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**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF COMMERCE**  
**MASTER OF PROJECT MANAGEMENT**

*The Impact of Quality Management System on Organizational Performance:  
The Case of Transsion Manufacturing Plc.*

*By*

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*A thesis submitted to Addis Ababa University School of Commerce in Partial  
Fulfillment of the Requirements for the Degree of Master of Art in Project  
Management*

*Advisor: Wubshet B (PhD)*

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*Addis Ababa, Ethiopia*

## **DECLARATION**

I, the undersigned, declare that this study, titled "The impact of Quality Management System on Organizational performance: The case of Transsion Manufacturing Plc." is my original work and has not been presented for any degree at any other university, and that all sources of materials used in the study have been properly acknowledged.

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**Approval**

This thesis, written by Hanamariam Fetene and titled "The impact of Quality Management System on Organizational performance: The case of Transsion Manufacturing plc." and submitted in partial fulfillment of the requirements for the degree of Master of Project Management, complies with the University's rules and regulations and meets acceptable standards in terms of originality and quality.

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## **Certification**

This is to certify that Hanamariam Fetene completed her research work on the topic "The impact of Quality Management System on Organizational performance: The case of Transsion Manufacturing plc." for the partial fulfillment of the degree of Master of Project Management at Addis Ababa University, under my supervision and approval as a university advisor.

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Date

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## **Acronyms**

**QMS:** Quality Management System

**QM:** Quality Management

**ISO:** International Organization for Standardization

**LM:** Lean Manufacturing

**SPSS:** Statistical Package of Social Science

**PM:** Process Management

**LS:** Leadership commitment & support

**CI:** Continuous Improvement

**T:** Training and competence development

**CS:** Customer Satisfaction

**R:** Risk Management

## **ABSTRACT**

*The purpose of this study was to look at the impact of a quality management system on organizational performance at Transsion Manufacturing Plc. Six practices (process management, leadership commitment & support, continuous improvement, training & competence development, risk management and customer satisfaction & loyalty make up the QMS. According to the study, these six behaviors exemplify the fundamental ideas of QMS, which in turn helps organizations perform better on three key fronts: operational performance, product quality and satisfaction result. To meet the study's aims, existing questionnaires from earlier studies were used. The researcher used mixed research approach (descriptive &an explanatory), and both primary and secondary data sources were used. For this study, a stratified random sampling technique was employed, with 87 employees chosen as the study's sample, and 78 usable questionnaires gathered using hard copy and online questionnaire platform(Google Form).Using 78 usable questionnaires, the researcher empirically tested and investigated the relationship between study variables (QMS practices and organizational performance) using descriptive and inferential statistics tools such as Pearson correlation analysis, regression analysis by using IBM SPSS version 25. The study's overall analytic results demonstrated that the study predictor variable had a positive and substantial effect on organizational performance.*

**Keywords:** *Organizational performance, Process management, Leadership commitment & support, Continuous improvement, Training and competence development, Risk management, customer satisfaction & loyalty*

# CHAPTER ONE

## 1. Introduction

### 1.1 Background of the study

The quest of quality is one of the most interesting and rewarding endeavors in modern business. As a result, many firms have implemented and continuously improved their quality systems, driven by market demands and the nature of competition.(Padma et al., 2008). Because quality management originated in the industrial business, the subject has been regarded primarily through that lens. Several studies (e.g.,(Flynn et al., 1994),(Joseph et al., 1999) have thoroughly explored the numerous dimensions, methodologies, and organizational requirements for effective implementation of TQM in the industrial sector.

Quality management is a key strategic planning tool and competitive advantage for organizations to thrive in the market (Fatihah, 2018) Quality has been recognized as one of the competitive strategies for developing business performance in the international market, with intense competition and demanding customers(Ismyrlis et al., 2015).

Quality is considered as one of the fundamental components of any product that is essential not only for firms' sustainability but also for customers retention (Pambreni et al., 2019)

Quality management systems are one of the most effective instruments for firms to improve their competitiveness. This subject has been examined for many years, dating back to Dr. Edward Deming and Dr. Joseph Juran's studies and practical application of quality management and quality thinking in businesses 60 years ago. Although it was a long time ago, this concept is still very essential today because quality management systems are still effective and scientists are still researching this question (Priede, 2012)

In recent decades, organizations throughout the world have struggled to endure these difficulties and a quickly changing business climate in which management must become increasingly sophisticated in order to preserve or obtain a competitive edge. Many manufacturing businesses have adopted innovative improvement tactics like quality management systems, concurrent engineering, Lean Production, and Just-In-Time (JIT), Business Process Reengineering (BPR), and others to become more effective in how they conduct business (Ngambi & Nkemkiafu, 2015).

The primary motivation of these ideologies, both internally and internationally, the improvement of the organization's performance within its particular market target strategy.

According to the International Organization for Standardization (ISO), a quality management system (QMS) is a set of coordinated actions designed to guide and regulate an organization's quality. It is a standard created by the International Organizations for Standardization that serves as a foundation for organizational quality management systems (Bell & Omachonu, 2011). The framework is widely understood by enterprises and governments throughout the world, and it is thus utilized as a standard for management systems.

Since its first major version in 2000, ISO 9001 has used a "process approach" to manage quality. Quality Management Framework requires firms to satisfy and meet important standards established by consumers. The main needs are: 1) undeniable dedication of the organization's upper management to the quality system of management; 2) a customer-focused approach throughout the organization; 3) a clear quality policy and policy objectives defined by top management; 4) definition of the duty and power of each individual participating in the quality management system, and communication between them; and 5) ensuring the availability of resources (including competent personnel). 6) Suitable amounts of documentation. 7) control over the many operational activities, including sales to product or service research and development, manufacturing (or service supply), process monitoring, inspection, and after-sales support (UNIDO, 2016).

Organizations must use ISO quality management systems for a variety of reasons, including improving business image, increasing quality system efficiency, meeting customer needs, meeting government regulations, and improving international marketing, improve product/service quality, increase productivity, and reduce costs. (Al-Rawahi & Bashir, 2011).

Aggelogiannopoulos, Drosinos, and Athanasopoulos' empirical findings also suggested that QMS would benefit the organization in critical areas such as reducing defective products, improving internal communication, increasing customer satisfaction, increasing market share, opportunities for infiltration into new markets, and global deployment. Furthermore, they observed that the implementation of the QMS provides additional benefits to companies such as a decrease in the cost of quality and mistakes; higher quality of the products, reduction in waste, reduction in late

delivery time, productivity improvement, decrease in returns, and advertising potential (Aggelogiannopoulos et al., 2007)

As a result, in this study, the influence of ISO 9001 QMS on organizational performance explored using a case firm to see whether current practice is consistent with empirical results in the literature.

## **1.2 Background of the Organization**

Transsion is a Chinese mobile phone maker located in Shenzhen. In 2017, it was Africa's top smartphone maker in terms of sales, and it also sells phones throughout the Middle East, Southeast Asia, South Asia, and Latin America.. Its trademarks include Itel, Tecno, and Infinix phones, as well as Caricare after-sales service and Oraimo accessories. It produces phones in China, Indonesia, Pakistan, Ethiopia, and Bangladesh and also most recently, India.

Transsion's smartphone brands together had a larger market share in Africa than Samsung in 2017, making Transsion the leading smartphone maker in Africa in the fourth quarter of 2017. Transsion was also the leading mobile phone producer in Africa during the first half of 2017. In 2018, Transsion made an effort at In 2018, Transsion attempted a reverse takeover but failed. Transsion Holdings began manufacturing smartphones at their new Bangladesh facility in October 2018. Transsion Holdings went public in September 2019 by listing on the Shanghai Stock Exchange's STAR market segment.

One of the world's top five smartphone manufacturers in the second quarter of 2023, delivering 22.7 million devices and capturing a 9% market share.

Transsion Manufacturing comprises 6 departments: manufacturing, quality management, engineering, warehousing, planning and material control, and management representatives. As of March 4, 2024, the company employed 363 permanent and 314 contract employees.

## **1.3 Statement of the problem**

Discussions on the ISO 9001 QMS report contradictory and ambiguous findings and opinions about its effectiveness(McGuire & Dilts, 2008); (Sampaio et al., 2011), which led to a debate about

the QMS's effectiveness (Fuentes-Fuentes et al., 2007);(Kim et al., 2011), as well as some confusion about the standard's true value(McGuire & Dilts, 2008). It appears to be difficult to answer this problem(P. J. Singh, 2008), because there is no definitive evidence of the ISO 9001 QMS's efficiency in the literature (P. J. Singh et al., 2011). According to (Padma et al., 2008), previous research has not investigated the impact of essential elements on the ISO 9001 QMS.

One of the most common mistakes made by businesses is to delegate responsibility for generating excellent products only to the manufacturing department. However, many researchers argue that quality should not be limited to the industrial process. To ensure excellence, every employee of the organization should be involved. According to (Oakland, 2011),quality has traditionally been regarded as the responsibility of quality assurance and quality control departments, and some organizations have yet to recognize that many quality problems originate in the commercial, service, or administrative areas.

According to (Ishak & Osman, 2016), the most important barriers facing QMS in an organization are insufficient resource allocation, a lack of management commitment, a lack of employee commitment, and factors related to the organization's internal systems such as inherited deficiencies in planning and preparatory phase, the nature and complexity of the project, a lack of a total change in organizational focus, and a lack of new strategies that produced improvements in operational processes at (Hussein et al., 2017) highlighted seven major challenges in the adoption of QMS. The seven identified variables include a lack of understanding, resistance to change, accreditation, top management commitment, time management, and resource availability. According to the research findings of(Ogany, 2017), the adoption of QMS is highly affected by resource availability, staff training, top management skills, and information technology

Many investigations have endeavored to understand how ISO 9001 adoption helps firms enhance their internal and external organizational techniques, and their respective performance. The implementation of any continuous improvement program is always linked to the improvement of some or all aspects of organizational performance as seen from various viewpoints. Several empirical research have examined the link between QMS practices and performance (Patyal & Koilakuntla, 2017). Several empirical investigations have shown that quality management systems have a direct influence on organizational performance.

This study focuses on the mobile manufacturing industry, specifically Transsion Manufacturing, which has implemented ISO 9001:2015 QMS and received certification standard. Since its inception, the firm has conducted an annual QMS Internal Audit and Management Review. Despite the company's assertions that ISO QMS adoption might increase its performance, no clear study has been done to demonstrate that it has benefited from the implementation and certification of the ISO QMS standard. Therefore, the purpose for doing this research is to analyze the influence of ISO 9001:2015 QMS implementation on the performance of the example firm. Following the completion of this investigation, the following research questions will be addressed.

- How does process management impact organizational performance (OP)?
- What is the effect of leadership commitment and support on organizational performance?
- How does continuous improvement influence organizational performance?
- What is the impact of training and competence development on organizational performance?
- How does customer satisfaction affect organizational performance?
- What is the impact of risk management on organizational performance?

## **1.4 Objective of the research**

### **1.4.1 General Objective**

The overall goal of this study is to look at the influence of implementing QMS on Transsion manufacturing plc organizational performance.

### **1.4.2 Specific Objective**

The objectives are:-

- To examine the impact of process management on OP
- To evaluate the impact of leadership commitment and support on OP
- To assess the impact of continuous improvement on OP
- To determine the impact of training and competence development on OP
- To examine the impact of customer satisfaction on OP
- To assess the impact of risk management on OP

## **1.5 Significance of the Study**

Understanding how QMS effects performance may provide significant information for firms looking to improve their operations. While ISO certification is commonly connected with QMS, this study can go beyond that. To summarize, this QMS impact project is noteworthy because it tackles actual difficulties encountered by enterprises and delivers actionable insights for performance improvement.

## **1.6 Scope of the study**

This study was designed to demonstrate how QMS practices effect organizational performance at Transsion Manufacturing plc, which has been implementing ISO 9001:2015 for more than two years. The research might help to enhance the QMS practice in this organization, since it emphasizes the need of cultivating a quality-oriented corporate culture. Aligning beliefs, norms, and behaviors with quality principles guarantees QMS success. Regular employee training is vital for implementing QMS procedures. Habit development guarantees constant adherence to quality standards.

## **1.7 Limitations of the study**

The respondents were hesitant to provide information because they were concerned about the potential negative implications for themselves or their organizations. Furthermore, some participants were openly unfriendly and refused to finish the questionnaires. Another obstacle was the tight timelines encountered by production staff during the manufacturing process, which hampered their ability to complete the surveys on time. To alleviate these constraints and improve future research, numerous solutions might be considered. First, alternate data collection methods like as interviews or focus groups may provide more extensive insights while reducing respondent strain. Second, initiatives to reduce non-response bias should be considered, such as follow-up interviews with non-respondents. Third, longitudinal studies can track changes over time, allowing for a better understanding of trends.. Fourth, conclusions can be verified by conducting comparison analysis among other groups or circumstances. Lastly, qualitative investigation using interviews might deepen our comprehension of the difficulties experienced in the process of gathering data.

## **CHAPTER TWO**

### **2. Literature Review**

#### **2.1 Quality management Principle and Practices**

Various researchers and managers define the concept of quality. They define quality as the fitness of use, or executing things efficiently or appropriately to meet a person's expectations (Mohammed et al., 2016). QM is an integrated management concept that strives to continuously improve the performance of processes, goods, and services in order to meet and exceed customer demands and expectations (Gambi et al., 2013).

QM is a systematic and established technique to improving organizational performance (Ebrahimi & Sadeghi, 2013). Numerous empirical research have sought to study the link between quality management techniques and company performance (Ebrahimi & Sadeghi, 2013). (Sousa & Voss, 2002) state that "practices are the observable components of quality management, and it is via them that managers attempt to achieve organizational changes. Principles are too broad for empirical inquiry, but methodologies are too specialized to yield solid results.

Senior management may utilize the quality management principles as a framework to help their firms enhance performance. There are several methods to use these quality management concepts. The nature of the organization and the unique issues it encounters will dictate how they are implemented. Future research should explicitly state whether they are addressing quality management material at the principles, practices, or technique levels. Researchers should also seek to standardize definitional words. For example, "practices" have been referred to by several words, including "factors" (Motwani, 2001)"implementation constructs" (Ahire & Dreyfus, 2000)and "interventions" (Hackman & Wageman, 1995).

Every firm has to focus on its customers. According to (Bakotić & Rogošić, 2017),firms prioritize customer service since it impacts product sales and future company operations. They focused on both present and future client demands, constantly improving the product's design and functionalities (Siva et al., 2016). The second essential principle of quality management is

leadership. A leader is someone who provides unity, direction, and purpose to an organization. He or she is interested in and participating in attaining the goals and targets, and seeks to maintain communication at all levels, from top to bottom (Barbosa et al., 2017). The leader also has a clear vision; he works to promote good change, creates and earns the trust of the company's employees, and serves as an inspiration to all workers.

Over the past few decades, Researchers and industry have shown a strong interest in the progressive improvement of QMS and its major influence on company performance. Inspired by the business success achieved by Toyota and other quality-oriented enterprises throughout the world, a growing number of companies have adopted QMS approach to improve product quality, cost-effectiveness, timeliness, and customer happiness (Rehmani et al., 2020).

## **2.2. Lean Manufacturing**

Lean management is an applied concept that many industrial businesses have embraced to gain the flexibility required to handle new competitive challenges, such as reducing waste, increasing production speed, and encouraging innovation (Demers, 2002).

Both lean manufacturing (LM) and quality management systems (QMS) are evident approaches aimed at increasing effectiveness and efficiency (Khalili et al., 2017). (Micklewright, 2010)Lean ISO 9001 demonstrates in an unusual approach how to bring documentation under control using 5S techniques.

Lean approaches increase quality systems and are compliant with ISO 9001 (Anjoran, 2013). The goal of the Lean strategy is to adjust quickly to changing client tastes while providing the greatest value feasible at mass production costs. LM may help make additional improvements in waste reduction. ISO 9000 is a management system that specifies the basic standards that enterprises must meet for QMS (Jain & Singh Ahuja, 2012). (Micklewright, 2014) indicates that the new version of ISO 9001 for 2015 will require organizations to upgrade their QMS, providing an opportunity to adopt lean into ISO-based QMS within corporations.

### **2.3 Quality management system (ISO 9001:2015)**

According to (Ong et al., 2020), The deployment of Quality Management Systems strives to boost an organization's internal and external quality as well as customer satisfaction. The first edition of the ISO 9000 standards for quality management systems (QMS) was released in 1987 (Ciravegna Martins Da Fonseca et al., 2019). ISO evaluated the ISO 9001:2008 International Standard and published ISO 9001:2015 on September 15, 2015. (Fonseca, 2015).

The ISO 9001:2015 standard reflects the developments in an increasingly complex, demanding, and dynamic environment and will stay stable for the next ten years. The standards should be clear and adequate to ensure that firms that comply with them can provide conformance goods and services that satisfy their consumers in accordance with the updated ISO-9001:2015.

The primary purpose of ISO 9001:2015 is to meet and exceed the needs of customers. Top management must identify interested parties in order to give consistent service and goods that match client needs (Wawak, 2015).

Many firms are using Quality Management Systems (QMS) to improve efficiency, competitiveness, and customer satisfaction. QMS is frequently used in ISO 9001 standard certification. The goal of ISO 9001 is to assist businesses in implementing and operating an effective QMS by improving the company's capacity to develop, manufacture, and deliver quality goods and services (Ahmudi et al., 2018).

According to (Ahmudi et al., 2018) Implementing ISO 9001 has a direct positive influence on operational performance. ISO 9001 adoption promotes a positive attitude toward the manufacturing business, supports long-term support, and boosts customer satisfaction and loyalty. Many studies show that using ISO standards has a lot of benefits. Seventy-five percent of the companies said ISO certification was good value for money.

### **2.4. Quality management systems and organizational performance**

In today's competitive market, offering high-quality, reasonably priced goods and services in the shortest amount of time is essential to achieving, improving, and maintaining competitiveness (Al-

Rawahi & Bashir, 2011). As a result, businesses use a variety of management techniques and ideas, such as quality management systems. These systems contribute significantly to cost savings and improvements in quality, safety, efficiency, dependability, productivity, and job satisfaction.

Prior research in the field of quality has demonstrated the influence of quality system components on the performance of organizations. According to empirical data, a number of organizations are also compelled by external pressures—such as market-related factors and customer demands—to register and implement ISO. Other external pressures include the need for process or system improvements, a desire for worldwide deployment, and an internal lack of focus ((Aggelogiannopoulos et al., 2007); (Yahya & Goh, 2001)). On the other hand, data also indicates that internal variables, such as raising overall business performance, play a significant role in the decision to apply ISO management systems and apply for ISO registration. The three main components of quality management systems that affect organizational performance, according to (Tsiotras & Gotzamani, 1996) are periodic review, formal corrective actions, and process emphasis

Leading quality scholars, like Deming, Crosby, and Juran, believe that quality implementation leads to improved organizational performance. For example, (Douglas & Fredendall, 2004) state that "productivity increases with quality improvement." Low quality translates into excessive costs and a loss of competitiveness. According to (Crosby et al., 1990), 'if you concentrate on making quality assured, you can probably raise your profit by an amount equal to 5% to 10% of your sales'. They also feature several success stories of firms that implemented quality improvement programs. (Crosby et al., 1990) also discuss similar success stories in other industrial groups. He argues that these firms have saved millions of dollars by lowering error rates, minimizing quality costs, eliminating customer complaints, and lowering material handling charges.

During the last few decades, researchers and industry have shown a strong interest in the progressive improvement of QMS and its major influence on company performance. Inspired by the business success achieved by Toyota and other quality-oriented enterprises throughout the world, a growing number of companies have adopted QMS approach to improve product quality, cost-effectiveness, timeliness, and customer happiness.(Rehmani et al., 2020).

### **2.4.1 Process Management**

Defining "process" is not a simple task. According to (Armistead & Machin, 1998), like defining "quality" might be confusing due to many interpretations. The term "process" can signify different things to different individuals. Even experts who are well-versed in process management face confusion across disciplines. To increase communication, authors should clearly define "process" (Gulledge & Sommer, 2002). According to (Palmberg, 2009), there is no universally accepted definition of "process" as most authors describe it differently.

The concept of process orientation originated from the quality movement, which shifted the focus from product to process characteristics. According to (Hellström & Eriksson, 2008), scholars in the quality movement advocate for viewing the organization as a system of processes that can be improved and managed.

Management by process is directing all operations and efforts toward common goals, which must be accomplished by tightly integrating and coordinating all activities. It can be viewed as links in a customer-supplier network, even within the company (De Toni & Tonchia, 1996). (Palmberg, 2009) analysis revealed two distinctly different movements: process management for single process improvement, which means a structured systematic approach to analyze and continuously improve the process; and process management for system management, which means a more holistic approach to managing all aspects of the business and a valuable perspective to adopt in determining organization

According to (Psomas et al., 2011), ISO 9001 certified manufacturing businesses apply a high degree of core process management techniques in comparison to supporting quality tools. Nonetheless, substantial quality improvement is made. According to the structural model, important process management techniques have a large, positive, and direct impact on quality improvement. Because of their close relationship to fundamental process management approaches, supporting quality instruments have an indirect impact on quality improvement.

#### **2.4.2 Leadership Commitment and support**

An organization's top management has a significant influence on it. According to researchers studying strategy implementation, organizational strategies should mirror the traits and preferences of the company's senior managers (Hambrick & Mason, 1984).

Previous study indicates that senior management involvement influences relationship quality. Key accounts value top management participation, such as meetings with customer representatives, as it gives them a sense of being "embraced" and valued by the provider. Top management participation demonstrates dedication to consumers, perhaps leading to more involvement and deeper relationships (Millman & Wilson, 1999); (Workman et al., 2003).

Top management must continue to be held accountable for the quality management system's effectiveness. Leadership is responsible for understanding the organization's context, formulating quality policy, planning, setting quality targets, providing appropriate resources, appointing and supporting competent individuals, and other activities. (Mwangi et al., 2022).

(Kaziliūnas, 2010) studied the impact of strategic aspects such as top management, motivation, financial factors, continuous improvement, and internal audits on the adoption of ISO 9001 quality management systems. The application of quality management is a strategic goal of any organization's management to offer products and services that meet or exceed client expectations. (Chowdhury et al., 2007) Investigated the growth of quality management practices and leadership ideas, both of which aim to improve organizational performance and members' work experience. However, a literature review reveals that leadership is an essential component of successful quality management at institutes, since all excellence models require top management as an enabling driver.

Leadership requires a long-term commitment to innovation and creativity. According to certain experts, such as (Laohavichien et al., 2009), human resource management is a strategic problem requiring managerial expertise. They also feel that knowledge is an important organizational resource, and that top management is critical in promoting the acquisition of that information.

### 2.4.3 Continuous Improvement

Kaizen is a philosophy that applies to both management and everyday life in Japan. It denotes slow and continual advancement, increased value, intensity, and improvement (J. Singh & Singh, 2015). It is translated in the West as continuous improvement (CI) (Malik & Sarkar, 2018). The term "CI" refers to a variety of organizational innovations, including the implementation of "lean manufacturing" techniques, total quality management (TQM) employee involvement programs, customer service initiatives, and waste reduction campaigns.(J. Singh & Singh, 2015)

CI is a widely accepted term in management theory and practice ((Boer & Gertsen, 2003). Although CI alone is insufficient, it is acknowledged as a key driver of long-term competitive advantage (Boer et al., 2017). Customer happiness, productivity, quality, and delivery reliability were identified as the primary drivers of continual improvement. CI improved various performance areas, but its deployment proved problematic. Companies tend to find it challenging to create and implement a continuous improvement method that aligns with their own beliefs(Middel et al., 2007).

The 5S approach appears to be a time-saving strategy used by several businesses on a worldwide scale, both small and large. It would not be inappropriate to refer to 5S as the foundation of Lean House. It has been used in many industries of industry and services. . Organizations began using 5S as a continuous improvement method in the late 1970s, and it is now widely considered as the most dominant and effective technique in the Lean toolbox. The 5S approach is a lean tool created by Japanese manufacturers that consists of five stages: sort (seiri), set in order (seiton), shine (seiso), standardize (seikatsu), and sustain (shitsuke). These five words are interconnected and, when executed systematically, play a key role in achieving the Lean system's goals. As a result, they form a crucial basis for lean systems(García-Alcaraz et al., 2017).

According to (Paul Brunet & New, 2003), the three primary notations that comprise CI are as follows:

- Kaizen is continuous, which is used to highlight the practice's entrenched character as well as:

- Its position in an ongoing effort to improve efficiency and quality.  
Unlike significant management-initiated technology innovation, it is typically incremental in character.
- It is also participative, requiring the intellect and involvement of the workforce, generating inherent psychological qualities, and high-quality work-life benefits for people.

#### **2.4.4 Training and competence Development**

Human resources are the heart and soul of every organization, as well as its primary resource. So firms spend heavily in human resource capital because human resource effectiveness ultimately improves organizational performance (Khan et al., 2011). Several authors have highlighted the relevance of training and development in boosting employee capacities and organizational success (Yang et al., 2006);(Nguyen Ngoc Thang & Buyens, 2010). According to (Mackelprang et al., 2012), training improves employees' capacities, which contributes to overall organizational effectiveness.

According to (Minbaeva, 2005), HRM approaches are a set of techniques used by a company to manage human resources by encouraging the development of firm-specific competencies, fostering complex social interactions, and developing organizational knowledge in order to preserve a competitive advantage. (Schuler & Jackson, 1987) likely to support this position, because they assume that HRM practices are a system that recruits, develops, motivates, and retains people to enable the effective implementation and survival of the organization and its members.

#### **2.4.5 Risk Management**

Uncertainty constantly surrounds businesses and may be the source of events that have both a detrimental and good influence on them. A contemporary enterprise's success is increasingly dependent on its capacity to anticipate such occurrences in a timely way and conduct appropriate reaction activities before they occur. The management of risks and opportunities seeks to promote firm stability in today's shifting market conditions. The ISO 9001:2015 standard does not require risk management and instead emphasizes a risk-oriented thinking style. However, the new ISO

9001:2015 criteria can be satisfied by using a systematic risk management process. (Popova et al., 2019).

A risk management program allows a company to recognize and mitigate risks that jeopardize the achievement of business objectives, and it is a necessary component of an effective QMS. Multiple websites offer general risk management information. Risk management is described in academic settings, other enterprises, and through standards. (Suprin et al., 2019).

#### **2.4.6 Customer Satisfaction and loyalty**

Customers are the reasons for an organization's continued existence, and they are also accountable for delivering lucrative results (Zakari & Ibrahim, 2021) defined customer satisfaction as addressing consumers' issues by providing them with the goods and services or items of value they require at the right price, in the right place, at the right time, and in the appropriate mix.

(Qazzafi, 2019) defines satisfaction as a person's comparison of a product's perceived performance (or outcome) to his or her expectations. If the performance falls short of expectations, the consumer will be dissatisfied and disappointed. If the performance exceeds expectations, the customer is extremely satisfied or joyful. Thus, customer happiness becomes a key component that influences client retention over time. Customer satisfaction is often attained through the following customer service factors: convenience, customer care, transaction methods and systems, price, products, and services (Kombo, 2015). In other words, customer service elements have a direct impact on customer satisfaction as an intervening variable for increasing organizational performance.

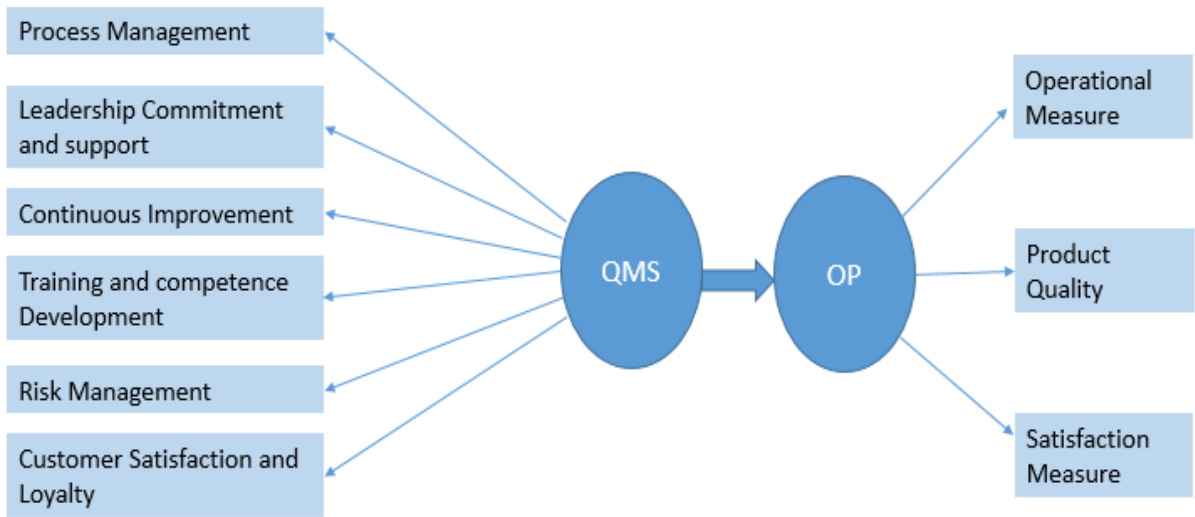
## **2.8 Organizational Performance Measures**

Organizational performance (OP) is critical to a business's ability to survive. OP is acknowledged as a primary outcome variable of interest in business and management research. This includes operations management, international business, strategy, information systems, human resources (HRs), and marketing, among other diverse fields((Hult et al., 2008); (March & Sutton, 1997); (Richard et al., 2009)). Explaining how OP might be improved, shaped, and preserved to assist firms in increasing their profitability and long-term survival is the ultimate goal of study in all of these areas (Bititci et al., 2012); (March & Sutton, 1997).

Performance measurement has a long history, especially in the area of accounting. The history spans several centuries. The writings of Venetian monks, who developed the double-entry accounting system in the thirteenth century, contain some of the oldest mentions. Additional references pertaining to the challenges associated with performance monitoring may be found in the works of W. Hamilton Church, who identified one of the drawbacks of the overhead allocation systems in 1908:(Neely et al., 2007).

Traditional economic theory is the foundation for many of the viewpoints that shaped early thinking about firm performance, with an emphasis on industry structure and market power as performance determinants ((Caves, 1971); (Caves & Porter, 1980); (Chandler, 1992))

A factory can't meet all of the benchmarks. Numerous widely accepted metrics exist for assessing manufacturing performance (Neely et al., 2007). These include quick turnaround times, excellent product quality and dependability, consistent delivery guarantees, the capacity to launch new items fast, adaptability to fluctuations in volume, less investment and consequently increased return on investment, and inexpensive prices. These manufacturing performance metrics include trade-offs; some activities must be sacrificed in order to fulfill others. The obvious constraints of process technology and equipment mean that they cannot all be completed to the same standard of excellence. Trade-offs between things like low inventory investment against quick delivery cycles or prices versus quality are usually clear. Even though they are less apparent, there are still trade-offs. When creating manufacturing policies, they entail implicit decisions (Skinner, 1969).



*Figure 2.1: Conceptual framework (Adopted from (V. Singh et al., 2018))*

# **CHAPTER THREE**

## **3 METHEDODOLOGY**

### **3.1 Research Design and Approach**

This study utilized a descriptive design to methodically explain a phenomena, scenario, or population, as well as an explanatory research strategy to help readers comprehend a specific topic in depth. This design is used in the study to illustrate the relationship between QMS and organizational performance in Transsion Manufacturing PLC. The technique in this study use quantitative investigations concurrently in order to acquire a more robust comprehension of the survey results and offer a comprehensive conclusion of the findings. The quantitative data is collected via a questionnaire that used to answer questions about the influence of QMS on quantifiable variables.

### **3.2 Types and Source of data**

To acquire reliable data and achieve the study's stated aims, the research uses both primary and secondary sources. Primary data consists of respondents' backgrounds, experiences, attitudes, and perceptions. A questionnaire was used to collect the essential information from selected sample members of Transsion Manufacturing PLC. The study used secondary data acquired from a survey of literature, recorded records, and both published and unpublished materials, such as relevant books, articles, and journals.

### **3.3 Study population, sampling method and samples size**

According to the Transsion report, there are presently 677 permanent and temporary employees. Among the 155 employees are managerial personnel from several departments. The research is aimed at managers, supervisors, team leaders, and other management personnel from all departments. This study attempt to obtain accurate data by locating respondents who are knowledgeable about the issues covered in the questionnaire. To get reliable data and enhance information quality questionnaire 87 respondents were selected using a probabilistic selection approach, often known as a stratified sampling method which is simple random stratified sampling. In this study, a sample size of target respondents was chosen whose work is believed to be connected with quality.

Table 3.1 Sample Size

Department	Sample
Production	18
Quality Management	25
Engineering	15
Warehouse	5
Planning and Material Control	4
MR	15
Finance	2
HR	3

*Source: own survey (2024)*

### 3.4 Method of Data Collection

In the primary data collection, structured questionnaires was developed using an empirical technique to acquire appropriate data based on strategically creating a questionnaire centered on the principles of the proposed model. Each question is carefully selected and developed in order to elicit legitimate replies from each participant and to include existing material, which was aggregated in an organized manner and sent to the management levels. Although each response was subjective to the individual's experiences, the goal is to capture the underlying traits that are inherent in QMS procedures and have the potential to improve organizational performance.

The questionnaire's parts was based on past research. The adopted elements was gradually altered to better correspond with the study's environment. There were two sections to the questionnaire. In the first section of the questionnaire, demographic information will be collected. In the next section, data for assessing factors will be collected. The second component was a five-point Likert scale that ranges from "strongly disagree" to "strongly agree."

### **3.5 Data Analysis**

The program IBM SPSS Statistics version 25 is used for the analysis and SPSS provides several diagnostic statistics that allow the case-by-case evaluation of the data for possible influential cases. The study was able to organize and summarize the data acquired using descriptive statistics, frequency tables, charts, and the mean. In addition, to answer the research questions given in the first chapter, regression analysis in statistics were utilized. A linear combination of the independent variables used to represent the relationship between the dependent and independent variables.

### **3.6 Validity and Reliability**

For the study findings to be regarded accurate, they must be both dependable and valid. The study addresses the survey instrument's content validity by reviewing prior literature, describing each skill in explicit terms to better comprehension of vocabulary used in the survey, and getting an expert assessment of the survey content (Bauer et al., 2005).

The consistency with which the same results may be achieved in repeated research is referred to as reliability. It defines how successfully a study finding may be applied to the population sampled (Culler, 2009). One of the most prevalent methods is to employ the Cronbach's Alpha statistic (Rattray & Jones, 2007). Cronbach's alpha is a statistic that is based on the correlations between different items on the same test and hence represents the extent to which the items in the construct produce comparable scores.

Cronbach's alpha increases as the correlations between the items rise. An alpha of 0.6-0.7 suggests adequate internal validity, whereas an alpha of 0.8 or above indicates good dependability (Bryde, 2008). Thus, the instrument found reliable for measuring QMS Practices at Transsion manufacturing.

Table 3.1 Reliability Statistics

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.834	0.842	7

<b>Item-Total Statistics</b>	
	Cronbach's Alpha if Item Deleted
PM	0.820
LS	0.819
CI	0.810
T	0.798
CS	0.815
R	0.808
OP	0.813

*Source: own survey (2024)*

### **3.7 Ethical Consideration**

Transsion Manufacturing and Addis Ababa University have approved this research. Several employees from several areas of the firm were involved in acquiring primary data. The researcher told the participants about the research's purpose and invited them to participate based on their willingness. The questionnaire includes general information on the study's intent. Furthermore, it states that respondents are not needed to provide their names into the questionnaire, maintaining anonymity. The researcher safeguarded all participant information. Their privacy, identity, and confidentiality were protected by assigning code numbers rather than names (anonymity).

# CHAPTER FOUR

## 4. Data Presentation, Analysis and Interpretation of Result

### 4.1 Introduction

In order to meet the study's principal purpose, the data collected through the structured questionnaire—both online and on paper—are assembled and reviewed in this chapter. This chapter featured the presentation, analysis, and discussion of the sample population based on the primary data gathered. The respondents' demographic data was obtained using frequency distribution. Scaled questionnaires were evaluated using descriptive statistics, correlation, and regression, in order to provide answers to the research questions. SPSS 25 was used to analyze the data. 89.66% of the surveys distributed received responses. The researcher received 78 out of 87 completed questionnaires.

Table 4.1 Response Rate

Status	No. of Questionnaires	Response Rate (%)
Completed Questionnaires	78	89.66%
Uncompleted and not returned	9	10.34%
Total	87	100%

Source: own survey (2024)

### 4.2 Demographic Profile of Respondents

Descriptive statistics describe the underlying properties of a study's data. As a result, the respondents' demographic characteristics were evaluated using descriptive statistics based on frequency. The following is a detailed overview of the descriptive statistics study, which was designed to provide broad descriptions of the demographic characteristics of the respondents' data.

Table 2.2 Respondents Demographic Profile

Category	Items	Frequency	Percent	Valid percent	Cumulative percent
<b>Gender</b>	Female	43	55.10%	55.10%	55.10%
	Male	35	44.90%	44.90%	100.00%
	<b>Total</b>	<b>78</b>	<b>100.00%</b>	<b>100.00%</b>	
<b>Level of Education</b>	Diploma	12	15.4%	15.4%	15.4%
	First Degree	57	73.1%	73.1%	88.5%
	Second Degree	9	11.6%	11.6%	100.00%
	<b>Total</b>	<b>78</b>	<b>100.00%</b>	<b>100.00%</b>	
<b>Service year in the organization</b>	1-3 Year	28	35.90%	35.90%	35.90%
	4-6 Years	21	26.90%	26.90%	62.8%
	7-9 Years	20	25.60%	25.60%	88.4%
	10 and above Years	9	11.50%	11.50%	100.00%
	<b>Total</b>	<b>78</b>	<b>100.00%</b>	<b>100.00%</b>	
<b>Position</b>	Manager	9	11.50%	11.50%	11.50%
	Supervisor	13	16.70%	16.70%	28.20%
	Team Leader	21	26.9%	26.9%	55.1%
	Other Management	35	46.90%	46.90%	100.00%
	<b>Total</b>	<b>78</b>	<b>100.00%</b>	<b>100.00%</b>	

Source: own survey (2024)

As shown in the demographic data table (table 4.2), the proportions regarding gender. The female respondents representing 43 (55.1%), while 35 (44.9%) were male. This shows the almost equal number of respondents represent both genders.

Table 4.2 shows that the majority of respondents (73.1%) had a first degree. The remaining 15.4% and 11.6% were Diploma and second degree holders, respectively. Based on the overall

educational qualification matrix, it can be assumed that the respondents are educated and capable of understanding the questions created for this study and responding appropriately by supplying the required information.

The frequency analysis result of the respondents' service year indicates that 11.5% of the respondents served their current organization for more than 10 year; 35.9% served their organization in the range of 1 to 3 years, 26.9% of the respondents' service year lies in the range between 4 and 6 years and the rest 25.6% have service years ranging 7 to 9 years.

As indicated and presented on the table 4.1 regarding on the respondents' current position that 11.5% were managers,16.7% were supervisors,26.9% were team leaders,46.9% were other management staffs. Thus, the majority respondents were from the higher and middle level positions.

### **4.3 Descriptive Analysis of Independent Variables**

The following findings focus on presenting descriptive statistics for the independent variables—quality management system practices—as they relate to the questionnaire questions. Respondents were asked for their thoughts on the influence of various QMS methods on organizational performance in Transsion production. Respondents were asked to rate their responses on a five-point Likert scale to determine the amount of agreement between each dependent and independent variable and the claims. A summary of the descriptive analysis for each variable is provided below.

#### **4.3.1 Process Management**

The questionnaire requests for process management are presented in the table below. Five key areas of process management were reviewed. Almost all respondents agreed or strongly agreed that QMS had a good impact on the process, with the highest mean score of 4.48, as shown in the table below (table 4.3). The second item result shows that processes are adequately defined and documented, with a mean score of 4.18.

Table 4.3 *Descriptive statistics of Process Management*

<b>1. Process Management</b>	1. QMS has positively impacted our processes and outcomes	2. Processes are Well-Defined and Documented	3. External and internal issues are frequently reviewed and monitored	4. key resources, processes, and requirements have been established for the delivery of conforming products/services	5. The implementation of QMS streamlined processes
Mean	4.44	4.18	3.88	3.81	4.00
Std. Deviation	0.731	1.181	1.173	1.185	1.128

Source: own survey (2024)

According to Zaidaton and Bagheri (2009), a mean score above 3.8 is deemed high. Thus, for the remaining process management items, the majority of respondents agree on a review of internal and external issues. From the study's conclusions, the fourth gets the lowest mean score: essential resources, procedures, and requirements have been established for the supply of conforming products/services.

#### **4.3.2 Leadership Commitment and Support**

The respondent's opinion regarding leadership commitment and support is midway between neutral and agreement, as illustrated in the table below (table 4.4). Most respondents agreed that top executives' interaction with other concerned departments with mean value of 4.00. The mean value 3.76 showed the respondents agreed that Top leadership provides significant means (resources) to improve and maintain quality. The standard deviation 1.291 shows that the responses of the respondents were widely deviated from the mean. This implies it cannot be thoroughly concluded that the leader provide resources to improve quality. As the mean value 3.58 showed the respondents slightly agreed that the top leader view quality more important than production. The standard deviation 1.372 shows that the responses of the respondents were widely deviated from the mean.

Table 4.4 *Descriptive statistics of Leadership Commitment and Support*

<b>Statistics</b>					
<b>2.Leadership Commitment &amp; Support</b>	1. Top leadership provides significant means (resources) to improve and maintain quality."	2. Top leadership views quality more important than production	3. Management at the top takes quality as their responsibility."	4. Top executives routinely interact with their concerned departments (Quality as well as other).	5. Top management is evaluated on quality performance
Mean	3.76	3.58	3.65	4.00	3.76
Std. Deviation	1.291	1.372	1.182	0.926	1.197

Source: own survey (2024)

### 4.3.3 Continuous Improvement

The following table shows the questionnaire requests for continuous improvement. The mean of the results shows that majority of respondents think that QMS methods foster continuous development, with a score of 4.38. The standard deviation of 0.825 indicates that the respondents' replies were narrowly varied from the mean. The 2<sup>nd</sup> highest mean score for continuous improvement is any creative idea that made job better is implemented. The third highest mean score is trainings on continuous improvement is delivered for employees. In addition, respondents slightly agree on ‘‘ It is OK for employees to point out problems or concerns’ statement with mean score of 3.55. Hence, this implies it’s not encourage point out concerns.

Table 4.5 *Descriptive statistics of Continuous Improvement*

<b>Statistics</b>					
<b>3.Continuous Improvement</b>	1. QMS practices promotes a culture of continuous improvement.	2. It is OK for employees to point out problems or concerns	3. Any creative idea you’ve had for making your job better is implemented	4. you received feedback from your manager frequently	5. You get training on continuous improvement or related methodologies
Mean	4.38	3.55	3.92	3.71	3.72
Std. Deviation	0.825	1.124	1.214	1.239	1.226

Source: own survey (2024)

#### 4.3.4 Training and competence

As the mean value 4.13 showed the respondents agreed that they are well prepared to contribute to QMS goals. The standard deviation 1.011 shows that the responses of the respondents were moderately deviated from the mean. Item number one holds the second highest mean score 4.04, this implies that respondents are agreed on that new staff get proper induction trainings. They also agreed on statement ‘QMS related trainings enhance their knowledge’ and ‘safety practices are excellent’

Table 4.6 *Descriptive statistics of Training and competence*

<b>Statistics</b>					
<b>4. Training &amp; competence Development</b>	1. Proper and efficient training is provided to newly selected personnel.	2. Health and safety practices are excellent.	3. Career development training to employees is provided by the company	4. QMS-related training programs have enhanced your skills and knowledge	5. You feel well-prepared to contribute to QMS goals
Mean	4.04	3.78	3.75	3.90	4.13
Std. Deviation	0.904	1.345	1.168	1.131	1.011

*Source: own survey (2024)*

#### 4.3.5 Customer Satisfaction

As seen in the table, requests from consumers, feedback, complaints, product delivery, and concessions are timely addressed and provided by the firm, implying that the company cares about its customers and provides good products and services. When we look at the items, the fourth item has the highest mean score 4.28 and almost all of the respondents are agreed on all the items that presented in customer satisfaction.

Table 4.7 Descriptive statistics of Customer Satisfaction

<b>Statistics</b>					
<b>5. Customer Satisfaction</b>	1. The key customer requirements are identified (product specifications detected and fulfilled).	2. Design, development and delivery of products is according to the requirements of Customers.	3. Customer satisfaction feedbacks are taken after a regular interval.	4. Customer complaints are properly recoded and reviewed to maintain our quality standards.	5. Concessions are provided for defective parts/products
Mean	4.23	4.24	3.97	4.28	4.03
Std. Deviation	0.772	0.840	0.805	0.771	0.821

Source: own survey (2024)

#### 4.3.6 Risk Management

The table below represents the total risk management practice. The majority of respondents agreed with the assertion that QMS ensures conformity with industry standards, as seen by the mean value of 4.12. Respondents also agreed on that risks are identified, assessed and mitigated effectively. This statement holds the second highest mean score 4.06. Also, the mean value 3.99 showed that respondents are agreed on the statement that plan action or risk mitigation strategies are integrated into QMS processes.

Table 4.8 Descriptive statistics of Risk Management

<b>Statistics</b>					
<b>6. Risk Management</b>	6. Risk Management				
	1. Risks are identified, assessed, and mitigated effectively	2. QMS address risk management within your organization	3. Employees at all levels understand their role in managing risks	4. QMS ensure compliance with industry standards	5. Planned actions(risk mitigation strategies) integrated into the QMS processes
	Mean	4.06	4.01	3.81	4.12
Std. Deviation	0.811	0.830	0.854	0.789	0.781

Source: own survey (2024)

All QMS practices, including process management, leadership commitment and support, continuous improvement, training and competence development, customer satisfaction and risk management were found to be crucial for organizational performance at Transssion, according to the study. The study's findings indicated that the table 4.9

Table 4.9 summary of regression results for QMS practices

<b>No</b>	<b>QMS Practices</b>	<b>Total Mean value</b>	<b>Rank</b>
1	Customer Satisfaction	4.15	1
2	Process Management	4.06	2
3	Risk Management	4	3
4	Training and Competence Development	3.92	4
5	Continuous Improvement	3.86	5
6	Leadership Commitment and support	3.75	6

Source: own survey, 2024

### 4.3.7 Organizational performance

Under OP, three key aspects were evaluated: product quality, operational performance, and satisfaction result.

Table 4.10 descriptive statics for Organizational Performance

<b>Descriptive Statistics</b>		
	Mean	Std. Deviation
<b>Product Quality</b>	4.11	0.847
<b>Operational Performance</b>	3.85	0.912
<b>Satisfaction Result</b>	3.57	1.043

Source: own survey, 2024

The overall OP metrics at Transssion are above average, as the accompanying table demonstrates. The vast majority of responders concur that QMS procedures enhance operational effectiveness, customer satisfaction, and product quality.

## 4.4 Analysis of Data

### 4.4.1 Model Diagnosis

Six assumption of multiple regression these are:

The relationship between the IVs and the DV is linear; your data contains no multicollinearity. The residual values are independent; the variance of the residuals remains constant; the residual values follow a normal distribution; there are no influential cases that are biasing your model.

### I Correlation diagnosis

Correlation analysis is a statistical technique that investigates and measures the degree of link between two variables. The correlation coefficient is calculated using correlation analysis to determine how much one variable changes when the other does. It also provides information on the linear relationship between the two variables. In order to determine the association between the study variables (QMS practices and organizational performance), Pearson's correlation analysis was used. The value of  $r$  indicates the strength of the relationship between two variables. According to (Dancey & Reidy, 2007), there is a high correlation between two variables when the

value of (r) is between 0.7 and 0.9, a moderate relationship between 0.4 and 0.6, and a weak link between 0.1 and 0.3.

Table 4.11 Correlations of IDV and DV

Correlations								
		OP	PM	LS	CI	T	CS	R
OP	Pearson Correlation	1						
	Sig. (2-tailed)							
PM	Pearson Correlation	.343**	1					
	Sig. (2-tailed)	0.002						
LS	Pearson Correlation	.315**	.540**	1				
	Sig. (2-tailed)	0.005	0.000					
CI	Pearson Correlation	.382**	.585**	.611**	1			
	Sig. (2-tailed)	0.001	0.000	0.000				
T	Pearson Correlation	.524**	0.221	.500**	.392**	1		
	Sig. (2-tailed)	0.000	0.052	0.000	0.000			
CS	Pearson Correlation	.519**	.294**	0.214	.257*	.568**	1	
	Sig. (2-tailed)	0.000	0.009	0.060	0.023	0.000		
R	Pearson Correlation	.514**	.280*	.298**	.239*	.701**	.787**	1
	Sig. (2-tailed)	0.000	0.013	0.008	0.035	0.000	0.000	
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Source: own survey (2024)

The result of Pearson's correlation analysis on the table 4.11 depicts that at  $p < 0.01$ , company operational performance is modestly and positively correlated with training and competence

( $r=0.524$ ), Customer satisfaction ( $r=0.519$ ), Risk management ( $r=0.514$ ). This means that training and learning activities, customer satisfaction and risk management (independent variables) will influence the organizational performance to show changes with the degree and direction indicated by the correlation coefficients calculated for each pair of the variables. On the other hand, there is a positive and statistically significant link between leadership support and commitment ( $r=0.315$ ), continuous improvement ( $r=0.382$ ), and process management ( $r=0.343$ ). The Pearson's correlation analysis matrix table shows a positive and significant link between all study variables ( $P < .01$ ). Since all the study variables have positive correlation coefficient value( $r$ ), therefore they have a tendency to increase together.

We can further test this assumption by examining the Coefficients table. This helps us to more rigorously ensure that our predictors (or IVs) are not overly coupled. We can utilize VIF and Tolerance statistics to evaluate this assumption. A VIF more than 4 or a tolerance less than 0.25 indicates the possibility of multicollinearity and warrants additional examination. To meet the assumption, VIF scores should be substantially below 4, and tolerance scores should not be lower than 0.1.

Table 4.12 Collinearity Statistics

<b>Coefficients<sup>a</sup></b>		
	Collinearity Statistics	
	Tolerance	VIF
PM	0.537	1.861
LS	0.469	2.131
CI	0.507	1.973
T	0.376	2.663
CS	0.363	2.755
R	0.276	3.629

*Source: own survey (2024)*

II The values of the residuals are independent.

We may use the Durbin-Watson statistic to test the assumption that our residuals are independent (or uncorrelated) in order to verify the following assumption, which is found in the Model Summary box.

Table 4.13 Durbin-Watson

Model	Durbin-Watson
1	1.705

a. Predictors: (Constant),

b. Dependent Variable: OP

Source: own survey (2024)

The range of this statistic is 0 to 4. We need this value to be near to 2 in order for the assumption to be met. Values above 3 and below 1 should be taken seriously since they could invalidate your analysis.

The Durbin-Watson test was used to determine the autocorrelation in this investigation. According to(Saumya et al., 2020), the majority of residual autocorrelations should be within the about +/- 2- over the square root of N, which represents the size of the dataset, 95% confidence intervals surrounding zero. Table 4.13 demonstrates that the Durbin-Watson test result is near to 2, indicating that the assumption of autocorrelation was not broken and that the error term observations are uncorrelated with one another.

### III The variance of the residuals is constant.

According to(Garson, 2012), homoscedasticity is used to determine whether the relationship under investigation is the same throughout the dependent variable's entire range. Higher errors (residuals) for some portions of the range, as shown on the scatterplot, indicate a lack of homoscedasticity. The graphs of \*ZRESID and \*ZPRED should resemble a random arrangement of dots around zero if the homoscedasticity condition is satisfied, as demonstrated by (Field et al., 2009). Likewise, as can be observed in figure 4.1 below, this cloud of dots centered on zero has no clear outliers; instead, the points are distributed uniformly and randomly throughout the plot. It follows that the assumptions of homoscedasticity and random errors have been satisfied. Usually seems more haphazard than channeled, this assumption is most likely acceptable.

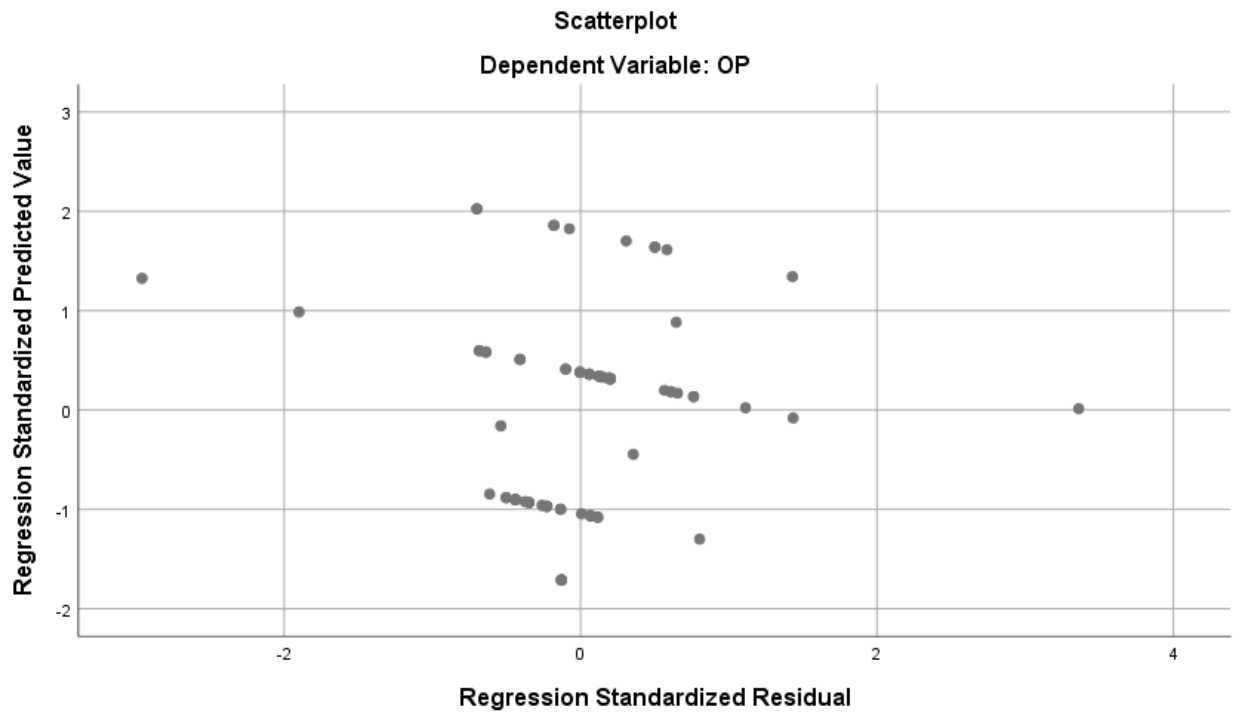


Figure 2 Homoscedasticity

Source: own survey (2024)

IV The values of the residuals are normally distributed.

Consequently, examining a distribution with a histogram and a P-P plot (probability–probability plot) is advised as one of the many methods to confirm the normality assumptions for basic linear regression analysis. Therefore, the researcher utilizes a histogram and a P-P plot to check for normalcy in order to confirm the validity of these assumptions.

As noted by (Field et al., 2009) and (Garson, 2012), A symmetric bell-shaped curve represents a normal distribution. As a result, the distribution is normal, and the histogram seems to follow a bell-shaped curve or normal distribution, as seen in figure 4.2. The curve is not just twisted but also symmetrical. It can thus determine whether the model is suitable for the data.

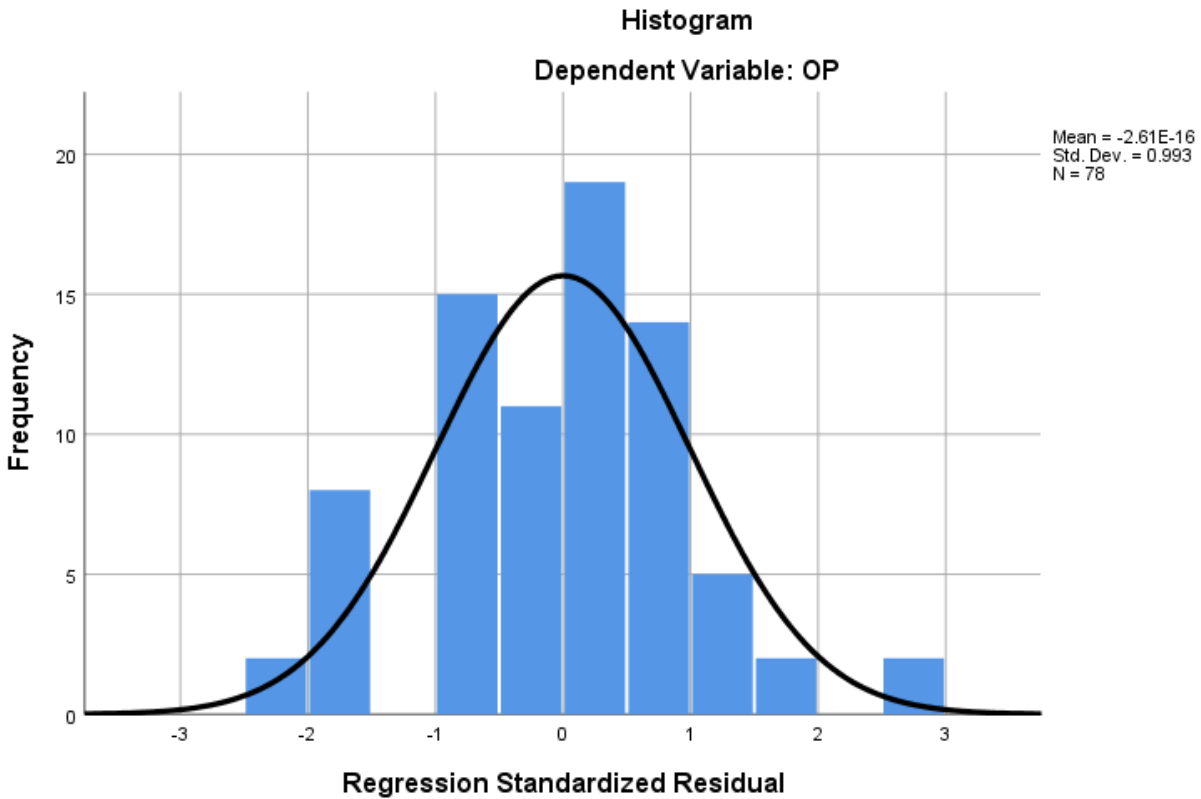


Figure 3 probability–probability plot

*Source: own survey (2024)*

The normal probability plot also shows deviations from normalcy. In this graphic, the straight line denotes a normal distribution, while the dots represent the observed residuals. Consequently, every point in a data set that has an exact normal distribution will fall on the line (Field et al., 2009). Similar to the previous figure (figure 4.3), there is little to no deviation from normalcy as indicated by the dots' near alignment with the straight line. Since the fundamental tenet of linear regression has been met, we may fairly conclude that the model is accurate and applicable to the whole population.

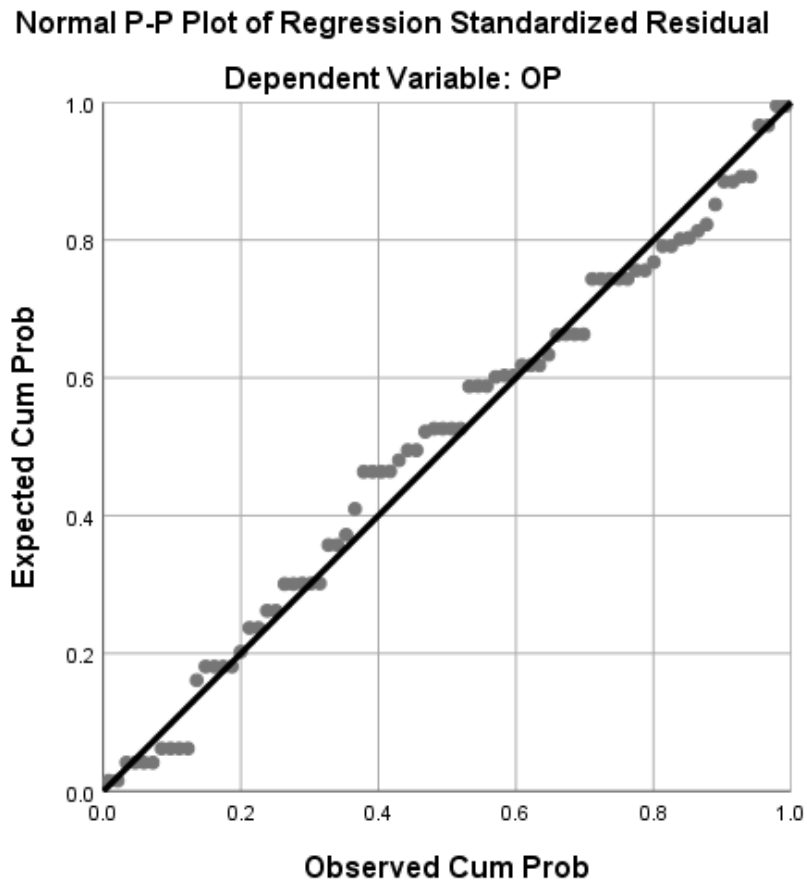


Figure 4 the normal probability plot

Source: own survey (2024)

#### 4.4.2 Linear regression Analysis (Simple Linear regression analysis)

Regression analysis's main goal is to create a linear relationship between organizational performance and QMS practice in order to make predictions. It makes the assumption that there is a functional linear relationship and that functional regression is a better approach than other methods.

Based on their linear relationship to the predictors, company performance, product quality, and operational performance—the dependent scale variables—have been modeled using linear regression. Linear regression is the conventional method for characterizing the relationships in this topic. R<sup>2</sup> is the most widely used metric to assess how well a regression model fits the data. This statistic shows the proportion of the answer variation that can be accounted for by the weighted combination of the predictors, which include continuous improvement, risk management, process

management, customer satisfaction, top management commitment, and training & competence. The model fits better the closer R<sup>2</sup> is to 1.

### I. Simple linear regression

Table 4.14 Model summary, QMS practices impacts on organizational performances in Transsion

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973 <sup>a</sup>	0.948	0.903	0.22524

a. Predictors: (Constant),

b. Dependent Variable: OP

*Source: own survey (2024)*

To investigate the direct relationship between QMS practices and organizational performance, apply simple linear regression and make use of the R-square in the linear regression model. A linear regression model is one in which the relationship between inputs and outputs is a straight line.

It is evident from table 4.14 above that R is .973 and R square is .948. This suggests that QMS procedures (the independent variable) account for approximately 94.8% of the variance in organizational performance (the dependent variable). The remaining 5.2% of the variance is explained by other variables that were not examined in this investigation.

Table 4.15 ANOVA, QMS practices impacts on organizational performances in Transsion

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.637	34	1.078	21.240	.000 <sup>b</sup>
	Residual	2.029	40	0.051		
	Total	38.667	74			

a. Dependent Variable: OP

b. Predictors: (Constant),

*Source: own survey (2024)*

The F test result in the preceding ANOVA table is 21.24, with a significance level of less than .001, suggesting that the chances of these events happening at random are less than .001. As a result, the QMS practice influences a significant portion of organizational performance, implying that the independent variable (QMS practices) statistically and significantly predicts the dependent variable (organizational performance in Transition), and thus the overall regression model is significant and a good fit of the data.  $F(34, 40) = 21.240, p < .001, R^2 = .948$

Furthermore, the lower standard error of the estimate and higher F value revealed that the relationship between the two variables, i.e., QMS practice and organizational performance, is strong and significant. The results indicate a significant influence of QMS procedures on organizational performance ( $p < .001$ ).

Table 4.16 Model summary, QMS practices as predictor of organizational performance in Transition.

Coefficients <sup>a</sup>			
Model		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	-0.207	1.711
	QMS	0.513	0.990

$$OP = -0.207 + 0.513QMS$$

a. Dependent Variable: OP

Source: own survey(2024)

The B value (0.513) in the unstandardized coefficient column indicates that, with all other parameters held constant at zero, for every one unit improvement in QMS practices, we anticipate a 0.513 unit increase in organizational performance in Transition. This suggests that QMS procedures play a significant role in the firm. Thus, the regression equation will be:

-

$$OP = -0.207 + 0.513QMS$$

This suggests that when QMS principles are implemented at the company, the organization's performance rate in Transition improves dramatically. According to the preceding discussions

in describing the influence of QMS practices on OP, organizational performance is influenced by several factors other than top management support, training and competence, risk and process management; this is supported by the regression result, which shows that other factors account for 5.2% of the variance in organizational performance

## II. Multiple Linear Regression Analysis

The standardized coefficients are utilized to measure the relative significance of the key predictors. The result shows that the best predictor is risk management which has the highest standardized coefficient (.205) and the lowest significance (.000).

Table 4.17 Summary of regression results for QMS practices

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.010	0.058		0.178	0.859
	PM	0.193	0.013	0.269	14.672	0.000
	LS	0.119	0.011	0.221	11.253	0.000
	CI	0.131	0.013	0.188	9.967	0.000
	T	0.161	0.015	0.233	10.629	0.000
	CS	0.188	0.019	0.216	9.666	0.000
	R	0.205	0.022	0.240	9.369	0.000

a. Dependent Variable: QMS

Source: own survey (2024)

We can also read off the value of  $\beta$  from the table, if risk management variable is increased by one unit, then the model predicts that 20.5% extra additional value on organizational performance was experienced.

The same is true for process management (19.3%), customer satisfaction (18.8%), training & competence development (16.1%), continuous improvement (13.1%) and Leadership commitment & support (11.9%), for which an increase in one unit of these respective variables can result in an increase in organizational performance by the percentage shown.

The regression equation is: -

$$OP=0.01+0.205R+0.193PM+0.188CS+0.161T+0.131CI+0.119LS$$

## **CHAPTER FIVE**

### **5. SUMMARY OF FINDING, CONCLUSION AND RECOMMENDATIONS**

The main objective of this study was to assess the effect of Quality management system on organizational performance in Transsion manufacturing plc.

Based on the objectives and research questions of the study; questionnaire was adopted and organized from existing literature to measure the study variables. The sample size determined for this study was 78. In order to obtain the required sample size, 87 questionnaires were distributed in hard copy and an online questionnaire was prepared using Google form. In general, a total of 78 useable questionnaires which has 89.66% response rate were collected in hard copy and online platform (Google form). The statistical package for social science software (SPSS) version 21 were used for analysis purpose.

#### **5.1 Summary of finding**

- All quality management system practices, including process management, leadership commitment and support, customer satisfaction, continuous improvement, training & competence development, and risk management were found to be crucial for organizational performance at Transsion, according to the study.
- According to the study, QMS practices have a direct influence on organizational performance ( product quality, operational performance, satisfaction result)
- The study's findings indicated that the table 4.9 majority of employees at the business agree on the customer satisfaction on the OP (Mean = 4.15). According to the study's findings, the majority of employees slightly agree that the top leader at Transsion have commitment and support on QMS. Furthermore, the respondents' views on process management at Transsion were mostly in accord (Mean = 4.06). The majority of employees in the survey discovered that continuous improvement guided the employees to contribute more to the QMS, Similarly, the study found that training and competence development has usually in accord (3.92), Risk management (4.00).

- The study also conducted correlation analysis to learn the relationship between the independent variables and dependent variable organizational performance at Transsion. Its results revealed that all the independent variables have a positive, strong and significant correlation.
- The regression analysis has shown that Regressing organizational performance on the seven predictors results in an R<sup>2</sup> of 0.948, which tells that the dependent variable is explained by the predictor variables in the linear regression
- Moreover, The results of the correlation showed at  $p < 0.01$  that above all QMS practices, Training & competence development, customer satisfaction and risk management have a strong positive significant relationship with organizational performance. It is also observed that process management, continuous improvement and leadership commitment & support have moderate positive strong relationship with organizational performance.
- As per the regression analysis's result, risk management has the highest positive (B=0.205) and significant effect on organizational performance. Process management also has a positive (B=0.193) and significant effect on organizational performance. Similarly, customer satisfaction (B=0.188), training & competence development (B=0.161), continuous improvement (B=0.131) and leadership commitment & support (B=0.119).

## **5.2 Conclusion**

- The main aim of the study was to assess the current QMS practices that have significance for organizational performance at Transsion manufacturing plc.
- According to the findings, the six QMS practices predict organizational performance by 94.8 percent. This result suggests that there is a substantial association between QMS and organizational performance. This implies that Transsion should place a greater focus on QMS practices in order to increase product quality and operational performance.

### **5.3 Recommendations**

From overall results and inferences of the study, the following recommendations are put forward by the researcher

- Prior to implementation of QMS, companies should adequately train their employees about the process of implementation so as to acquire the necessary knowledge and experience.
- As a consequence of the findings of this study, its necessary to give recognition and feedback in order to raise their moral and job satisfaction.
- It is also necessary to gain the workforce commitment in the course of implementation. As a result, the companies implementing QMS should motivate their employees with appropriate means of motivation scheme.
- Leadership commitment and support is an essential practice that companies which intend to implement ISO QMS should ensure its existence in their organizations.

### **5.4 Suggested Further Research**

This study investigated the impact of QMS on organizational performance in the private sector (Transition Manufacturing plc). It did not include other sectors. Thus, future studies should investigate the impact of QMS on organizational performance in different areas. The researcher recommended that future researchers include other intervening variables that either mediate or mitigate the relationship between the specified independent and dependent variables.

# APPENDICES

## Appendix I: Questionnaire

**Addis Ababa University**  
**School of Commerce**  
**Department of Project Management**

Name: Hanamariam Fetene

Address: email- [hanamariamfetene@gmail.com](mailto:hanamariamfetene@gmail.com), Tel.0920513251

Dear respondents, the goal of this survey question is to collect information about the implementation of the ISO 9001:2015 quality management system and its impact on organizational performance in preparation for the completion of a Master's degree at Addis Ababa University. Your voluntary participation and accurate information are critical to completing this research. The collected data will be used solely for academic purposes and kept strictly secret.

### Part I. Demographic Information

1. Please answer the following questions by checking tick or x mark on the appropriate box.

#### A. Gender

Male

Female

#### B. Educational level

Diploma

Bachelor's degree

Master Degree Other

#### C. Work experiences the in organization (yrs.)

1-3

4-6

7-9

10 and above

#### D. Current position:

Manager

Supervisor

Team Leader

Other Management Staff

### Part II. Survey Questionnaire

<p>You are requested to kindly weight these items on five point Likert scale for developing an instrument to measure the Impact of Quality Management System (QMS) on Organizational Performance in Transsion Manufacturing.</p> <p>Key: (1) Strongly Disagree (2) Disagree (3) Undecided (4) Agree (5)Strongly Agree</p>					
QMS Elements Factors/Items	Strongly Disagree		Strongly Agree		
	1	2	3	4	5
<b>1. Process Management</b>					
1. QMS has positively impacted our processes and outcomes					
2. Processes are Well-Defined and Documented					
3. External and internal issues are frequently reviewed and monitored					
4. key resources, processes, and requirements have been established for the delivery of conforming products/services					
5. The implementation of QMS streamlined processes					
<b>2. Leadership Commitment &amp; Support</b>					
1. Top leadership provides significant means (resources) to improve and maintain quality.					
2. Top leadership views quality more important than production ( means quality has more importance than production schedules)					
3. Management at the top takes quality as their responsibility.					
4. Top executives routinely interact with their concerned departments (Quality as well as other).					
5. Top management is evaluated on quality performance					
<b>3. Continuous Improvement</b>					
1. QMS practices promotes a culture of continuous improvement.					
2. It is OK for employees to point out problems or concerns					
3. Any creative idea you've had for making your job better is implemented					
4. you received feedback from your manager frequently					
5. You get training on continuous improvement or related methodologies					
<b>4. Training &amp; competence Development</b>					
1. Proper and efficient training is provided to newly selected personnel.					
2. Health and safety practices are excellent.					
3. Career development training to employees is provided by the company					
4. QMS-related training programs have enhanced your skills and knowledge					
5. You feel well-prepared to contribute to QMS goals					

<b>5. Customer Satisfaction</b>					
1. The key customer requirements are identified (product specifications detected and fulfilled).					
2. Design, development and delivery of products is according to the requirements of Customers.					
3. Customer satisfaction feedbacks are taken after a regular interval.					
4. Customer complaints are properly recoded and reviewed to maintain our quality standards.					
5. Concessions are provided for defective parts/products					
<b>6. Risk Management</b>					
1. Risks are identified, assessed, and mitigated effectively					
2. QMS address risk management within your organization					
3. Employees at all levels understand their role in managing risks					
4. QMS ensure compliance with industry standards					
5. Planned actions(risk mitigation strategies) integrated into the QMS processes					
<b>II Organizational Performance</b>					
<b>1. Product Quality</b>					
1.The company's products are the reliable					
2. The company's products are consistence/durable					
3. The company's products perceived quality is improved.					
4. The company's rate of product defect reduced and there was increase conformance to specifications.					
<b>2. Operational performance</b>					
1. There is labor productivity improvement.					
2. There is input material utilization rate improvement.					
3. The production process is capable of producing variety of products.					
4. Cycle time (from receipt of raw materials to shipment of finished products) has decreased in your organization.					
5. The company's ability to have access to new domestic and foreign markets increased.					
6. There is machine efficiency improvement.					
7. Process variability in your organization has decreased.					
<b>3. Satisfaction Results</b>					

1. There is an increase in production percentage (production achieved/ production planned).					
2. Employees have high morale and are fully satisfied.					
3. Customers are fully satisfied.					
4. Product quality is very high (zero defects ensured).					

## Reference

- Aggelogiannopoulos, D., Drosinos, E. H., & Athanasopoulos, P. (2007). Implementation of a quality management system (QMS) according to the ISO 9000 family in a Greek small-sized winery: A case study. *Food Control*, 18(9), 1077–1085.  
<https://doi.org/10.1016/j.foodcont.2006.07.010>
- Ahire, S. L., & Dreyfus, P. (2000). The impact of design management and process management on quality: An empirical investigation. *Journal of Operations Management*, 18(5), 549–575.  
[https://doi.org/10.1016/S0272-6963\(00\)00029-2](https://doi.org/10.1016/S0272-6963(00)00029-2)
- Ahmudi, Purwanggono, B., & Utami Handayani, N. (2018). Effectiveness analysis of ISO 9001:2015 implementation at manufacturing industry. *SHS Web of Conferences*, 49, 01008.  
<https://doi.org/10.1051/shsconf/20184901008>
- Al-Rawahi, A. M. S., & Bashir, H. A. (2011). On the implementation of ISO 9001:2000: A comparative investigation. *The TQM Journal*, 23(6), 673–687.  
<https://doi.org/10.1108/17542731111175275>
- Anjoran, R. (2013). Lean and ISO 9001 are very compatible. Retrieved August, 13, 2015.
- Armistead, C., & Machin, S. (1998). Business process management: Implications for productivity in multi-stage service networks. *International Journal of Service Industry Management*, 9(4), 323–336. <https://doi.org/10.1108/09564239810228849>
- Bakotić, D., & Rogošić, A. (2017). Employee involvement as a key determinant of core quality management practices. *Total Quality Management & Business Excellence*, 28(11–12), 1209–1226. <https://doi.org/10.1080/14783363.2015.1094369>
- Barbosa, F. M., Gambi, L. do N., & Gerolamo, M. C. (2017). Leadership and quality management – a correlational study between leadership models and quality management principles. *Gestão & Produção*, 24, 438–449. <https://doi.org/10.1590/0104-530X2278-16>
- Bauer, R., Koedijk, K., & Otten, R. (2005). International evidence on ethical mutual fund performance and investment style. *Journal of Banking & Finance*, 29(7), 1751–1767.  
<https://www.sciencedirect.com/science/article/pii/S0378426604001372>
- Bell, M., & Omachonu, V. (2011). Quality system implementation process for business success. *International Journal of Quality & Reliability Management*, 28(7), 723–734.  
<https://doi.org/10.1108/02656711111150814>
- Bititci, U., Garengo, P., Dörfler, V., & Nudurupati, S. (2012). Performance Measurement: Challenges for Tomorrow\*. *International Journal of Management Reviews*, 14(3), 305–327.  
<https://doi.org/10.1111/j.1468-2370.2011.00318.x>
- Boer, H., Berger, A., Chapman, R., & Gertsen, F. (2017). *CI changes from suggestion box to organisational learning: Continuous improvement in Europe and Australia*. Routledge.

<https://www.taylorfrancis.com/books/mono/10.4324/9781315198286/ci-changes-suggestion-box-organisational-learning-harry-boer-anders-berger-ross-chapman-frank-gertsen>

Boer, H., & Gertsen, F. (2003). From continuous improvement to continuous innovation: A (retro)(per)spective. *International Journal of Technology Management*, 26(8), 805. <https://doi.org/10.1504/IJTM.2003.003391>

Bryde, D. J. (2008). Is construction different? A comparison of perceptions of project management performance and practices by business sector and project type. *Construction Management and Economics*, 26(3), 315–327. <https://doi.org/10.1080/01446190701874413>

Caves, R. E. (1971). International Corporations: The Industrial Economics of Foreign Investment. *Economica*, 38(149), 1–27. <https://doi.org/10.2307/2551748>

Caves, R. E., & Porter, M. E. (1980). The Dynamics of Changing Seller Concentration. *The Journal of Industrial Economics*, 29(1), 1. <https://doi.org/10.2307/2097877>

Chandler, A. D. (1992). Organizational Capabilities and the Economic History of the Industrial Enterprise. *Journal of Economic Perspectives*, 6(3), 79–100. <https://doi.org/10.1257/jep.6.3.79>

Chowdhury, M., Paul, H., & Das, A. (2007). The Impact of Top Management Commitment on Total Quality Management Practice: An Exploratory Study in the Thai Garment Industry. *Global Journal of Flexible Systems Management*, 8(1–2), 17–29. <https://doi.org/10.1007/BF03396517>

Ciravegna Martins Da Fonseca, L. M., Domingues, J. P., Machado, P. B., & Harder, D. (2019). ISO 9001:2015 adoption: A multi-country empirical research. *Journal of Industrial Engineering and Management*, 12(1), 27. <https://doi.org/10.3926/jiem.2745>

Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship Quality in Services Selling: An Interpersonal Influence Perspective. *Journal of Marketing*, 54(3), 68–81. <https://doi.org/10.1177/002224299005400306>

Culler, E. W. (2009). *The degree of relationship between critical success factors and information technology project performance*. University of Phoenix. <https://search.proquest.com/openview/3cea8c57bb221a2a102de8ad8c4bbf45/1?pq-origsite=gscholar&cbl=18750>

Dancey, C. P., & Reidy, J. (2007). *Statistics without maths for psychology*. Pearson education.

De Toni, A., & Tonchia, S. (1996). Lean organization, management by process and performance measurement. *International Journal of Operations & Production Management*, 16(2), 221–236. <https://www.emerald.com/insight/content/doi/10.1108/01443579610109947/full/html>

Demers, J. (2002). The lean philosophy: Continuous improvement by any name can boost a company's performance. The choice is up to you. *CMA MANAGEMENT*, 76(7), 31–33.

Douglas, T. J., & Fredendall, L. D. (2004). Evaluating the Deming Management Model of Total Quality in Services\*. *Decision Sciences*, 35(3), 393–422. <https://doi.org/10.1111/j.0011-7315.2004.02569.x>

- Ebrahimi, M., & Sadeghi, M. (2013). Quality management and performance: An annotated review. *International Journal of Production Research*, 51(18), 5625–5643. <https://doi.org/10.1080/00207543.2013.793426>
- Fatihah, N. (2018). Determinants of ISO 9001 quality management system effectiveness amongst electrical and electronics manufacturing firms in Malaysia. *International Journal for Quality Research*, 12(3), 655–676. <https://www.academia.edu/download/84592726/7.pdf>
- Field, R., Hawkins, B. A., Cornell, H. V., Currie, D. J., Diniz-Filho, J. A. F., Guégan, J., Kaufman, D. M., Kerr, J. T., Mittelbach, G. G., Oberdorff, T., O'Brien, E. M., & Turner, J. R. G. (2009). Spatial species-richness gradients across scales: A meta-analysis. *Journal of Biogeography*, 36(1), 132–147. <https://doi.org/10.1111/j.1365-2699.2008.01963.x>
- Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1994). A framework for quality management research and an associated measurement instrument. *Journal of Operations Management*, 11(4), 339–366. [https://doi.org/10.1016/S0272-6963\(97\)90004-8](https://doi.org/10.1016/S0272-6963(97)90004-8)
- Fonseca, L. (2015). From quality gurus and TQM to ISO 9001:2015: A review of several quality paths. *International Journal for Quality Research (IJQR)*, 9(1), 167–180. <https://recipp.ipp.pt/handle/10400.22/5740>
- Fuentes-Fuentes, M. M., Lloréns-Montes, F. J., & Albacete-Sáez, C. A. (2007). Quality management implementation across different scenarios of competitive structure: An empirical investigation. *International Journal of Production Research*, 45(13), 2975–2995. <https://doi.org/10.1080/00207540500410135>
- Gambi, L. do N., Gerolamo, M. C., & Carpinetti, L. C. R. (2013). A Theoretical Model of the Relationship between Organizational Culture and Quality Management Techniques. *Procedia - Social and Behavioral Sciences*, 81, 334–339. <https://doi.org/10.1016/j.sbspro.2013.06.438>
- García-Alcaraz, J. L., Oropesa-Vento, M., & Maldonado-Macías, A. A. (2017). Kaizen and Lean Manufacturing. In J. L. García-Alcaraz, M. Oropesa-Vento, & A. A. Maldonado-Macías (Eds.), *Kaizen Planning, Implementing and Controlling* (pp. 1–21). Springer International Publishing. [https://doi.org/10.1007/978-3-319-47747-3\\_1](https://doi.org/10.1007/978-3-319-47747-3_1)
- Garson, G. D. (2012). *Testing statistical assumptions*. Statistical associates publishing Asheboro, NC. <https://www.researchgate.net/profile/Jurandy-Penitente-Filho/post/What-is-the-best-statistical-method-to-correlate-immunohistochemistry-and-rt-pcr/attachment/59d61d9879197b807797853c/AS%3A271755204071424%401441802897825/download/assumptions.pdf>
- Gulledge, T. R., & Sommer, R. A. (2002). Business process management: Public sector implications. *Business Process Management Journal*, 8(4), 364–376. <https://doi.org/10.1108/14637150210435017>
- Hackman, J. R., & Wageman, R. (1995). Total Quality Management: Empirical, Conceptual, and Practical Issues. *Administrative Science Quarterly*, 40(2), 309–342. <https://doi.org/10.2307/2393640>

- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 9(2), 193. <https://doi.org/10.2307/258434>
- Hellström, A., & Eriksson, H. (2008). Are you viewing, mapping or managing your processes? *The TQM Journal*, 20(2), 166–174. <https://doi.org/10.1108/17542730810857390>
- Hult, G. T. M., Ketchen, D. J., Griffith, D. A., Chabowski, B. R., Hamman, M. K., Dykes, B. J., Pollitte, W. A., & Cavusgil, S. T. (2008). An assessment of the measurement of performance in international business research. *Journal of International Business Studies*, 39(6), 1064–1080. <https://doi.org/10.1057/palgrave.jibs.8400398>
- Hussein, B., Abou-Nassif, S., Aridi, M., Chamas, M., & Khachfe, H. (2017). *Challenges and Prospects of Implementing ISO 9001:2015 in Lebanese Higher Education Institutions*.
- Ishak, A. H., & Osman, M. R. (2016). A Systematic Literature Review on Islamic Values Applied in Quality Management Context. *Journal of Business Ethics*, 138(1), 103–112. <https://doi.org/10.1007/s10551-015-2619-z>
- Ismyrlis, V., Moschidis, O., & Tsiotras, G. (2015). Critical success factors examined in ISO 9001: 2008-certified Greek companies using multidimensional statistics. *International Journal of Quality & Reliability Management*, 32(2), 114–131. <https://www.emerald.com/insight/content/doi/10.1108/IJQRM-07-2013-0117/full/html>
- Jain, S. K., & Singh Ahuja, I. (2012). An evaluation of ISO 9000 initiatives in Indian industry for enhanced manufacturing performance. *International Journal of Productivity and Performance Management*, 61(7), 778–804. <https://doi.org/10.1108/17410401211263863>
- Joseph, I. N., Rajendran, C., & Kamalanabhan, T. J. (1999). An instrument for measuring total quality management implementation in manufacturing-based business units in India. *International Journal of Production Research*, 37(10), 2201–2215. <https://doi.org/10.1080/002075499190725>
- Kaziliūnas, A. (2010). SUCCESS FACTORS FOR QUALITY MANAGEMENT SYSTEMS: CERTIFICATION BENEFITS. *Intellectual Economics*, 2(8). <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=18228038&AN=56532309&h=JVUshyYzMWmiw4o1pXzzfGu4WEtD7vFLjR8mzPTW9Qurspqjh%2BRLjTg8KxNSKyITOh6vUT3JbU5%2Fn8kAxaQ36g%3D%3D&crl=c>
- Khalili, A., Ismail, M. Y., & Karim, A. N. M. (2017). Integration of lean manufacturing and quality management system through structural equation modelling. *International Journal of Productivity and Quality Management*, 20(4), 534. <https://doi.org/10.1504/IJQPM.2017.082835>
- Khan, R. A. G., Khan, F. A., & Khan, M. A. (2011). Impact of training and development on organizational performance. *Global Journal of Management and Business Research*, 11(7), 63–68. <https://www.academia.edu/download/56926143/8-Impact-of-Training-and-Development-on-Organizational-Performance.pdf>

- Kim, D., Kumar, V., & Kumar, U. (2011). A performance realization framework for implementing ISO 9000. *International Journal of Quality & Reliability Management*, 28(4), 383–404. <https://doi.org/10.1108/02656711111121807>
- Kombo, F. (2015). Customer satisfaction in the Kenyan banking industry. *Journal of International Studies*. <https://publikace.k.utb.cz/handle/10563/1006396>
- Laohavichien, T., Fredendall, L. D., & Cantrell, R. S. (2009). The Effects of Transformational and Transactional Leadership on Quality Improvement. *Quality Management Journal*, 16(2), 7–24. <https://doi.org/10.1080/10686967.2009.11918223>
- Mackelprang, A. W., Jayaram, J., & Xu, K. (2012). The influence of types of training on service system performance in mass service and service shop operations. *International Journal of Production Economics*, 138(1), 183–194. <https://www.sciencedirect.com/science/article/pii/S0925527312001181>
- Malik, A. I., & Sarkar, B. (2018). Optimizing a Multi-Product Continuous-Review Inventory Model With Uncertain Demand, Quality Improvement, Setup Cost Reduction, and Variation Control in Lead Time. *IEEE Access*, 6, 36176–36187. <https://doi.org/10.1109/ACCESS.2018.2849694>
- March, J. G., & Sutton, R. I. (1997). Crossroads—Organizational Performance as a Dependent Variable. *Organization Science*, 8(6), 698–706. <https://doi.org/10.1287/orsc.8.6.698>
- McGuire, S. J., & Dilts, D. M. (2008). The financial impact of standard stringency: An event study of successive generations of the ISO 9000 standard. *International Journal of Production Economics*, 113(1), 3–22. <https://doi.org/10.1016/j.ijpe.2007.02.045>
- Micklewright, M. (2010). *Lean ISO 9001: Adding spark to your ISO 9001 QMS and sustainability to your lean efforts*. Quality Press.
- Micklewright, M. (2014). Build Lean Into Your QMS When Converting to ISO 9001: 2015. *On Line] Http://Www. Qualitydigest. Com/inside/Quality-Insider-Column/Build-Lean-Your-Qms-When-Converting-Iso-90012015. Html#(Accessed 5 December 2014)*.
- Middel, R., Weegh, S. O. D., & Gieskes, J. (2007). Continuous improvement in The Netherlands: A survey-based study into current practices. *International Journal of Technology Management*, 37(3/4), 259. <https://doi.org/10.1504/IJTM.2007.012262>
- Millman, T., & Wilson, K. (1999). Processual issues in key account management: Underpinning the customer-facing organisation. *Journal of Business & Industrial Marketing*, 14(4), 328–344. <https://doi.org/10.1108/08858629910279916>
- Minbaeva, D. B. (2005). HRM practices and MNC knowledge transfer. *Personnel Review*, 34(1), 125–144. <https://www.emerald.com/insight/content/doi/10.1108/00483480510571914/full/html>
- Mohammed, K., Ali, B., & Abdulaziz, A. (2016). Total Quality Management in Saudi Higher Education. *International Journal of Computer Applications*, 135(4), 6–12. <https://doi.org/10.5120/ijca2016908245>

- Motwani, J. (2001). Critical factors and performance measures of TQM. *The TQM Magazine*, 13(4), 292–300. <https://doi.org/10.1108/13683040010362300>
- Mwangi, W., Awuor, E., & Kithae, P. (2022). LEADERSHIP STYLE, FINANCIAL INNOVATION AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA. *African Journal of Emerging Issues*, 4(10), Article 10. <https://ajoeijournals.org/sys/index.php/ajoei/article/view/338>
- Neely, A., Kennerley, M., & Adams, C. (2007). Performance measurement frameworks: A review. In A. Neely (Ed.), *Business Performance Measurement* (2nd ed., pp. 143–162). Cambridge University Press. <https://doi.org/10.1017/CBO9780511488481.010>
- Ngambi, M. T., & Nkemkiafu, A. G. (n.d.). *The Impact of Total Quality Management on Firm's Organizational Performance*.
- Nguyen Ngoc Thang, Q. T., & Buyens, D. (2010). *Training and firm performance in economies in transition: A comparison between Vietnam and China*.
- Oakland, J. (2011). Leadership and policy deployment: The backbone of TQM. *Total Quality Management & Business Excellence*, 22(5), 517–534. <https://doi.org/10.1080/14783363.2011.579407>
- Ogany, D. A. (2017). *Factors Influencing Implementation of QMS in Technical Vocational Education and Training Institutions in Nairobi*. Kenya.
- Ong, F., Purwanto, A., Supono, J., Hasna, S., Novitasari, D., Asbari, M., Tinggi, S., Ekonomi, I., & Pembangunan, I. (2020). *Does Quality Management System ISO 9001:2015 Influence Company Performance? Answers from Indonesian Tourism Industries*.
- Padma, P., Ganesh, L. S., & Rajendran, C. (2008). A study on the critical factors of ISO 9001:2000 and organizational performance of Indian manufacturing firms. *International Journal of Production Research*, 46(18), 4981–5011. <https://doi.org/10.1080/00207540600793299>
- Palmberg, K. (2009). Exploring process management: Are there any widespread models and definitions? *The TQM Journal*, 21(2), 203–215. <https://doi.org/10.1108/17542730910938182>
- Pambreni, Y., Khatibi, A., Azam, S., & Tham, J. (2019). The influence of total quality management toward organization performance. *Management Science Letters*, 9(9), 1397–1406. <http://m.growingscience.com/beta/msl/3218-the-influence-of-total-quality-management-toward-organization-performance.html>
- Patyal, V. S., & Koilakuntla, M. (2017). The impact of quality management practices on performance: An empirical study. *Benchmarking: An International Journal*, 24(2), 511–535. <https://doi.org/10.1108/BIJ-11-2015-0109>
- Paul Brunet, A., & New, S. (2003). *Kaizen in Japan: An empirical study*. *International Journal of Operations & Production Management*, 23(12), 1426–1446. <https://doi.org/10.1108/01443570310506704>

- Popova, L., Yashina, M., Babynina, L., Ryzshakova, A., Yefremova, N., & Andreev, A. (2019, June 1). *The Quality Management Development based on Risk-based Thinking Approach according to ISO 9001. | Quality—Access to Success | EBSCOhost*.  
<https://openurl.ebsco.com/contentitem/gcd:136376486?sid=ebsco:plink:crawler&id=ebsco:gcd:136376486>
- Priede, J. (2012). Implementation of Quality Management System ISO 9001 in the World and Its Strategic Necessity. *Procedia - Social and Behavioral Sciences*, 58, 1466–1475.  
<https://doi.org/10.1016/j.sbspro.2012.09.1133>
- Psomas, E. L., Fotopoulos, C. V., & Kafetzopoulos, D. P. (2011). Motives, difficulties and benefits in implementing the ISO 14001 Environmental Management System. *Management of Environmental Quality: An International Journal*, 22(4), 502–521.  
<https://doi.org/10.1108/14777831111136090>
- Qazzafi, S. (2019). Consumer buying decision process toward products. *International Journal of Scientific Research and Engineering Development*, 2(5), 130–134.  
<https://www.academia.edu/download/60728740/IJSRED-V2I5P1520190928-129446-f04isc.pdf>
- Rattray, J., & Jones, M. C. (2007). Essential elements of questionnaire design and development. *Journal of Clinical Nursing*, 16(2), 234–243. <https://doi.org/10.1111/j.1365-2702.2006.01573.x>
- Rehmani, K., Naseem, A., & Ahmad, Y. (2020). The Relationship between Quality Culture and Core Practices of Quality Management System and their Direct and Indirect Effects on Organizational Performance. *Global Social Sciences Review*, V(I), 180–189.  
[https://doi.org/10.31703/gssr.2020\(V-I\).19](https://doi.org/10.31703/gssr.2020(V-I).19)
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(3), 718–804.  
<https://doi.org/10.1177/0149206308330560>
- Sampaio, P., Saraiva, P., & Guimarães Rodrigues, A. (2011). ISO 9001 certification forecasting models. *International Journal of Quality & Reliability Management*, 28(1), 5–26.  
<https://doi.org/10.1108/026567111111097526>
- Saumya, S., Singh, J. P., & Dwivedi, Y. K. (2020). Predicting the helpfulness score of online reviews using convolutional neural network. *Soft Computing*, 24(15), 10989–11005.  
<https://doi.org/10.1007/s00500-019-03851-5>
- Schuler, R. S., & Jackson, S. E. (1987). Organizational strategy and organization level as determinants of human resource management practices. *People and Strategy*, 10(3), 125.  
<https://search.proquest.com/openview/58f9e48d7eab087494a9e9b5c97fe653/1.pdf?pq-origsite=gscholar&cbl=52465>
- Singh, J., & Singh, H. (2015). Continuous improvement philosophy – literature review and directions. *Benchmarking: An International Journal*, 22(1), 75–119. <https://doi.org/10.1108/BIJ-06-2012-0038>

- Singh, P. J. (2008). Empirical assessment of ISO 9000 related management practices and performance relationships. *International Journal of Production Economics*, 113(1), 40–59. <https://doi.org/10.1016/j.ijpe.2007.02.047>
- Singh, P. J., Power, D., & Chuong, S. C. (2011). A resource dependence theory perspective of ISO 9000 in managing organizational environment. *Journal of Operations Management*, 29(1), 49–64. <https://doi.org/10.1016/j.jom.2010.04.002>
- Singh, V., Kumar, A., & Singh, T. (2018). Impact of TQM on organisational performance: The case of Indian manufacturing and service industry. *Operations Research Perspectives*, 5, 199–217. <https://doi.org/10.1016/j.orp.2018.07.004>
- Siva, V., Gremyr, I., Bergquist, B., Garvare, R., Zobel, T., & Isaksson, R. (2016). The support of Quality Management to sustainable development: A literature review. *Journal of Cleaner Production*, 138, 148–157. <https://doi.org/10.1016/j.jclepro.2016.01.020>
- Skinner, E. W. (1969). RELATIONSHIPS BETWEEN LEADERSHIP BEHAVIOR PATTERNS AND ORGANIZATIONAL-SITUATIONAL VARIABLES. *Personnel Psychology*, 22(4), 489–494. <https://doi.org/10.1111/j.1744-6570.1969.tb00350.x>
- Sousa, R., & Voss, C. A. (2002). Quality management re-visited: A reflective review and agenda for future research. *Journal of Operations Management*, 20(1), 91–109. [https://doi.org/10.1016/S0272-6963\(01\)00088-2](https://doi.org/10.1016/S0272-6963(01)00088-2)
- Suprin, M., Chow, A., Pillwein, M., Rowe, J., Ryan, M., Rygiel-Zbikowska, B., Wilson, K. J., & Tomlin, I. (2019). Quality Risk Management Framework: Guidance for Successful Implementation of Risk Management in Clinical Development. *Therapeutic Innovation & Regulatory Science*, 53(1), 36–44. <https://doi.org/10.1177/2168479018817752>
- Tsiotras, G., & Gotzamani, K. (1996). ISO 9000 as an entry key to TQM: The case of Greek industry. *International Journal of Quality & Reliability Management*, 13(4), 64–76. <https://doi.org/10.1108/02656719610114407>
- Wawak, S. (2015). Preventive actions vs. risk management in ISO 9001: 2015. *9th International Quality Conference (Str. 3–9). Kragujevac: University of Kragujevac*. [http://www.cqm.rs/2015/cd1/pdf/papers/focus\\_1/001.pdf](http://www.cqm.rs/2015/cd1/pdf/papers/focus_1/001.pdf)
- Workman, J. P., Homburg, C., & Jensen, O. (2003). Intraorganizational Determinants of Key Account Management Effectiveness. *Journal of the Academy of Marketing Science*, 31(1), 3–21. <https://doi.org/10.1177/0092070302238599>
- Yahya, S., & Goh, W. (2001). The implementation of an ISO 9000 quality system. *International Journal of Quality & Reliability Management*, 18(9), 941–966. <https://doi.org/10.1108/02656710110407127>
- Yang, C.-C., Tsai, I.-C., Kim, B., Cho, M.-H., & Laffey, J. M. (2006). Exploring the relationships between students' academic motivation and social ability in online learning

environments. *The Internet and Higher Education*, 9(4), 277–286.  
<https://www.sciencedirect.com/science/article/pii/S1096751606000522>

Zakari, A. A., & Ibrahim, U. A. (2021). Impact of customer satisfaction on business performance of SME's in Nigeria. *International Journal of Research in Business and Social Science (2147-4478)*, 10(5), 46–51. <https://ssbfnet.com/ojs/index.php/ijrbs/article/view/1291>