFECT OF TOTAL QUALITY MANAGEMENT TOWARDS SUSTAINABLE BUSINESS PERFORMANCE: (IN THE CASE OF LINSSEN ROSES ETHIOPIA)

A Thesis Submitted to Addis Ababa University College of Business and Economics as a partial fulfillment of the requirement of Masters of Science Degree in Management Specialized in Total Quality Management and Organizational Excellence

BY: WOYNSHET DEMISSE

ADVISOR: ASRES ABITIE (PHD)

NOVEMBER 2023

ADDIS ABABA, ETHIOPIA

COLLEGE OF BUSINESS AND ECONOMICS

POST GRADUATE STUDIES

THE EFFECT OF TOTAL QUALITY MANAGEMENT TOWARDS SUSTAINABLE BUSINESS PERFORMANCE: (IN THE CASE OF LINSSEN ROSES ETHIOPIA)

BY: WOYNSHET DEMISSE

A Thesis Submitted to Addis Ababa University College of Business and Economics as a partial fulfillment of the requirement of Masters of Science Degree in Management Specialized in Total Quality Management and Organizational Excellence

NOVEMBER 2023

ADDIS ABABA, ETHIOPIA

CERTIFICATION

This is to certify that the thesis prepared by Woynshet Demisse, entitled: — The Effect of Total Quality Management Towards Sustainable Business Performance: (In The Case of Linssen Roses Ethiopia) and submitted in partial fulfillment of Masters of Science Degree in Management Specialized in Total Quality Management and Organizational Excellence.

Board of Examiners

Advisor: Asres Abitie (PhD.) Signature _____ Date _____

Internal Examiner Habtamu T. Signature _____ Date _____

External Examiner Mebratu L. Signature _____ Date _____

Acknowledgments

First and foremost, I want to give thanks to the Almighty God for all of the assistances I received during my research that helped me finish my paper. I would like to extend my sincere gratitude to Dr. Asres Abitie, who helped as my study advisor, for providing crucial direction during this research work. The help of my parents and friends is much appreciated.

Abstract

Total Quality Management (TQM) is a management philosophy that helps to increase organizational performance with a focus on continuous improvement and proactively detecting and avoiding errors in the process of delivering goods or services. Ethiopia's cut flower production and market contribute to the Ethiopian export sector. The country has seventy-two active flower farms and is the second largest producer and exporter of flower next to Kenya. It is known for supplying high-quality flowers but is a small player in the world market. This study examines the effect of Total Quality Management on sustainable business performance in Linssen Roses Ethiopia, including customer focus, commitment from top management, continuous improvement, best practices, employee focus, and which factors have a higher influence. This study used a quantitative research approach to generate numerical data from a large-scale survey and close-ended questionnaires and/or structured interviews. It used an explanatory research design to investigate the objective and test the hypothesis. The sample size is determined by the formula at 95% confidence and 5% precision to ensure reliable results. This study used a convenience method to select 306 Linssen Roses Ethiopia staff members from different departments in Addis Alem Town, Ethiopia. Primary data was collected through structured questionnaires to extract customers' experience of Total Quality Management dimensions. Data analysis was conducted using regression and correlation models to examine the relationship between TQM dimensions and sustainable business performance. Tools such as tables and percentages were used to ensure accuracy. Based on the empirical research findings in this study, Total Quality Management has a positive and significant effect on sustainable business performance.

Key words: Total quality Management, Sustainable Business Performance

CONTENTS

LIST OF TABLES

Chapter One

Introduction

This chapter of the study highlights an overview of the research project. It starts by providing the background, as well as a general overview and description of how it was developed. Then, the core objectives of this research project are presented. Finally, the research questions that guide this project, the importance and motivation of the research, and the thesis structure are also involved in this chapter.

1.1 Background of the Study

In a highly competitive business environment, the importance of quality in achieving business success is immense as it helps to deliver or produce superior goods and services to customers. To take advantage of rival firms, Organizations should focus on ensuring quality at all levels of their business functions by establishing a quality management system that comprises procedures, policies, and processes. Moreover, different approaches were deployed by organizations to realize the benefit of implementing total quality Management (TQM), which includes competitiveness and assurance of product/service quality (Magd & Curry, 2003).

As far as the concept of quality management is concerned, it originated in the 1920s as a management approach that advanced gradually over the years by deploying quality control, quality assurance, and quality improvement into a well-organized and efficient approach leading to the emergence of total quality management system (TQM).Thus, Total quality management is a new management philosophy that helps to increase organizational performance with a focus of continuous improvement and proactively detecting and avoiding errors in the process of delivering goods or services. (Metaxas & Koulouriotis, 2014). TQM primarily aims to improve the quality of the products, goods, and services and organizational performance, leading to organizational excellence. Though known to have originated from the Manufacturing sector, the Total Quality Management system is largely practicable to all industries due to its rational conception of accomplishing long-term organizational goals through systematic change. Emerging globalization and stable growth in an industrial establishment over the past two decades has not only emphasized

the TQM application to all industrial sectors. However, it has also laid a successful foundation for accomplishing organizational goals.

Currently, Total quality Management has emerged a wide-ranging approach in organizations with a comprehensive scope of application bearing in mind all areas of the business operations to advance productivity, guarantee business continuity, and boost customer satisfaction. Its accomplishment can be evaluated from the Commitment of senior Management demonstrating effective Leadership at all levels of the organization function (Dale & Cooper, 1994).

Thus, Total quality Management in the course of doing business is a competitive aspect to be deployed, and implementation is important to every organization's Management to establish sustainability and boost the performance of products, goods, or services.

People worldwide realize that flowers enhance the quality of life and influence human feelings more than words or other gifts. Globalization, cultural exchanges, and celebrations enhancing fraternity, such as New Year, Valentine's Day, Memorial Day, Mothers' Day, Fathers' Day, Christmas, and weddings, have induced people globally to use flowers as a means of sharing their feelings. Above all, these celebrations have acquired one-to-one pairing with flowers in some cases, e.g., roses to Valentine's Day and carnations to Mother's Day (Rakesh & Meseret, 2015).

The Ethiopian cut flower production and market contribute the lion's share to the Ethiopian export sector that serves the needs of different categories of customers. In Ethiopia currently, there are few numbers of cut flower growing and production companies supplying both the local market and the international market. These days, TQM has emerged the new management approach to maintain competitive advantages and boost organizational performance; it is crucial for a company's accomplishment (Ooi et al., 2011). Total quality management business philosophy is crucial and can be implemented all over the service and production industry, especially in the cut flower production sector, where the quality of production and service is a must because cut flowers, by their nature, are easily perishable, and there is high customer expectation.

The primary area of cut flower production in Ethiopia is the surroundings of Addis Ababa. Most farms are located in West Shewa, mainly in Holeta, Sebeta, and Addis Alem. The rest are more or less evenly distributed in the Rift Valley and the Awash River Basin systems (Wubalem, 2019).

Considering this concept as a foundation, this study explains TQM as an approach. It identifies the various practices that could influence and sustain organizational performance, especially in the production and service sectors.

1.2 Statement of the problem

Ethiopia is good for floriculture development because of abundant water and irrigable land resources. According to Gebreyesus and Iizuka (2010), Ethiopia has 122 billion cubic meters of surface water, 2.6 billion cubic meters of groundwater, 12 rivers, 11 basins, 18 natural lakes, including the rift valley lakes, and a potential of 3.7 million hectares' irrigable land.

The favorable climate, land availability, and the government's incentive packages have contributed to the floriculture sector's phenomenal and successful growth in the last 14 years. Currently, Ethiopia has **seventy-two** active flower farms and stands the second largest producer and exporter of flower next to Kenya. The country is known for supplying high-quality flowers (EHPEA, 2021).

However, Ethiopia is among the small player in the world market for cut flower production and export performance. For a number of reasons, both internal (poor production and quality) and external (including the global financial crisis), Ethiopia has struggled to achieve its export target.

Cut flower production and marketing in Ethiopia face many impediments. It is a fact that small-scale family-owned enterprises produce the majority of flowers. It has been estimated that there are seven farms involved in the production of cuttings, and seventeen farms produce other flower varieties, which comprises Hypericum, Alstroemeria, Veronica, Carnations, Gypsophila, and a variety of types of flowers (EHPEA, 2021).

Quality control is problematic as the quality of cut flowers is determined at the moment of harvest and by how the product is handled post-harvest (Botden & Terhürne, 2006). The easy perishability of cut flowers and the climatic variation add to the uncertainty in the market for all participants in the chain (NABSO Kunming 2008). These chains are characterized by the lack of an organized marketing system, lack of adequate astonishing storage capacity, refrigerated vehicles, and inadequate quality standards and quality control (Mekong Economics, 2007; NABSO Kunming, 2008).

Enlightening product quality and sustaining stakeholders have become the primary targets for firms to meet business sustainability and boost competitiveness (Patyal & Koilakuntla, 2017).

Total quality management in the organization is a business approach that has been widely accepted and practiced globally. Moreover, thanks to the emergence of total quality management, managers can position corporate development strategies to realize sustainable competitive advantage. The ultimate goal of total quality management is customer satisfaction and loyalty to businesses. Thus, companies are required to advance processes endlessly so that maximum portability and productivity will be achieved (Shafiq, Lasrado & Hafeez, 2019).

Several preceding studies on the relationship between TQM practices and organizations Performance have showed the positive and negative influence of TQM on corporate Performance (Tan et al., 2014).

Empirical studies showed the importance and effect of Total Quality Management in diverse industry sectors. Several studies, most of which have been carried out in developed and developing countries, have tried to link quality management practices and the performance of firms, but findings contradict this view (Vasileios & Odysseas,2015; Anyango et al.,2012; Chow-Chua, Goh & Wan, 2003). The majority of studies concluded that there is a positive and significant relationship between ISO certification and firm Performance (Lee et al., 2001; Quazi & Jacobs, 2004; Psomas, Kafetzopoulos & Pantouvakis, 2012). The Manufacturing sector is fast adopting TQM to make it effective in meeting public demands and operational inefficiency (Maxwell, 2011). However, these studies did not address issues of total quality management practices concerning the performance of cut flower production and marketing in Ethiopia. As per the researchers' discovery, it is likely to conclude that the researchers led worldwide at different times and study areas approached up with different discoveries concerning the effects of TQM on business performance. Furthermore, in Ethiopia, as the awareness of the researcher is concerned, the study so far has concentrated primarily on manufacturing industries. In contrast, other business sectors, like horticulture production, contribute to the country's export sector, especially the cut flower sector was not the focus area of researchers in Ethiopia.

Therefore, this study sought to fill this gap by establishing the relationship between total quality management practices and sustainable business performance of the cut flower business sector in Ethiopia with regards to Linssen Roses Ethiopia.

1.3 Research questions

The main research question;

- What is the effect of Total Quality Management on sustainable business performance in Linssen Roses Ethiopia?

Concerning specific research questions, the study has established the following research questions:

- To what extent Customer focus influence the sustainable business performance of Linssen Roses Ethiopia?
- How does commitment from top Management influence the sustainable business performance of Linssen Roses Ethiopia?
- How does continuous improvement influence the sustainable business performance of Linssen Roses Ethiopia?
- To what extent do best practices influence the sustainable business performance of Linssen Roses Ethiopia?
- How does employee focus influence the sustainable business performance of Linssen Roses Ethiopia?
- Among Total quality Management dimensions which factors have a higher influence on the sustainable business performance of Linssen Roses Ethiopia?

1.4 Objectives of the Study

1.4.1 General Objectives of the Study

The main objective of this particular study is to determine the effect of Total Quality Management on sustainable business performance in Linssen Roses, Ethiopia.

1.4.2 Specific Objectives of the Study

To address the specific research questions of this study, the researcher has established the subsequent specific objectives:

- To examine the effect of Customer focus on the sustainable business performance of Linssen Roses Ethiopia;
- To examine the influence of commitment from top Management on the sustainable business performance of Linssen Roses Ethiopia;
- To determine continuous improvement' influence on sustainable business performance of Linssen Roses Ethiopia;
- To know best practices' influence on the sustainable business performance of Linssen Roses Ethiopia;
- To determine the influence of employee' focus on the sustainable business performance of Linssen Roses Ethiopia, and
- To investigate the factor that has greater significant effect on the sustainable business performance of Linssen Roses Ethiopia.

1.5 Significance of the study

This study will contribute to the cut flower industry in specific terms and academic literature generally. The furthermost important contributions of this study were to identify the Total Quality Management dimensions that affected sustainable business performance.

Also, the findings of the study are supposed to add knowledge to the existing literature. To this end, this study will contribute to the limited knowledge available in applying total quality management in the Ethiopian flower business context.

Furthermore, this research finding can be used as a reference material for academics who have an interest to conduct investigation on the study area for the future. This research has filled the existing empirical gaps and has forwarded valuable recommendations for further investigation.

1.6. The scope of the study

Hypothetically, this research is limited to examining the effect of TQM on sustainable Business Performance in Linssen Roses, Ethiopia.

Concerning its Geographical scope, the research is confined to study within Addis Alem Town, Ethiopia.

With regards to Methodology, a suitable sample size was determined, and the effects of TQM on sustainable Business Performance were analyzed using correlation and regression analysis methods.

1.7. Organization of the study

The study is organized in five Chapters. Chapter one gives briefing on background, objectives, statements of the problem, significance and limitations.

Chapter two deals with a reviewing the literatures which includes a theoretical review, an empirical review, and finally conceptual framework. In this chapter, significantly related literature such as articles, journals, and previous research findings books have been cautiously reviewed, and the research framework has been established.

Chapter three demonstrates the chosen research methodology and clearly explains the selected research approach, design, sampling technique, data collection method and method of data analysis.

Chapter four deals with data presentation, analysis, and interpretation. Important method of data analysis such as descriptive, correlation, and regression analysis were performed, and the study findings are interpreted in this part.

The last but not the least parts of the study, Chapter five, presents all the research findings, conclusions, and recommendations. This chapter of the study is also used to show areas for further research directions.

1.8. Operational Definition of Key Terms

Total Quality Management: A management approach of Linssen Roses Ethiopia to center on quality, based on the participation of its people and aiming at long-term success.

Commitment from the Leadership: The leaders at all levels of the hierarchy help to establish a unity of purpose and direction. It is the Commitment of Linssen Roses Ethiopia leaders to create a conducive environment to achieve the organization's quality objectives.

Continuous process improvements: An ongoing effort of Linssen Roses Ethiopia to improve products, services, or processes.

Chapter 2

Literature Review

2. Introduction

Per research gaps and objectives of the study, related literature such as articles, journals, former empirical findings, and written reference materials have been prudently reviewed under this part of the study. Subsequently, the research framework has been developed, and research hypotheses have been formulated.

2.1 Theoretical Literature

2.1.1 Total Quality Management (TQM) Concepts

According to David L & Stanley D (2016), TQM is an approach to doing business that exploits an organization's competitiveness through continually improving the quality of its products and or services, people, processes, and environments.

Total Quality Management is mainly focused on endless improvement in all work. It is long-term planning. It is the consistent improvement in the quality. It is a never-ending process (Ahluwalia, 2008).

According to him, TQM consists of three words:

Total: mean Makeup of the whole.

Quality: refers degree of excellence a product or service provides.

Management: It is a function of planning, organizing, directing, and controlling.

Therefore, according to the above explanation, TQM is the art of managing the whole to accomplish excellence. TQM also includes all the rigid rules, regulations, guidelines, and principles that contribute to improving the organization continuously. In another way, it is a continuous improvement process for individuals, groups of people, and the whole organization to

achieve excellence. TQM can also be explained as the application of quantitative methods and human resources to consistently improve all the processes within an organization to satisfy the needs of customers' needs. TQM integrates all the essential management approaches, ongoing improvement tactics, and technical tools under a disciplined approach.

Further, Joseph M. Juran (2008) stated that TQM is the function of quality planning, quality control and quality improvement.

Quality Planning: "Quality does not happen by chance; it is achieved through planning." A structured process for designing products and services that meet breakthrough goals and ensure that Customer needs can be achieved only through quality planning.

Quality Control: Can be referred to as a process for meeting the pre-designed goals by evaluating and comparing actual performance against planned performance and taking appropriate and timely action on the variance.

Q**uality Improvement**: "All improvement shall take place through a phased approach in creating breakthrough levels of performance, and it encompasses the following steps: eliminating wastes and defects to tackle the cost of poor quality; Justify the need for improvement, Identifying the improvement areas, Establish Improvement teams, Provide the required resources, training, and motivation to the team, Diagnose the root causes, stimulate the remedies, and establish controls to hold the gains, quality begins with who, how, and why these customers will use it, all improvement activities should center the Customer (Customer focused).

Over the past years, business organizations have gone through different stages (from inspection to TQM) to evaluate quality. Where Inspection targeted on examining, measuring, testing, and assessing of product, service, or activity characteristics and comparing them with specific standards to assess their conformity. On the other hand, Quality control, as the name implies, concentrates on product quality; quality assurance tends to focus on products and processes, and TQM considers the given organization or firm as a single unit (Dale, 2003; Shouman & Othman, 2014).

Harris, et.al; (2013), have also supported and established four main stages in the evolution of Total Quality Management, which were in agreement with those identified by (Dale, 2003).

TQM has been used widely in many organizations for some years to enhance products and service quality, which are critical to maintain growth and business sustainability in a highly competitive market. This is in agreement with the results of (Zaman & Anjalin, 2016), who established that TQM is a business philosophy and can be used as a strategy to accomplish organizational excellence.

Total Quality Management is a contemporary strategy where a member of the organization is considered to commonly yield quality and value for products and services that meet and exceed customers' expectations and needs (Dale, 2003).

Al Najjar & Jawad (2019) defined TQM by simply taking the three significant terms; Total, Quality, and Management, where Total denotes that quality is the concern of all workforces of the organization and the various activities in it. Quality represents achieving and exceeding the Customer's expectations. The last term, Management, stands for core functions such as planning, organizing, leading, motivating, and controlling resources to bring continuous improvement. It is imperative to define that TQM is a management approach and a framework for ensuring quality and attaining excellence in a given organization in the best interest of all stakeholders (Dale, Wiele, & Iwaarden, 2013).

Dale (2003) examined that there are eight fundamental guiding principles of TQM, which are defined in BS EN ISO9000 (2000).

1. **Customer focus**: means Organizations should put in mind present and future customer needs, meet customer requirements and strive to exceed customer expectations as they depend on their customers.
2. **Leadership**: Leaders should create and maintain an internal office environment in which staffs can become fully considered so that belongingness will be achieved and meeting the organization's objectives will be easy.
3. **Involvement of people**: if the organization wants to achieve better Performance, People at all levels must be involved, and their abilities shall be used to the best interest of organization.
4. **Process approach of TQM**: The ultimate result can be maintained more efficiently when activities and related resources are monitored as a process.

5. **System approach**: Identifying, creating understanding, and managing interconnected processes as a system leads to the organization's efficiency and effectiveness in achieving its intended purpose.
6. **Continues improvement**: Consistent improvement of the organization's inclusive performance should be the continuing objective of the organization.
7. **Factual approach to decision-making**: Effective decisions shall be made based on the analysis of data and information.
8. **Mutually beneficial supplier relationships**: a mutually beneficial relationship between them enhances the ability of both to create value".

Thus, TQM Can be expressed as a management philosophy for sustainable business performance and excellence through ensuring consistent improvement by detecting and disregarding errors that could materialize in the production stages and taking proper steps for facilitating the supply chain integration and improving and meeting customers' expectations by using pre-defined process and system, factual decision-making approach and the participation of stakeholders (Luburic, 2015).

On the other hand, Charantimath (2011) explained TQM as a management approach to achieve organizational excellence and sustainability. This could be achieved by ensuring the participation of employees, filling customers' needs and expectations, adhering social values and beliefs, and obeying governmental regulations. To adopt the philosophy of continuous improvement and ensure customer satisfaction and sustainable business performance, Charantimath (2011) further argued that there are five critical pillars of Total Quality Management: product, process, people, system, and Leadership. Product and process are classified as challenging parts of TQM used to yield effectiveness and efficiency, whereas people and Leadership are regarded as soft aspects of TQM used to enhance sustainability. On the other hand, the system aspect falls between the hard and the soft aspects and is used to enhance confluence as it.

From the concepts discussed above, it is possible to conclude that TQM is a management method based on the basic concept that all "employees endlessly advance their ability to deliver highly valued products and services to customers. Furthermore, the concept of TQM can be derived from its name: Total stands for all employees in the given organization who are expected to improve

operations, and Management refers to the methodology and focused effort that should be followed so as to maintain product and service quality consistently.

2.1.2. Total Quality Management theories

2.1.2.1 Resource-Based View (RBV)

As the name implies the core principle in the resource-based view theory is that the accomplishment of a firm's goals, objectives, and mission is highly determined by its resource (Rangan, 2004). According to Prior and Glaser (2003), explanation the efficient utilization and positioning of resources results in the creation of resource-driven competencies and then competitive advantage.

Whereas, According to Arbab Kash et al.(2014), any organization's resources are obtained from internal or external sources. According to his explanation, how the organization manages and deploys these resources highly affects its competitive advantage; if resources are managed and deployed correctly, then the competitive advantage will be secured; otherwise, the reverse will be true.

Similarly, Barney (2007) clarified that RBV Theory is built on the idea that organizations be able to accomplish a sustainable competitive advantage if essential resources are efficiently utilized in the competitive environment. To this end, having resources alone is insufficient to accomplish a competitive advantage.

Further, O'cass et al. (2004) came up with the idea that an organization can accomplish a competitive advantage if they can introduce essential resources that are difficult to imitate by their competitors. The RBV theory further emphasized that the vital sources and drivers of an organization's competitive advantage are highly dependent on the qualities of their resources and competencies if they are characterized by the following basic attributes: Less available or non-substitutable, more valuable, difficult to copy.

The Resource-Based View theory also argues that an organization's performance and its competitive advantage are influenced by its unique resources and capabilities (Fotopoulos, Kafetzopoulos & Psomas, (2009).).

Similarly, Barney (2001) established that to become competitive, organizations need to develop, combine and effectively manage their resources (physical, human, and capital) in ways that create unique value and are hard for competitors to replicate.

RBV models assume that an organization is a bundle of resources that includes tangible and intangible assets that enable the firm to establish strategies that improve efficiency and effectiveness (Johnson et al., 2004). Tangible resources are physical substances that an organization possesses. Intangible resources include corporate brand names, organizational values and norms, networks, and processes that are not included in standard managerial-accounting information. Unlike tangible resources, intangible resources, such as product quality, are preferable to yield superior Performance (Rouse & Daellenbach, 2009; Kenneth et al., 2011). The Resource-Based View Theory is mainly based on behavioral and sociological paradigms. It considers organizational factors and their alignment with the environment as the major determinants of sustainable business performance.

Barney (2007) pointed out that transforming a short-run competitive advantage into a long-run competitive advantage requires that these resources be heterogeneous and not perfectly the same. This, in effect, results in unique resources that cannot be perfectly imitable or sustainable without great effort (Hockman & Grenville, 2004). Barney (2007) further emphasized that if these conditions are ensured, the firm's bundle of resources can assist the firm in sustaining above-average returns.

This theory is relevant to this study since quality management practices are vital for creating a quality brand, which an organization uses to improve the firm's performance. Hence, the QM practices must confirm the characteristics of being valuable and rare and, at the same time, must be non-imitable and non-substitutable for organizations to achieve competitive advantage and thus realize sustainable business performance.

According to Klassen & Whybark (1999), the explanation of the conceptual contribution of environmental Management is multi-dimensional. Of primary importance, economic and environmental performances are highly correlated to one or more strategic resources yielding multiple competitive advantages. The environmental policies and corporate social responsibilities can be linked with excellent organizational performance if the mandatory strategic organizational resources have been developed as a part of the management initiatives.

According to Hart (1995), This strategic resource can be shifted and applied in implementing preventive environmental technologies. In the RBV, a clear distinction has emerged between resources and capabilities (Makadok, 2001). A resource is something we can observe, or it could be an asset that can be valued and traded as a brand or a patent. In contrast, a capability is not observable and is hence intangible and hard to value (Karthi et al., 2012).

As it has been examined by Makadok (2001), two key characteristics differentiate a capability from a resource:

- A capability is firm-specific since it is embedded in the organization and its processes, and,
- The ultimate purpose of a capability is to enhance the productivity of the other resources the firm owns.

This study also focused on the performance implications of some internal attributes of the firms (Barney, 2001); in this case, the effect of organizational capabilities such as continuous improvement, top management commitment, and customer focus on sustainable business performance was determined.

Accordingly, it is rational to generalize that organizational attentiveness determines the type of QMS (quality management systems) to follow since the resources an organization has will effect what it does or does not do. The approaches so commenced will influence the performance of the organization and help the firm gain a competitive advantage in the market, resulting in improved performance. Thus, this theory supports, continuous improvement, customer focus, and top Management's commitment variables.

2.1.2.2 Quality Improvement Theory

According to Deming (1986), Quality Improvement theory is based on the fact that a feature of the quality management principle is that it places responsibility for manufacturing organizations directly at the top Management's door. The theory states that Management is responsible for the systems, provided that the system that generates 80% of the problems in firms (Hill, 1995). Further, Deming (1986) stressed that a quality management system could only succeed with top management commitment; the Management decides and invests in the processes, creates corporate culture, chooses suppliers, and develops long-term relationships.

Deming's Quality Improvement theory provides businesses with a plan to disregard poor quality control issues through effective managerial techniques. It is a fact that Management's behavior forms the corporate attitude and defines what is essential for the success and survival of the firm. Hubert (2000) has supported the theoretical approach of Deming's (1986) theory regarding the QMS, and it predicts the emergence of an organizational system that speeds up cooperation and learning to facilitate the implementation of process management experiences. This results in the continual improvement of the processes, both the products and services, and helps to bring employee satisfaction by promoting customer focus and, more importantly, determining the organization's survival.

Deming (1986) highly believed in a systematic approach to problem-solving and promoted the broadly known Plan Do Check Act cycle. Goetsch & Davis (2006) explained the Plan Do Check Act (PDCA) cycle as continuous improvement or a universal quality improvement concept whose ultimate objective is enhancing the firm's performance consistently, thereby reducing the variance between customer expectations or requirements and the performance of the manufacturing firms.

Oakland (2004) stressed that it is the responsibility of the top Management to lead the change process to create and communicate the vision to move the firm toward performance improvement. Here, Leadership plays a crucial role in ensuring the success of quality management. In addition, Top Management is responsible for most quality problems. In this regard, Kamanda (2010) asserts that it is crucial to give employees clear directions on what is considered acceptable work and provide the techniques to accomplish it. These techniques may include but are not limited to

creating an appropriate working environment and communicating effectively to enhance performance to the expected level (Lamport et al., 2010).

To conclude, the top Management should be dedicated to applying the principles and practices of the System of Profound Knowledge (SOPK), where a business can concurrently reduce costs through wastage reduction, avoiding rework in order to enhance quality, customer loyalty, employee satisfaction and to boost profitability (Deming, 1986). Deming's Quality Improvement theory is essential to this research in that it supports the variable of process automation enhancing the quality of products and services with the application of continuous improvement employee training, which organizations can use to pursue performance. This theory applies to this study because total quality management is a wide-ranging and structured approach to achieve sustainable business performance.

2.1.3 Quality standards in flower industry

According to ISO 8402, quality is conformance to requirements. Suganthi, Anand & Samuel (2004) explained quality as conforming to specifications. They believed quality meant getting it right the first time. Similarly, L. Juran defines quality as the fitness of use, which stresses the reliability of a product or service for users Suganthi, Anand & Samuel, (2004). ISO 9000:2000 explained quality as a degree of inherent characteristic and fulfilling requirements. Deming defined total quality as the expectable level of uniformity, conformity, and dependability at a low cost and suited to the market, Suganthi, Anand & Samuel, (2004).

Quality flowers and quality production process is the dream of the flower industry. For the Ethiopian flower industry to grow to international standards, it must achieve five goals; High quality, quick production, highly efficient labor force, flexible workforce, and teamwork. If these all are achieved, customer satisfaction will be enhanced to the expected level. The world's quality understanding has now transformed from customer satisfaction to customer delight, which every organization should look for, and this should be the objective for the Ethiopia flower sector.

Dr. W. Edward Deming (1900-1993) is perceived as the Guru of modern quality standards. He came up with a philosophy that organizations must change and adopt a new way of doing business. He came up with 14 points that will enable an organization to meet quality standards.

1. Creating constancy of purpose to achieve a quality of a product.
2. Using modern technology to reduce mistakes.
3. Building quality processes instead of mass inspection
4. Improve on quality of input materials to get quality output.
5. Investigate problems and address them quickly.
6. Constantly train employees to confirm quality standards.
7. Establish a modern method of Leadership which includes coaching the employees.
8. Avoid fear in workers so they can deliver maximum output.
9. Remove slogans that appreciate some employees and which could kill teamwork.
10. Eliminating activity measured by quotas and numerical figures instead establish good Leadership.
11. Remove constraints that rob people of ownership of their craft. Let workers take ownership of their job.
12. Establish programs for the continuous improvement of workers. These could be achieved through education or training on the job.
13. Encourage management support throughout the whole process.
14. Providing modern Leadership and Commitment.

As far as the flower industry is concerned, cut ornamentals are characterized as complex plant types which fail to confirm one quality of leaves, stems, or flower parts that will follow non-acceptance by the buyers. Mostly, ornamentals and loss of quality may result from one of the following several causes: wilting or abscission of the leaves and/or petals, yellowing of leaves, and geotropic. In assessing factors which influence the life of ornamentals and how to extend their market lifetime, it is essential primary to know the various causes of quality damage (Michael S. Reid, 2004).

Much special attention emanated since the unique physiology, handling, and marketing of cut flowers and vegetation addressed by (Michael S. Reid, 2004) for individual crops. For this study, we refer only to Rose, Spray Rose, and sweet heart rose.

2.1.3.1. QUALITY STANDARDS IN ROSE, SPRAY ROSE, SWEETHEART ROSE

Rosa CVS. hybrids are the queen of cut flowers due to their historical linkage to beauty and romance. However, poor water uptake and ethylene gas can lead to bent necks and ethylene-sensitive cultivars. To overcome this, proper post-harvest care and pre-treatment are needed.

When some of the sepals reflexed; roses need be collected for long-distance storage or transportation for. Fast-opening roses need be collected before the sepals start to separate from the main bud. Post-harvest handling is important, and flowers need be purchased and sold by cultivar name. Evade blossoms that are already open.

Grading and bunching of roses is based on length, maturity, stem straightness, quality, and foliage. Leaves and thorns can be detached manually or mechanically, with little effect on vase life. Treat ethylene sensitive cultivars with 1-MCP or STS before dry storage. Roses should be pre-treated with 1-MCP or STS to prevent the effects of ethylene, and re-hydrated with a rehydration solution.

Roses necessarily be stored dry at 0 to 1 C and pre-cooled for up to fifteen days. Rose bunches are often sleeved in plastic, waxed paper, or soft corrugated card sleeves, leading to botrytis infection.

Removal of leaves and thorns should not reduce vase life, Botrytis infection can be treated with post-harvest fungicide dips, and petal blackening is due to growing conditions.

2.1.4. Total Quality Management Dimensions

As management methods and techniques, the implementation and success of TQM may vary from one company to another. While there is no single agreed-upon approach, the most common TQM dimensions include the following principles.

2.1.4.1 Customer Focus

In today's highly competitive market, customers require and expect perfect goods and services with no defects. Thus, focusing on customer requirements is crucial to long-term survival and essential to build relationships with customers.

The first of the TQM principles puts the focus back on the people buying the company's product or service. Customers can determine the quality of the product or services. If the product fulfills a customer requirement or beyond expectation, customers recognize that they have spent their money on a quality product. When organizations understand what their customer wants or needs, they have a better chance of getting the suitable materials, people, and processes to meet and exceed their expectations. In order to accomplish this, the following TQM principle must have adhered to:

- Research and understand customers' need and expectations.
- Align the organization's objectives with customer requirements.
- Communicate with customers, measure their satisfaction, and use the results to work around solutions to improve processes.
- Manage customer relationships.
- Find a balance for satisfying customers and other interested parties (such as owners, employees, suppliers, and investors).
- Being a customer focused has many benefits; the following are some of them:
- More sales, increased revenue, increased market share, and pocket share through mindshare.
- Strong customer loyalty leading to repeat purchase
- Positive word of mouth.
- Good process improvement strategy through customer feedback.

According to Deming (2006), customers see quality as a significant factor in satisfying their needs and wants. This is also in agreement with the concept by Gilmore (2011), who believes quality to mean the extent to which a specific product satisfies a specific customer's wants. Historically, the philosophy of TQM and Customer can be gone back to the period soon after the 2nd world war.

In this modern business, it is generally agreed that quality has become a powerful strategic weapon in meeting customer satisfaction both locally and internationally. Improved quality is pivotal to customer demands and increases the organization's productivity with increased returns. Many authors agree that the quality of products and services is the key to competitiveness in the open market. Kondo (2009) further stressed that improving quality enhances productivity because of reduced costs.

According to Garvin (2007), quality is not only a strategic weapon for competing in the current marketplace but also a means of delighting customers. Therefore, a company's specific advantage is to identify and then compete on one or more quality dimensions.

According to Noori (2004), who stresses in his book that competitiveness cannot be achieved without adhering to the quality standard, the need for quality can be described in fourfold: competitive advantage, reputation, staying alive, and cost. Various empirical studies confirmed that organizations that have employed a quality-oriented strategy had achieved improved productivity, greater customer satisfaction, increased employee morale, improved management-labor relations, and higher overall operational performance.

2.1.4.2 Top Management Commitment and sustainable business Performance

Top management commitment is an essential dimension of TQM. Pheny and Teo (2003) observed that top Management must cascade TQM to the entire organization members to create awareness, interest, desire, and action. They should provide a quality vision and create a cultural change within the organization. They should also organize training and empower others by allowing them to grow, delegate authority and recognize them for quality achievements. Top Management must allocate resources and partner with suppliers to share information while there are new innovations and technology in the market for quality materials.

Top management commitment and Leadership require an effective change in organizational culture, and this can only be made possible with the deep participation of top Management in the organization's strategy of continuous improvement, open communication, and cooperation throughout the organization. TQM implementation improves organizational performance by influencing other TQM dimensions. According to Garvin (2004), most constraints associated with

quality are attributed to top Management. This reveals that successful quality management is highly dependent on the level of top management commitment. It requires that top Management's commitment to quality must convey the philosophy that quality will receive a higher priority over cost and that, in the long run, will achieve operational performance and reduced operational cost.

Several studies have been done on the concepts of quality improvement practices and business performance. For example, Miller and Hartwick (2002) investigated that training and top management commitment play significant roles in TQM implementations.

Everett (2012) emphasized that quality can only be accomplished with clear and consistent Leadership. This requires that quality leadership be made a strategic objective, which means that the leader provides a suitable environment to provide the most comfort to the group members to improve performance and productivity (Rao et al., 2006). In this study, Top management commitment has been acknowledged as the major dimensions of Total Quality Management that determined Sustainable business performance.

2.1.4.3 Continuous improvement (CI) and Business Performance

Anne (2007) examined that Continuous improvement is a method for improving every stage of an organization's operations and increasing competitiveness by establishing a company's resources. The improvement can include many goals and producing products with no defects or achieving a hundred percent customer satisfaction, and continuous improvement has reliable principles notwithstanding of the set goals (Murphy & Elana, 2006). These principles include:

- Involvement of the organization members at all levels,
- Process optimization by improving existing processes,
- Organizing data on Firms operations and computing that data becomes the starting point against which improvements will be measured for continuous improvement (Morgan, 2006).

Generally, Continuous improvement comprises creating a team with representatives from all organizational functions. The team first shall spend time learning about their company and other companies (Can be referred to as benchmarking). The necessary quantitative data is created

(McManus, 2009). Then the team suggests solutions to respective Management, and if got acceptance, it commences to expedite those solutions. When that is accomplished, monitoring methods and mechanisms must be put in place that seek further developments as time goes by. If the plans are executed, the team will confidently meet upgraded quality due to its initial efforts (Kinni & Theodore, 2005). This can fascinate more employees into this concept, leading to the continued search for improvements and, thus, continuous improvements (Joiner & Brian, 2007).

Best efficiency and customer satisfaction do not happen overnight—the business should continually dig out ways to optimize processes and develop products and services as customer requirements shift. As previously stated, the other TQM principle an organization should keep an eye on is continual improvement. To achieve this, the following principles shall be implemented:

- Develop strategy and policy to establish product, process, and system improvements as measurable goals for individuals specifically, teams, and departments generally;
- Recognize, acknowledge, and encourage new idea creation to improve processes and development;
- Appreciate employees participating in available training to learn and take on new and additional assignments.

Below are some of the fruits of continuous improvement:

- Improved capabilities and knowledge to increase performance;
- Improvement goals strategically aligned with organizational capabilities and goals;
- Quick reaction times to recognize and fix bottlenecks and broken processes.

2.1.4.4 Best Practices

Leadership implements best practices with the assumption that they are the ones to propose organizational solutions (Turner et al., 2009). In studying the importance of best practices for organizational change, Hallencreutz and Turner (2011) argued that the best practice is not universally defined because no constant explanations of the best practice of organizational change are to be found in the literature.

Best practices are ultimately those that give an organization the "capability to perform beyond its competitors" as well as to produce the best quality or value to customers, employees, and shareholders" (Cortada, 1997). Best practices can also be explained as "me too" strategies and that organizations should try to find new business practices that they can offer first to have an advantage over their competitors to build up a robust business platform, as well as expected revenue and profits. As far as the final analysis is concerned, the best practice allows an organization to outperform its competitors, grow market share and profits and provide compelling value to customers, employees, and shareholders (Cortada, 1997).

Referring to the above explanation, effective resource management are highly related to best practices. In a resource-based theory, capabilities are capacities to deploy resources to affect a desired result (Amit & Schoemaker, 1993). Therefore, Best practices can be considered as a capability. One reasonable practice of benchmarking will also improve the productivity level. The benchmarking process includes identifying and targeting key improvement areas within firms, investigating and studying industry leaders' best practices, and adapting new processes and systems to enhance their productivity and quality (Camp, 1989).

To become a world-class organization or to be perceived as the best organization, companies must keep their eyes on what others are doing in the market environment. Therefore, they must search for best practices and methods to stay competitive. Usually, best practices are achieved through benchmarking. The basic principle of benchmarking is that, for an organization to advance its performance, it must be able to compare its current performance against that of others as well as against its previous Performance (McMann & Nanni, 1994). Benchmarking includes but is not limited to the process of implementing measures, comparing own organization's performance with the 'best in class', searching the causes for the interval between one's organization and the best, and implementing changes to close the interval (Ammons, 1996). And also, JIT, Total Productive Maintenance, and Quality Control Circles can be mentioned as the best practices that corroborate to improve firms' performance.

2.1.4.5 Employee Focus

Miyagawa and Yoshida (2010) explored that the TQM strategy and employee involvement in Japanese-owned manufacturers in the US have a significant effect on external performance in the areas of enhanced productivity, increased market share, profit, and, finally, competitiveness. According to (Yee et al., 2008), Employee satisfaction leads to organizational achievement and, therefore, should be the objective of any improvement efforts. A study found that TQM practices that strongly influence external performance were strategic quality planning, supplier quality, employee involvement, and training (Jitpaiboon & Rao, 2007).

Similarly, Yang (2006) established that TQM practices, including quality management, process management, employee empowerment, teamwork, customer satisfaction management, quality goal setting and measurement, supplier cooperation, and quality tools training, positively influence sustainable business performance through customer satisfaction and competitive advantage. From the literature, it is possible to generalize that TQM practices help companies to improve their image, employee satisfaction, and quality awareness.

To meet the needs of internal customers, employees, and managers should be aware of the factors that constitute their expectations. Defiantly, a company's human resource policies can well affect employee satisfaction. Thus, Human resource management is a comprehensive program designed to provide the best enjoyable environment for the employees (Jime'nez-Jime'nez & Martı´nezCosta, 2009). Japanese companies are well known for the excellent treatment of their employees. In certain Japanese companies, a worker becomes loyal to their company due to the benefits provided by the company; one of them is a lifetime employment opportunity. A company that adopts TQM business philosophy usually spends a large amount of its annual budget on employees' training and development so that employees become more satisfied with the job and/or their company, then loyalty will be formed. A company will achieve its targets if Employees are committed to improvement initiatives. This is because usually, an employee who is satisfied with his or her job will tend to increase his or her productivity and performance.

2.1.5. Sustainability Business Performance

In the global economy today, business management has been increasingly aware of the need for sustainability management, which aims to achieve social, environmental, and economic performance simultaneously. Kuei and Lu (2013) defined sustainability management as a philosophy of accelerating the adoption of best management principles, models, and practices throughout the operating system and enabling the environment to achieve sustainable development.

Edgeman (2013) developed a Sustainable Enterprise Excellence framework based on business excellence models, including the Baldrige National Quality Award, the European Quality Award, and sources of sustainability indicators from the Global Reporting Initiative and the United Nations Global Compact. On the other hand, Edgeman and Eskildsen (2014) introduced a maturity assessment regiment of the Sustainable Enterprise Excellence model that is a combination of graphical NEWS (North–East–West–South) compasses and SWOT (Strengths–Weaknesses–Opportunities–Threats) plot narratives. Therefore, Sustainability performance is conceptualized as an outcome of sustainability management. Sustainability performance can be explained as the amalgamation of its economic, social, and environmental performance" (2014) and "the performance of a company in all dimensions and for all drivers of corporate sustainability" (2006).

Figge et al. (2002), based on the Balanced Scorecard of Kaplan and Norton, discussed three possible means to integrate the three dimensions of sustainability into a single framework called Sustainability Balanced Scorecard. The first approach is to integrate environmental and social aspects into the existing four, namely: Financial, Customer, internal process, and learning and growth perspective. In contrast, the second approach suggests adding environmental and social aspects as a new perspective. The last but not least approach is establishing an environmental and/or social scorecard. Hence, the nature of the environmental and social aspects of each specific business unit should be taken into severe assumptions while formulating a Sustainability Balanced Scorecard.

On the other hand, Chardine-Baumann and Botta-Genoulaz (2014) suggested a framework and indicators to assess sustainability performance, namely: economic, environmental, and social dimensions. The economic dimension includes, Reliability, Responsiveness, Flexibility, Financial

Performance, and Quality, Environmental dimension are environmental Management, the wise use of resources, Pollution, Dangerousness, and the Natural environment, and the third dimension is the social dimension, which encompasses work condition; human rights, Societal Commitment, Customers issues, and Business practices.

In this paper, sustainability performance is defined as the balanced Performance among three aspects—social, environmental, and economic Performance. Adopted from Chardine-Baumann and Botta-Genoulaz (2014) with some modifications, this research measures sustainable business performance based on five independent variables: customer focus and commitment from top Management. Continuous improvement, best practices, and employee focus.

2.2. Empirical Literature

Arawati, (2000). Idris, 2000; Khairul Anuar, 2002; studied the effect of TQM on business performance and found that Leadership and best practices have a positive and significant influence on business performance.

Similarly, Prajogo & Sohal (2003), in their study TQM, established that quality management practices in manufacturing firms positively influenced an organization's business performance by improving product quality, process optimization, and product innovation.

Whereas Isaksson (2006) go through different models with an understanding of their previous literature (Isaksson & Garvare, 2003) on TQM and business sustainability, proving that organizations can accomplish success through a concentration on process development.

Likewise, Chin, Fang, Hung, and Yen (2007) examined the influence level of TQM on various levels of firm performance, and the results of this study revealed that effective Management and Leadership positively and significantly influenced firms' business performance.

In addition, using primary data, Oluwatoyin and Oluseun (2008) empirically studied the advantage of Total Quality Management practice in the Nigerian Airline industry. The research findings established the benefits TQM has on firms' business performance. Further, the study proved that TQM is a strategic means that any organization can adopt to stay competitive. It was also proved that for the TQM to be suitably successful, each person in the organization, including customers, must be considered.

Moreover, Sadikoglw (2009) and Brun (2010), in their study, have explored that applying TQM dimensions, namely: training, process management, and customer management, lifts the overall organization performance.

With the same token, Fazli Idris (2011) investigated the relationship between TQM dimensions and sustainable company performances. Customer Focus and Leadership TQM constructs were identified as the most influencing factors in this study. it was also found that employee focuses positively and significantly affected company performance.

Literature studies described by Hassan & Kerr, (2003) determined that quality practices implemented in organizations are foundational to foster organizational performance taking in productivity, growing financial outputs, and customer satisfaction by proper arrangement and implementation of deliveries in service sector industries results confirming studies by (Duarte et al., 2011).

Similarly, Masood, Aamna, Saif, and Sidra (2012) investigated the extent of interconnection between Total Quality Management and Performance in Pakistan by taking the manufacturing industry. The findings of the study proved that TQM practice positively and significantly influenced the organization’s performance.

Ali and Abedulfattah (2013) explored the extent to which Total Quality Management influences organizational overall performances by taking Jordan Banks. This study's results revealed a positive and significant association between TQM and firm’s overall Performance.

Gharakhani et al. (2013) also proved that Total Quality Management affected organizational performance remarkably, especially in their financial performance.

Similarly, Chukwu, Adeghe, and Anyasi (2014) investigated the influence of total quality Management on Business Performance in Nigerian Brewery Plc and Nigerian Bottling Company Plc. The results of this study proved that a significant and direct association was revealed between TQM and the firm's overall performance.

Further, Marcel and Ayankeng (2015) showed the effect of TQM on firms' business Performance using TQM dimensions such as customer focus, management commitment and Leadership,

employee training, and benchmarking in manufacturing firms of Cameroon. The finding revealed that employee training and empowerment positively and significantly influenced firms' business performance.

Shanl. Ahmad and Nor (2016) examined the effects of TQM on business performance and found a positive relationship between Total Quality Management and business performance.

Monirci (2016) evaluated the extent of relationship between Total Quality Management and the organization's Performance in the manufacturing industry in Kenya and Nairobi, and the study finding revealed that the customer focus significantly affected the firm's performance.

Mukhtar (2016) studied the association between some Total Quality Management dimensions and the business performance of small and medium enterprises in Nigeria. This study finding revealed that Leadership positively and significantly affects business performance.

Whereas, Keinan, A. S. & Karugu, J. (2018) evaluated the influence of TQM dimensions on the business performance of manufacturing firms in Kenya. The study confirmed a positive and significant relationship between customer focus, top management commitment, continuous improvement, employee involvement, and company business performance.

Finally, Eslami et al. (2019) examined the effect of TQM in attaining business sustainability using a three-dimensional approach in manufacturing industries and found that TQM positively and significantly influenced sustainable Business Performance.

2.3. Conceptual Framework

This study targeted on determining the effect of TQM on sustainable business performance and framed a conceptual framework by reviewing related concepts. In the due course, a variety of Total Quality Management constructs have been identified from the related topic and included into the conceptual framework. The below conceptual framework shows the association between the identified Total Quality Management dimensions and Sustainable Business performance.

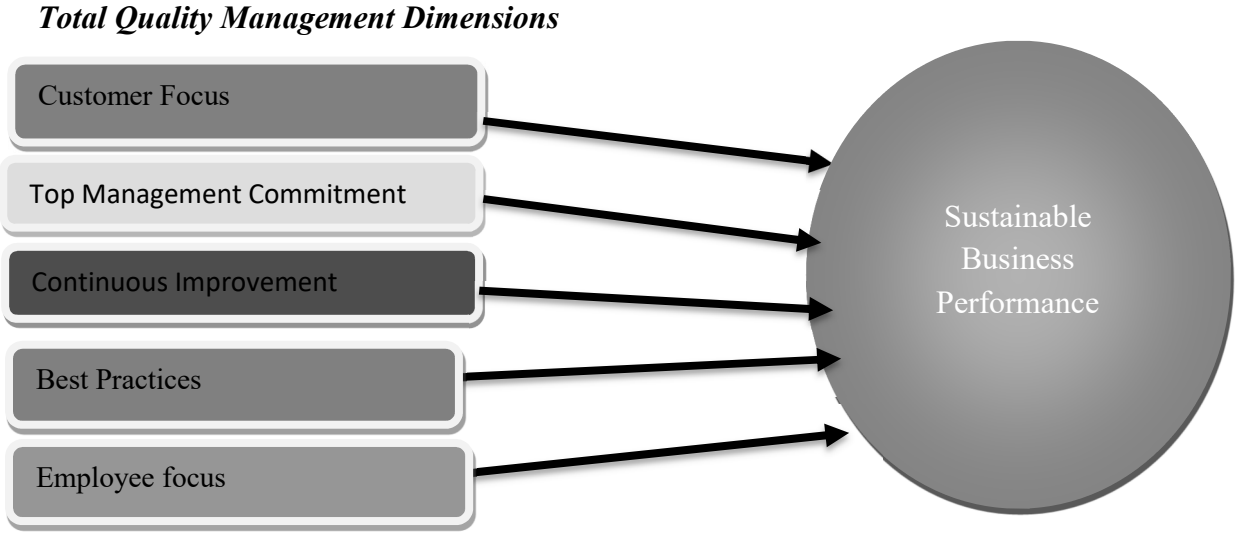


Figure 2.1: Conceptual Framework

2.4. Hypothesis Development

Given the above research model, five hypotheses are developed to achieve the research objectives. According to Suganthi & Samuel, (2015) employees must examine reactions to Customer on the services or products provided; the very essence of customer focus is to satisfy Customers with the required work properly from the first time. Therefore, firms should identify their customers, study their expectations by applying techniques such as personal interviews, questionnaires, customer suggestion boxes, or feedback surveys, and ensure the participation of customers with quality teams (Juda, 2014).

H1: Customer Focus TQM dimension has a positive and significant effect on sustainable business performance of Linssen Roses Ethiopia.

Everett (2012) emphasized that quality can only be accomplished with clear and consistent Leadership. This requires that quality leadership be made a strategic objective, which means that the leader provides a suitable environment to provide the most comfort to the group members to improve performance and productivity (Rao et al., 2006). The findings of the study proved that Total Quality Management practice positively and significantly influenced the organization's performance. Thus,

H2: Commitment from top management positively and significantly influences on sustainable business performance of Linssen Roses Ethiopia.

Anne (2007) examined that Continuous improvement is a method for improving every stage of an organization's operations and increasing competitiveness by establishing a company's resources. The improvement can include many goals and producing products with no defects or achieving a hundred percent customer satisfaction, and continuous improvement has reliable principles notwithstanding of the set goals (Murphy & Elana, 2006).

Generally, Continuous improvement comprises creating a team with representatives from all organizational functions. The team first shall spend time learning about their company and other companies (Can be referred to as benchmarking). The necessary quantitative data is created (McManus, 2009). Then the team suggests solutions to respective Management, and if got acceptance, it commences to expedite those solutions. When that is accomplished, monitoring methods and mechanisms must be put in place that seek further developments as time goes by. If the plans are executed, the team will confidently meet upgraded quality due to its initial efforts (Kinni & Theodore, 2005). This can fascinate more employees into this concept, leading to the continued search for improvements and, thus, continuous improvements (Joiner & Brian, 2007).

Thus, Continuous improvement benefits from a high degree of employee commitment and brings sustainable business performance. Therefore,

H3: continuous improvement dimension of TQM positively and significantly influences sustainable business performance of Linssen Roses Ethiopia.

To become a world-class organization or to be perceived as the best organization, companies must keep their eyes on what others are doing in the market environment. Therefore, they must search for best practices and methods to stay competitive. Usually, best practices are achieved through benchmarking. The basic principle of benchmarking is that, for an organization to advance its performance, it must be able to compare its current performance against that of others as well as against its previous Performance (McMann & Nanni, 1994). Hence,

H4: Best practices Dimension of TQM positively and significantly influences sustainable business performance of Linssen Roses Ethiopia

According to Parker and Collins (2010), empowered employees energetically create, shape and adjust their working environments; they are likely to have an open attitude towards reducing errors, considering them not as failures but as opportunities for learning and further improvements and innovation. Obviously, Empowered employees are more proactive and continuously seek opportunities to improve and optimize work processes and seek innovative solutions to more complex work problems.

More importantly, empowered employees feel safe and trust their leaders to support and reward them for creative initiatives (Caniëls, Neghina, and Schaetsaert 2017). Empowered employees are also responsible for the quality and continuous improvement, frequently collecting data to measure possible work discrepancies, allowing them to continuously improve their work and related processes (Kirkman & Rosen, 1999). Thus,

H5: There is a positive and significant correlation between employee focus dimension and sustainable business performance of Linssen Roses Ethiopia.

Chapter Three

Research Design and Methodology

Introduction

This part of the study provides a complete explanation for the research design and methodologies followed to meet the study's objectives. A clear explanation has been given for the research designs and approaches employed, the target population chosen, sample and sampling techniques, data collection instruments used, and data analysis methods conducted for this particular research.

3.1. Research Approach and Design

Research Approach: quantitative research approaches generate numerical data using large-scale survey and close-ended questionnaires and/or structured interviews (Dawson 2002).

A quantitative approach is used in this study with reasoning the input and output of the survey are in quantitative form. The information obtained from the instruments is quantified and provides a quantifiable result. The main questionnaires were converted into quantitative data and analyzed using correlation and regression data analysis methods.

Research Design: for this study an explanatory research design is appropriate to investigate the study's objective and test the hypothesis. This specific study tried to get information that best describes existing phenomena by asking chosen respondents about their level of agreement on the effects of TQM dimensions on sustainable business performance. Therefore, it has opted to adopt a descriptive research design.

3.2 Population and sample of the Study

This research's target population comprises 1,300 ***Linssen Roses Ethiopia*** staff members working in Addis Alem Town, Ethiopia, within different departments.

3.3 Sample size and Sampling Techniques

Kothari (2004) explained that sample size can be described as the figure of representatives to be designated from the population to determine the sample. This addresses how many sampling elements should be surveyed and interviewed and large samples yield more dependable results than small ones. According to Yamane (1967), an adequate sample size is determined by the formula below at 95% confidence level and 5% level of precision.

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

Where;

- ❖ N refers the size of the Sample
- ❖ N stands for the population size and
- ❖ e refers to the error percentage that could appear during sampling

Accordingly, the sample size of this research was computed as shown below

$$n = \frac{1,300}{1 + 1,300(0.05)^2} = 305.88 \approx 306 \ldots\ldots 2$$

Therefore, this study's sample size is 306 ***Linssen Roses Ethiopia*** staff members working in Addis Alem Town, Ethiopia, within different departments.

Accordingly, to meet up to the required level of responses, 306 questionnaires were distributed for ***Linssen Roses Ethiopia*** staff members. Departments were selected using a simple random sampling method expecting the researcher to get the necessary data. The convenience method was applied to get representative samples in selecting the research respondents, and accordingly, this study took 306 respondents as target respondents.

3.4. Data Collection Instruments and Variables

Primary and secondary data sources has used in this study. The Primary data have been collected based on structured questionnaires which is close-ended questionnaires and floated to respondents. In doing so, the questionnaires were adopted to extract the respondent' experience concerning the Total quality management dimensions, that is customer focus, commitment from top management, Continuous

improvement, best practices, and employee focus towards their contribution to the sustainable business performance of ***Linssen Roses Ethiopia***.

3.5. Data analysis

Once the required data was collected through a questionnaire survey, the next step was performing data analysis using regression and correlation models. Correlation analysis examined the magnitude, direction, or relationship between TQM dimensions and sustainable business performance. Whereas regression analysis was made to examine to what extent TQM dimensions used in this study explain or influence sustainable business performance.

In addition to correlation and regression analysis, tools like tables and percentages were used, and the data analysis was conducted by using the SPSS software data analysis tool.

To reduce the possibility of getting wrong answers and ensure the soundness of this study; following measures were taken.

3.6. Model Specification/Assumptions

$Y = a + b1x1 + b2x2 + b3x3 + \ldots\ldots b5x5 + \varepsilon$

Where Y refers Sustainable Business Performance

a = y-intercept

b1 = the regression coefficient of customer focus construct

X1= Customer Focus construct

b2 = the regression coefficient of top management commitment

X2= top management commitment

b3 = the regression coefficient of continuous improvement dimension

X3= continuous improvement construct

b4 = the regression coefficient of best practices constructs

X4= Best practices construct

b5 = the regression coefficient of employee focus construct

X5= employee focus construct

ε = The error percentage

3.7 Research Ethics

All the required research conducts have been correctly adhered throughout the study. Besides, any relevant concepts in this study were properly quoted., Respondents' information gathered via close-ended questionnaires is kept private and only used for the planned objective.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

Introduction

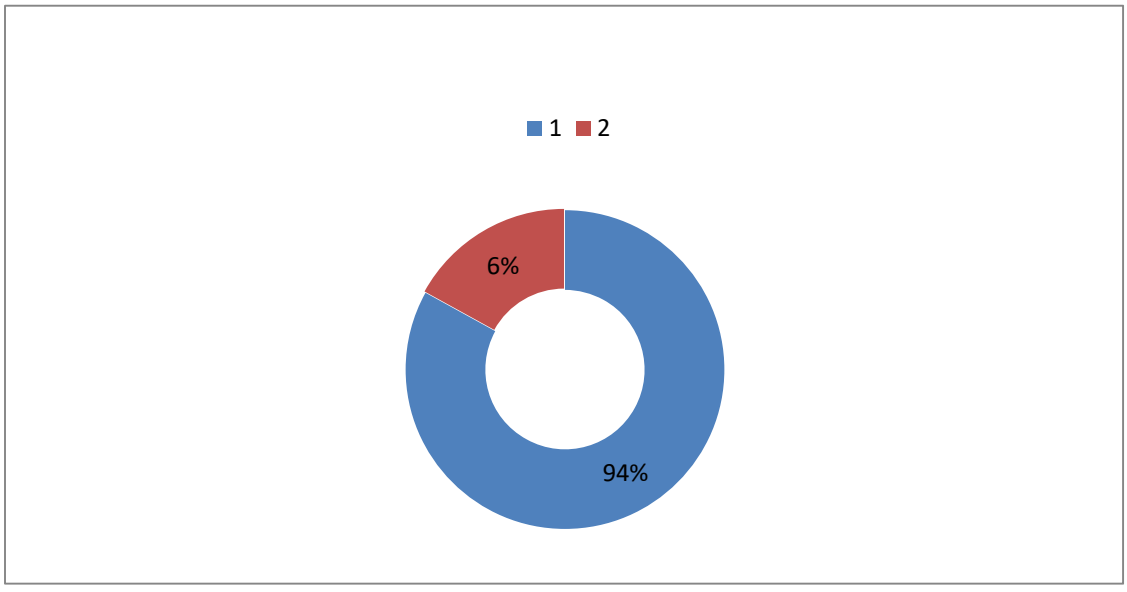
This central section of the study deals with data presentation, analysis, and interpretation. The primary data collected from respondents using closed-ended questionnaires have been analyzed over a statistical tool, SPSS version 22 software. Moreover, reliability test, correlation analysis, normality test, regression analysis, hypothesis testing, and discussion of results are incorporated and clearly presented in this chapter of the study.

4.1. Response Rate

The close-ended questionnaire survey was conducted, and 306 questionnaires were headed to the chosen respondents, and 288 have been collected; the remaining 18 have not been collected because respondents failed to submit within the allotted time frame. According to Draugalis (2008), the researchers' goal should be response rates resembling 60%.

Hence, for this particular study, 288 questionnaires were used for analysis, constituted a 94% response rate, far greater than the acceptable range, which is a 60% response rate.

Figure 4.1: Response Rate



4.2. Reliability Test:

According to Hair et al. (2006), Cornbach's Alpha Reliability test is a method by which the researcher checks the internal consistency of the research instrument to reach a reliable result. The evaluation of Cronbach's Alpha value is quantified as numbers 0 and 1. Therefore, Cronbach's Alpha Value with the coefficient that is closer to 1 assumed to have a better consistency.

In this study, Cronbanch's Alpha test was conducted to ascertain the internal consistency of the items used. George and Mallery (2003) produce the following rules of thumb: >0.9-Excellent, >0.8-Good, >0.7-Acceptable, >0.6-Quesstionable, >0.5-Poor, <0.5-Unacceptable (as cited by Gleam and Rosemary, 2003). The results are presented in the below table.

Table 4. 1: reliability test results of TQM dimensions based on coefficient of Cronbach's Alpha Value

Variable	Cronbach's Alpha	N of Items	Evaluation based on coefficient of Cronbach's Alpha Value
Top management Commitment	.875	8	Good
Continuous improvement	.864	6	Good
Customer Focus	.915	5	Excellent
Best practice	.714	4	Acceptable
Employee Focus	.715	4	Acceptable
Sustainable Business Performance	.970	5	Excellent

Source: Own survey (2022)

Table 4.1 proved the internal reliability of the data used for this study based on coefficient of alpha value evaluation criteria. Per the above table, Cronbach's alpha values for the five explaining variables demonstrated reasonable internal consistency– ranged from 0.715(acceptable to 0.915(Excellent)

Referring to the reliability test result shown in the above table, all five constructs are considered variable because their Cronbach's alpha value is beyond the acceptable alpha coefficient, i.e., 0.70. The explaining construct, customer focus, has the maximum alpha value of 0.915 with five items. According to the result, customer focus is the most consistent construct. Top management

commitment and Continuous improvement have the second and the third highest alpha value of 0.875 with eight items and .864 with six items, respectively, followed by employee focus and best practices, having the alpha value of 0.715 with a total of four items and an alpha value of 0.714 with four items respectively. Besides, the variable with five items is Sustainable business performance with an alpha value of 0.970.

To summarize the above discussion, the internal consistency test of research constructs used in this study has qualified the level of reliability as Cronbach's Alpha value evidenced.

4.3 Validity

The researcher has gone through the following key activities to confirm that the developed questionnaires are valid concerning the content:

1. A pilot test was conducted, and model questionnaires were submitted to individuals who had previously conducted research and expertise in the research area for subsequent review and comment before questionnaires were given to respective respondents, thirty questionnaires, which constituted 10% of the total sample, were floated in this regard.
2. Most importantly, the developed questionnaires have been submitted to the research advisor for additional comment and review.

Based on valuable comments from pilot respondents and the research advisor, corrections such as excluding redundancy, addressing spelling errors, and removing and adding some questions were made to ensure validity.

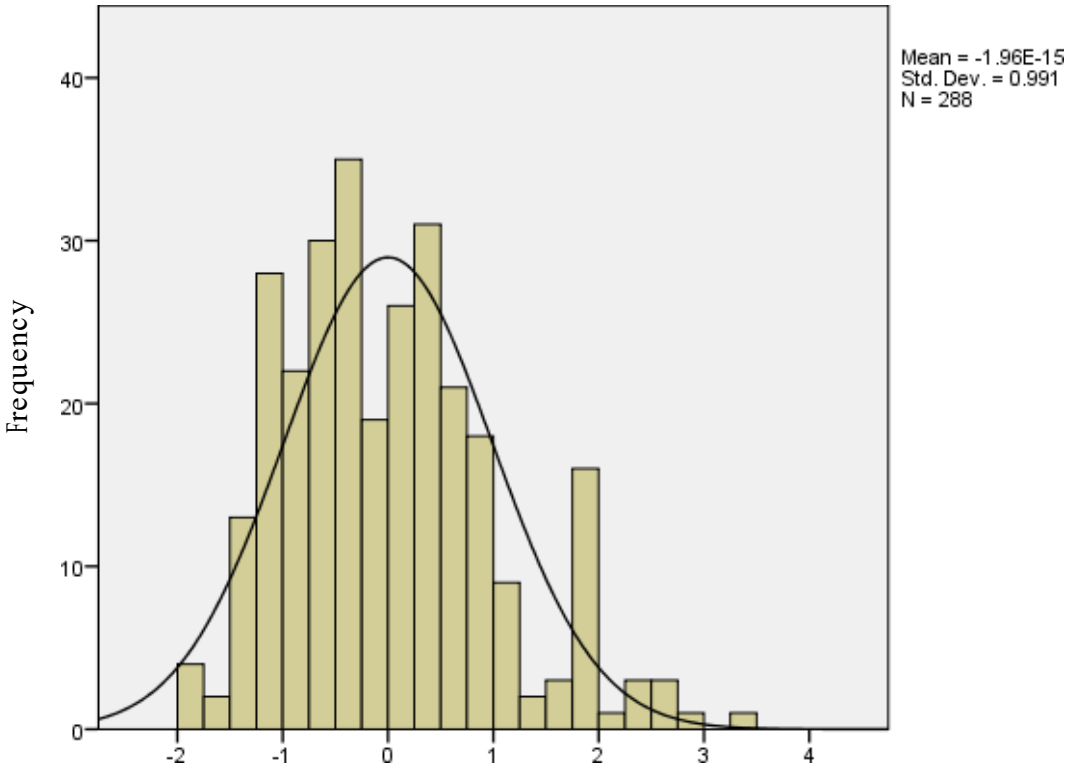
4.4 Normality Tests

To measure the autocorrelation from the regression analysis, using the Durbin-Watson Test is appropriate. Field (2009) states that the Durbin-Watson statistic result is considered normal if its values fall between 1.5 and 2.5. For this study, the Durbin-Watson test result is 1.771. Hence, based on the result, it is imperative to say that the data is relatively normal.

The histogram below shows the distribution of the data. As a result of the histogram's roughly bell-shaped, it is therefore possible to state that the data are almost normally distributed.

Histogram

Dependent Variable: **Sustainable Business Performance**



Source: Own Survey (2022)

4.5 Correlation Analysis

Once the correctness and the validity data were checked, the next step that the researcher did was performing correlation analysis to see the strength of association between the independent variables (top management Commitment, Continuous improvement, best practice, Customer focus, and Employee Focus and the dependent variable, sustainable business performance. In addition, correlation analysis was used to examine the formulated hypothesis.

According to Hair (2003), the Pearson correlation coefficient measures the degree of linear association between independent and dependent variables. Its value ranges between –1.00 and +1.00, where 0 reveals no relationship between the two variables. In contrast, the plus or minus one coefficient represents the seamless relationship between two variables. From the justification above, it is imperative to conclude that the more the correlation coefficient, the solider the relationship between the two variables.

Further, Sekaaran (2003) added that the Pearson correlation coefficient is appropriate for the interval- and ratio-scaled variables and any bivariate correlation can be accomplished.

Thus, this study loved to use the Pearson correlation coefficient to evaluate the extent of interconnection between TQM dimensions and Sustainable business performance.

The below rules of thumb is considered to correctly examine the result of Pearson correlation coefficients of each independent variable used in this research.

Table 4. 2: Rules of thumb about the strength of correlation coefficients between variables

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

Source: Hair (2003)

Table 4. 3: Pearson Correlation Analysis for The Determinants of Sustainable Business Performance

Correlations							
		TMC	Continuous improvement	Best Practice	Customer Focus	Employee Focus	SBP
Top Management commitment	Pearson Correlation	1	.767**	.729**	.883**	.734**	.853**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	288	288	288	288	288	288
Continuous Improvement	Pearson Correlation	.767**	1	.774**	.856**	.777**	.864**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	288	288	288	288	288	288
Best Practice	Pearson Correlation	.729**	.774**	1	.689**	.785**	.763**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	288	288	288	288	288	288
Customer Focus	Pearson Correlation	.883**	.856**	.689**	1	.698**	.892**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	288	288	288	288	288	288
Employee Focus	Pearson Correlation	.734**	.777**	.785**	.698**	1	.768**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	288	288	288	288	288	288
SBP	Pearson Correlation	.853**	.864**	.763**	.892**	.768**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	288	288	288	288	288	288
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: Own Survey (2022)

As presented above, Top management Commitment, Continuous improvement, best practice, Customer focus, and employee focus associated at .853, .864, 763, 892, and .768, respectively (that are statistically significant at the .000 level. The correlation table confirmed that the five variables (Top management Commitment, Continuous improvement, best practice, Customer focus, and Employee Focus) are strongly related to Sustainable business performance that is, changes either in any of the five entered variables will result in changes in Sustainable business performance (SBP).

Further, the correlation table showed that all constructs are positively and significantly associated with the dependent variable, SBP. As per the result, the correlation coefficient of the five variables

ranges from 0.763 to 0.892, which shows a strong relationship. This study examined the relationship between the explaining and the explained variables, and the results are briefly discussed as shown below:

4.5.1 Top management Commitment and Sustainable Business Performance

Pearson correlation test was checked for Top management and Sustainable Business Performance. Referring the coefficient result in the correlation table, Top management commitment and Sustainable Business Performance are checked, and their value, .853, is significant at the 0.01 level (2-tailed). As per the rules of thumb on the strength of the associations between the two variables, the coefficient value, .853, falls within the strong strength intensity level. Therefore, Top management and Sustainable Business Performance are interconnected with a very strong and positive relationship **(r = 0.853**).**

4.5.2 Continuous improvement and Sustainable Business Performance

Pearson correlation test was also performed to identify the extent of relationship between the explaining variable, which is Continuous improvement, and the dependent variable, sustainable business performance. The correlation between these variables proved the existence of a positive and significant relationship. In other words, Continuous improvement and sustainable business performance are linked with a very strong relationship **(r = 0.864**).**

4.5.3 Best practice and Sustainable Business Performance

Likewise, the Pearson correlation test was performed to determine whether there is a significant correlation between best practices and Sustainable Business Performance. Results are presented in Table 4.3. As per the result, these two variables have a positive and significant correlation with a significant value of 0.000, lower than 0.05. The analysis result confirmed that best practices and sustainable business performance are correlated with a relationship **(r = 0.763**).**

4.5.4 Customer Focus and Sustainable Business Performance

Also Pearson correlation test was conducted for Customer Focus and Sustainable Business Performance, and results are presented in the table above. Per the result, a positive and very strong correlation was existed between Customer Focus and Sustainable Business Performance, with a significant value of 0.000 lower than 0.05. The analysis result confirmed that Customer Focus and Sustainable Business Performance are linked with a solid relationship **(r = 0.892**).**

4.5.5 Employee Focus and Sustainable Business Performance

The Pearson correlation test was performed to see the correlation between Employee Focus and Sustainable Business Performance, and the results are tabulated in table 4.3. the result showed a positive and significant correlation between Employee focus and Sustainable Business Performance with a significant value of 0.000, lower than 0.05. In other terms, Employee focus and Sustainable Business Performance are linked with a strong relationship **(r = 0.768**).**

4.6. Multi-collinearity

Hair et al. (2003) explained multi-collinearity as a situation with a strong relationship among independent variables. As per Ary et al. (2010) explanation, multiple regressions are a correlational procedure that assesses the associations among variables used in the study. Specifically, this method helps researchers in determining the best possible weighting of two or more explaining variables and results a maximum correlation with a single dependent construct. Accordingly, this study used the Tolerance limit and Variance inflation factor to check the existence of collinearity among explaining variables.

As it has been pointed out by Hair et al. (2003), both the Tolerance limit and Variance inflation factor tells us the extent to which the other independent variables explain each independent variable. If the tolerance result of a particular finding is less than .10 or the VIF is ten or more, then multi-collinearity is a constraint.

Table 4. 4: Collinearity Statistics of Variables

Coefficients[a]

Model	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.716	.072		-10.004	.000		
	Top Management commitment	.445	.113	.204	3.924	.000	.187	5.351
	Continuous improvement	.378	.070	.272	5.377	.000	.197	5.070
	Best practice	.104	.169	.081	.617	.000	.209	4.430
	Customer Focus	.718	.115	.381	6.242	.000	.136	7.380
	Employee Focus	.077	.169	.060	.457	.000	.329	4.631

a. Dependent Variable: Sustainable business performance

Source: Own survey (2022)

As the table above describes, the smaller tolerance value is 0.136, beyond 0.10, and the maximum VIF value is 7.38, much smaller than 10 (The maximum value). Thus, this confirmed that in this specific study, there are no explaining variables that are highly associated among them. Hence, multi-collinearity is not a constraint and will not have an influence on the research findings.

4.7 Regression Analysis

The very drive of conducting regression analysis is to know the influence of independent variables on dependent variables so that predictions will be made accordingly. The extent to which explaining variables to cause changes in the explained variable is based on rational logic than just statistical techniques.

Assumptions of the Simple regression model

(1) The variables of interest are measured on interval or ratio scales (except in the case of dummy variables);

(2) These variables come from a bivariate normal population and

(3) The error terms associated with making predictions shall be normally and independently distributed.

Considering these assumptions, the linear regression model is developed and clearly presented in the subsequent section.

4.7.1 Regression analysis between the constructs of Sustainable business performance.

The bivariate regression analysis was performed using SPSS statistical tool and formed four necessary tables that are descriptive statistics, model summary for the constructs, ANOVA, and regression coefficients.

Table 4. 5: Regression analysis: Descriptive statistics

Descriptive Statistics

	Mean	Std. Deviation	N
SBP	4.9813	.98352	288
TMC	4.2813	.45100	288
Continuous Improvement	4.0104	.70826	288
Best practice	4.0894	.76881	288
Customer Focus	4.3757	.52169	288
Employee Focus	4.0938	.76758	288

The Descriptive Statistics table illustrated above displayed the mean and standard deviation of the Total Quality Management dimensions (Top management commitment, Continuous improvement, best practice, Customer Focus, and employee Focus) and the same measures for the independent variable, Sustainable business performance.

Creswell (2012) defines mean value as Key;

≥4.5 = Very High

3.51 - 4.51= High

2.51 - 3.5= Moderate

1.51 - 2.5= Low

< 1.5 = Very Low

From the descriptive table, the maximum and the minimum mean are 4.9813 and 4.0104, respectively, which falls under the strongly agree and agree range. This infers that most respondents agree with the statements of the variables mentioned above, TQM dimensions.

4.7.2 Multiple Linear Regressions

Multiple linear regressions were performed to know and examine the influence of each explaining variable on the dependent variable. More importantly, regression analysis determined the higher influencing variable that affected sustainable business performance.

Regression analysis was performed for this particular study to determine the extent to which the TQM dimensions: Top management commitment, Continuous improvement, best practice, Customer Focus, and employee Focus, influence Sustainable business performance. The study used the Standardized Coefficients to show the impact of each TQM dimension used in this research.

For better clarity and understanding, the regression analysis results for this particular study are illustrated with the support of the following tables.

Table 4. 6: Regression analysis: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.926[a]	.858	.855	.37442	1.771

a. Predictors: (Constant), Employee focus, Customer focus, continuous improvement, top management commitment and best practice
b. Dependent Variable: Sustainable Business Performance

Source: Own survey, (2022)

Table 4.6 above highlights the multiple linear regression model summary, which consists of R, R square, adjusted R square, and Durbin Waston Result. As shown above, the adjusted R^2 of the model is .855 with the R^2 = .858. This reveals that the linear regression model with the independent constructs explains 85.8% of the variance of sustainable business performance, while other variables outside the regression model explain the remaining 14.2%.

The Durbin-Watson d = 1.771, which is between the two critical values of 1.5 and 2.5 ($1.5 < d < 2.5$); thus, it is possible to explain that first-order linear autocorrelation was not found in the multiple linear regression data in this research. Thus, the regression model is applicable to conduct the research. Because all the explaining variables are entered into the linear regression model, the R^2 has a relatively higher value.

The model significantly showed the ability to predict the effects of TQM on Sustainable Business Performance.

Table 4. 7: Regression analysis: ANOVA

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	238.085	5	47.617	339.656	.000[b]
	Residual	39.534	282	.140		
	Total	277.619	287			

a. Dependent Variable: Sustainable Business Performance

b. Predictors: (Constant), Employee focus, Customer Focus, Continuous improvement, Top management commitment, best practice

The above table is the F-test or ANOVA. The F-Test is the test of the significance of the multiple linear regressions. The F-test has the null hypothesis that showed no linear relationship between the variables ($R^2=0$). The F-test of the Model is highly significant; thus, it is possible to consider that there is a linear interconnection between the variables in this model.

Table 4. 8: Regression analysis: Coefficients

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.716	.072		-10.004	.000		
	Top management Commitment	.445	.113	.204	3.924	.000	.187	5.351
	Continuous improvement	.378	.070	.272	5.377	.000	.197	5.070
	Best practice	.104	.169	.081	.617	.000	.029	34.430
	Customer focus	.718	.115	.381	6.242	.000	.136	7.380
	Employee focus	.077	.169	.060	.457	.000	.029	34.631

a. Dependent Variable: Sustainable Business Performance

Source: Own survey, (2022)

The above table shows the influence level of each independent on the dependent variable, Sustainable Business Performance.

Based on the model specification mentioned in the methodology part and from the above regression coefficient table, the following result can be determined:

SBP = .716+ .445 (TMC) + .378 (CI) + .104 (BP) + .718(CF) + .077(EF) +. 072 (avg. error in prediction)

Where: SBP = Sustainable Business Performance
TMC = Top Management Commitment
CI=Continuous Improvement
BP =Best practice
CF= Customer Focus
EF = Employee Focus

The above multiple regression formula reveals that, for every increase in Customer Focus, the Sustainable business performance will also increase by 0.718. Also, for every increase in any of the other variables: Top management commitment, Continuous improvement, best practice, and Employee focus; the sustainable business performance will increase by .445, .378, .104, and .077, respectively.

As a result of all five explaining constructs used for the analysis, the **B** weights compare the relative effect of each independent constructs in standardized terms. Therefore, customer focus must have a higher influence than the other independent variables.

4.8 Hypothesis Testing

The correlation analysis table disclosed the extent of relationship between Total Quality Management dimensions and sustainable business performance. A positive relationship was determined between the explaining variables (TQM Dimensions) and the dependent variable, Sustainable Business Performance. `

To support or not to support the formulated hypothesis, this specific study checked the Standardized Coefficient β and the significant value. Finally, the results of this study revealed that the research finding supports the formulated hypotheses. This was ensured by considering

coefficient of correlation table, which showed the magnitude and direction of the relationship, along with the coefficient of multiple regression results in β values. Thus:

- ✓ **H_1**, – **Top management commitment** positively and significantly affects sustainable business performance is confirmed by the research finding result because β=.445; p <. 000.Similarly,
- ✓ **H_2** – **Continuous improvement** positively and significantly affects sustainable business performance is supported because β = .378 and p <. 000.
- ✓ **H_3**, – **Best practice** positively and significantly influences sustainable business performance is confirmed as the β = .104 and p < .000.
- ✓ **, H_4**– **Customer focus** positively and significantly influenced sustainable business performance is also confirmed because the β = .718 and the p < .000.
- ✓ **Finally, H_5**, – **Employee focus positively** and significantly influences sustainable business performance is supported by the research finding because its β = .077 and p < .000 values.

4.9 Hypotheses Results

The effects of TQM on sustainable business performance

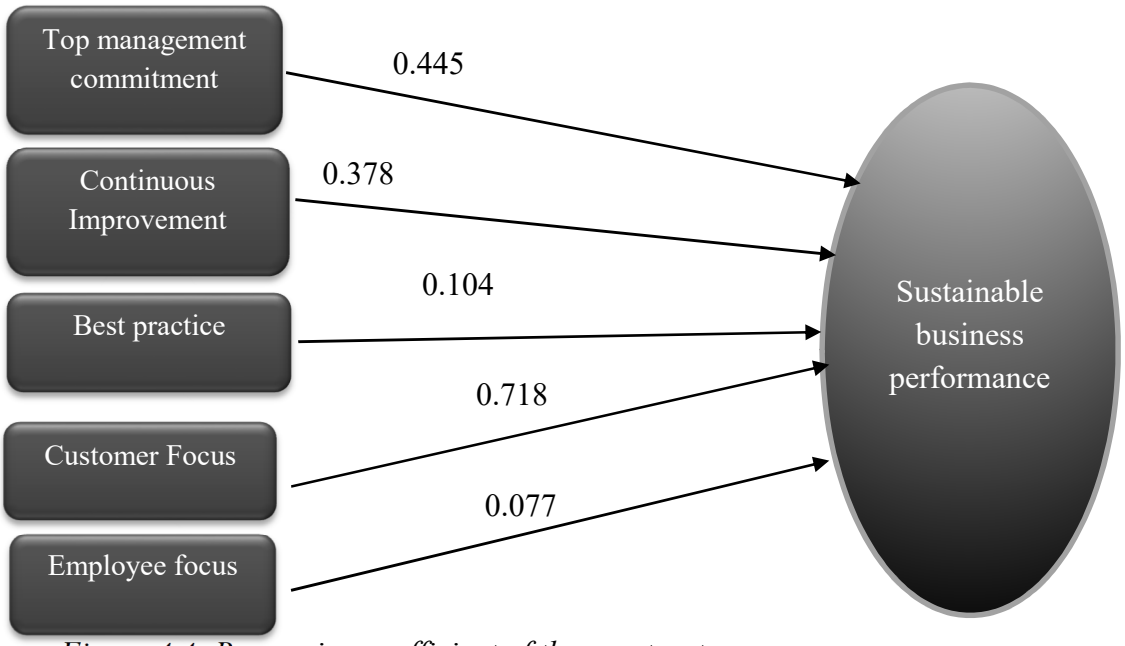


Figure 4.4: Regression coefficient of the constructs

4.10 Discussion of findings

Concerning the effect of the TQM dimensions on sustainable business performance, the figure above shows that all the developed hypotheses are supported by the research findings meaning Total Quality Management dimensions considered in this study determined sustainable business performance. To this end independent variables considered as TQM dimensions, such as Top management commitment, Continuous improvement, best practice, and Employee focus, strongly influenced sustainable business performance.

Most research findings, as discussed in the review of related literature; this particular research finding also confirmed the solid relationship between Total Quality Management dimensions and sustainable business performance. Hence, the research finding of this study is in line with those previous research findings. Thus, the effect of the five considered explaining variables on sustainable business performance in this research is modeled as follows:

SBP = .716+ .445 (TMC) + .378 (CI) + .104 (BP) + .718(CF) + .077(EF) +. 072 (avg. error in prediction)

As shown in the above model, in this particular research, sustainable business performance greatly depends on Customer focus, with the highest value of .718, followed by top management commitment and continuous improvement at .445 and .378 respectively. The contribution of best practice and employee focus is .104 and .077 though their impact on sustainable business performance is significant but minimal as compared to the above mentioned explaining variables.

According to the above research model, in this research, a strong relationship exists between TQM and Sustainable business performance as in previous studies. As confirmed by previous studies, improved quality, employee participation, teamwork, working relationships, customer satisfaction, employee satisfaction, productivity, communication, and market share can be considered the fruits of TQM (Besterfield, 2009). Most previous studies showed the existence of a positive relationship between TQM practices and business performance (Jun et al., 2006; Bou & Beltrán, 2007; Gunday et al., 2011; Miyagawa & Yoshida, 2010).

To summarize the discussion, this research finding was consistent with the findings of most known scholars in the area of TQM. To this end, Marcel and Ayankeng (2015) studied the influence of

TQM on Organizational Performance by including customer focus, management commitment and leadership, employee training, and benchmarking as elements of TQM in manufacturing firms of Cameroon. The finding revealed that only employment training and empowerment positively and significantly influence financial performance**.**

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

Monirci (2016) studied the degree of association between total quality management and the performance of organizations in the manufacturing industry in Kenya and Nairobi, and the results of the study ascertain that the customer focus dimension greatly influenced business performance.

Six years ago, Mukhtar (2016) established the relationship between some Total Quality Management dimensions and the business performance of small and medium enterprises in Nigeria. The study confirmed that leadership positively and significantly influences business performance. Moreover, customer focus and continuous improvement appeared in a significant relationship with business performance.

CHAPTER FIVE

5. Summary, Conclusion, and Recommendation

Per the organization of the study, this is the last but not the least section of the study for which a summary of research findings, conclusion, recommendation, and research directions for future researchers are incorporated in logical order.

5.1 Summary

The ultimate objective of this study was to investigate the effect of Total Quality Management dimensions on Sustainable business performance. The study adopted a descriptive and explanatory research design to meet its objective. About the research approach, this study employed a quantitative research approach. The sample size was taken from the population of ***Linssen Roses Ethiopia*** staff members. From this, a total of 1,300 internal staff 306 were sampled, and the study was conducted in the city of Addis Alem Town, Ethiopia.

Correlation analysis result

- **Top management commitment and sustainable business performance**: are interconnected with a strong relationship **(r = 0.853**).**
- **Continuous improvement and sustainable business performance:** are associated with a strong relationship (**r = 0.864**).**
- **Best practice and sustainable business performance**: have a strong relationship (**r = 0.763**).**
- **Customer focus and sustainable business performance** are associated with a strong relationship (**r = 0.892**).**
- **Employee Focus and sustainable business performance**: are interconnected with a strong relationship (**r = 0.768**).**

On the top of checking the degree of interdependence between the explaining and the explained variable, the five independent dimensions of TQM were also determined their level of explanation on sustainable business performance jointly using multiple regression analysis. However, before

the researcher performed the multiple regression analysis, the independent variables were tested for Multi-collinearity. As per the VIF results, all variables' correlation coefficients are less than 10. Hence, Multi-collinearity does not exist and was not a challenge to the research finding.

This research thoroughly analyzes the TQM dimensions affecting sustainable business performance. Accordingly, the magnitude and direction of the relationship between Total Quality Management and sustainable business performance were identified. These factors, which are acknowledged as a significant component in most literature, were: Top management commitment, Continuous improvement, best practice, and Employee focus. Customer focus is central to sustainable business performance.

The variable, customer focus found in this study as the most substantial association determinant factor on sustainable business performance. Thus, customer focus has been identified as a significant element in predicting business sustainability. According to this research finding, sustainable business performance can be explained by customer focus, followed by top management commitment, continuous improvement, best practices, and employee focus.

As per the multiple regression analysis results below, all the five constructs identified as independent variables explained the dependent variable, Sustainable business performance, to different extents.

To conclude, the Multiple regression analysis results demonstrated that:

- ✓ All five research explaining variables together explain 85.8 % of sustainable business performance.
- ✓ sustainable business performance was explained by customer focus, top management commitment, continuous improvement, best practice, and employee focus, individually with.718 .455,.378, .104, and .077, respectively

Having identified the explaining variables that are Top management commitment, Continuous improvement, best practice, and Employee focus, the researcher formulated and tested the following hypotheses:

H1: A positive and significant relationship exists between top management commitment and sustainable business performance.
H2: Continuous improvement and sustainable business performance have a positive and significant relationship.
H3: The best practice positively and significantly affects sustainable business performance.
H4: Customer focus positively and significantly affects sustainable business performance.
H5: Employee focus and sustainable business performance have a positive and significant relationship.

On the Top of developing the hypothesis, this study also tested the hypothesis and found that the research findings supported all developed hypotheses. Total quality Management dimensions' extent of influence on sustainable business performance has been demonstrated in detail in the earlier chapter. Whereas in this chapter of the study, the respondents' findings are presented in a summarized and organized manner.

The respondents were asked to answer their level of agreement on the influence of the five explaining variables on sustainable business performance. The researcher checked the questionnaires' internal consistency before going to the analysis. This was done through the use of the Cronbach alpha coefficient. According to the result, the coefficient alpha for all entered variables was more than 80%, and it was acceptable to make further analyses, such as correlation and regression.

Accordingly, the undermentioned correlation and regression analysis results showed the existence of a substantial relationship magnitude of explaining variables with sustainable business performance.

5.2 Conclusions

This study investigated the effect of TQM on sustainable business performance in the case of ***Linssen Roses Ethiopia*** using customer focus, top management commitment, continuous improvement, best practice, and employee focus as determinants of sustainable business performance. Based on the empirical research findings in this study, Total Quality Management

has a positive and significant effect on sustainable business performance, which is affected by the abovementioned determinants.

Hence, according to this research finding, it can be concluded that:

- ✓ All the constructs' variables used in this study have positive and significant associations with sustainable business performance. Customer is the most influential factor in the existence of sustainable business performance.
- ✓ Top management commitment is the next most important factor to predict sustainable business performance, followed by continuous improvement, best practices, and employee focus.

5.3 Recommendations

Having analyzed the sampled survey with a close-ended questionnaire, which was considered a relatively large sample size, the researcher has performed correlation and regression analysis. Accordingly, the formulated hypothesis has been tested and found in agreement with the research findings. Before performing correlation and regression analysis, multi-collinearity and multiple linear regressions were checked, and found none. Moreover, the assumptions made to use statistics have been tested, and those assumptions were checked and found effective to proceed.

Hence, ***Linssen Roses Ethiopia,*** specifically and others cut flower production companies in Ethiopia, generally are highly recommended to:

- ✓ Put the customer at the center of its activities to deliver excellent service experience to customers across all its chosen segments, research and understand customers' need and expectations, align the organization's objectives with customer requirements, communicate with customers and measure their satisfaction to realize the benefits of being customer focused such as increased sales, increased revenue, increased market share, Strong customer loyalty leading to repeat purchase Positive word of mouth.
- ✓ Provide a quality vision and create a cultural change within the organization, organize training and empower others by allowing them to grow, delegate authority and recognize them for quality achievements. Top Management must allocate resources and partner with

suppliers to share information while there are new innovations and technology in the market for quality materials.

- ✓ Make ongoing improvement of products, services, or processes through incremental and breakthrough improvements. This could be achieved through Continuously providing customer service-related training to all employees and endlessly leveraging data analytics to improve the company's propositions –products and services.

5.4 Future Research Directions

Because of time and financial constraints, the study has been limited to ***Linssen Roses Ethiopia***; however, there are other companies in the cut flower production industry. Thus, other scholars are suggested to include and conduct research on those cut flower production companies.

Furthermore, this research is limited to five variables: customer focus, top management commitment, continuous improvement, best practices, and employee focus. Yet, there might be other variables which are not covered in this study. Hence, other researchers are suggested to consider those factors.

References

Abd AL-Fattah, M.; EL-Helbawy, A.A.; AL-Dayian, G.R. (2017) Inverted Kumaraswamy distribution properties and estimation. Journal of Statistics Pakistan.33, 1, 37-61

Arawati, 2000; Idris, 2000; Khairul Anuar, 2002; The impacts of leadership style and best practices on company performances: Empirical evidence from business firms in Malaysia Total Quality Management and Business Excellence 19(1-2):165-173

Arbab Kash, B., Spaulding, A., Gamm, L. D., & Johnson, C. E. (2014). Healthcare strategic management and the resource-based view. Journal of Strategy and Management, 7, 251.

Anyango, D., Wanjau, K. & Mageto, J. N. (2012). Assessment of the relationship between quality management practices and performance of manufacturing firms in Nairobi. African Journal of Business and Management, Vol. 2, 2012

Botden, N.P.G. and A.M.L Terhürne. 2006. "Executive Flower Management", a Unique Quality Performance Management Concept to Regain Trust and Satisfaction of Global Flower Consumers. Paper presented at Proceedings of the International Symposium on Fresh Produce Supply Chain Management at Chiang Mai, Thailand

Barney, J.B. and Clark, D.N. (2007) Resource-Based Theory Creating and Sustaining Competitive Advantages. Oxford University Press, Oxford, 327.

Barney, J.B. (2001) Resource-Based Theories of Competitive Advantage: A Ten Year Retrospective on the Resource-Based View. Journal of Management, 27, 643-650

Bus. Strategy Environ. 2002, 11, 269–284. Isaksson, R. Total Qual. Manag. for sustainable development. Bus. Process Manag. J. 2006, 12, 632–645.

Brian D., (2011). The structure and dynamics of cut flower export markets from Kenya and Ethiopia, with particular reference to trade with Norway.

Charantimath, P. M. (2011). Total Quality Management (2nd ed.). New Delhi: Pearson Education.

Chardine-Baumann and Botta-Genoulaz (2014) , A Framework For Sustainable Performance Assessment Of Supply Chain Management Practices, Computers & Industrial Engineering 76(1)

Chiara, N., Garvin, M. J., & Vecer, J. (2007). Valuing Simple Multiple-Exercise Real Options in Infrastructure Projects. Journal of Infrastructure Systems, 13, 97-104.

Chin S. O, Fang C. L., Yu C. H., & David C. Y.. (2007). The effects of total quality management on business performance: evidences from Taiwan Information-Related Industries

Chow-Chua. C., Goh, M., and Wan, T. (2003). "Does ISO 9000 certification improve business performance? "The International Journal of Quality & Reliability Management, 20 (8/9), 936-953.

Creswell, John W. (2012). Educational research : planning, conducting, and evaluating quantitative and qualitative research / John W. Creswell. — 4th ed.

Dale, B. G., Wiele, T. V. D., & Iwaarden, J. V. (2013). Managing quality (5th ed.). Hoboken, NJ: Blackwell Publishing.

Dale, B. G. (2003), Managing Quality (4th ed.). Hoboken, NJ: Blackwell Publishing.

Dale, B. G., & Cooper, C. L. (1994). Introducing TQM: The Role Senior Management. Management Decision, 32, 20-26

Darren Gorge, Paul Mallery (2016). Descriptive statistics: IBM SPSS statistics 23 step, 126-134.

David L Goetsch& Stanley Davis (2016). Quality Management for Organizational Excellence, 8th edition.

Deming, W. E. (1986). Out of Crisis. Cambridge, M. A: MIT Centre for Advanced Engineering Study.

Draugalis , Best practices for survey research reports: a synopsis for authors and reviewers Am J Pharm Educ. 2008 72 Article 11

Edgeman, R.L. Sustainable Enterprise Excellence: Towards a framework for holistic data analytics. Int. J. Bus. Soc. 2013, 13, 1–17.

Edgeman, R.; Eskildsen, J. Modeling and Assessing Sustainable Enterprise Excellence. Bus. Strategy Environ. 2014, 23, 173–187. Chardine-Baumann, E.; Botta-Genoulaz, V. A framework

Everett, C. (2012). commitment to quality improvement. Quality Progress, Vol. 35

Figge, F.; Hahn, T.; Schaltegger, S.; Wagner, M. The sustainability balanced scorecard—Linking sustainability management to business strategy.

Gebreeyesus, M., &Iizuka, M. (2010). Discovery of the flower industry in Ethiopia: experimentation and coordination. UNU-MERIT, Maastricht Economic and Social Research and Training Centre on Innovation and Technology. UNU-MERIT Working Papers No. 025

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference 11.0 update (4th ed.). Boston: Allyn & Bacon

Gharakhani et al., (2013) The impact of Total Quality Management on organizational performance

Glenn D. Israel (1992). Fact Sheet PEOD-6, a series of the Program Evaluation and Organizational Development, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida.

Goetsch, D. L., Davis, S., & Goetsch, D. L. (2006). Quality Management: Introduction to Total Quality Management for Production, Processing, and Services (5th ed.). Pearson Prentice Hall.

Ehpea (2021) The List of References Illustrated [online] available from <https://ehpea.org/overview-of-the-sectors-growth> [15 June 2021]

Field, A. (2009) Discovering Statistics Using SPSS. 3rd Edition, Sage Publications Ltd., London.

Hair.Jr., J. F., Black., W. C., Babin., B. J., Anderson., R. E., & L.Tatham., R. (2006). Multivariant Data Analysis. New Jersey: Pearson International Edition

Hallencreutz, J., Turner, D-M. (2011), Exploring Organizational Change Best Practice – are there any clear cut models and definitions? International Journal of Quality and Service Sciences, 3(1), pp. 60-68

Hockman, K. K. & Grenville, R. J. S. (2004), "Road map to ISO 9000 registration", Quality Progress, Vol. 27 No. 5, pp. 39-42.

HosseinNassaji (2015) qualitative and descriptive research: Data type versus data analysis. Language teaching Research 19(2)129-132.

Hubert (2005). Managing Total Quality, Enhancing Personal and Firms value. Tata Me Grawhill, New Delhi, pp. 127-158

Ind. Eng. 2014, 76, 56–61. Schaltegger, S.; Wagner, M. Integrative management of sustainability performance, measurement and reporting. Int. J. Account. Audit. Perform. Eval. 2006, 3.

Jared O (2015) using a mixed methods approach to enhance and validate your research - bright water group research center,

Jime'nez and Martı´nezCosta, 2009The performance effect of HRM and TQM: A study in Spanish organizations International Journal of Operations & Production Management 29(12):1266-1289

Jitpaiboon and Rao, 2007). A meta-analysis of quality measures in manufacturing system International Journal of Quality & Reliability Management 24(1):78-102

John S. Oakland (2004), Performance measurement frameworks, Quality Management (Third Edition),

J. S. Ahluwalia, Total Quality Management, Tata McGraw-Hill Publishing Company Limited, New Delhi, Fourth issue, 2008.

Joseph M. Juran (2008): Juran's Quality Control Handbook

Kafetzopoulos, D.P. and Gotzamani, K.D. (2014), "Critical factors, food quality management and organizational performance", Food Control, Vol. 40 No. 1, pp. 1-11.

Karthi, S., Devadasan, S. R., Murugesh, R., Screenvasa, C. G. & Sivaram N. M. (2012), Global views on integrating six sigma and ISO certification, Total Quality Management, Vol.107 No.1, pp.103-24

Kuei, C.; Lu, M.H. Integrating quality management principles into sustainability management. Total Qual. Manag. Bus. Excell. 2013, 3363, 62–78.

Lewandowski M. Hardtlein, and M. Kaltschmitt (1999). Sustainable Crop Production: Definition and Methodological Approach for Assessing and Implementing Sustainability Lone

Luburic, R. (2015). Quality Management Principles and Benefits of Their Implementation in Central Banks. Journal of Central Banking Theory and Practice, 4, 91-121.

L. SUGANTHI, ANAND A. SAMUEL · 2004, Total quality Management, eastern economy edition

Magd, H., & Curry, A. (2003). ISO 9000 and TQM: Are They Complementary or Contradictory to Each Other? The TQM Magazine, 15, 244-256

Makadok, R., (2001). 'Toward a synthesis of the resource-based and dynamic-capability views of rent creation', Strategic Management Review, 22.

Metaxas, I. N., & Koulouriotis, D. E. (2014). A Theoretical Study of the Relation between TQM, Assessment and Sustainable Business Excellence. Total Quality Management, 25, 494-510.https://doi.org/10.1080/14783363.2013.867608

Mehmet Emin and Aysel Uslu, (2009). Cut flower production and marketing in Turkey. Ankara University, Faculty of Agriculture, Department of Landscape Architecture.

Michael S. Reid, (2004). Cut Flowers and Greens. Department of Environmental Horticulture University of California, Davis, CA. Agriculture Handbook.

Miyagawa, M. and Yoshida, K. (2010) "TQM Practices of Japanese-Owned Manufacturers in the USA and China", International Journal of Quality and Reliability Management Vol.27 No.7, pp.736-755.

Morgan, G. (2006). Images of Organization (Updated Edition). Thousand Oaks, CA: Sage Publications.

Mulu Gebreeyesus and Michiko Iizuka, (2012), Discovery of Flower Industry in Ethiopia: Experimentation and Coordination, Journal of Globalization and Development, 2, (2), 1-2.

NABSO Kunming, Netherlands Agribusiness Support Office Kunming. 2008. An Overview of the Floricultural Sector in China, Vietnam and Thailand. In Comprehensive Stakeholder Report - International Marketing and Business Consultancy.

Nina & Lindley, (2012). Environmental Policy Update 2012: Development Strategies and Environmental Policy in East Africa.

O'cass et al. (2004). Examining service experiences and post-consumption evaluations VL - 18 DO - 10.1108/08876040410557230 - Journal of Services Marketing

Oluwatoyin and Oluseun (2008) Total Quality Management: A Test of the Effect of TQM on the Performance and Stakeholder Satisfaction.

Ooi, K. B., Lin, B., Tan, B.-I., & Chong, A. Y.-L. (2011). Are TQM practices supporting customer satisfaction and service quality. Journal of Services Marketing, 25(6), 410–419.

Prajogo, D. I., Sohal, A.S. (2003). The relationship between TQM practices, quality performance and innovation performance: an empirical examination. International Journal of Quality & Reliability Management Review, 20(8), 901-918

Patyal, V. S., & Koilakuntla, M. (2017). The impact of quality management practices on performance: an empirical study. Benchmarking: An International Journal, 24(2), 511–535.

Prior, D., & Glaser, S. (2003). The resource-based view of the firm: a literature review. Macquarie University, Department of Business.

Psomas, E. and Kafetzopoulos, D. (2014), "Performance measures of ISO 9001 certified and non-certified manufacturing companies", Benchmarking, Vol. 21 No. 5, pp. 756-774.

Rakesh Belwa and Meseret Chala (2015), Catalysts and barriers to cut flower export, A case study of Ethiopian floriculture industry. Department of Management, Addis Ababa University.

Rangan, V. K. (2004). Lofty missions, down-to-earth plans. Harvard Business Review, 82(3), 112–119

Rousse, M. J & Daellenbach, U.S. (2009). Rethinking research methods for RBV perspective; Isolating the of SCA , Strategic management journal 20 (5) pp 487-494

Riisgaard (DIIS Working Paper 2009:07). How the market for standards shapes competition in the market for goods: Sustainability standards in the cut flower Industry.

Sadikoglw (2009) and Brun (2010, 7 Ways to Improve Employee Well-Being and Organizational Effectiveness

Shafiq, M., Lasrado, F., & Hafeez, K. (2019). The effect of TQM on organizational performance: Empirical evidence from the textile sector of a developing country using SEM. Total

Quality Management and Business Excellence, 30(1–2), 31–52. https:// doi.org/10.1080/14783363.2017.1283211.

Shouman, B., & Othman, A. (2014). Total Quality Management as a Strategic Option for Achieving Competitive Advantage in Architectural Design Firms: A Literature Review. International Conference on Industry Academia Collaboration, 3-5 March 2014, Cairo, 1-7.

Tan, B. I., Nadarajah, S., Sim, J. J., & Ng, C. C. (2014). Soft TQM practices, customer orientation and business performance: a proposed structural model. International Journal of Modelling in Operations Management, 4(1/2), 21. https://doi.org/10.1504/ ijmom.2014.063577.

Turner, F. J. (2011). Theory and social work treatment. In F. J. Turner (Ed.), Social work treatment: Interlocking theoretical approaches (pp. 3–14). Oxford University Press

Vasileios, I., & Odysseas, M. (2015). The effects of ISO 9001 certification on the performance of Greek companies: A multidimensional statistical analysis. The TQM Journal, 27(1), 150-162.

Wubalem G. (2019). A Seminar Review on Impact of Floriculture Industries in Ethiopia. International Journal of Agricultural Economics. Vol. 4, No. 5, 2019, pp. 216-224.

Yee, (2008), The impact of employee satisfaction on quality and profitability in high-contact service industries Journal of Operations Management 26(5)

Zaman, A., & Anjalin, U. (2016). Implementing TQM in Education: Compatibility and Challenges. Open Journal of Social Sciences, 4, 207-217.

Appendix 1

ADDIS ABABA UNIVERSITY

Questionnaire

Dear respondent, I would like to thank you for taking your time to fill the questionnaire. The purpose of this research is to study **the effect of total quality management towards on sustainable business performance in the case of Linssen Roses Ethiopia**. This survey is designed as part of my work for a Master of Science in management at Addis Ababa University. All the information will be kept confidential and used for academic purposes only.

Instruction:

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

Part I. General Information

1. How old are you?

☐18-25 ☐ 31-40 ☐ Above 50

☐ 26-30 ☐ 41-50

2. What is your maximum education level?

☐ Diploma ☐ Doctoral

☐ Degree ☐ Professor

☐ Masters ☐ Other

3. What is your gender?

☐ Male

☐ Female

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

☐1-5 ☐ 11-15 ☐ Above 20

☐ 6-10 ☐ 16-20

Part II: The Effect of Total Quality Management on sustainable Business Performance

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

Key:

1 = SD-: Strongly Disagree

2 = D: Disagree,

3 = N: Neutral,

4 = A: Agree,

5 = SA: Strongly Agree,

1.	CUSTOMER FOCUS	SD(1)	D(2)	N(3)	A(4)	SA(5)
1.1	The company has the capability to satisfy customer needs and wants					
1.2	The company services meet the customer's specific needs					
1.3	The company always works for the best interest of customers					
1.4	Products and services are design under consideration of customer requirements					

1.5	The company gives priority for customer needs					
2.	Commitment from Top management	SD(1)	D(2)	N(3)	A(4)	SA(5)
2.1	The organization has a comprehensive goal-setting process for quality					
2.2	Quality issues are reviewed in top management meetings					
2.3	The organization top management considers quality improvement as a way to increase profits					
2.4	supervisors within our company accept their responsibility for quality					
2.5	Supervisors and managerial staffs provide personal leadership for quality products and quality improvement					
2.6	The management communicates a vision focused on quality improvement					
2.7	The Organization leadership is committed to allocate the necessary resources for successful implementation on TQM					
2.8	The management took responsibility for efficiency and effectiveness of work.					
3.	Continuous Improvement	SD(1)	D(2)	N(3)	A(4)	SA(5)
3.1	Continuous quality improvement is an important goal of this organization.					
3.2	People in this organization are continually looking for better ways of doing their work.					
3.3	People in this organization are constantly improving their business process					

3.4	All employees believe that it is their responsibility to improve quality					
3.5	Continuous improvement of quality is stressed in all work processes throughout our organization.					
3.6	Quality improvement is a high priority for me.					
4.	Best practices	SD(1)	D(2)	N(3)	A(4)	SA(5)
4.1	The organization identifies what is to be benchmarked					
4.2	The organization identify the company want to benchmark against					
4.3	The organization determines current performance levels and identify gaps					
4.4	The organization determine future performance levels; forecast the expected improvements					
4.5	The organization communicate the benchmark findings to respective employees					
4.6	The organization develops an action / improvement plan based on the strategy developed					
5	Employee Focus	SD(1)	D(2)	N(3)	A(4)	SA(5)
5.1	Employees are involved in continuous improvement					
5.2	All company's employees are trained in the total quality concepts					
5.3	Regular training for workers is put in place					

5.4	TQM teams involve several employees from the organization.					
5.5	Everyone in the organization is involved in the organization decision making process.					

Part III- Sustainable business performance related questions

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

6.	Sustainable Business Performance	SD(1)	D(2)	N(3)	A(4)	SA(5)
6.1	Our quality program increased our revenue					
6.2	Our quality program increased our productivity					
6.3	Our quality program improved our competitive position					
6.4	Our quality program increased our market share					

Thank you again for your involvement in this research,

Woynshet Demisse