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COLLEGE OF BUSINESS AND ECONOMICS

MASTER OF BUSINESS ADMINISTRATION

**THE IMPACT OF TOTAL QUALITY MANAGEMENT PRACTICES ON
PRODUCT QUALITY: A CASE STUDY OF JAY-JAY TEXTILE PLC**

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Declaration

I, Mahlet Engidawork, the undersigned at present, certify that the thesis entitled: "**THE IMPACT OF TOTAL QUALITY MANAGEMENT PRACTICES ON PRODUCT QUALITY: A CASE STUDY OF JAY-JAY TEXTILE PLC**" is my own work. I have conducted the research work independently with the guidance and supervision of the research advisor. This research work is not submitted for any diploma or degree program in this or any other institution, and all sources of materials employed for the proposal have been duly acknowledged.

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This is to certify that the work presented by Mahlet Engidawork, titled "**THE IMPACT OF TOTAL QUALITY MANAGEMENT PRACTICES ON PRODUCT QUALITY: A CASE STUDY OF JAY-JAY TEXTILE PLC**" and submitted in partial fulfillment of the requirements for the Master of Business Administration Degree is in accordance with the College regulations and standards in terms of originality and quality.

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Acronyms

ANOVA - Analysis of Variance

CEO- Chief Executive Officer

CI -Continuous improvement

EIC- Ethiopian Investment Commission

ETI - Employee Training and Involvement

LCF - Level of Customer focus

PLC- Public limited Company

PQ -Product Quality

SPSS - Statistical Package for Social Sciences

SQP -Strategic Quality Planning

TQM - Total Quality Management

UNIDO- The United Nations Industrial Development Organization

VIF- Variance Inflation Factor

Abstract

This research aims to investigate the impact of impact of total quality management (TQM) practices (strategic quality planning, continuous improvement, level of customer focus and employee training and involvement) on product quality for the case of Jay-Jay Textile PLC. To achieve the objectives of the study, descriptive and explanatory study designs have been employed through cross- sectional survey questionnaire from a sample of 195 permanent professional employees. These respondents have been selected from the selected department of the organization by random Sampling method. The data collected through questionnaire is analyzed using statistical measures such as descriptive statistics, correlation and multiple regression analysis by using SPSS version 25. The study found a significant positive impact of Continuous Improvement, Level of customer focus; Employee Training & Involvement and Strategic quality planning on product quality. Since quality management practices were found to be a positive predictor of organization product quality, the managements and CEOs of the organization should engage in enhancing the qualities of the management practices to increase their product quality in Jay-Jay Textile PLC.

Keywords: Total Quality Management (TQM), Continuous Improvement, Level of customer focus; Employee Training & Involvement and Strategic quality planning

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CHAPTER ONE

1. Introduction

An overview of the research is given in this chapter, which begins with a succinct background information about the study and ends with a concise problem description. It describes the study's significance, scope, and limitations in addition to the research questions and general and specific objectives. It also explains the structure of the next chapters and provides definitions for important terminology.

1.1 Background of the Study

Total Quality Management is frequently cited as one of the leading management approaches that have emerged in the pursuit of greater quality (Fuentes et al., 2006). Businesses have experienced significant conceptual changes about the core of TQM rather than seeing it as a discrete collection of techniques or instruments. It necessitates the creation of a special quality policy that incorporates quality control into every aspect of a company, including design and service (Kanji & Wallace, 2000). Businesses need this strategic approach in order to compete in today's fast-paced global economy. Many industries have adopted Total Quality Management (TQM) to improve organizational performance and product quality.

This framework is based on the fact that employees' engagement, customers' satisfaction, and continuous improvement are important components of TQM, which is a whole integrating approach to the enhancement of quality at every level within an organization (Deming, 1986; Oakland, 1993 as cited in John et al., 2013). At the same time, it stresses the importance of fostering an environment where people are given power to take the responsibility to enhance the quality of the entire organization. The textile industry struggles to gain a competitive edge for the very reason that its operations are very labor-intensive while also offering a range of products. On one hand, textile companies have to consider the rapid changes in the markets and consumers demand in order to provide consistent quality (Rao & Holt, 2005). The changing nature of the industry makes it clear that TQM principles are not only appropriate but are essential for growth. However, the quality of goods and services in emerging nations like Ethiopia remains a problem.

In addition to numerous other concerns, textile companies have to consider the rapid changes in the markets and consumers demand in order to provide consistent quality (Rao & Holt, 2005). The

issue is frequently referred to as the "low-quality trap" (Altenburg, 2010, as referenced in Sisay, 2019). , it is said that quality will continue to be an issue for Ethiopian firms' ability to compete in the future (Beshah and Kitaw, 2014 as referenced in Sisay, 2019). It is also commonly observed that a small number of Ethiopian businesses have started concentrating on its application and creating products that have high qualities to strengthen their strong position and meet customer expectations. (Daniel, 2014). For materiality, TQM should be current and it should enhance customer loyalty and add to the growth of the firm. (Hahn et al., 2000).

Organizations enhance their image and become more flexible to market tasks through customer focus and continuous improvement. This is important in a competitive environment. Around the world, total quality management has been widely used. Many companies have come to the conclusion that successfully implementing TQM can increase their competitiveness and provide them with strategic advantages in the marketplace (Snee, 2016).The United Nations Industrial Development Organization (UNIDO, 2007) as cited in Haile, (2019) states that businesses in developing nations are not able to be competitive in the global market for imported goods due to a variety of barriers, such as international trade laws, financial and investment concerns, and others.

However, one crucial element that these businesses must address is the quality of their output (providing goods that both meet and surpass the client's needs); to achieve this, businesses must implement total quality management as a tactic of boosting productivity and quality output. Ethiopia is increasingly taking center stage on the global textile market. The textile industry in Ethiopia stands to collect over \$1 billion USD in export revenue by 2030, as estimated by the Ethiopian Investment Commission (EIC). EIC Commissioner Zeleke Mengistu (PhD) made known the impressive strides made by the sector in which garments and textiles exported saw an increment from \$60 million USD in 2015 to over 500 million USD in recent years despite all economic challenges on the international stage. Besides, the Ethiopian Government is encouraging the textile industry, both for its strategic importance and for export.

Investors gains from extensive rewards, including corporate income tax holidays of up to 10 years, importation free from duty of machinery and raw materials, and streamlined customs procedures, as elaborated by the commissioner (Ethiopia Today, 2024). However, companies have to adopt

effective quality management processes in order to properly seize these opportunities. Despite the increasing literature on TQM, its practices' impact on quality of products in the textile sector of Ethiopia is still poorly understood. There is indeed serious knowledge deficits on the implications of TQM implementation within the context of developing nations since the bulk of the studies carried out have been focused on the industrial sectors of developed nations (Al-Khalifa & Aspinwall, 2001).

The study aims to close the knowledge gap by investigating how TQM methods affect the quality of the products at Jay Jay Textile PLC. In addition to giving textile manufacturers useful information, this study will demonstrate the connection between TQM practices and product quality and assess how TQM may be used as a competitive advantage in emerging markets. The results will benefit Jay Jay Textile PLC and set a standard for other textile companies looking to successfully apply TQM concepts.

1.1.1 Background of the organization

The company, Jay Jay Textiles PLC Company, located in the Bole Lemi Industrial Park in Addis Ababa, Ethiopia. Inside it, some of the largest textile factories in the area are located. It is approximately 27,500 square meters large, and therefore it is one of the largest in this industrial park. Ever since its first factory in Ethiopia was set up in 2014 by an Indian investor, Jay Jay Textiles has been trading in the manufacture of infant and babies' wear garments, mostly for export to the US. The company produces several kids' clothes, including bodysuits, blankets, towels, fitted sheets, and thermal night wear.

It counts amongst its key clients such notable brands as Gerber Children's Wear, The Children's Place, The William Carter Company, and H&M. It produces approximately 200,000 items a day. Being one of the largest textile factory employers in Ethiopia, Jay Jay Textiles employs directly about 10,000 people, almost 80% of whom are women.

It is committed to the growth of an industrious workers through comprehensive programs of training lasting for 16 to 21 days before they begin working on the production lines. This focus on workforce development underlines the commitment to making the workplace supportive and empowering. Jay Jay Textiles also exports a good share of the products, where 60.2% of the exports go to the United States alone. Other important markets are Mexico (12.9%), Canada

(1.5%), and El Salvador at 1%. The raw materials are almost entirely imported by the company from India, thereby showing the dependency on global supply chains.

The Company perceives to be trusted as the most dependable manufacturer of baby wear globally. Thus, it shows the belief in quality and customer relationship. Its mission emphasizes reliability in manufacturing product quality and delivering on schedule. The company's quality management system support quality as a fundamental customer value and a critical success factor for achieving competitiveness. Every department is responsible for inspecting products to ensure their quality, with a focus on producing high-quality items. The quality control process consists of three stages: prior to production, during production and following production. Jay Jay Textiles also seeks to create a continuous improvement through waste elimination and aspires to be recognized as a model workplace for its employees. These include, but are not limited to, having a turnover of less than 6%, ensuring 100% on-time delivery, maintaining a 0% AQL failure rate, which means no defect products, and adhering to budgeted costs.

Jay Jay Textiles PLC is committed to becoming the most recognized player in the international baby wear market for the supply of high-quality goods while contributing positively toward the local economy and workforce development in Ethiopia.

1.2 Statement of the Problem

Textile industry is transforming significantly due to increasing customer demand for products of high quality. To remain competitive in increasingly dynamic markets, manufacturers are being driven by this transformation to put in place robust quality management systems (Khurana & Ricchetti, 2016). One such system is Total Quality Management, which has been known as an integrative plan for improving customer satisfaction and product quality in various industries (Sallis, 2014). However, there remains little in this regard in terms of research on TQM in the textile industry, especially in developing nations, although it has been found to be effective in companies like manufacturing. (Talib et al., 2011)

Managerial policymakers and quality control officers are among the industry stakeholders who are impacted by this empirical research gap in that they have to make decisions from inadequate contextual knowledge (Psomas & Jaca, 2016). Textile firms may not be able to link their quality

thrusters with international standards and market demands if they are not aware precisely how TQM influences the performance of products. This would make them less competitive (Porter, 1990).

Because of its potential to generate exports and employment, the textile sector is a strategic sector in the vision of Ethiopia. The vision of government programs like industrial parks and export promotion has been to boost the growth of the sector (UNIDO, 2020). However, full benefits of such programs may not accrue without robust systems of quality management such as TQM (Wubshet, 2017).

This study tries to narrow the gap by studying the implementation of TQM practices in Jay Jay Textile PLC. Being based on a real-life case, theoretical and practical lessons can be derived, and implications will add to knowledge about quality management in emerging textile sectors. The ultimate purpose of this study is to present practical recommendations to enhance competitiveness by raising the level of strategic decision-making and quality control.

1.3 Objective of the Study

1.3.1 General Objective

The general objective of this research is to evaluate the impact of Total Quality Management (TQM) practices on product quality at Jay-Jay Textile PLC.

1.3.2 Specific Objectives

1. To determine the impact of Strategic quality planning on product quality at Jay Jay Textile Factory.
2. To examine how Customer focus influences product quality at Jay Jay Textile Factory.
3. To evaluate the effect of Continuous improvement on product quality at Jay Jay Textile Factory.
4. To analyze the role of Employee Training and involvement in enhancing product quality at Jay Jay Textile Factory

1.4 Significance of the Study

This study is important because it fills important gaps in the literature on Total Quality Management in the textile sector by providing empirical data on how TQM practices affect product quality. The findings of the study will be very important to the industry's stakeholders since they

will help them create practical quality management plans to address specific problems in the textile manufacturing sector. This research also acts as a benchmark for other organizations encouraging the exchange of best practices and the enhancement of culture of continuous improvement. The research emphasizes the importance of policymakers enabling TQM practices to improve industry standards and competitiveness. Industry captions on their part, can utilize this research finding to inform innovation and operational efficiency that will ultimately deliver sustainable growth in the fast- evolving textile industry.

1.5 Scope of the Study

This study looks at how Total Quality Management practices specifically, strategic quality planning, customer focus, continuous improvement, and employee training and involvement affect product quality using Jay Jay Textile PLC as a case study. The study is limited in geography to Jay-Jay Textile PLC in Addis Ababa, Ethiopia, and concentrates on the management and staff of the company as its population.

Finding the key TQM practices that have the greatest influence on raising product quality in the textile industry is the aim of the study. It seeks to provide both theoretical and applied knowledge of TQM's implementation in real-world textile production environments. The study is conducted in 2024–2025, which is one academic year.

1.6 Limitation of the Study

The study has certain limitations. Firstly, it exclusively examines Jay-Jay textiles plc. Due to this the finding may not be easily generalized to companies of the same or different industries.

It should also be noted that the study incorporates the opinions of both employees and management structures within the organization, which might lead to the respondent bias or even subjectivity. The researcher addresses this limitation by including employees from different departments and different management levels to gather a broader range of perspectives.

Moreover, the study faces issues in terms of employees' willingness to engage in the study. To address these limitations, the researcher communicates the purpose of the study for those who participated.

1.7 Definition of Terms

Quality -is the degree to which a good or service satisfies or beyond accepted norms and client expectations by encompassing dependability, performance, and demand compliance (Singh & Ahuja, 2012).

Total Quality Management - is an integrated management strategy that emphasizes employee engagement, customer happiness, and ongoing process improvement across the board for long-term performance (Sadikoglu & Zehir, 2010).

Product- Any tangible or intangible item that meets the needs or desires of the customer and is made with the intention of adding value or resolving a particular issue is considered a product (Tukker, 2004).

Product quality- is a product's attributes that impact its capacity to meet explicit or implicit needs, such as performance, durability, and dependability (Agyapong, 2011).

Quality measurement – is a process of evaluating the quality of fabric and final product by inspecting for various defects such as measurement errors, cutting inaccuracies, color variations and improper stitching to ensure the final product meets the required standard. (Operational definition)

Textiles- are fabrics made from yarns or fibers and used in various applications like apparel, upholstery, and industrial products (Ajayi, 2020).

Textile manufacturing- all the processes that are involved in converting raw fibers into finished fabrics and apparel, including spinning, weaving, dyeing, and finishing (Shaikh, 2015).

1.8 Organization of the Study

There are five chapters in this research study. The study's background is provided in Chapter 1, which also includes background information on Jay Jay Textile PLC and a brief explanation of Total Quality Management (TQM) and its potential benefits for the textile sector. It also includes a problem statement, research questions, objectives, the importance and scope of the study, and a glossary of words.

The literature review on Total Quality Management (TQM), its historical evolution, its gurus, its techniques, and product quality are presented in Chapter 2. The conceptual framework and empirical literature research are also presented. Research methods, including research methodology, design, population, sampling procedure and sample size, data collection and instrument, and data analysis method, are covered in Chapter 3.

The study's empirical findings, including data presentation, analysis, and interpretation, are covered in Chapter 4.

The fifth chapter offers the study's summary, conclusion, and recommendations based on its findings.

CHAPTER TWO

2. Review of Literature

2.1 Introduction

Achieving quality in all that one does is the goal of management. Quality is defined as meeting client needs. Businesses have the difficult task of continuously raising the caliber of their products or services in the fiercely competitive economy of today. All members of the organization are involved in TQM. Its goal is to improve and standardize every process within the company. The role of quality has changed from focusing more on product inspection to a comprehensive TQM. It has evolved into a managerial discipline and is no longer solely a technical function (Cascella, 2002).

2.2 Empirical Literature Review

Continuous improvement is one of the principal foundations of Total Quality Management (TQM) and often applied to enhancement in quality, according to Sisay (2019) in study on TQM practice in Ethiopia's manufacturing sector. Proactiveness in continuous improvement displays a firm belief in enhancing processes and products, a key point to remain competitive and increase customer satisfaction.

Consequently, a study by Idowu (2022) on Nigerian textile firms revealed that employees' motivation improved significantly with better salary incentives, promotion opportunities, and access to training in quality management practices. The research indicates that an institutionalized work environment of support through training, appreciation, and rewards not only enhances employees' commitment but also has a direct favorable impact on the quality of production, both to the organization and employees.

Khan et al. (2013), in their study of the garment sector in Pakistan, reaffirmed the significant role of Total Quality Management practices in assuring product quality. They reported that recurrent training enhanced employees' competencies and their awareness of quality standards, leading to a tremendous reduction in defect rates. Suleiman et al. (2017) examined the role of Total Quality Management strategies in Jordanian textile companies, emphasizing the principles of continuous improvement and customer obsession. Their findings revealed that customer involvement to learn their needs enabled manufacturers to create more tailored and acceptable products.

Similarly, Zehir et al. (2012) studied the connection between TQM practices and quality, and they concluded that a significant relationship exists between the two. Their findings identify the effectiveness of TQM activities to drive up product standards. Zhang et al. (2020) went on to detail how TQM concepts, if properly applied, have the capacity to develop an innovative culture. Their research confirmed that when employees regularly employed quality management methods, they established a shared sense of complying with set standards, resulting in excellent quality and aesthetically pleasing textile products. Talib et al. (2011) looked into implementation in Malaysian textile companies and discovered there exists a high level of positive correlation between product quality and quality management practices.

Their study showed significant improvements in quality, resulting in fewer defects and back orders. Finally, Kumar and Singh (2018) assessed employee perceptions of TQM participation in India's textile industry. Their findings showed that employee participation through mechanisms such as feedback systems such as quality circles, and by encouraging their active participation, significantly enhanced product quality. The study established that committed and motivated employees are likely to strive and achieve high-quality products.

2.3 Conceptual Literature Review

2.3.1 Total Quality Management

Fundamentally, TQM stresses a dedication to quality, the necessity to alter organizational culture in order to promote a total quality mindset, and the efficient communication of quality concepts (Oluwaseyi & Temidayo, 2018). By involving all organizational levels and functions, Total Quality Management is a strategy that aims to constantly improve the quality of good. (Yong & Wilkinson et al., 2002 as cited in Berta & Oscar, 2022) Business organizations all around the world have embraced TQM since it has proven to be very effective. It is a tried-and-true strategy for developing a culture of quality awareness in an organization's vertical and horizontal axes. TQM is essentially a quality-centered management strategy that is motivated by employee involvement and aimed at attaining long-term success (Vivek et al., as cited in Masood et al., 2012).

For the purpose of defining the idea, the totality is called "total." The quality of a product or service indicates its level of perfection, while management is the act or art of handling, directing, and controlling. Thus, the practice of managing a company as a whole to achieve perfection is known

as total quality management, or TQM. It represents an idea and a set of guidelines that form the basis of continuous improvement.

Technical tools, ongoing improvement projects, and fundamental management techniques are all combined under TQM's methodical approach (Dale et al., 2008). According to Armstrong (1997), TQM centers business management on quality. It is a holistic management method that involves all areas of the company in the quest and commitment to the highest quality outcomes; it is neither a quick fix nor a magic solution (Spenley, 1995). In order to attain customer happiness, cost-effectiveness, and high-quality work free of defects, this philosophy emphasizes process improvement, teamwork, training, and supplier and customer interaction (Oberlender, 2000). The organization must undergo a significant culture transformation in order to implement TQM. It changes how people and groups approach their job, creating an atmosphere of trust and creativity instead of one that is marked by mistrust and fear. This change eliminates departmental barriers, prioritizes teamwork over individualism, and fosters a more mentoring and supporting leadership style (Cascio, 1995).

Total Quality Management (TQM) has the potential to transform both production and service-based businesses through its progressive management philosophy that drives organizations toward excellence. As a cornerstone of modern organizational success, TQM aligns closely with goals centered on quality, efficiency, and customer satisfaction. According to Katerina, TQM represents a fundamental shift in how tasks are performed, how managers engage with employees, and how organizations interact with their environment and customers. It promotes the active involvement of all stakeholders in order to achieve organizational objectives (Aletaiby et al., 2016). Key features of TQM include a strong customer focus, committed leadership, continuous improvement, strategic quality planning, employee development, supplier collaboration, full stakeholder engagement, and teamwork (Sureshchandar et al., 2001).

Overall, TQM functions as a collection of guiding principles as well as a philosophy that foster continuous organizational growth (Shweta et al., 2018). By enhancing the efficiency of various systems such as production, design, planning, and quality management it aims to ensure customer satisfaction. This, in turn, strengthens organizational performance and boosts competitiveness (Khanam et al, 2015).

2.3.2 Historical Development of TQM

In the 1920s, as American industry was going through major transformation, Total Quality Management (TQM) got its start. Businesses began to distinguish between planning and execution after being influenced by scientific management concepts. Unfortunately, because workers felt that they had little control over their work conditions, this improvement was frequently omitted for them, leading to resentment and unionization. Walter Shewhart, the inventor of statistical techniques for quality control, enters the narrative in the 1930s. His work set the stage for what followed. For Japan particularly, the 1950s were a time of profound change. W. Edwards Deming made the trip there to teach his own experience regarding quality control and to make executives and engineers aware of the value of fact-based decision-making. This was a turning point in the development of TQM. Meanwhile, Armand V. Feigenbaum issued his then-famous book, "Total Quality Control," helping to define the contemporary notion of TQM, and Joseph M. Juran outlined concepts regarding quality management and aiming for breakthroughs. In promoting "zero defects," Philip B. Crosby likewise generated a buzz and called on businesses to aim for faultless performance.

By 1968, Japan had adopted the philosophy of "companywide quality control," which was a commitment to quality by everyone in an organization. This movement was led by visionaries like Kaoru Ishikawa, who transformed the game and made Japan a world quality leader. While today TQM is not practiced as extensively, its principles still guide the manner in which companies strive for quality management excellence.

Dahlgaard et al., (2019) further posit that there are four stages in the historical evolution of Total Quality Management. The first is Quality Inspection, where defects in goods and services are sought. It moves on to Quality Control, where quality is checked and regulated while in production by means of statistical techniques. The second phase, Quality Assurance, deals with developing systematic procedures and guidelines to avert faults and improve quality. Lastly, Total Quality Management (TQM) brings all the different faces of quality management together under one system with a focus on customer focus, continuous improvement, and involvement of the whole business. By 1968, Japan had adopted the idea of "companywide quality control," which emphasized a shared dedication to quality at all organizational levels. Thinkers like Kaoru Ishikawa were instrumental in this movement, which changed the game and made Japan a global

leader in quality. Even while TQM isn't as widely employed now, its ideas still have an impact on how businesses strive for quality management excellence.

Dahlgaard et al., (2019) state that there are four stages in the historical development of Total Quality Management. The first step is Quality Inspection, which looks for flaws in goods and services. This develops into Quality Control, where quality is tracked and managed throughout production using statistical techniques. The following phase, Quality Assurance, focuses on creating methodical procedures and guidelines to stop errors and improve quality. Last but not least, Total Quality Management (TQM) incorporates all facets of quality management into a comprehensive system that emphasizes customer satisfaction, continuous improvement, and engagement from the entire business.

2.3.3 Gurus of TQM

2.3.3.1 Deming's Contribution TQM

A guru is a "spiritual leader," "good person," "respected teacher," or wise individual who has brought about a significant revolution in addition to significant advancements and achievements in his profession. The gurus of quality are those who have made a name for themselves and identified philosophical tendencies in quality. Aized (2012). By using their theories to improve quality, the gurus significantly advanced quality management (Alamri et al., 2014). The core idea behind Deming's Total Quality Management (TQM) approach is creating an organizational structure that encourages cooperation and learning. This environment is necessary for the efficient use of process management techniques, which in turn promote continuous improvements to procedures, goods, and services. These improvements are necessary to ensure staff satisfaction, which in turn is necessary to achieve customer satisfaction and ultimately the long-term viability of the company (Anderson et al., 1994).

In his work, Deming (1986) as cited in Angel et al., (1998) emphasized the significance of senior management initiating system and procedure reforms. Since senior executives are responsible for clearly defining a vision that guides the organization toward ongoing improvement, successful quality management necessitates strong leadership. Given that top management is usually in charge of quality issues. Deming (1986) as cited in Angel et al., (1998) also underlined how crucial it is to address quality concerns with cross-functional teams. He encouraged staff workers to

actively participate in high-quality initiatives and supported their skill development as part of his ongoing improvement efforts.

2.3.3.2 Juran's Contribution to TQM

The most famous thing about Juran is that he is "the father of modern quality management." By using three fundamental procedures, or "Juran's Trilogy," which provide structured approach for TQM to achieve quality goals, he highlighted the managerial approach for higher quality results. (Ahmed & Forbes, 2011). The three universal methods for quality management, planning quality, quality control, and quality improvement are described in Juran's Trilogy. Setting quality objectives, determining clients, comprehending their demands, and creating features and procedures for products that satisfy those needs are all part of quality planning.

Establishing process controls, comparing actual performance to quality objectives, and resolving any disparities are the main objectives of quality control. Establishing a supportive infrastructure, identifying improvement projects, demonstrating the need for improvements, and assembling project teams with the tools and training necessary to identify problems and put solutions in place are all necessary for quality improvement (Godfrey, 1998). According to Juran, the core of Total Quality Management (TQM) is "fitness for use," which emphasizes those goods and services must successfully satisfy the needs of consumers. This viewpoint assists companies in avoiding both over-specification, where products become needlessly complicated or expensive, and under-specification, where offerings lack necessary functionality. Businesses can improve customer satisfaction and reduce waste and inefficiencies by streamlining procedures to guarantee consistency with customer expectations by concentrating on fitness for use. (Wiele et al., 2007)

2.3.3.3 Crosby's Contribution to TQM

Philip Bayard Crosby is well known for his "Zero Defects" theory, which holds that a prevention-focused strategy should be the main focus of efficient quality management. He maintained that individuals in an organization frequently make mistakes due to a lack of awareness and focus. (Neyestani, 2017) He emphasized that when management places a higher priority on prevention through more employee awareness and attention, quality improvement happens. This entails

cutting expenses, emphasizing controls rather than merely inspection, and embracing the idea of "doing it right the first time." (Hafeez et al., 2006).

1. As stated by Crosby About 40% of operating costs in manufacturing are usually attributed to nonconformance costs. Furthermore, the expenses linked to subpar quality can amount to around 20% of the average company's earnings, and a sizable amount of these costs may be prevented by putting in place efficient quality practices. (Kerzner, 2009) Crosby outlined his four absolutes, which are founded on his TQM philosophy, in accordance with his Zero Defects concept. These absolutes are as follows (Behnam, 2017):
 1. The definition of quality is adherence to specification
 2. The system that is founded on preventive rather than evaluation produces quality: Good quality management (TQM procedures) can prevent.
 3. The "Zero defects" quality performance criteria are not sufficiently met. It is unacceptable to make mistakes, and
 4. The cost of nonconformance serves as a gauge for quality.

2.3.3.4 Feigenbaum's Contribution to TQM

The idea of Total Quality Control was first presented by Feigenbaum, the first guru. (Montgomery, 2009) His perspective is centered on a prevention-oriented approach that prioritizes source activity optimization and product, service, and process design. To make sure that products fulfill set standards, such ISO 9000, this system uses auditing and documentation. (Hafeez et al., 2006). Feigenbaum's concepts state that TQC should be taken into consideration rather than only production quality control when it comes to developing high-quality products (Ahmed and Forbes, 2011).

Feigenbaum's methodical approach to quality is based on a number of core ideas. Those are Quality is a corporate-wide endeavor that is shaped by the viewpoint of the client and calls for the passion of both individuals and groups. As the least expensive and least capital-intensive path to increased production, quality is seen as a management philosophy that demands constant improvement (Neyestani, 2017). Feigenbaum explained that "total quality" refers to a general concerns like setting goals, coordination, and management and that quality assurance cannot effectively enhance high-quality products if it solely concentrates on the production process. Feigenbaum described

Total Quality (TQ) as "an effective system for achieving quality development, quality maintenance, and quality improvement efforts of the various groups in an organization" (Behnam, 2017).

The four primary steps of effective quality management, according to Feigenbaum, are as follows:

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1. Setting criteria for quality
2. Assessing adherence to these guidelines
3. Reacting when conditions are not met
4. Making plans to raise these standards.

2.3.4 The Importance of Total Quality Management in the Textile Industry

Being the country's oldest industrial sector, the textile industry is important in the expansion of the national economy through employment opportunities, industrial outputs, and receipt of foreign exchange. Due to increased challenges such as lower production efficiency of 40 to 45% over other countries, and extended working days, most of textile companies in Ethiopia are presently struggling in terms of production and quality. Additionally, even minimal differences in raw materials quality, conditions of manufacture, and operator practice could add up to a cumulative variance (faults) in the end product quality (Abdella, 2020). Due to the recent boom in the textile sector, Total Quality Management's (TQM) ongoing development is vital to its survival (Sameh, 2022).

In the textile production industry, quality should be sought in all business areas, comprising staff interactions and conduct, additional to the production procedures and final products (Elizabeta et al., 2014). This all-encompassing strategy guarantees that quality is ingrained in the processes and culture of the company. Many sectors throughout the world struggle on effective implementation of TQM and quality management practices, despite the textile sector's significant potential for market leadership (Vivek et al., 2018). Textile companies can become leaders in the worldwide market by implementing strong TQM standards, which will increase operational efficiency, improve product quality, and ultimately increase customer happiness.

2.3.5 Product Quality

Anything that is made available to the general public for consideration, purchase, use, or consumption with the potential to satisfy a need or desire is considered a product, according to Kotler and Armstrong (2012). According to Kotler and Keller (2019), product quality is the completion of a product's qualities in relation to its ability to meet explicit or implicit criteria. As businesses realize the high costs of low-quality products, the importance of product quality has increased. Quality affects every aspect of a business and can have significant financial consequence. Customer discontent is the most direct effect of low quality, and it can eventually lead to a loss of business (Syduzzaman et al., 2014). The degree to which products satisfy consumers' demands and preferences is referred to as product quality (Smith and Wright, 2004).

Product quality, according to (Chavan, 2003), includes all of the attributes that allow products to meet the expectations of customers. Perceived quality, performance, features, compliance, longevity, serviceability, and appearance are the product quality elements described by (Garvin, 1984). Quality and standards of fibers and yarns, quality and standards of yarns and fabric structure, color accuracy, product design, and the attributes of the final products are among the factors utilized in determining the quality of textiles and clothing products. The customer impression is very important while specifying the quality of a product. It is defined as a product's overall superiority with regard to its purpose, particularly when contrasted with alternatives (Aaker, 1994).

Product quality, according to Kumaraswamy (2005), is the sum of a product or service's attributes that affect its capacity to successfully and efficiently fulfill the stated requirements/specifications as well as the needs of the stakeholders. Since products are the results of business operations intended to satisfy customer requirements and wishes, they are extremely valuable to businesses (Raimondo et al., 2022). According to Aidan et al. (2022), Juran and Gryna (1980) defined quality as "fitness for use." According to Aidan et al. (2022), Crosby (1979) defined quality as "conformance to requirements. "The fulfillment of client needs is the main emphasis of both of these concepts. Continuously meeting the needs of your customers in a way that is better and more reliable than your rivals is the secret to gaining a competitive edge.

A product must have advantages over rivals, especially in terms of quality, in order to stand out in the market. One of the most important competitive factors for firms is product quality (Das Guru & Paulssen, 2020). It covers a product's functionality, including features, ease of use, reparability,

durability, and dependability, among other important qualities (Susanti & Jasmani, 2020). Companies have to remain great, raise customer satisfaction, and improve product quality in an effort to deliver as expected and required by their customers. These challenges have compelled companies around the world to shift from conventional quality systems to new means of producing high-quality products and services. Businesses that can continuously provide quality would be in a better position to compete successfully in the age of globalization (Peek, 2008).

2.3.6 The Relation between TQM and Product Quality

A comprehensive approach to continuous development, total quality management places a strong emphasis on quality as a crucial component of any successful company. The TQM framework depends on the quality of a products. (Oluwaseyi & Temidayo, 2018). Improved quality is a major advantage of TQM, according to a survey of Georgian manufacturing companies (Islam & Karim, 2010). Total Quality Management's application has become a standard practice and a favored technique for quality enhancement in many developed nations, such as the US, Japan, and the EU (Peek, 2008). TQM takes a comprehensive strategy to enhancing every procedure that goes into creating the finished good or service (Gomez et al., 1995). With TQM, the entire company works together to ensure and improve product quality in a methodical manner, striving for perfection with no flaws (Becker, 2001).

Ethiopian manufacturing companies have recently been encouraged to improve the quality of their goods in order to become more competitive and support the government's present exporting plan. Additionally, Ethiopia is now a member of the World Trade Organization. The nation must open up the majority of its economic sectors in order to join the WTO. (AACCSA, 2013 as cited in Haile & Satya, 2016). As a result, Ethiopian manufacturing companies were forced to compete in both the international market and the relatively open domestic market. As a result, the majority of Ethiopia's manufacturing sector now considers product quality to be a critical concern, and they have begun applying TQM to increase their competitiveness and handle pressure from foreign competitors (Haile & Satya, 2016).

According to Stevenson, a corporate strategy that involves all stakeholders in attaining appropriate quality is embodied by complete quality. Guidelines for successfully implementing these ideas to generate advantages for clients, owners, staff, suppliers, and society are provided by quality management principles (Syduzzaman et al., 2016). The three main areas of competition for

businesses are usually quality, price, and delivery. TQM is seen by many firms as an essential tactic for attaining corporate success. Around the world, this methodology has been widely embraced by a variety of businesses. Sustaining good product quality is essential for both business success and customer happiness in the fiercely competitive textile industry.

TQM places a great emphasis on customer needs and ongoing improvement (Salman et al., 2011). Many businesses use Total Quality Management as a crucial approach to enhance quality in order to achieve commercial success. TQM should be seen as a collection of procedures meant to provide high quality of goods, as explained by Hoang et al. (2010). Through the application of TQM techniques, manufacturers improve operational effectiveness, lower errors, and eventually produce superior textiles that both meet and surpass consumer expectations. The dedication to quality at every level of production is a fundamental principle of Total Quality Management. In order to decrease textile flaws and guarantee that finished products meet high standards, factories use quality control procedures and continuous improvement techniques. This reduces waste and the need for rework. Numerous studies, such as those by Zairi (1994), have proven how the implementation of TQM enhances productivity and quality, enabling businesses to successfully compete on a worldwide basis.

2.3.7 Challenges in Implementing TQM

TQM comes with difficulties. When the established working practices are questioned, opposition to change frequently occurs, especially under authoritarian leadership, which creates a fear-based climate that hinders employee participation and lowers productivity. Furthermore, as motivated workers are essential to the production process, a lack of commitment from them immediately hinders quality management initiatives. Inadequate communication routes also hinder the timely and efficient flow of information, erecting obstacles that hinder the attainment of high-quality results (Deepika and Monika, 2013). According to Ahmed and Hassan (2003), there are a number of difficulties in putting Total Quality Management into practice. The absence of a common understanding of quality across industries is one major problem. Confusion over quality standards results from the fact that many organizations lack a clear vision, mission, or tangible quality policy.

Furthermore, leadership frequently lacks the requisite dedication to put current quality ideas into practice as well as a thorough comprehension of them. Poor monitoring, maintenance, and oversight of quality practices in industrial environments increase this. Furthermore, businesses

typically prioritize short-term objectives over long-term ones, which make it challenging to implement TQM successfully. Employee perceptions of quality must shift due to the process's complexity and the requirement that all members of the business participate.

A major issue that is often caused by leadership changes that affect commitment to TQM projects is the limited scope of TQM implementation. Many businesses lack a thorough understanding of TQM and its goals, and training initiatives often fall short due to a lack of trained instructors and insufficient post-training support (Ahmed and Hassan 2003). Several obstacles to TQM implementation were found by a study of branch managers at UK banks, including a shortage of resources, an emphasis on short-term objectives, and difficulties with internal communication (Michael, 2007). Goodman (1994) states, the way priorities are established or frequently not established is a basic problem in many TQM initiatives. Many businesses prioritize compliance and control over actual quality management, maintaining a short-term operational focus despite claims of long-term strategic planning.

2.3.8 TQM Practices

TQM's main objective is to create an organizational culture and management structure that encourages ongoing process improvement, which raises the caliber of services rendered (Dedhia, 2005). According to Tekalegn and Venkata (2020), On a study made on impact of Quality management on product quality in manufacturing sectors in Ethiopia, Strategic quality planning, Employee training and involvement, Customer Focus and Continuous improvement are all important success elements that have impact on product quality.

2.3.8.1 Strategic Quality Planning

Strategic quality planning includes the vision, purpose, and values of the organization. They are made with the concept of quality in mind. Through successful strategic quality planning projects, employees are involved in the creation of the vision, mission, strategies, and objectives.

Employees are more likely to accept and support strategic quality plans as a result (Hilal & Esin, 2013). The continuous process of strategic management involves analyzing the market the company operates in, assessing its rivals, and then establishing objectives and developing plans to satisfy all current and future client demands. (Treiman, 2009). When creating TQM, strategic planning is crucial (Cascella, 2002). The company's unique TQM goals and needs can be identified and incorporated into a strategy plan through strategic planning. Planning, creating, and implementing strategies that would increase employee and consumer satisfaction should be done through strategic planning (Stroh et al., 2005).

Teh et al. (2009) state that strategic planning entails the development and execution of plans, strengthens relationships with customers, suppliers, and business partners, and enables the achievement of both immediate and long-term goals through participatory planning. According to Heizer and Render (2004), referenced in Musran (2013), the organization's strategic planning is a fundamental guideline for managing the quality improvement program. With careful organizational design, programs aimed at enhancing product quality will be more targeted and quantifiable, allowing for ongoing improvements in product performance and sustainability over time. For an organization's quality management, strategic quality planning such as goals and plans is crucial (Juran, 1988). Every organization should organize its procedures and actions for quality improvement in an accurate and efficient manner (Mahsa et al., 2015).

Research shows the implementation of one of Total Quality Management (TQM) practices, Strategic Quality Planning, in the textile sector in Uganda significantly enhances the quality of products. The research brought to the fore that a comprehensive quality management strategy, including all tiers of the organization, is crucial in sustaining product quality improvements in the textile industry.

H1; There is a positive relationship between strategic quality planning and product quality in organizations implementing TQM.

2.3.8.2 Customer Focus

Customer satisfaction is given top emphasis in a TQM framework, which defines quality based on consumer perceptions. Businesses must continuously provide high-quality goods that match or beyond client expectations in order to do this. Because consumer demands are ever-changing, this

commitment must be sustained. Consequently, it's critical to stay in close contact with clients (Goetsch & Davis, 1997). Knowing what consumers need, using unique methods for evaluating their level of satisfaction, identifying the causes of a fall, and depending on their feedback on newly launched items will all help to boost customer satisfaction and attract new clients (Juma, 2007). Hradesky (1995) pointed out that companies committed to excellence must meet the needs of both internal and external consumers. Cakmak (1997) highlighted that TQM necessitates addressing the satisfaction of all client types.

Modern organizations must start concentrating on the demands of the clients who support and purchase the company's goods in order to meet the goals of Total Quality Management. Customers are essential to the success of a company. It is therefore essential that the company change to a more market-driven and customer-focused culture (Chaianum et al., 2020).

Through the implementation of effective customer focus initiatives, production may be strategically arranged to correspond with consumer wants, expectations, and complaints. Businesses can have a better understanding of their target market and adjust their products and services by giving priority to consumer feedback. This customer-centric strategy encourages businesses to continuously provide dependable, superior products on schedule, improving their reputation and cultivating client loyalty. Additionally, by streamlining their operations to better meet market demands, businesses that prioritize consumer needs see increases in productivity and efficiency (Hilal, & Esin, 2013). The TQM philosophy is focused on meeting the needs of the client. As a result, most businesses make every effort to meet or surpass client expectations in both their long-term and everyday operations (Andrle, 1994). According to (Filippini & Forza, 1998), a company must keep a tight relationship with its clients in order to understand their needs and gauge how well it has met those needs hence far.

The main focus of any quality program is the significance of customer focus. TQM's core objective is customer satisfaction, which can be attained by company's efforts to create and provide goods and services that meet the needs of its clients. (Chanaran et al., 1997).

A research on textile firms in Denizli, Turkey, examined how one of Total Quality Management practice, Customer focus influenced product quality .The research found that companies who are

customer-oriented experienced significant improvement in product quality. This suggests the positive relationship between customer-oriented practice and product quality among textile firms.

H2; There is a positive relationship between Customer focus and product quality in organizations implementing TQM.

2.3.8.3 Continuous Improvement

One of the central tenets of the success of all organizations is the continuous improvement philosophy, which is the cornerstone of any effective Total Quality Management program (Walsh et al., 2022). This process does not just exist for processes but also for the people who run them and the finished goods they are producing. It is embedded in everyday operations in all departments, both incremental and dramatic changes. Proactive problem-solving at their origin and constant looking for opportunities to improve are at the core of TQM (Evans, 1997). Improvement on a continuous basis cannot be envisioned as a once-off effort but as a structured, systematic continuous way of improving existing practices with a view to better business performance (Sherif & Khaled, 2010). In today's competitive and changing world marketplace, compliance with expectations is no longer sufficient having a competitive edge requires ongoing improvement. What may work efficiently now will prove to be counterproductive in the future, requiring ongoing improvement toward long-term success (Goetsch & Davis, 1997).

Continuous improvement as part of TQM is integrated into the manufacturing process as recurring cycles of planning, performance, and evaluation (Muffatto & Panizzolo, 1995). At its core is the premise that flaws and errors can be eradicated. Stahl (1995) defines continuous improvement as continually refining organizational systems, products, and services to deliver more value to customers. He further claimed that even if customers are not complaining, efforts must be made to try to build quality in to prevent future issues. In addition, continuous improvement involves the identification and removal of roots of problems in order not to recur. It is a constant but dynamic process which enables organizations to maintain regular operations while constantly searching for better ways of making products, services, and internal processes better (Tesfaye, 2020). As affirmed by Temesgen (2022), effective continuous improvement is a determinant in the success of any quality improvement program. Based on findings on Total Quality Management (TQM) practice in Ethiopia's textile manufacturing industry in Amhara region, it was revealed that certain TQM practices like continuous improvement have a direct positive effect on product quality.

H3: There is a positive relationship between continuous improvement and product quality in organizations implementing TQM.

2.3.8.4 Employee Training and Involvement

Employee involvement refers to the extent to which the employees are dedicated to, engaged in, and interested in Total Quality Management procedures (Lawler, 1992, as quoted in Abdul & Esam, 2012).

Training for TQM system entails teaching the employees regarding organizational goals, operations, TQM procedures, tools, methods, and certain practices (Saraph et al., as quoted in Abdul & Esam, 2012). Workers' training and involvement are critical in building quality within organizations, particularly those organizations that have TQM. These types of systems are likely to utilize small, combined groups with shared goals and cultivating active involvement. Quality is a collective responsibility that needs to be embraced across the organization, particularly by workers who are directly involved in the production of goods or services (Krajewski & Ritzman, 1996). Good practice involves getting employees to participate in deciding how their work is done, and empowering them to make sure that their voice is heard. This involvement enhances productivity and quality since the workers apply their own abilities and talents, improving the organization's competitiveness (Goetsch & Davis, 1997). Allowing employees to take part in goal-setting in behavior and finance areas unlocks doors to creative perspectives and applicable feedback on decisions that have a direct impact on their job (Nohria & Beer, 2000, referenced in Sukhumpong, 2018). Deming gives importance to involvement of all organizational levels to improve present as well as future performance.

Non-managers can contribute significantly to decision-making, policy formulation, and quality improvement initiatives (Sadikoglu & Zehir, 2010). Collective efforts of employees are vital because each one of them adds value to processes and outcomes (Edosomwan, 2002). When employees are engaged and given their voice, they are better placed to comprehend work processes, hence more likely to maintain established procedures (Madhvi & Ankita, 2020). To improve organizational processes, the workers must be aware of their functions, how they are to carry them out, and have the required tools (Kanji & Asher, 1997). Training and development

initiatives enhance this level of commitment by providing employees with working knowledge and skills that are essential in driving change and quality management. Training employees in specific quality technology and concepts is essential to assist them in carrying out their functions appropriately. It prepares them to find and fix issues, which leads to improved organizational performance (Rahman & Talib, 2010).

Trained workers to analyze problems from the quality angle have increased ability to excel and utilize organizational resources efficiently. Effective training should comprise technical and interpersonal abilities, like analyzing data, statistical techniques, and problem-solving skills, supported by high-quality tools and methodology (Marjan et al., 2015). Employees need to be properly trained and educated to learn and align themselves with the vision and mission of the organization. For improvement to take place collectively, TQM principles should be properly comprehended and communicated throughout the organization (Burke, 2001).

Continuous training is necessary in a TQM culture to develop employees. Good management training is accountable for organizational achievement because good employees contribute significantly to sustaining good management practices (Criado & Calvo, 2009). Knowledgeable laborers who understand their work field and organizational structure can make a significant contribution towards delivering consistent, good products and services by optimizing their contribution along the production cycle (Goetsch & Davis, 2010). Farhana and Saadia, 2018 examine the link between Total Quality Management practices and product quality through data obtained from 133 garment companies in Bangladesh. Employee involvement significantly contributes to enhancing product quality by means of empowerment and teamwork. Empowered workers are best placed to address quality issues effectively, while frequent interaction in cross-functional teams enhances greater conformity of products.

Overall, worker involvement is a key focus to achieve higher product quality in TQM-implementation organizations.

H4: There is a positive relationship between employee training and involvement and product quality in organizations implementing TQM.

2.3.9 Conceptual Framework

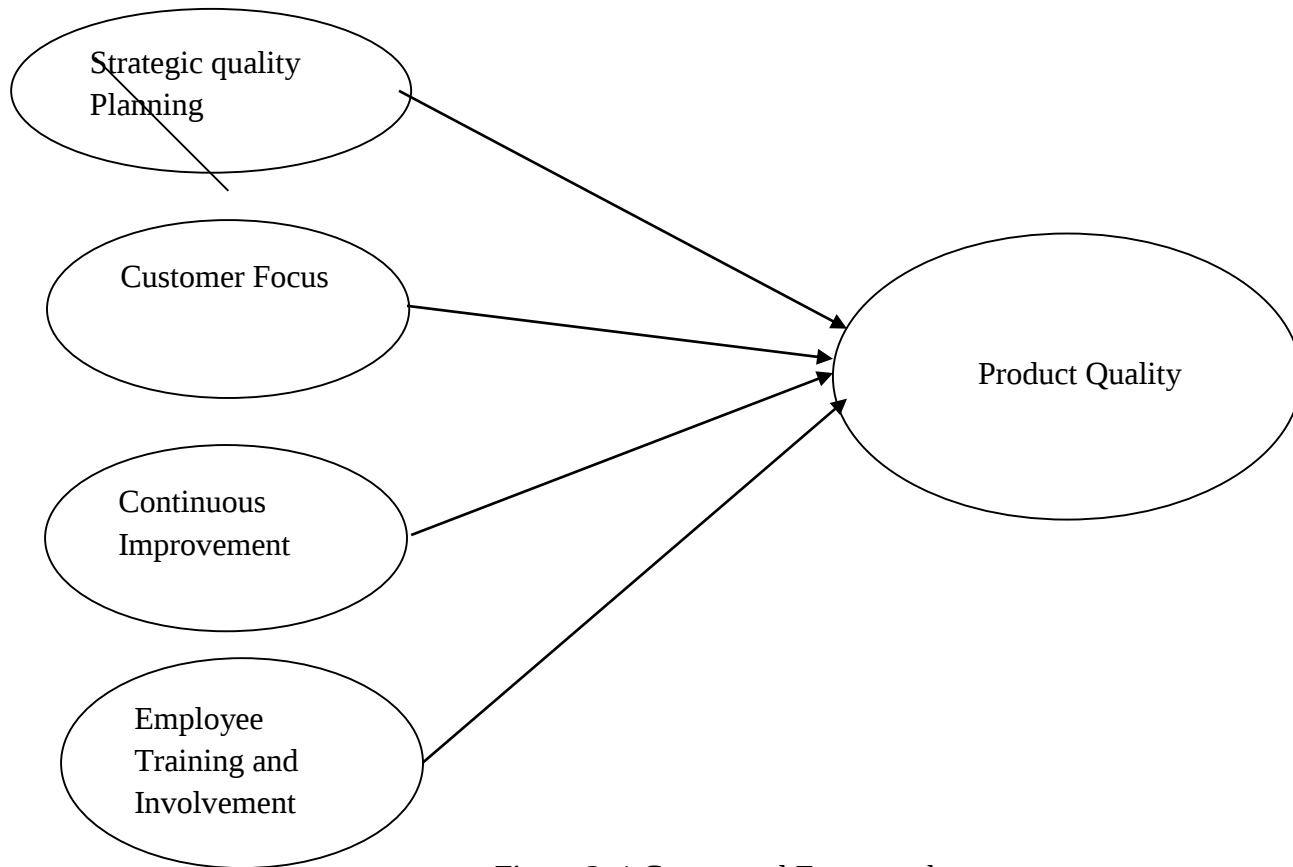


Figure 2. 1 Conceptual Framework

CHAPTER THREE

3. Research Methodology

3.1 Introduction

This section describes the methods that are used in this proposed study, including the research design, research approach, and the data sources and collection tools. It also outlines the sampling strategies, data analysis processes along with the explanation for each.

3.2 Research Design

A research design is a comprehensive strategy that aids in the collection and analysis of data. It lays out precise plans for participant selection, data collection, and analytic procedures to ensure that the goals of the study are met. The findings' validity and dependability are allowed by the design, which eventually leads to significant conclusions (Creswell, 2009). According to Burns (2000), explanatory research looks at the relationship between variables to identify the reasons of a phenomenon. However, descriptive research is used to formally describe a condition, issue, or phenomena. Giving a thorough explanation of a population's or issue's features without changing any variables is the main goal of descriptive research. This is also a common method for identifying patterns, trends, or a subject's circumstances (Robson, 2011). To determine the connections between strategic quality planning, customer focus, continuous improvement, and employee training and participation (independent variables) and product quality (the dependent variable), the study will use both explanatory and descriptive research approaches.

3.3 Research Approach

A research approach is the overarching plan or strategy that guides the whole research process, including the methodologies and processes used for data gathering and analysis. The validity and dependability of research findings are significantly influenced by research design (Creswell, 2014). This study will use a quantitative research approach to determine how Total Quality Management (TQM) procedures affect the quality of the final product. This method entails gathering and analyzing numerical data in order to identify trends, evaluate theories, and formulate forecasts. It makes statistical analysis easier and enables the identification and strength of correlations between variables (Creswell, 2014).

Quantitative research is best applied with this kind of research since it accommodates a range of data collection, analysis, and interpretation processes. By collecting data that can be measured numerically and which can be statistically analyzed, researchers can detect trends and interactions between variables (Bartholomew & Brown, 2012). Qualitative research focuses on discovering meanings, motives, and underlying experiences that drive individuals' behavior. Qualitative research tends to involve non-numerical data, such as interviews and observations, and quantitative results are not expected to be obtained through statistical calculation. While qualitative methods can provide rich, qualitative accounts, they lack statistical precision needed to well establish cause-and-effect relationships (Kothari, 2004). For this reason, qualitative research is not optimally suited for examining the impact of TQM practices on product quality.

3.4 Data Sources and Collection Tools

Data sources can be divided into two categories: primary and secondary. Primary data comes from sources including surveys, interviews, and experiments that are gathered and examined by the researcher directly. Secondary data is information gathered from easily accessible sources, including research publications, journals, libraries, and websites. The researcher analyzes and discusses the research objectives using both primary and secondary data sources. Specifically, the primary level data is collected by surveys from human resources, quality assurance personnel, and management (operational managers, deputy managers, production managers, and planning managers). With this method, the relationship between TQM methods and the quality of Jay-Jay textile manufacturing products will be better understood.

3.4.1 Primary Data Collection Tool

3.4.1.1 Questionnaire

Questionnaire is a tool used in quantitative research that gathers numerical information from the respondents. It is a list of closed questions designed to identify some features to be quantified according to the research, typically with some sort of pre-stipulated answers. Scientists can use pattern and relationship inference from data since the data gathered can be measured and analyzed statistically very easily

Questionnaires are very helpful in quantitative research as they provide a systematic means of gathering data from a large population, and the researcher can test hypotheses as well as determine

the prevalence of given traits or behavior. Fowler (2014) is of the view that well-designed questionnaires possess the strength of maximizing the validity and reliability of data, and findings can be easily generalized to the larger population. He advises that clear-cut, direct questions help in controlling respondent bias as well as improving the accuracy of data. In addition, Bryman (2016) indicates that questionnaires are ideal data collection tools for quantitative studies since researchers can obtain huge amounts of information fast and for affordable costs.

3.4.2 Secondary Data Collection Tools

This study gathers secondary proof of Total Quality Management (TQM) practices through literature reviews, investigating current studies, best practices derived from academic writings and case studies, and internet-based materials like scholarly journals

3.5 Data Collection Procedure

The targeted organization, Jay-Jay Textile Plc., is approached to seek permission before distributing the questionnaires among the respondents personally. The close-ended questionnaires, on a 5-point Likert scale, are designed to cover all the relevant sections and data for the study. The respondents are guaranteed that their responses are kept confidential. They are informed that answers are not revealed and that completed questionnaires are collected personally. This is intended to create a comfortable environment for the participants in such a manner that allows reflective and meaningful responses to be elicited. The researcher was also there to clarify any misinterpretation or questions raised by participants, stressing the importance of their participation in the study and reiterating the promise of anonymity.

3.6 Sample Frame and Sampling Technique

A sample frame is essentially a database or list from which the sample is drawn for a research study and that is representative of the research population of interest. It should have all the components that meet the inclusion criteria so that the sample is representative of the population and thus the validity of the research improves.

Having a well-defined sample frame is crucial in minimizing sampling bias and the capacity to generalize the findings to the population at large (Fowler, 2014). In this study, data from the population of the sampling frame are based on a comprehensive listing of all 500 Managements (deputy managers, Operational managers, Production managers and planning managers), quality

assurance, and human resources personnel of Jay-Jay Textile Plc. This group is selected due to the fact that they have pertinent knowledge in Total Quality Management (TQM) processes. For the purpose of availing every individual with an equal chance of being selected, the researcher utilizes a simple random sampling method, which falls under the category of probability sampling technique. This renders the sample more representative and decreases sampling bias such that the conclusions will be generalizable. The primary objective of this method is to achieve a diverse range of views, augmenting the information

3.7 Sample Size Procedure and Determination

In order to determine the sample size of the population, the researcher used Taro Yamane's formula with 95% confidence and 5% acceptable sampling error.

Simplified formula for population

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

Where: n= the sample size,

N = the population size,

e = the acceptable sampling size (margin of error 0.05)

$$n = \frac{500}{(1 + 500 * (0.05)^2)} = 222.22 \approx 222$$

3.8 Ethical Consideration

Ethics involves the protection of the participants' rights. The researchers, therefore, have to make the participants aware of the advantage of the study, their rights, and protective measures that have been established, so they provide informed consent (Cooper & Schindler, 2014).

The data gathered is not revealed and remains secret to third parties or organizations. Before collecting any data, the researcher discloses to the business the purpose and objective of the study. The information is collected responsibly so as not to cause any misuse or misinterpretation. Participants from Jay Jay Textile Plc staff are guaranteed that they remain anonymous in the final

report. The researcher states this study is for educational purposes only, and participants' voluntary participation is subject to their willingness.

3.9 Validity and Reliability Test

Reliability is the accuracy and precision of a measure procedure (Dhawan, 2010). A measure is considered reliable in that it measures the same outcome in repeated trials (Zikmund et al., 2012). To establish the dependability of data, Cronbach's Alpha as an internal consistency measure is used. A coefficient alpha of 0.7 or above is considered acceptable for items to be added up in a scale. Values of 0.6 are considered to be poor, 0.7 are considered to be good, and values between 0.8 are acceptable. As the coefficient increases, so does the reliability of the measure up to 1.0 (Alkhatabi, 2014). Thus, Cronbach's Alpha is analyzed by the researcher after data collection in an attempt to validate the reliability of the findings.

Validity is the extent to which a research tool can actually measure what it is intended to measure (Robson, 2011). Validity shows the accuracy of findings, i.e., the degree to which the questionnaire should be able to reflect the concepts of study accurately (Pallant, 2011). Validity ensures that differences obtained from the measuring instrument are indeed real differences between respondents. Thus, the researcher gathers relevant evidence to establish the accuracy of conclusions made in respect to the problem at hand, thereby establishing the research validity.

3.10 Method of Data Analysis

The data collected using the questionnaire is analyzed using the Statistical Package for Social Sciences (SPSS). A descriptive form of analysis is adopted to examine the answers using table of means and standard deviations. Additionally, in an effort to understand the cause-and-effect relationship between the dependent and independent variables, regression analysis and correlation are applied in the explanatory section of the study.

CHAPTER FOUR

4. Result and Discussion

4.1 Introduction

This chapter presents data analysis, findings and discussion of the study in line with the research objective. The research objective was to evaluate the impact of total quality management (TQM) practices on product quality. Descriptive analysis, correlation analysis and multiple regression analysis are presented to achieve the research objective. Descriptive statistics was used to analyze the data and results presented in form of tables for easy, simple and clear interpretation of data.

4.1.1 Response Rate

From the total of 222 questionnaires distributed to the respondents 195 questionnaires filled and returned. Therefore, the response rate was 88% which is what the study needs to achieve the objectives of the study.

4.2 Respondents' Demographic Description

This section provides a profile of the respondents. This information is presented on several basic characteristics, including age at the time of the study and gender. This information is offers general understanding about the population under the study. An analysis of these variables provides the socio-demographic context within which other subsequent factors falls. From the data analyzed in table 4.1, 90(46%) of respondents were female and 105(54%) males. 76(39.3%) the respondents were aged 21-30, 91(47%) are between 31- 40 years of age, 23(12%) are fall over the range 41 -50 and 5(2%) was above 50 years.

The implication is that all respondents are mature and their observations on impact of total quality management (TQM) practices on product quality are based on personal experience and it is a good ground for the study. 39(20%) respondents had master's degree, and 156(80%) had first degree. The Finding showed that 21% of respondents were from Management department (deputy managers, operational managers, Production managers and Planning mangers), 55% were from Quality Assurance department and 24% were from Human resource department.

The Finding also showed that 76(39%) of respondents have 1-5 years' general working experience, 76(39%) have 6-10 years of general work experience, 28(14%) have 11-15 years of

general work experience and 15(8%) have above 15 years of general work experience. The implication is that most of the respondents are more experienced, and the information gathered from them expected to address the research objectives and it is good ground for the study to generalize research population from the sample estimation (Table 4.1)

Table 4.1; Analysis of socio-demographic Variables

		Frequency	Percent (%)
Gender	Female	90	46%
	Male	105	54%
	Total	195	100%
Education level	Diploma	0	0
	Degree	156	80%
	Master & above	39	20%
	Total	195	100%
Age group	21-30	76	39%
	31-40	91	47%
	41-50	23	12%
	above 50	5	2%
	Total	195	100%
Work experience	1-5	76	39%
	6-10 years	76	39%
	11-15 years	28	14%
	above 15 years	15	8%
	Total	195	100%

Department	Management	41	21%
	Quality assurance	108	55%
	Human resource	46	24%
	Total	195	100%

Source: own survey 2025

4.3 Reliability Statistics

According to Cronbach (1984) it is possible to evaluate the reliability of the data (otherwise speaking its internal consistency) by Cronbach's α , which follows Nunnally (1978) and Anastasiadou (2006) supposed to be one of the most important coefficients of reliability that doesn't depend on the arrangement of variables. This coefficient is based on included in the scale items and their correlations. Moreover, the reliability of instrument that is measured by alpha determines the level to which attained results are instantiated by retentiveness and not aligned with measurement errors. Kline (1999) suggests that acceptable value for Cronbach's α is 0.70 and higher, what makes it possible to infer that the scale is reliable. In this case to determinate the value of Cronbach's α , the "Reliability Analysis" in SPSS 25 was conducted. Moreover, using the function "Scale if item deleted" Cronbach's α for each item of the scale was defined to be convinced that no item causes a significant decrease in the overall Cronbach's α . The results are presented in Table 4.2.

Table 4.2; Reliability Analysis Result

Scale	No. of Items in the Scale(N)	Cronbach's Alpha Result (α)	α based on standardized items
Overall model	33	.947	.936
Strategic quality Planning	7	.723	.710
Continuous Improvement	7	.702	.727

Level of customer focus	7	.823	.823
Employee Training and Involvement	7	.905	.904
Product Quality	5	.838	.839

Source: Own computation using SPSS 25

As it can be seen from the Table 4.2, the Cronbach's alpha for all the scales is above the established threshold of .70, what signifies about their good internal consistency. The values of Cronbach's alpha based on standardized items is just faintly higher than the Cronbach's alphas themselves (the differences don't exceed .01), therefore the expansion in the number of variables for each scale will insignificantly increase the Cronbach's alpha (not more than by .01). Thus, there is no need in quantity input of new variables. It should be mentioned that the scales of "Employee Training and Involvement" has the best reliability coefficients (.905 correspondingly), which exceed the level of .90 and indicate extra good value. The worst reliability index among all the scales is at "Continuous Improvement" (.702), which is still higher than the threshold.

4.4 Descriptive Statistics for Overall study variables

To describe the mean score of the participants, mean score measurement used by Pihie (2009) was applied where mean score of <3.39 considered as low, mean score of 3.4-3.79 as moderate and mean score of >3.8 as high. From Table 4.3, items having a higher mean score referred to the perception of the effect of total quality management (TQM) practices on product quality presented on following ascending order:

4.4.1 Descriptive Statistics for Continuous Improvement

Continuous Improvement scales such as, "The company reinforces continuous study and improvement of its product, Works on identification of areas for improvement, Rather than sticking to old work procedures, the organization continuously upgrade work procedures, The organization implements a variety of techniques to reduce waste, the organization deeply inspects its operations with the aim of improving the overall quality of its products, Quality performance data (defects, error, rework etc.) are collected and evaluated periodically in the organization, Processes and quality systems are continuously controlled and improved, there are organizational

structures like quality control teams for continuous quality improvement.” (Mean=3.55, SD=0.826). This mean value indicates Continuous Improvement in the organization is moderate (Table 4.3).

4.4.2 Descriptive Statistics for Strategic Quality Planning

Strategic quality Planning variables such as, “There is well-established quality planning procedure, strategic quality goals are reviewed and updated to reflect changes in product quality standards, Development and implementation of strategies and plans based on data concerning customers' requirements and the company's capabilities, The management sets quality objectives for both managers and employees, strategic quality planning initiatives are effective in improving product quality in your department, Evaluation of results by comparing them to planned results, in order to make product quality improvements, strategic quality planning are aligned with operational processes to maintain high product quality” (mean= 3.74; mode, SD=0.791). Likewise, this mean value indicates that Strategic Quality Planning in the organization is moderate (table 4.3).

4.4.3 Descriptive Statistics for Level of customer focus

Level of customer focus measurement variables “There is a system for gathering customer suggestion to improve product quality, Customers' requirements are used as the basis for quality in the organization, Responding effectively to clients'/customers' enquiries and complaints to improve product quality, There is Follow -ups with customers on products quality, Preventive and corrective actions undertaken to delight customers, The company emphasizes on assessing current and future customers' needs & expectations to improve product quality, customer focus contributes to the overall quality of products produced by your department” (mean=3.862, SD= 0.75). It indicates the Level of customer focus is high in the organization (table 4.3)

4.4.4 Descriptive Statistics for Employee Training and Involvement

Employee Training and Involvement scales such as, “There is a Participation in quality decisions by the employees, building quality awareness among employees is ongoing practice in the company, the quality goals and policies are communicated to all levels in your company, Employee suggestions for quality management and improvement initiatives are strongly encouraged, Employees are encouraged to contribute in the development and implementation of quality management practices, Employees that receive ongoing training are better able and meet

the expected product quality, Training for management and employees in quality principles, tools and techniques is given regularly.” (Mean=3.88, SD= 0.654). This mean value indicates Employee Training and Involvement in the organization is high (Table 4.3).

Table 4.3; Overall Descriptive Analysis result of the study variable

No.	Variable	Mean	SD	Remark
1	Product Quality	3.87	0.818	High
2	Strategic quality Planning	3.743	0.791	Medium
3	Employee Training and Involvement	3.881	0.654	High
4	Continuous Improvement	3.55	0.826	Medium
5	Level of customer focus	3.862	0.75	High

4.5. Correlation Analysis of the Study Variables

Table 4.4 illustrates the correlation coefficients of the relationship between the independent variables and the dependent variable. To describe the strength of the correlation, the suggestion of Evans (1996) for the absolute value of r was used: 0.00-0.19: “very weak”, 0.20-0.39: “weak”, 0.40- 0.59: “moderate”, 0.60-0.79: “strong”, and 0.80-1.0: “very strong”.

Table 4.4; Correlation analysis results for all Variables under study

	PQ	SQP	LCF	ETI	CI
Pearson Correlation	1				
Sig. (2-tailed)					
N	195				

SQP	Pearson Correlation	.711**	1			
	Sig. (2-tailed)	.000				
	N	195	195			
LCF	Pearson Correlation	.792**	.639**	1		
	Sig. (2-tailed)	.000	.000			
	N	195	195	195		
ETI	Pearson Correlation	.861**	.722**	.764**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	195	195	195	195	
CI	Pearson Correlation	.516**	.585**	.350**	.545**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	195	195	195	195	195

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

Note: PQ is product quality; CI is Continuous Improvement, LCF is Level of customer focus; ETI is Employee Training and Involvement and SQP is Strategic quality Planning

From the correlation result presented on the above table, it is found that Strategic quality Planning has a significant strong positive relationship with product quality ($r = .711$, $p < 0.01$). Likewise, a significant strong positive relationship was found between Level of customer focus and product quality ($r = 0.792$, $p < 0.01$). Employee Training and Involvement is found to be very strong positive correlation and statistically significant ($r = 0.861$, $p < 0.01$). The result further revealed a significant and moderate positive correlation is found between Continuous Improvement and product quality ($r = 0.516$, $p < 0.01$).

4.6 Statistics for Regression Analysis

In this section the four hypotheses proposed in this study were tested statistically using regression analysis.

Multiple linear regressions were carried out to determine the explanatory power of independent variables (Continuous Improvement, Level of customer focus; Employee Training and Involvement and Strategic quality planning in the variance of dependent variable (Product quality). The test result for classical linear regression assumptions and the estimated model results are presented below. A classic assumption test aims to determine whether the regression model obtained can produce a good linear estimator. The regression model obtained should be free from symptoms of multicollinearity, heteroscedasticity, and also satisfies the normal distribution & linear assumption. The classical assumption test consists of the following.

4.6.1 Normality Test Results:

The normality test aims to determine whether a variable on the regression model or residual has a normal distribution (Ghazali, 2011). The data, which are distributed normally, can minimize the possibility of bias. In this study Normality test employed using histogram and normal P-P plot of regression residuals. Residual distribution is normal if the level of significance is greater than 0.05. Based on normal P-P Plot test and histogram, the data processed can be concluded as approximately normally distributed data. Thus, the normality test is presented in the figure 2 below.

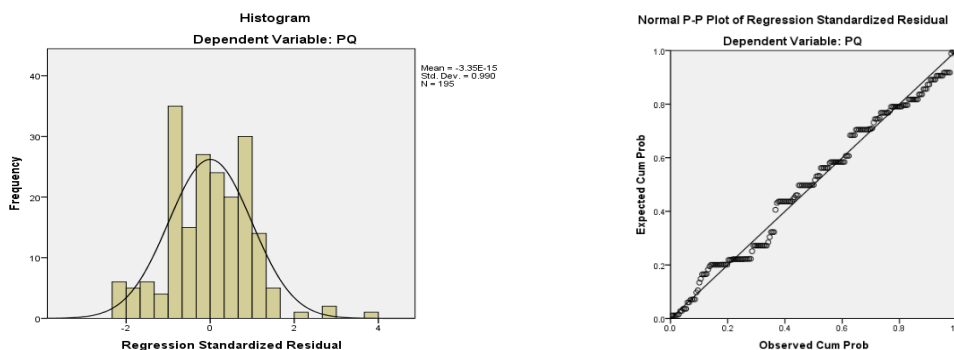


Figure 2: normality test

4.6.2 Multicollinearity Test Results:

The purpose of the multicollinearity test was to determine whether there was a correlation between the independent variables in a multiple regression model - a correlation might exist, but it shouldn't be more than the minimal threshold. There is a multicollinearity issue if there is a correlation. Independent variables shouldn't be connected with a suitable regression model (Ghozali, 2011).

Based on the results, the calculation using SPSS 25.0 indicated that the VIF value is less than 10 ($VIF < 10$) for all independent (free) variables for model. The formulated regression model equations can be concluded to have no multicollinearity problem. Thus, no multicollinearity exists among the independent variables in regression model formulated there by considering the equations feasible for further analysis (Table 4.8).

4.6.3 Heteroscedasticity Test Results:

The purpose of the heteroscedasticity test was to ascertain whether there was inequality between observations in the residual variance regression model. It is referred to as homoscedasticity if the residual variance between observations is still there; if not, it is referred to as heteroscedasticity (Ghozali, 2011). The heteroscedasticity test in this study employed the Breusch-Pagan-Godfrey. From the results, no heteroscedasticity is observed because $Sig. > 0.05$, there by concluding that no heteroscedasticity exists (Table 4.5)

Table 4.5; Breusch -Pagan-Godfrey Heteroskedasticity Test

F-statistic	35.364114	Prob. F(4,190)	0.0609
Obs*R-squared	45.89715	Prob. Chi-Square(4)	0.0538
Scaled explained SS	30.07658	Prob. Chi-Square(4)	0.0512

4.6.4 Independence:

Assumption of independence of observations (i.e., absence of autocorrelation) signifies those multiple observations are not applied in accordance with outside effect. It should be mentioned that according to Stevens (2002), violating this assumption could have a significant effect on the test's statistical power and degree of significance. Independence in this study is evaluated by Durbin-Watson test. This test uses studentized residuals to estimate the assumption that the

residuals from linear regression are independent. According to Hanushek and Jackson (1977) the value of the test (d) may vary from 0 to 4. Values that are close to 0 designate the presence of high positive autocorrelation, while those close to 4 signify extreme negative autocorrelation. Values that are close to 2 indicate the absence or low autocorrelation. The table with all the values is presented in Table 4.6.

For this model the value is 2.173, what is a perfect coefficient signifying that the measurement of one variable is not influenced by another or any outside impact for every single case (Table 4.6).

4.6.5: Regression Model summary

Table 4.6; Result of model summary for model 3.1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.888 ^a	.789	.785	.42407	2.173

a. Predictors: (Constant), ETI, CI, LCF, SQP

b. Dependent Variable: PQ

The coefficient of determination, or R-Square, is a frequently used statistic to assess model fit. R-squared is equal to 1 minus the residual variability ratio. The percentage of the dependent variable's variance that can be explained alone or in combination by the independent variables is known as the adjusted R², or coefficient of multiple determinations (Robert and Richard, 2008). From table 4.7, the adjusted R² of the model is 0.789, which shows that approximately 78.9% of variance in dependent variable (product quality) can be explained by the linear combination of the independent variables (Continuous Improvement, Level of customer focus; Employee Training and Involvement and Strategic quality planning).

4.6.6 Analysis of Variance (ANOVA)

Table 4.7;the result of ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.893	4	31.973	177.796	.000 ^b
	Residual	34.168	190	.180		
	Total	162.062	194			

a. Dependent Variable: PQ

b. Predictors: (Constant), ETI, CI, LCF, SQP

From the analysis of ANOVA, it is noted that the probability value of 0.000 ($p < 0.05$) indicates that the regression relationship was highly significant in predicting how independent variables such as Continuous Improvement, Level of customer focus; Employee Training and Involvement and Strategic quality planning affect product quality. Further, the analysis shows that the value of F is significant (177.79) which means that overall, the model is statistically significant.

4.6.7: Regression coefficients

Table 4.8;the results of regression between dependent and independent variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.662	.166		-3.982	.000		
	SQP	.294	.064	.229	4.564	.000	.442	2.261
	LCF	.488	.053	.433	9.230	.000	.503	1.987
	CI	.156	.039	.164	3.995	.000	.656	1.523
	ETI	.292	.036	.309	8.024	.000	.747	1.340

a. Dependent Variable: PQ

The result shows all the variables included in the model have statistically significant effect on product quality at 5% level of significance ($p < 0.05$). More specifically, the result revealed that Strategic quality planning (SQP) has a significant positive effect on product quality of the organization at 5% level of significance ($p < 0.05$). The result supports hypothesis 1(H1) which stated that Strategic quality planning has a significant positive effect on product quality in the organization. Similar findings are seen in the studies by Musran Munizu (2013) and Mahsa Bozorgmehri et al. (2015), which show that strategic quality planning significant positive effect on product quality.

Similarly, the regression result showed a significant positive impact of Level of customer focus on product quality at 5% level of significance ($p < 0.05$).

Hypothesis 2 (H2) which stated that Level of customer focus has a significant positive impact on product quality is not rejected at 5% level of significance. Hilal and Esin's (2013) research yielded comparable findings, indicating that a high degree of customer focus significantly improves the quality of the final product.

The regression results also revealed a significant positive impact of Continuous Improvement on product quality at 5% level of significance ($p < 0.05$). The result supports Hypothesis 3 (H3) which stated that there is a significant positive relationship between continuous improvement and product quality in the organizations implementing. Tesfaye, (2020) and Temesgen (2022) come up with the similar results and found that a significant positive relationship between continuous improvement and product quality.

The result further revealed that a significant positive impact of employee training and involvement on product quality at 5% level of significance. The result supports hypothesis 4(H4) which stated that There is a positive relationship between employee training and involvement and product quality in the organization implementing TQM. Sukhumpong Channuwong's (2018) research yielded similar findings and discovered that employee training and involvement significantly improved the quality of the final product.

4.7 Summary of Regression Coefficients

From regression analysis, the result shows all the variables included in the model have statistically significant effect on product quality at 5% level of significance. The result revealed that of

Continuous Improvement, Level of customer focus; Employee Training & Involvement and Strategic quality planning, had a significant positive effect on product quality at 5% level of significance. Similar findings were obtained by Hilal Olcay and Esin Sadikoglu (2013), who discovered that a high degree of customer focus significantly improves the quality of the final product. Similarly, Sukhumpong Channuwong's (2018) study produced similar findings and discovered that staff involvement and training significantly improved the quality of the final output. Temesgen's (2022) and Tesfaye's (2020) studies also indicated a strong positive correlation between product quality and continual improvement, with comparable findings.

Table 4.9; summary of hypothesis test result

Number	Hypothesis	Result
H1	Strategic quality planning (SQP) has a significant positive effect on product quality in the organization	Confirmed
H2	Level of customer focus has a significant positive effect on product quality in the organization	Confirmed
H3	Continuous Improvement has a significant positive effect on product quality in the organization	Confirmed
H4	Employee training and involvement has a significant positive effect on product quality.	Confirmed

Source: Primary data processed, 2025

Chapter Five

5. Summary of Findings, Conclusion and Recommendation

5.1 Introduction

The study's primary goal was to examine how Total Quality Management (TQM) practices, such as strategic quality planning, continuous improvement, customer focus, and employee training and involvement, affect product quality in the case of Jay Jay Textiles plc. The following key conclusions, recommendations, and findings are delivered based on the analysis results.

5.2 Summary of Findings

From the descriptive statistics, the study found high training and involvement, high continuous improvement, medium level of customer focus, and medium strategic quality planning in Jay-Jay Textile PLC. From the correlation result, it is found that Strategic Quality Planning has a significant strong positive relationship with product quality. Likewise, a significant strong positive relationship was found between Level of customer focus and product quality. Employee Training and Involvement is found to be very strong positive correlation and statistically significant. The result further revealed a significant and moderate positive correlation between Continuous Improvement and product quality.

From regression analysis, the result shows all the variables included in the model have statistically significant effect on product quality at 5% level of significance. The study found that Continuous Improvement, Level of customer focus; Employee Training & Involvement and Strategic quality planning, had a significant positive effect on product quality. Similar findings were obtained by Hilal Olcay and Esin Sadikoglu (2013), who discovered that a high degree of customer focus significantly improves the quality of the final product. Similarly, Sukhumpong Channuwong's (2018) study produced similar findings and discovered that employee involvement and training significantly improved the quality of the final output. Temesgen's (2022) and Tesfaye's (2020) studies also indicated a strong positive correlation between product quality and continual improvement, with comparable findings.

5.3 Conclusion of the Findings

- The study found high training and involvement, high continuous improvement, medium level of customer focus, and medium strategic quality planning in.
- Strategic quality planning was found to have a significant Positive impact on product quality in the organization.
- Continuous improvement found to be statistically significant and positively influencing the product quality of the organization.
- The model estimation result also revealed a significant positive effect employee Training and involvement on product quality.

- The study further found a significant positive effect of level of customer focus on product quality in Jay-Jay Textile PLC.

5.4 Recommendation

Understanding the qualities and supplementary mechanisms required to enhance the organization's (PLC) product quality is crucial as the emphasis on Total Quality Management methods continues to increase. This study has demonstrated that the organization's product quality can be positively impacted by quality management methods. Thus, in light of the study's findings, the following recommendations are sent

- The organization's judgment of the positive quality management practices has a significant impact on the organization's product quality. Therefore, employee input on quality management practices should be gathered and put into effect in order to improve the organization's product quality. This will allow the company to enhance the quality of its products in the future.
- Employees should be given the opportunity to contribute to the creation and advancement of quality management procedures. This can make it easier for the company to comprehend what the employees need and want from quality management methods, which are crucial to the efficiency of workers' work and, eventually, the caliber of the company's output.
- The CEOs and management of the company should work to improve the management practices' attributes in order to raise the quality of the products produced by Jay-Jay Textile PLC, since it was discovered that these practices were a positive predictor of the organization's product quality.

5.5 Suggestions for future research

- Finally, this study carries several critical limitations; first, this study's findings are based on Jay-Jay Textile PLC and are probably limited in their generalizability to other developing countries contexts. Future research should investigate multinational firms from other developing regions and compare the effective quality management practices on product quality. Second, future research should look other organizational dimension further to examine the effect of Total Quality Management (TQM) practices on product quality in other organization.

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Appendix 1: Questionnaire

Addis Ababa University

College of Business and Economics

Questionnaire to be filled by Jay- Jay Textile PLC Employees and Management

The questionnaire is designed to collect data for the research entitled on “**The Impact of TQM practices on product quality at Jay-Jay textile PLC**” as a partial fulfillment of MBA in Management. The study is to investigate the impact of TQM practice such as: Strategic quality planning, Customer Focus, Continuous improvement and employee training and involvement, and on product quality in Jay-Jay textile PLC. The questionnaires require your precise responses, which ensures that my research is thorough and sound. Feel free to express your genuine feelings about each thing; any response is deemed correct. Your answer will be kept private and won't be shared with any other organizations. Therefore, I respectfully ask that you complete this form in an honest and sincere manner. Your name does not need to appear anywhere on the form.

I sincerely appreciate your helpful collaboration.

PART ONE: Personal Information Instruction

Please indicate your answer by making a” √” mark or writing where it is necessary in space provided.

1. Gender ☐ Male ☐ Female
2. Education status ☐ Diploma ☐ Degree ☐ Master's Degree ☐ PHD
3. Experience in year ☐ 2-5 ☐ 5-10 ☐ 10-15 ☐ >15
4. Age in year ☐ 20-30 ☐ 30-40 ☐ 40-50 ☐ >50
5. Department ☐ General Management ☐ Quality Assurance ☐ Human Resource

PART TWO:

Product Quality

The following relates to the product quality of Jay-Jay textile PLC where: (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree)

What is your rate on your level of agreement about the statements about product quality of Jay-Jay textile PLC on the products rendered?

	Product quality	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The products produced by this organization consistently meet high-quality standards.					
2	Customers are generally Satisfied with the quality of the products offered by the company.					
3	The products demonstrate Reliability and perform as expected over time.					
4	There are very few complaints or returns related to product defects or quality issues.					
5	The overall quality of the Products has improved noticeably in recent years.					

TQM Practices

A. Strategic quality planning

The following relates to the level of Strategic quality planning of Jay-Jay textile PLC where: (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree)

What is your rate on your level of agreement about the statements about Strategic quality planning of Jay-Jay textile PLC on the products rendered?

A	Strategic quality planning	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	There is well-established quality planning procedure					
2	strategic quality goals are reviewed and updated to reflect changes in product quality standards					
3	Development and implementation of strategies and plans based on data concerning customers' requirements and the company's capabilities					
4	The management sets quality objectives for both managers and employees					
	strategic quality planning initiatives are effective in					

5	improving product quality in your department					
6	Evaluation of results by comparing them to planned results, in order to make product quality improvements					
7	strategic quality planning is aligned with operational processes to maintain high product quality					

B. Continuous Improvement

The following relates to the level of Continuous improvement of Jay Jay textile PLC where: (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree)

What is your rate on your level of agreement about the statements about Continuous improvement of Jay-Jay textile PLC on the products rendered?

B	Continuous improvement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The company reinforces continuous study and improvement of its product					
2	Works on identification of areas for improvement.					

3	Rather than sticking to old work procedures, the company continuously upgrade work procedures					
4	The organization implements a variety of techniques to reduce waste					
5	The organization deeply inspects its operations with the aim of improving the overall quality of its products					
6	Quality performance data (defects, error, rework etc.) are collected and evaluated periodically in the organization					
7	Processes and quality systems are continuously controlled and improved.					

C. Level of customer focus

The following relates to the level of customer focus of Jay Jay textile PLC where: (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree)

What is your rate on your level of agreement about the statements about customer focus of Jay Jay textile PLC on the products rendered?

C	Customer Focus	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	There is a system for gathering customer suggestion to improve product quality					
2	Customers' requirements are used as the basis for quality in the organization					
3	Responding effectively to clients'/customers' enquiries and complaints to improve product quality					
4	There is Follow -ups with customers on products quality					
5	Preventive and corrective actions undertaken to delight customers					

6	The company emphasizes on assessing current and future customers 'needs & expectations to improve product quality					
7	customer focus contributes to the overall quality of products produced by your department					

D. Employee Training and involvement

The following relates to the level of Employee Training and involvement of Jay Jay textile PLC where: (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree).

What is your rate on your level of agreement about the statements about Training and involvement of Jay-Jay textile PLC on the products rendered?

D	Employee Training and involvement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	There is a Participation in quality decisions by the employees.					

2	Building quality awareness among employees is ongoing practice in the company					
3	The quality goals and policies are communicated to all levels in your company					
4	Employee suggestions for quality management and improvement initiatives are strongly encouraged					
5	Employees are encouraged to contribute in the development and implementation of quality management practices					
6	Employees that receive ongoing training are better able and meet the expected product quality					
7	Training for management and employees in quality principles, tools and techniques is given regularly					