



**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**DETERMINANTS OF ISO9000 ON COMPANIES' QUALITY  
PERFORMANCE IN THE CASE OF META ABO BREWERY S.C (DIAGEO)**

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## APPROVAL OF BOARD OF EXAMINERS

As members of the Examining Board of the final MBA, open defense, we certify that we read and evaluated the thesis prepared by **YADENI MADESSA OLGA** and recommend that it is accepted as fulfilling the thesis requirement for the Degree of Master in Business Administration.

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## DECLARATION

I declare that this MBA thesis is my original work, and has never been presented for the award of any degree in this or any other University and all source of materials used for the thesis have been duly acknowledged.

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## Table of Contents

ACKNOWLEDGEMENTS .....	i
LIST OF TABLES .....	ii
ABSTRACT .....	iii
CHAPTER ONE .....	1
1. INTRODUCTION.....	1
1.1Background of the Study.....	1
1.2Statement of the Problem .....	3
1.3 Research Objective .....	4
1.3.1 General Objective: .....	4
1.3.2 Specific Objectives.....	4
1.4 Research Questions .....	5
1.6 Scope of the Study .....	6
1.7 Limitations of the Study.....	6
1.8 Significance of the Study .....	6
1.9 Organization of the thesis .....	7
CHAPTER TWO .....	8
LITERATURE REVIEW .....	8
2. INTRODUCTION.....	8
2.1 Theoretical Framework .....	8
2.2.1 ISO 9000 series .....	8
2.2.2 Quality .....	9
2.2.3 Quality management principles .....	10
2.2.4. Effectiveness of the ISO 9001 QMS Implementation .....	14
2.2.5 Implementation of ISO 9000 Series .....	15
2.2.6 Performance Measurement.....	16
2.2 Empirical literature review .....	17
Figure: - 2.3 conceptual frame work .....	19
CHAPTER THREE.....	20
RESEARCH DESIGN AND METHODOLOGY .....	20
3.1. Introduction .....	20
3.2 Research Design and Approach.....	20

3.3 Data type, Source and Data Collection Technique .....	20
3.3.1 Target Population.....	21

3.3.2 Sampling .....	21
Sample size and Sampling Technique .....	21
3.3.3 Sampling Technique.....	22
3.4 Reliability.....	22
3.5 Methods of Data Analysis.....	23
CHAPTER FOUR .....	24
4.1 Demographic Information of the Study Participants .....	24
4.2.1 Correlation Analysis.....	29
Assumption1. There is no multicollinearity problem in the data .....	32
Assumption2 Heteroskedasticity Test.....	32
CHAPTER FIVE .....	35
SUMMARY, CONCLUSION AND RECOMMENDATION .....	36
5.1 SUMMARY.....	36
5.3 CONCLUSION.....	37
References .....	39

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<b>LIST OF TABLES</b>	<b>PAGE</b>
Table 4.1 Response Rate	24
Table 4.2 Frequency distribution of Gender of respondents	24
Table 4.3 Frequency distribution of Age of respondents	24
Table 4.4 Frequency distribution of respondents work experience	25
Table 4.5 Frequency distribution of educational qualification	25
Table 4.6 Descriptive Statistics of Management Responsibility	26
Table 4.7 descriptive statistics internal quality audit	27
Table 4.8 Descriptive statistics of process control	27
Table 4.9 Descriptive Statistics of Supplier Control	28
Table 4.10 Descriptive Statistics of quality performance	29
Table 4.11 The measures of associations and descriptive Objectives	30
Table 4.12 Correlation	30

## **ABSTRACT**

*The purpose of this research is to find out the Determinate of ISO9000 on quality performance of Meta Abo brewery S.C. The study considered factors (i.e. Management Responsibility, process Control, Internal quality audit, and Supplier control), to measure quality performance in Meta Abo brewery s.c. The study obtained information from 78 respondents from staff of Meta Abo brewery S.C Simple random and stratified sampling techniques were employed in admitting the questionnaires. Using quantitative data, this paper strived to investigate the determinant of ISO9000 on the quality performance in the case of Meta Abo Brewery S.C. Data was analyzed through statistical package for the social science version 26 (SPSS) by applying some needed descriptive and inferential statistics. Descriptive research design and quantitative research approach was applied. The result indicted that, management responsibility, process control, internal quality audit and supplier control is positively associated with quality performance in the study area. Finally, the researcher concluded that in the case of selected study area the different factors of determinant of ISO9000 have a significant and positive role on quality performance. Then the researcher recommended that the companies are currently in a position that they can perform their production processes in a better way than before. To continue this operational and production efficiencies they should further search for the best way of mastering quality management system as ISO certification is not the only goal of these companies.*

***Keywords: Internal Quality Audit, Management Responsibility, Supplier Control and Process Control,***

## CHAPTER ONE

### 1. INTRODUCTION

#### 1.1 Background of the Study

Firms don't act freely since they depend on the authenticity forced by regulation situations. Subsequently, they are constrained to join basic components, hones, procedures, and methods that are considered as a judicious implies to realize organizational objectives Beck and Walgenbach(2005). One of these requirement could be achieved by the adoption of quality systems is the ISO 9000 series of standards, which describes fundamentals of a quality management system and specifies terminologies thereof. ISO 9000 is the most widely known international standard for quality management. To the end of 2007, more than 951,000 ISO 9001:2000 certificates were issued in 175countries and economies (ISO, 2007). ISO 9000 Certification has been applied the world wide in all Sector of industry now a day's Company, receiving ISO 9000 certification take as a general requirement for running a good business. (Yan, 1988)

ISO 9000 is a set of quality system standards that prescribes good quality practices, without mandating how a company should achieve those practices. ISO 9000 series of Standards have become widely accepted for companies aiming to achieve cost effective and quality and assurance methods. (nurre,gunman& De-almeida, 2000)

Today's most Ethiopian managers in general are not doubtful of whether they shall adopt ISO 9000. Instead, they are more concerned with how to implement the quality management standard most successfully and how their companies can be differentiated from other ISO 9001 certified competitors in the brewery company after obtaining the certification. In this connection, we argue that although ISO 9000 has become a common knowledge in organizations and the standard is widely adopted indifferent industries and sectors, it can be a source of competitive advantage because ISO9001 certified organizations can implement the standard in very different ways.

Proponents of ISO 9000 QMS Certification argue that proper implementation leads to better organizational performance, an increase in production volumes, a decrease of customer complaints, a reduction of variance in the production process, and an elevation in competitiveness are among the benefits (Rusjan and Alic, 2010; Kim, Kumar, & Kumar, 2011.; Lee, To, and Yu, 2009; Wu and Liu, 2010; Srivastav, 2010).

When employees work according to the procedures that are described in the ISO 9000 series they are able to identify sources of problems in the production process. This enhances the purpose of the ISO 9000 series procedures which are meant to guarantee that the products or services an organization offers are in accordance with customer specifications. With better operational performance, the products or services the organization offers should become more attractive to customers and the firm should have better business performance. Sales and profitability should increase (Singels, Ruel & Water, 2001).

Quality is the extent to which the customer or risers believe the product or service surpasses. Their needs and expectations (Gitlow et al. 1989). Quality is the total composite product and service characteristics of marketing, engineering, manufacture and maintenance through which the product in use will meet the expectations of the customer (Flynn, RR, Schroeder, RG. and Sakakibara S. 1994). QM is generally described as a collective, interlinked system of quality management practices that is associated with organizational performance (GAO, 1991; Tornow and Wiley, 1991).

According to Theresa Philips there are top reasons to consider the ISO 9001:2015 quality management standards (QMS) certification. Companies that go through the ISO 9000 QMS certification process have given a lot of thought to their processes and how to maximize quality and efficiency. Once certified for QMS, the processes are established and guidelines in place for anyone to follow easily, making training, transitions, and troubleshooting easier. Studies have shown that ISO 9000 QMS certified companies experience increased productivity and improved financial performance, compared to uncertified companies, all contribute to more satisfied and motivated staff. The ISO 9000 QMS standard requires documentation of all processes and any changes, errors, and discrepancies. This ensures consistency throughout production and accountability of all staff. This also guarantees traceable records are available in case of non-compliant products or raw materials. Client confidence is gained because of the universal acceptance of the ISO 9000 standards. Customer satisfaction is ensured because of the benefits of ISO 9000 QMS to company efficiency, consistency, and dedication to quality service (Theresa Philips 2017).

The study will investigate determinant of ISO 9000 certification on the Meta Abo Brewery S. C's quality performance. Because based on the above discourse investigating factors of ISO 9000 certification for Meta Abo brewery S.C which helps for performance and customer satisfaction.

For this purpose, from the beverage industry, Meta Abo Brewery S.C. is selected for the study purpose. Meta Abo Brewery S.C, a giant global (Diageo) Company. Meta Abo brewery is based in Sebeta, Oromia region 28 km from Addis Ababa and the beer is distributed in returnable bottles (80%) and draught kegs (20%) across Ethiopia from both the brewery and a separate distribution center in Addis Ababa (Jack Ross). The Brewery produces various brands such as Malta Guinness, Kuru Malt, Meta Classic, Azmera beer, Meta Premium. The supply operations ensure that costs of delivered products are optimized and that it consistently delivered on excellent service levels to all their customers and consumers. Currently the site runs its business with 250 permanent and 600 casual & contract employees.

## **1.2 Statement of the Problem**

ISO certification stands for certain slightest quality rules that organizations got to meet and is said to ensure a solid quality of things, organizations and shapes. The prior quality standard lies inside the truth that they fundamentally centered on quality control systems when compared to the current ISO circumstances. (Dejene T., 2011).

Tummala and Tang (1996) in Singles et al. (2000), ISO is based on the notion that specific minimum characteristics of quality systems can be standardized, which can give mutual benefits for organizations and their suppliers because each of them knows that they both meet certain requirements concerning quality system. But ISO 9000 do not specify the level of product or service quality rather they specify a set of quality assurance system that must be in place, Finch (2003). Moreover, these procedures describe how operations in an organization must be conducted.

ISO certification does have certain benefits to a given organization. These could be external to the organization or internal to this organization. The internal benefits are related to the process and structure of the organization like performance in productivity, performance in efficiency, reduction in cost and waste, better management control and others. Those benefits external to the organizations are: competitive advantage, increase in sale and market share, possible chance of getting into new market, good customer relation and identifying potential customers, increased customer satisfaction and the like. Besides the benefits of ISO certification, there are also certain disadvantages associated with gaining the certificate. Some of the disadvantages are extra cost of obtaining the certificate, increase in paper work load, and no attention for development of personnel.

ISO certification does have certain benefits to a given organization. These may well be outside to the organization or inner to this organization. The inner benefits are related to the method and structure of the organization like execution in efficiency, execution in proficiency lessening in fetched and squander, way better administration control and others. Those benefits outside to the organizations are: competitive advantage, increment in deal and advertise share, conceivable chance of getting into modern advertise, great client connection and distinguishing potential clients, expanded client fulfillment and the like. Other than the benefits of ISO certification, there are too certain impediments related with picking up the certificate. A few of the impediments are additional taken a toll of getting the certificate, increment in paper work stack, and no consideration for advancement of faculty.

Although ISO certification provides both internal and external benefit to a given organization, it says nothing about the performance of those organizations, Singles et al (2000). Recent literature describes and evaluates ISO 9000 as a source of competitive advantage. Despite this there is still much debate concerning the standard's impact on firm performance, competitiveness and operations management. From an empirical perspective, previous research has failed to establish a causal relationship between certification and improvement in performance (Terlaak & King, 2000).

As shown in previous discussions, there is lack of studies in Ethiopia to show the determinant of ISO 9000 certification on the performance of the organizations acquiring the certification. This study will fill the gap by examining determinant of ISO 9000 certification on the company's performance by recentness data and by company comparison before certified the certificate and after certified the certificate.

### **1.3 Research Objective**

#### **1.3.1 General Objective:**

The general objective of this study is to investigate determinants of ISO9000 on Companies' Quality Performance in the case of Meta Abo Brewery S.C.

#### **1.3.2 Specific Objectives**

More specifically, the study is aimed to achieve the following objectives

- To determine the relationship between Management responsibility leadership and quality performance of in the study area.
- To Assess How Internal quality audit influence on quality performance of the study area.

- To evaluate if Supplier control has significant impact on quality performance of Meta Abo Brewery S.C
- To examine which determinants of ISO 9000 are affects quality performance of the company.

#### **1.4 Research Questions**

The research questions of this study are

- What kind of management responsibility leadership affects quality performances of the company?
- What kind of internal quality audit influences the quality performance of the study area?
- What kind of supplier controls affect quality performance of the company?
- What kind of Process control affects quality performance of the study area?
- What characteristics determinate of ISO9000 affects quality perform in the study area?

#### **1.5 Research Hypothesis**

Ho: Supplier control has no significant impact on quality performance of Meta Abo Brewery S.C

H1: Supplier control has significant impact on quality performance of Meta Abo Brewery S.C

Ho: Internal quality audit has no significant impact on quality performance of Meta Abo Brewery S.C

H1: Internal quality audit has significant impact on quality performance of Meta Abo Brewery S.C

Ho: management responsibility leadership has no significant impact on quality performance of the study area

H1: management responsibility leadership has significant impact on quality performance of the study area.

Ho: Process control has no significant impact on quality performance of Meta Abo Brewery S.C

H1: Process control has significant impact on quality performance of Meta Abo Brewery S.C

Ho: ISO 9000 has no significant impact on quality performance of Meta Abo Brewery S.C

H1: ISO 9000 has significant impact on quality performance of Meta Abo Brewery S.C

## **1.6 Scope of the Study**

The scope of the study was delimited to determinants of ISO 9000 on quality performance' in Ethiopia Brewery share company focusing at Meta Abo Brewery without including others Brewery found in Addis Ababa, due to time and budget constraints.

Furthermore, the variables covered by this study were focused on employee determinants of ISO 9000 only. But, other variables that affect quality performance such as external factors; technological factors and organizational behavior or cultural factors that affects the quality' performance not have covered, because of to manage this study.

## **1.7 Limitations of the Study**

This study was not totally free of limitation as any other social science research study. There was certain limitation faced a researcher such as during primary data collection. For instance, questionnaires filled by respondents' and not returned immediately. The fairness of the respondents on the date of appointment and shy to speak on an interview, time, and budget were some of the mentioned limitations of this study.

## **1.8 Significance of the Study**

The findings of the study will contribute output to existed knowledge by filling the research gaps devoted to determinants of ISO 9000 on quality performance' in Ethiopia share company focusing at Meta Abo Brewery. In the same fashion, it will contribute through assessing the gap between the organizations perceived and the actual result as an outcome of overall organizational performances.

Accordingly, the study is able to paint a clear picture of the actual determinants of ISO 9000 to bring effective quality performances at this study area. In a practicability perspective, the study will try to give an insight in figuring out how to increases quality performances. So that, both individuals and organization level objectives can be meet easily.

In sum, the output of this study will benefit the private and public sectors can draw important concepts out of this study, and it may serve policy-makers and business men as a supporting material; and will benefit the public at larger. In addition, this study may help as a foundation for other researchers who want to conduct further study in this area for the future.



## **1.9 Organization of the thesis**

The study is presented in five chapters. The first chapter presented the introduction part stating the study background, statement of the problem, research objectives, the research question and hypothesis, significance and scope of the study, limitation of study, and organization of the study. The Second chapter deals with review of related literature, theoretical and empirical evidence and developing theoretical framework of the study. Third chapter deals with research design and methodology. Chapter four represent the research findings and it results, and the last chapter includes the summary, conclusions and recommendation drawn from this study. Finally, the lists of bibliography, different appendixes with attached to the research paper.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2. INTRODUCTION

This chapter deals with to review the literature on the two major concepts in this study, ISO 9000 and quality, quality performance. For each concept, this review will begin with a brief discussion of the conceptual origins, definitions, and measures. This is followed by an overview of research, previous definitions, and major researchers who frame current understanding. This chapter ends with a review of these concepts as applied in the literature and research on ISO 9000.

##### 2.1 Theoretical Framework

###### 2.2.1 ISO 9000 series

According to the 9000 store.com, the ISO 9000 arrangement was made by the international organization for standardization (ISO), as worldwide prerequisites and rules for quality administration frameworks. It was initially presented in 1987 and over a long time has built up itself within the worldwide economy having been embraced in over 178 nations with over one million enlistments (The 9000 store.com).

The ISO 9000 standards offer companies the capability to develop and implement an effective and dynamic quality system, with a focus on continuous improvement and adaptation, as long as the companies show then necessary willingness and commitment to exploit it (Williams, 1997).

Each of the three sets concentrates on a different quality area. ISO 9001 is the most wide-ranging, for it specifies the various operating requirements in such areas as product design and development, production, installation, and servicing. ISO 9002 is concerned with quality assurance at the production and installation stages. ISO 9003 covers testing and inspections.

As Karapetrovic, Rajamani, and willborn noted, "if the minimum requirements are met [for the above operating areas], a registrar accredited by national accreditation institution issues a certificate of compliance and the organization's quality system becomes ISO 9001, 9002, or 9003 registered. "It is worth noting that certification is handed out for individual quality systems, not companies; this means that one company may hold more than one ISO 9000 registration.

In addition to ISO 9000, two related quality standards emerged in American industries in the late 1990s. ISO 14000, also known as the Environmental Management Systems Standards, is intended

to combine environmental management systems with the ISO 9000 quality system. The second system, QS9000 is an adaptation of ISO 9000 to meet the specific needs of the "big three" American automobile manufacturers Ford, General Motors, and Daimler Chrysler. Both systems were expected to have a substantial impact on U.S. companies.

ISO 9000 is a family of standards and within that family, ISO 9001 is the only standard an organization can certified to and that has requirements an organization must follow in order to be compliant. The intention of ISO 9001:2015 is help to organization consistently meet customer satisfaction, address risks and opportunities and meet business objectives. If done right, implementing ISO 9001 QMS (Quality Management System) will result in many other benefits for your organization.

### **2.2.2 Quality**

Quality emerged as an important issue in operations management in the 1950's. The important gurus of quality ideas include Edwards Deming who advocated the use of statistical techniques to drive quality improvement by reducing process variation, Joseph juran who also advocated the use of statistical techniques but also emphasized on the need to organize, coordinate and communicate and defined quality as fitness for use rather than conformance to specifications.

Phillip Crosby defined quality as conformance to requirements while using a quality system to prevent defects as well as measuring quality as the price of nonconformance and adopting zero defects as the quality standard Ishikawa stressed on the need to involve everyone in the quality improvement process and advocated the use of statistical methods and problem solving techniques.

Quality assurance moves the concept of quality beyond measurement and feedback control towards a more proactive approach aimed at preventing quality problems from occurring in the first place. This is achieved by the introduction of comprehensive quality management systems based on detailed manuals that set out how an entire operation should be managed. The aim is to shift the whole focus towards solving quality problems by attacking their causes rather than their effects. Total quality management switches the emphasis from the mere application of tools and techniques to changing attitudes so that quality becomes embedded in the value and beliefs of everyone in an organization with an aim of exceeding the expectations of customers. TQM sees quality as a source of competitive advantage (Barnes, 2008).

Quality in service organizations is difficult to define due to the fact that services are intangible and are consumed at the point of production and often involve contact with customers. The singular nature of many service encounters makes their standardization more difficult. Due to the person to person interaction in customer service, setting quality standards and measuring performance requires consideration of both the service provider and the customer perception of quality. Any measurement of performance and control of quality must be carried out in a way that does not interfere with the provision of a service (Aquilano & Chase, 2001).

These include the international organization for standardization (ISO) 9000, the US federal sentencing guidelines, recent regulations of the occupational Safety and Health Administration (OSHA), environmental management standards, and the Committee of Sponsoring Organizations of the Tread Way Commission (COSO) Framework internal controls for financial management. These standards are lists of design rules that guide the creations of entire classes of management systems. They constitute a new management technology that may bring meaningful standardization to general management practice (Uzumeri, 1997).

ISO 9001 which is the focus of this study is a standard that was developed by the international Organization for standardization and serves as a framework for organizational quality management systems. This framework is recognized by organizations and governments around the world. Organization incurs significant costs to obtain certification making it worthwhile to study the process to better understand the pertinent measures for certification success. It has been adopted by organizations and agencies of different industries and sectors (Bell & Omachonu, 2011).

### **2.2.3 Quality management principles**

According to Chemin de Blandonnet & Vernier (2015) One of the definitions of a “principle” is that it is a basic belief, theory or rule that has a major influence on the way in which something is done. “Quality management principles” are a set of fundamental beliefs, norms, rules and values that are accepted as true and can be used as a basis for quality management. The QMPs can be used as a foundation to guide an organization’s performance improvement. They were developed and updated by international experts of ISO/TC 176, which is responsible for developing and maintaining ISO’s quality management standards.

## **1. Customer focus**

The primary focus of quality management is to meet customer requirements and to strive to exceed customer expectations. Sustained success is achieved when an organization attracts and retains the confidence of customers and other interested parties. Every aspect of customer interaction provides an opportunity to create more value for the customer. Understanding current and future needs of customers and other interested parties contributes to sustained success of the organization. (Chemin de Blandonnet&Vernier 2015)

### **Key Benefits**

- Understanding the needs of existing and future customers
- Align organization objectives with customer needs & expectation
- Meet customer requirement
- Measure customer satisfaction
- Manage customer relationship
- Aim to exceed customer expectation

## **2. Leadership**

Leaders at all levels establish unity of purpose and direction and create conditions in which people are engaged in achieving the organization's quality objectives.

Creation of unity of purpose and direction and engagement of people enable an organization to align its strategies, policies, processes and resources to achieve its objectives. (Chemin de Blandonnet&Vernier 2015)

### **Key benefits**

- Establish a vision and direction for organization
- Set changing goals
- Model organization value
- Establish trust
- Recognize employee contribution

## **3. Engagement of people**

Competent, empowered and engaged people at all levels throughout the organization are essential to enhance its capability to create and deliver value. To manage an organization effectively and

efficiently, it is important to involve all people at all levels and to respect them as individuals. Recognition, empowerment and enhancement of competence facilitate the engagement of people in achieving the organization's quality objectives. (Chemin de Blandonnet&Vernier 2015)

### **Key benefits**

- Ensure that peoples abilities are used and valued
- Make people accountable
- Enable participation in continual improvement
- Evaluate individual performance
- Enable learning and knowledge sharing
- Enable open discussion of problems & constraints

### **4. Process approach**

Consistent and predictable results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes that function as a coherent system.

The quality management system consists of interrelated processes. Understanding how results are produced by this system enables an organization to optimize the system and its performance. (Chemin de Blandonnet&Vernier 2015)

### **Key benefit**

- Manage activities as a process
- Measure the capability of activities
- Identity linkages between activities
- Prioritize improvement opportunities
- Display resource effectively

### **5. Improvement**

Successful organizations have an ongoing focus on improvement.

Improvement is essential for an organization to maintain current levels of performance, to react to changes in its internal and external conditions and to create new opportunities. (Chemin de Blandonnet &Vernier 2015)

### **Key benefit**

- Improve organization performance and capabilities
- align improvement activities
- Empower people to make improvement
- Measure improvement consistently.

### **6. Evidence based decision making**

Decisions based on the analysis and evaluation of data and information are more likely to produce desired results.

Decision making can be a complex process, and it always involves some uncertainty. It often involves multiple types and sources of inputs, as well as their interpretation, which can be subjective. It is important to understand cause-and-effect relationships and potential unintended consequences. Facts, evidence and data analysis lead to greater objectivity and confidence in decision making. (Chemin de Blandonnet & Vernier (2015))

### **Key benefit**

- Ensure the accessibility of accurate and reliable data
- Use appropriate methods to analyze data
- Make decision based an analysis
- Balance data analysis with practice experience

### **7. Relationship management**

For sustained success, an organization manages its relationships with interested parties, such as suppliers.

Interested parties influence the performance of an organization. Sustained success is more likely to be achieved when the organization manages relationships with all of its interested parties to optimize their impact on its performance. Relationship management with its sup- plier and partner networks is of particular importance. (Chemin de Blandonnet & Vernier 2015)

- Identity and select suppliers to manage costs optimize resources, and great value.
- Establish relationship considering both the short and long partners

- Collaborate on improvement development activities
- Recognize supplier success

#### **2.2.4. Effectiveness of the ISO 9001 QMS Implementation**

Effectiveness has been described as the extent to which the outcomes meet the prescribed goals (Oztaş, Guzelsoy, & Tekinkus, 2007). Therefore, the effectiveness of the ISO execution can be well-defined as the degree to which the anticipated results or objectives of the ISO 9001 QMS are achieved (Psomas, et al., 2013).

According to Gotzamani (2005), the basic idea of the ISO 9001 is the effective execution of the QMS which is achieved through continuous improvement actions and the prevention of non-conformities and results in increased customer satisfaction. There are numerous definitions for the term effectiveness for the standards. However, it seems clear that there is a consensus amongst researchers for the effectiveness of an ISO 9001 QMS in achieving the three main objectives - continuous improvement, customer satisfaction, and prevention of nonconformities. This was prevalent in a study by Tsim et al. (2002), which stated that the effective implementation of the ISO 9001 QMS can be achieved through the prevention of non-conformities and the continuous improvement actions which bring the results of increasing consumer satisfaction.

Besides that, Goetsch and Davis (2005) agreed that the objective of the ISO 9001 QMS is the establishment of consistent products with client and regulatory requirements, which can be explained as, the establishment of a system that will contribute to continuous improvement, customer satisfaction focus, and prevention of nonconformities. The aim of the ISO 9001 QMS is to guarantee that company will deliver products or services that follow consumer requirements with regards to quality, whilst targeting the achievement of continuous improvement and enhancing customer satisfaction (Briscoe, Fawcett, & Todd, 2005). According to Öztaş (2007), in order to manage and lead the organization effectively, it is important to direct and control it in a precise and straightforward way. The authors also agreed that performance can be achieved by maintaining and implementing a QMS that is continually improving performance to meet the requirements of all interested parties.

Based on the above, the study has conceptualized the effectiveness of the ISO 9001 QMS implementation based on the three main achievements of the ISO 9001 QMS objective - continuous improvement, customer satisfaction, and prevention of nonconformities.



### **2.2.5 Implementation of ISO 9000 Series**

When implemented and used ISO 9000 should lead to better operational performance. It will be demonstrated by on-time delivery and customer satisfaction, and involve productivity improvements (Gavin, Heras&Casadesus, 2008).

Implementation consists of concept development and preparation, which must occur before a system such as ISO 9001 can be effectively used. Rules and procedures must be established to allow an organization to effectively adhere to ISO 9001 standards. These rules reside in quality policies and manuals. They include definitions of responsibilities and involve documentation, inspection, calibration, testing, data collection and analysis that show how the organization takes corrective actions and what its internal auditing plans are.

Implementation can be categorized along two dimensions: external coordination with customers and suppliers so that the requirements of the standard fit the needs of critical stakeholders; and internal integration, or customizing and integrating the standard with the organization's current stock of assets, that its existing practices (Naveh& Marcus, 2005).

ISO 9000 is generally externally induced, in that for many companies it is a condition for doing business. Many customers require that their suppliers be certified, thus the pressure that customers exert is a reason for certification. By external coordination, we mean that ISO 9000 designed and development is harmonized with the needs and expectation of customers, supplier and other stakeholders. ISO 9000 certification provides assurances to customers that suppliers have a system of quality assurances in place (Jang & Lin, 2008).

Internal integration of a standard, such as ISO 9001, means designing and developing new systems to conform to the standard based on an analysis of a company's existing internal processes. It requires integrating the standard with practices already in place. When a new practice such as ISO 9000 is introduced, the organization must find a fit between the ISO 9000 rules and its old ways of operating (Hongyi, 2000).

According lee, To and Yu (2009), consistency must prevail between the new practice and existing practices. Links have to be established between the organization's old policies, rules and procedures, and the new ones. For example, a full-scale organizational system including procedures for training and employee educations has to be added and made consistent with the organizations' previous practices.

Bell and Omachonu (2011) observed that, a standard such as ISO 9001 must be customized to the company's needs, an activity best led by employees trained and nurtured in the company, as opposed to one led by outside consultants. Implementation is not enough, however, for a quality system such as ISO 9000 to have a long-term effect on an organization's performance. The system has to be used, on the one hand, in daily practice, and, on the other, as a catalyst for change.

Daily practice is the regular application of a standard to the point that it becomes part of an organization's everyday routines. Employees must consider it necessary and pay attention to it. An indicator of their daily use of the standard is that they do not prepare for external audits at the last minute. ISO 9000 requires that twice yearly independent, third party auditors evaluate a company's procedures and carry out site visits to determine the extent to which it is being used. ((Naveh& Marcus, 2005)

If employees just put on a show for the auditors and revert to earlier noncompliance, it suggests that they are not really using the standard. ISO 9000 can and should become a springboard for rethinking the way a company does business and a point of departure for additional innovation. Being a catalyst for change means that ISO 9000 is used as a launching pad for new understanding about how a company does business. ISO 9000S rules become the basis for branching out, expanding and moving in new directions (Naveh& Marcus, 2005)

ISO 9001:2008 is based on seven quality management principles namely customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making; and mutually beneficial supplier relationships.

While these principles serve as the major guidelines for organizations in different parts of the world to obtain the certification, organizations may implement these principles in very different extents. For instance, it is possible that some organizations may implement the principle of customer focus in a very high level and the rest of the principles to the levels that can barely meet the requirements of ISO 9000 while others may implement all principles in very similar extents without paying extra attention to any of them. Thus, there may be variations in the implementation of the standard between ISO 9001 certified organizations (Lee, To & Yu, 2009).

### **2.2.6 Performance Measurement**

Neely et al (1992) reveal that in business, performance measurement is a series of tools, methods, activities and system used to evaluate company performance. The target of business is to satisfy

their customers with greater efficiency and effectiveness than their competitors. The measurement of business performance is used in both perspectives of performance: efficiency and effectiveness. The term of effectiveness refers to the extent to which customer requirements are met, while efficiency is a measure of how economically the firm's resources are utilized when providing a given level of customer satisfaction. In brief, the basic concepts can be summarized as followed: Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action. A performance measure can be defined as a metric used to quantify the efficiency and/or effectiveness of an action. A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions The performance measure in production could be listed as follows: Quality-based measure: product conformance, features, reliability, perceived quality, serviceability, technical durability Time-based measure: manufacturing lead time, deliver lead time, due-date performance, frequency of delivery Cost-based measure: production cost, service cost, value added, and selling price Flexibility based measure: new product introduction, deliverability, volume, resource mix.

## **2.2 Empirical literature review**

A number of empirical studies have examined benefits that companies gained from certification (Terlaak& king, 2001; Naveh& Marcus, 2005; Dick, Heras&Casadesus, 2008; Simmons & white, 1999; Singles, Ruel& Water, 2001; Lee, To & Yu, 2009; wahid& Corner, 2011; prajogo, Huo& Han, 2012).

These studies found that the most common motives for implementing ISO 9000 fell into one of two broad categories of internal or external company activities. The internal motives were improved customer service/reduced customer complaints, increased efficiency, business survival or winning business, and the desire to embed a quality culture or better management control.

The external motives were customer requirements or pressure from customers, to respond to competitors' achieving certification, quality assurance certification being required by regulations or legislation, or as a marketing and promotional tool.

With regards to the performance outcomes that are achieved as a result of certification some of the various studies for example singles, Ruel and Water (2001) explored 192 organizations (both manufacturing and service organizations) in the North of Holland in collaborations with KKNN (the

foundation of quality circles in the North of Holland) found that ISO 9001 certification in itself (standalone) does not lead to an improvement in the performance of organizations.

Lee, and To Yu (2009) after conducting a survey on 45 ISO 9001 certified service organizations in Macao, china postulate that in order to achieve superior performance, organizations should not consider the certification as a single, one-off project and the maintenance of the standard as routine processes. In addition, they indicate that managers in service organizations must realize that ISO 9001:2000 is capable of generating a competitive advantage only if top management is fully committed to program implementation from a strategic perspective.

Gavin, Heras and Casadesus (2008) after comparing 400 ISO certified and non-ISO certified firms in the Basque region which is one of the areas in Spain where ISO certifications are concentrated postulated that it might be a wise decision to only pursue certification if major customer demand that is required, since they found conclusive evidence that sales or profitability improved after certification.

Naveh and Marcus (2005) argue that competitive advantage can be gained from implementing a replicable management standard, such as ISO 9000, if implementation is understood not as a discrete and homogenous industry-wide phenomenon, but if variations in this process are considered after conducting a study on 313 ISO certified organizations (both manufacturing and service) in the USA.

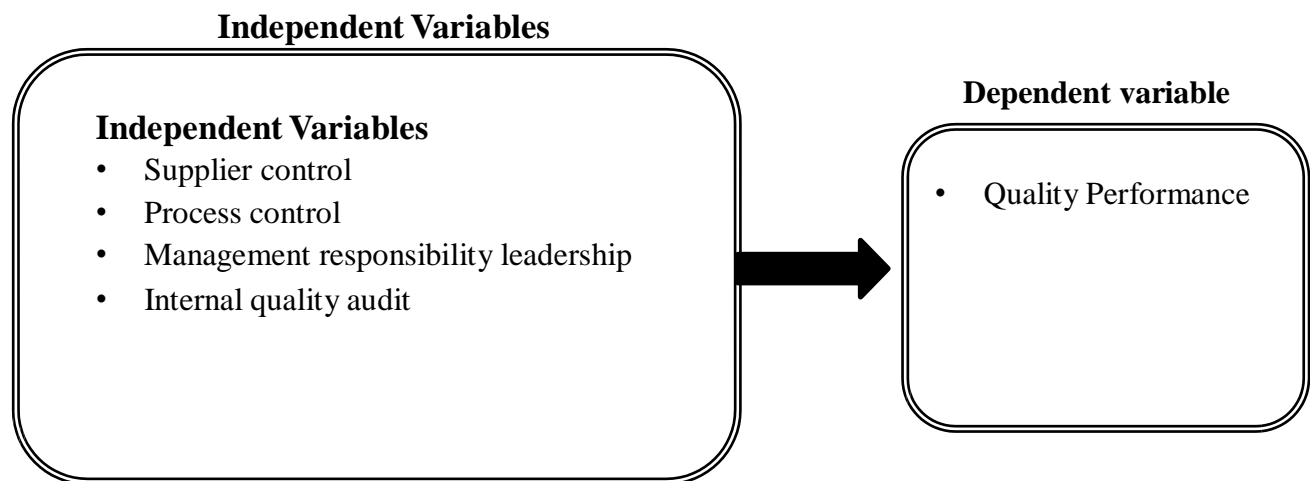
Pinar, Crouch, Yucel and Guder (2003) after conducting a survey on 107 organizations both ISO certified and non-certified organizations listed in the Istanbul stock Exchange found that there exist no significant differences in the average stock market returns between the ISO certified and non-ISO certified firms although the ISO certified firms returns exhibited lesser volatility.

However, Prajogo, Huo and Han (2012) conducted a study which examined 321 middle and senior managers of ISO 9001 certified firms in Australia who were responsible for managing the quality systems in their organizations. This study was based on establishing the effect of ISO 9000 implementation on operational and supply chain management practices that, in turn, will predict the operational benefits within adopting firms. Their results indicate that supplier and internal process management both have a positive effect on operational performance, while customer process management has no significant impact on operational performance.

In addition, a study by Okwiri (2010) that sought to establish the relationship between ISO 9001 and operational performance in government agencies in Kenya concluded that the framework provided by the ISO 9001 management system standard can help optimize operational performance when the prescribed practices are applied appropriately. And also that observed cases of certification leading to reduction in performance are due to the effects of the minimalist adoption approach with focus on iconic objectives. Their results indicate that supplier and internal process management both have a positive effect on operational performance, while customer process management has no significant impact on operational performance.

In addition, a study by Dejen Tulu (2011) find there is a strong and significant impact of ISO certification on companies' performances. ISO certification has improved the individual companies profit from time to time especially after they are certified when compared with their state of performance before the certificate.

### 2.3 Conceptual Framework



**Figure: - 2.3 conceptual frame work**

**Source: Designed by the researcher**

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Introduction**

This Chapter highlights the type of the research methodology; methods of data gathering tools together with the justifications for choosing one against the others. It also describes on how these methods was be employed refers to the objective set earlier to address the purpose of this study and issues related to reliability and validity as well as ethical consideration within the proposed methods is being put in place briefly.

#### **3.2 Research Design and Approach**

Orodho, (2000) defines a research design as the scheme, outline or plan that is used to generate answers to the research problems. A research design can be regarded as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with the research purpose. It is the conceptual structure within which research was conducted. It constitutes the blueprint for collection, measurement and analysis of data Kothari, (2003).

For the purpose of this study both descriptive and explanatory research design was applied. Because, explanatory research design is used to for quantitative data it attempts to explain the relationship between the dependent and independent variables (Cruse, 2003) while descriptive research design is used for describing people 's views and opinions were sought and described accordingly and established how determents' of ISO9000 affected quality performance. In ordered to accomplish the proposed research with respect to the objective and the nature of research questions of the study, both qualitative and quantitative methods are used because they supplement each other.

Therefore, quantitative data analysis is quantifying the relationship between variables, such as quality performance (Dependent variable). Whereas, factors affecting quality performance such as Supplier control, Process control, Internal quality audit and Management responsibility and leaderships (Independent variables).

#### **3.3 Data type, Source and Data Collection Technique**

The study used use primary source of data by developing a close-ended questionnaire which filled by the respondents to collect the relevant data, which aligns with the research objective. This research also used two types of instruments Self- administered questionnaires- for the staffs of Meta

Abo Brewery S.c, both open ended and close ended, which assess, the user's opinions towards the determinate of ISO9000 of quality performance in Meta Abo Brewery S.C.

### 3.3.1. Target Population

The study is conducted at Meta Abo Brewery S.C. The actual population of the research were selected from the company's department heads and supervisors to clarify the department warehouse, quality manager, quality assurance, brewing department, packaging department, human resource department, sales department, technical department, procurement department and Area managers.

### 3.3.2. Sampling

#### Sample size Determination

#### Sample size and Sampling Technique

The sample size for this study is determined by using the simplified formula of (Yemane, 1967). Which is developed to calculate sample sizes? Currently at Meta Abo Brewery S.C department warehouse, quality manager, assurance, brewing department, packaging department, human resource department, sales department, technical department, procurement department and Area manager's staff have 355 both manager and permanent employees.

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

Where **n** is the sample size, **N** total population and **e** the error factor. For 95% accuracy the error factor **e** is 0.1. Replacing this into the equation we get

$$n = \frac{355}{1 + 355(0.1)^2} = \frac{355}{1 + 355(0.01)} = \frac{355}{4.45} = 79$$

Where *n*=sample size, *N* is the total population, and *e* is the level of precision

### Sample size determination

Departments	Total Employee	Sample
Corporate Relations	2	0
DBS	4	0
Finance	21	4
General Management	2	0
Human Resources	10	2
Marketing	11	2
Legal	5	1
Sales	96	23
Supply	192	44
CC&E	3	0
Spirits	9	3
<b>Total</b>	<b>355</b>	<b>79</b>

### 3.3.3 Sampling Technique

The sample technique employed on both stratified and simple random sampling to obtain proper representative of each department under each job position. Since the population is heterogeneous with respect to department, profession, gender, and age, stratified sampling technique was adopted. due to the objectivity and the nature of the sample population, other methods like cluster sampling and non-probability sampling techniques was found to be less appropriate in this descriptive survey. The researcher obtained the lists of employees from their respective department and respondents were simple randomly selected from each department and job position using their list so as to have equal and appropriate representative.

### 3.4 Reliability

To test for the reliability, the questionnaire was distributed for selected employees of the company before the actual data collection. This was done on 79 employees of Meta Abo Brewery S.C According to the results obtained, the data collection instrument was consistent and dependable in measuring what it intends to measure. From the result of the 79 distributed and evaluated questionnaires the following result was obtained using Cronbach's Alpha on SPSS

#### Reliability Statistics

Cronbach's Alpha	N of Items
.970	5



### 3.5 Methods of Data Analysis

In this study the researcher used multiple regression to analyze the data which were gathered from the company report by using the STATA-2013 and SPSS, because it's known that multiple regression were useful if the researcher have one dependent variable and more than two independent or explanatory variables, hence the dependent variables of this study return on quality performance and the independent variables are supplier control, process control, internal quality audit, quality planning management responsibility/leadership,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where: Y= quality performance

$\beta_0$ = Constant term (Y-intercept)

$X_1$ = supplier control (SP)

$X_2$ =process control (pc)

$X_3$ = internal quality audit (IQA)

$X_4$ = management responsibility/leadership (MRL)

**Y- Is the dependent variable,  $\beta_0$ .....  $\beta_4$  are the coefficients of explanatory variables,  $\epsilon$ = Error term**

## CHAPTER FOUR

### 4.1 INTRODUCTION

This chapter presents the data presentation, analysis and interpretation involved in the study. Accordingly, the descriptive research study was used to draw the results and findings regarding the determinant of ISO 9000 in quality performance emphasis at Meta Abo Brewery s.c were presented.

**Table 4.1 Response Rate**

Distributed questionnaires		Responded		Non responded	
Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
79	100%	79	100%	0	0

the above table illustrated that the response rate of the respondents. among the total of 79 questionnaires' distributed the respondents return the questionnaires' was 79(100%) which implies there is no respondents.

### 4.2 Demographic Information of the Study Participants

**Table 4.2 Demographic Information of the Study Participants**

	Frequency	Percentage	Valid Percent
Female	30	38.0	38.0
Valid Male	49	62.0	62.0
Total	79	100.0	100.0

The following table is the demographic characteristics of the study participants presenting such as gender, age, educational background, and work experiences, each participants in Meta Abo Brewery s.c illustrated as below table.

According to the above table 4.2, of the 79 total respondents 49 (62.0%) and 30 (38.0%) were male and female participants respectively. This indicates that, the most dominants of the study were male than female respondents.

**Table 4.3 Frequency distribution of Age of respondents**

	Frequency	Percentage	Valid Percent
20-30	43	54.4	54.4
31-40	29	36.7	36.7
Valid 41-50	2	2.5	2.5
>51	5	6.3	6.3
Total	79	100.0	100.0

According to the above table 4.3, whose age between 20 &30 years were 43 (54.4%), the most study participants of the total respondents, this means that, at the study area engaged the youngest and energetic employees. Whereas whose age of 31-40 representing 29 (36.7%). From this information one can understand as, relatively speaking the most study participants than for these their ages ranged between 41-50 years, and above 51 years were 2(2.5%) and 5(6.3%) respectively. This shows that, respondents were fallen over age, but has no negative effect on the quality of this study in providing information.

**Table 4.4 Frequency distribution of respondents work experience**

	Frequency	Percentage	Valid Percent
0-10	39	49.4	49.4
11-20	30	38.0	38.0
Valid 21-30	9	11.4	11.4
>30	1	1.3	1.3
Total	79	100.0	100.0

The above table illustrates that, the majority of study participants were in the range of 0-10 years of year of service at Meta Abo Brewery S.C represented 39 (49.4%) of the total respondents and 30 (38.0%) were in the category of 11-20 years and 9 (11...4%) 21-30 years' categories. This shows that, most of the study respondents were experienced workers. Hence, it was realized, a few of the respondents had worked for not more than 30 years. However, since the majority was more experienced on their jobs, and they were considered as replying relevant information required for study undertaken.

**Table 4.5 Frequency distribution of educational qualification**

	Frequency	Percentage	Valid Percent
PhD	5	6.3	6.3
Masters	33	41.8	41.8
Valid BSc	36	45.6	45.6
Diploma	5	6.3	6.3
Total	79	100.0	100.0

As above table 4.5, the educational qualification each respondent the majority of the study respondents were holding bachelor degree holders which accounted 36(45.6%). Because, first

degree is now considered as the minimum qualification requirement for jobs in at most public offices even to be hired in the organization at present; whereas 33 (41.8%) were participants who were Masters. Whom PhD were 5(6. 3%).but a few respondents who had the diploma holders 5(6.3 %) which implies that the majority of respondents were almost all are above first degree holder.

#### 4.2 Descriptive Statistics

According to Murry.J. (2013) and” kind of rule of thumb to create equal intervals for a range of five points Likert scale (that ranges from strongly disagree to strongly agree in the survey questionnaire). According to Scott 1999 explained for Likert scale data from 1 (Strongly disagree) to 5 (Strongly agree) if the sample is approximately normally distributed the interpretation should be intended for mean up to 2.8 is “disagree”, mean between 2.9 and 3.2 is “Neutral”, and mean above 3.21 is “agree. Therefore, the decision of each variable statistics is done based on these criteria.

**Table 4.6 Descriptive Statistics of Management Responsibility**

<b>Management Responsibility</b>	Mean	Std. Deviation
Support of quality objectives	4.24	1.273
Support of quality polices	4.53	.814
Providing resource ,training, and authority	4.53	.889
Establish a trust of trust and integrity	4.25	1.214
<b>Grand Mean</b>	<b>4.39</b>	

The above table shows the Management Responsibility practices of Meta Abo Brewery S.C. To rate the Management Responsibility of Meta Abo Brewery S.C. the respondents gave the agree with the statement of Support of quality objectives which is the man score falls at agree stage. Support of quality polices mean score of 4.53whichs also fall at agree stage. The third statements are Providing resource, training, and authority the mean score has 4.53. hence, the variables lay in agree level. in the statement of Establish a trust of trust and integrity the respondents agree with the statement. therefore, the above frequency table shown as the management responsibility in the study area the grand mean score were 4.39 which falls at agree stage which implies in the study area the management responsibility well done as the frequency table shown.

**Table 4.7 descriptive statistics internal quality audit**

<b>Internal quality audit</b>	Mean	Std. Deviation
There is good planning in the audit schedule	4.32	1.12
There is periodically risk Assessment	4.35	1.06
Periodically evaluating the method of internal quality auditor	4.37	.963
Examine products to determine if they meet quality Requirements	4.44	.957
The audit is independent and objective	4.49	.94
<b>Grand Mean</b>	<b>4.39</b>	

According to the above table; they responded as follows: in the statement of there is There is good planning in the audit schedule mean score is 4.32, it means that the research participant agrees as the statement of there is good planning in the audit schedule. The result indicated that There is periodically risk Assessment mean value is 4.35 which indicate employees agree it fall at agree stage; the third statement Periodically evaluating the method of internal quality auditor the mean value was 4.37; which is interpreted as employees agree this matter it fall at agree stage. 4.44 was the mean result of Examine products to determine if they meet quality requirements, the mean result fall at agree level which indicates employees are agree. there for the grand mean of the above table were 4.39 which indicates that the respondent agrees with statement mentioned above with related to internal quality audit in the study area, so based on the mean result of the statement the employees satisfied in the internal quality audit practice according to the above result shown.

**Table 4.8. Descriptive statistics of process control**

<b>Process Control</b>	Mean	Std. Deviation
The Process control is not violate a procedure	4.18	1.217
There is good inspection the quality of the product	4.24	1.232
There is frequent sample testing of products	4.34	1.049
There is good product standardization	4.29	1.167
There is good Storage and handling of the product	4.27	1.258
<b>Grand Mean</b>	<b>4.26</b>	

According to the above table; the statement of the process control is not violating a procedure mean score is 4.18, it means that the research participant agrees as the statement of the process control is not violating a procedure. The result indicated that there is good inspection the quality of the product mean value is 4.24 which indicate employees agree it fall at agree stage; the third statement There is frequent sample testing of products the mean value was 4.34; which is interpreted as employees agree this matter it fall at agree stage. 4.27was the mean result of There is good Storage and handling of the product, the mean result falls at agree level which indicates employees are agree. there for the grand mean of the above table were 4.26 which indicates that the respondent agrees with statement mentioned above with related to process control in the study area, so based on the mean result of the statement the employees satisfied in the internal quality audit practice according to the above result shown.

**Table 4.9 Descriptive Statistics of Supplier Control**

<b>Supplier Control</b>	Mean	Std. Deviation
Establish policies to govern supplier	4.41	.994
There is frequent Product Realization in the company	4.37	.936
There is good Customer information management	4.29	1.242
There is a good instrument to Measuring, Analysis and improvement of the product	4.30	1.090
There is good work environment, infrastructure and safety	4.77	.554
listen to your customer	4.27	1.298
<b>Grand Mean</b>	<b>4.41</b>	

The above table shows the supplier control in the study area. Accordingly, for the statement Establish policies to govern supplier the mean value is 4.41 which indicate employees agree on this matter it fall at agree stage; the second statement there is frequent Product Realization in the company the mean value was 4.37 which is the same as in the first stage it interpreted as employees agree on this matter it fall at agree stage. Similarly, the third statement is there is there is good Customer information management the mean value was 4.21. which is the same as in the first two statements. in the statement of there is good work environment, infrastructure and safety the mean value is 4.77 which implies that the respondent fall at agree stage. the grand mean of supplier

control was 4.41 which shows in the study area there is good supplier control according to the supplier control table result which mean all respondent agree with statement of there. there is good supplier control in the company, which implies there is. So based on the above descriptive statistics result we can say there is good supplier control in practice in the study area as the mean descriptive result shown above.

**Table 4.10 Descriptive Statistics of quality performance.**

<b>Quality performance</b>	Mean	Std. Deviation
Increasing Incoming of the company	4.15	1.272
There is good in process of quality product	4.32	1.081
Provide delivery in short period of time	4.14	1.288
Solving customer complaint smoothly	4.30	1.159
There is increment of products quantity	4.19	1.282
Grand Mean	<b>4.22</b>	

The above table shows that the quality performance at Meta Abo Brewery S.C in the first statement increasing incoming of the company the mean score value was 4.15 which implies that the respondent agrees with statement of increasing incoming of the company in the study area.4.32 shows that the respondent agree with the statement of There is good in process of quality product. The third statement is Provide delivery in short period of time the mean value was 4.14 which indicates that the respondent agrees with statement of Provide delivery in short period of time. Similarly, in the fourth statement the respondents were agree with in the statement of Solving customer complaint smoothly the mean value was falls at agree stage. in general, the above descriptive statistics shown the quality performance of the respondents the grand mean value were 4.22 which falls at agree stage which implies the respondent agree with the there is a good quality performance Meta Abo Brewery S.C as the descriptive statistics shown above.

#### **4.2.1 Correlation Analysis**

Pearson correlation test was conducted to check the magnitude of correlation between the dependent variable (Quality performance) and independent variables, (Management responsibility leadership, Internal quality audit, Process control and Supplier control).

Meta Abo Brewery, The dependent variable tested against each independent variable. The researcher also used the same test to prove or disprove the hypotheses. To check the magnitude of correlation between the dependent and independent variables the following measure of association developed by Mac Eachron (1982) was used as a reference.

**Table 4.11 The measures of associations and descriptive Objectives**

Measure of Association	Descriptive Adjective
> 0.00 to 0.20 ; < -0.00 to -0.20	Very weak or very low
> 0.20 to 0.40; < -0.20 to -0.40	Weak or low
> 0.40 to 0.60; < -0.40 to -0.60	Moderate
> 0.60 to 0.80; < -0.60 to -0.80	Strong or high
> 0.80 to 1.0; < -0.80 to -1.0	Very high or very strong

Source: This table is from MacEachron, (1982) *Basic Statistics in the Human Services: an Applied Approach*, and page 13. From the correlation matrix below, the researcher found the following results under each construct,

**Table 4.12 Correlation**

	Quality Performance	Management Responsibility	Internal Quality	Process Control	Supplier Control
Quality Performance	1.0000				
Management Responsibility	.900** .000	1.0000			
Internal Quality	.857** .000	.857** .000	1.0000		
Process Control	.925** .000	.838** .000	.917** .000	1.0000	
Supplier Control	.932** .000	.820** .000	.879** .000	.892** .000	1.0000

**Correlation Analysis between internal quality audit and quality performance**

The result of Pearson correlation test between the dependent variable quality performance and the independent variable management responsibility **showed** that, there is a positive relationship



between the two variables at the significance level of ( $R=.857^{**}$ ), ( $P<0.05$ ). According to MacEachron (1982) measure of association, the magnitudes of relationship between the two variables are very high or very strong.

#### **Correlation Analysis between internal quality audit and quality performance**

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#### **Correlation Analysis between process control and quality performance**

The result of Pearson correlation test between the dependent variable quality performance and the independent variable process control **showed** that, there is a positive relationship between the two variables at the significance level of ( $R=.925^{**}$ ), ( $P<0.05$ ). According to MacEachron (1982) measure of association, the magnitudes of relationship between the two variables are very high or very strong.

#### **Correlation Analysis between supplier control and quality performance**

The result of Pearson correlation test between the dependent variable quality performance and the independent variable supplier control **showed** that, there is a positive relationship between the two variables the significance level of ( $R=.932^{**}$ ), ( $P<0.05$ ). According to MacEachron (1982) measure of association, the magnitudes of relationship between the two variables are very high or very strong.

### **4.3 Multiple Regressions Analysis**

To find out the linear relationship between dependent variable and with more than one independent variable linear multiple regressions is used. The factors such as Management Responsibility internal quality audit, process control and supplier control are treated as independent variables and quality performance as dependent variables. To develop the regression line formula, the dependent and the independent variables are denoted as, ( $X1$ =Management responsibility,  $X2$ =internal quality audit,  $X3$ =process control and  $X4$ =supplier control) and the dependent variable,  $Y$ =**quality performance**.

On the process of developing the equation of multiple regression, the researcher conducted the assumption that have to be fulfilled before testing multiple linear regression which are the assumption of normality, linear relationship, homoscedasticity, and multicollinearity are discussed using SPSS. Model summary of the regression result, the ANOVA, standardized and unstandardized  $\beta$  coefficients have been presented to find out all the necessary relationships between the dependent variable (quality performance) and independent variables (factors).

**Assumption of Multiple Linear Regressions**

**Assumption1. There is no multicollinearity problem in the data**

Analysis of co linearity statistics shows this assumption has been meeting as VIF score were below 10 and tolerance score above 0.2

**Coefficients**

Model		Co linearity Statistics	
		Tolerance	VIF
1	Management responsibility	.240	4.163
	Internal quality audit	.124	8.076
	Process control	.124	8.072
	Supplier control	.175	5.709

a. Dependent Variable: quality performance

**Assumption2 Heteroscedasticity Test**

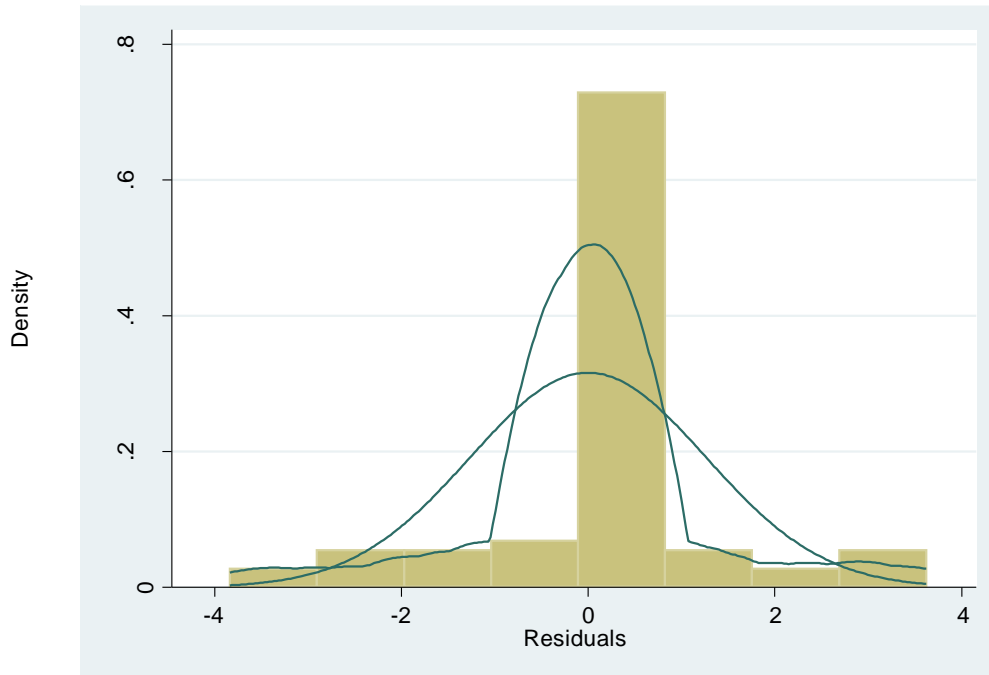
The interpretation of Breusch-Pagan test is done using the p value, if the p value is less than 5% significant level it is the indication of heteroscedasticity. Accordingly, as show the table below the result of the test shows there is no heteroscedasticity problem since the p value is greater than 5% significant level.

**Table 4.13 Heteroscedasticity Test**

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: fitted values of Performance
chi2(1) = 2.65
Prob> chi2 = 0.1033

### Assumption3.Normality test

The P.P plot for the model suggested that the assumption of normality of the residual have been meeting or the graph shows that the normality test the variable are normally distributed which mean the distribution of the variable are normally distributed.



#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.974 <sup>a</sup>	.948	.945	1.29546

a. Predictors: (Constant), supplier control, Management responsibility, process Control, Internal quality audit

#### ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2243.336	4	560.834	334.182	.000 <sup>b</sup>
	Residual	122.511	73	1.678		
	Total	2365.846	77			

a. Dependent Variable: quality performance

b. Predictors: (Constant), supplier control, Management responsibility, process control, Internal quality

The regression model considered quality performance as dependent variable and the factors affecting performance for the individual factor as the independent variables. A multiple regression analysis is conducted to evaluate how well the four factors predict quality performance. As it is depicted above the table, the linear combination of the four factors is significantly related to organization performance ( $R^2 = .0.94$ ,  $F= 334.18$  and  $P<0.001$ ). This means that, **94%** of the positive variance of quality' performance in the sample can be accounted for by the linear combination of the four factors that affect quality performance which are management responsibility, supplier control, process control and internal quality audit.

The table above shows that the sig (ANOVA.  $P=0.000$ ) and it was indicated the overall significance of the model. generally, the ANOV Analysis table above clearly depicted or explained the existence of the relationship between the independent variable which were management responsibility, supplier control, process control and internal quality audit. The dependent variable quality performance along with showing the normality distribution of the data or the overall significant of the variables are significant at a significant level of 5%.

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-6.745	.933		-7.230	.000
1 Management responsibility	.402	.087	0.34	4.636	.000
Internal quality audit	.346	.097	.269	3.553	.001
Process control	.155	.076	.155	2.045	.044
Supplier control	.372	.068	.252	5.512	.000

a. Dependent Variable: quality performance

**The multiple linear regression result**

$$Y = -6.74 + 0.034 X_1 + 0.269 X_2 + 0.155 X_3 + 0.252 X_4 + e$$

The regression model points out the relationship between the dependent and the independent variable. The model result suggested that all ISO 9000 determinants have a positive and a significant at  $p < 0.05$ .

The first variable coefficient of management responsibility result of the model shows that  $\beta = 0.34$  this implies that a one unit of management responsibility increase will leads to an increase

quality performance by 34%. The literature shows that the result of empirical studies and against the proposition that quality performance is positively related to its management responsibility.

The second variable coefficient of internal quality audit has  $\beta = 0.269$  this means that a one-unit increment of internal quality audit will lead to an increase in quality performance by 27%. Empirical evidence also shows that internal quality audit and quality performance has a significant and positive relationship.

The third variable coefficient of process control  $\beta = 0.16$  this means that a one-unit increment of process control will lead to an increasing quality performance by 16%. Different empirical evidences also showed that process control and quality performance are a positive and significant relationship.

the fourth variable coefficient of supplier control  $\beta = 0.25$  this means that a one-unit increment of supplier control will lead to an increasing quality performance by 25%. Different empirical evidences also showed that process control and quality performance are a positive and significant relationship.

**Summary of Hypothesis Testing Result Based on the regress result at 5% significant**

Hypothesis	Statement	Tools	Results
Ho	Supplier control has no significant impact on quality performance of Meta Abo Brewery S.C	Regression	Rejected
Ho	Process control has no significant impact on quality performance of Meta Abo Brewery S.C	Regression	Rejected
Ho	Internal quality audit has no significant impact on quality performance of Meta Abo Brewery S.C	Regression	Rejected
Ho	Management responsibility has no significant impact on quality performance of Meta Abo Brewery S.C	Regression	Rejected

**Source: own computation ,2020**

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 SUMMARY

The general objective of this study is to examine the determinant of ISO 9000 on Quality performance in the case of Meta Abo brewery S.C. In its systematic analytical process, it used four independent variables i.e. (management responsibility, internal quality audit, supplier control, and process control) and dependent variable equality performance. Moreover, quantitative method of analysis, particularly descriptive and regressive was used to depict the degree of the relationship between the dependent variable and independent variables. In the first section of descriptive analysis; mean score, standard deviation and grand mean of each item were presented and the grand mean was used to interpret the data.

The descriptive analysis indicated that majority of the respondents agree on management responsibility, internal quality audit, supplier control, and process control because the grand mean value of lays at agree stage which are 4.39,**4.39,4.41 and 4.26** respectively. Pearson correlation analysis was conducted to check the magnitude of correlation between the dependent variable (quality' performance) and independent variables (management responsibility, internal quality audit, supplier control, and process control). Accordingly, management responsibility, internal quality audit, supplier control, and process control positively associated and strong relationship with quality' performance. This implies that these practices are valid measures of the effect of ISO9000 on quality performance in the study area.

Multiple regressions analysis was applied to see the effect of the independent variables on the dependent variable and the result obtained was that the **management responsibility( $\beta=0.34$ )**, **internal quality audit( $\beta=0.269$ )**, **supplier control (,  $\beta=0.252$ )** and **process control ( $\beta =0.155$ )** are positively and statistically significant effect on quality performance. The finding and results of the regression supported the hypothesis that the independent variables (management responsibility, internal quality audit, supplier control, and process control) are positively and significantly associated with employee's performance. The model of the regression explained 94 of the variance in quality performance by independent variables. The Multiple regression analysis indicated that (management responsibility, internal quality audit, supplier control, and process control) have a statistically significant relation with quality performance.

Each independent variable was regressed to investigate their effect on quality performance, so the multiple regression analysis produced positive and significant association between the variable and the beta coefficient value indicated that each independent variable affects quality performance significantly. Accordingly, it is evident from the regression table that the four variables *are* found to have the highest significant effect on quality performance employees.

### **5.3 CONCLUSION**

This study has been conducted to examine the determinant of ISO9000 on quality performance in the case of Meta Abo Brewery S.C. To carry out the research, Meta Abo Brewery S.C. has been selected from other brewery company purposely. To choose the best-fitted model that explains the dependent variable and the explanatory variables, the regression model has been considered based on the assumption test result.

The correlation Pearson analysis result of the research indicated a positive relationship between the two variables (ISO9000 Determinant and employee performance) at the significance level

The regressions analysis result indicated that the stated factors (management responsibility, process control, supplier control and internal quality audit) have a positive and a significant effect on quality performance.

The finding of the study indicates that the explanatory variables such as management responsibility, process control, supplier control and internal quality audit are considered as vital factors for inducing the quality performance in the study area. To this end, ISO9000 and quality performance has a positive and significant relationship (this result implies that determinant of ISO9000 has a direct relationship with Quality performance. Moreover, the hypostasis test indicates that the explanatory variable such as management responsibility, process control, supplier control and internal quality audit has a positive impact on quality performance in the study area. Therefore, it can be concluded from the study the facts of determinant of ISO9000 such as management responsibility, process control, supplier control and internal quality audit affects the level of employee performance in the study area.

### **5.3 Recommendations**

Based on the conclusions of the finding, the following suggestions were forwarded to that companies' management considering Determinant of ISO 9000.

- The companies are currently in a position that they can perform their production processes in a better way than before. To continue this operational and production efficiencies they should further search for the best way of mastering quality management system as ISO certification is not the only goal of these companies.
- In general, as ISO9000 is not the only goal of any company, the companies should consider several internal factors that can contribute to the companies' profit. The company should consider the employee side contribution to the performance of the company. They should also search for other ways of performing well in their industry and in the international markets.

### **5.4 Suggestions for future study**

This research study has focused on effect of ISO 9000 on quality performance. However, it was limited to only four determinants of ISO 9000 such as supplier control, process control, internal quality audit and management responsibility. Therefore, this topic should be further conducted by incorporating other different determinant of ISO 9000 at different areas in various organizations to investigate how they impact the quality performance. The findings of this research are stepping stone which leads to a better understanding of the effect ISO 9000 on quality performance, which is expanding. However, further similar research with similar environment should be conducted.



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## **Annex: Questions related to determinant of ISO9000**

**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
MBA PROGRAM**

**Dear Respondent.....**

I am a graduate of MBA from St. Mary's University found in Addis Ababa. I am carrying out a study on " **Determinants of ISO 9000 on companies' quality performance in the case of Meta Abo Brewery S.C** ", the study expects this Questionnaires to be filled by Workers Officers of the company exploring the effectiveness of **Determinants of ISO 9000** on company quality performance. I will be grateful if you assist me by filling these questionnaires in your capacity. Kindly answer these questions as honestly and precisely as possible. Responses will be treated as confidential and will only be used for this research study.

**Thank you in advance for your cooperation and assistance**

**Instruction:**

- It has two main parts: Part one is demographic information; whereas part two is the basic questions to be filled by respondents.
- Please do not write your name anywhere on these questionnaires.
- Put a tick (✓) where appropriate.
- For open-ended questions, answer as briefly as possible

### **PART ONE: Demographic information**

1. Gender: Female  Male
2. Age: A 20-30 B 31-40 C 41-50 D >51
3. Work experience A 0-10 B 11-20 C 21-30 D >30
4. Educational qualification  
PhD  Masters  BA/B.Sc. Degree  Diploma

## PART TWO: Questions related to determinant of ISO9000

Listed below are a series of statements that represent determinant of ISO. With respect to your own feeling about these determinant Meta Abo Brewery S.C please, indicate the degree of your agreement or disagreement with each statement by putting a tick mark (√) on one of the five alternatives. *Responses are measured on 5- point scales with the following verbal anchors: Strongly Disagree (1), Disagree (2), Neither Disagree or Agree (3), Agree (4) and Strongly Agree (5).*

1	Management responsibility	Strongly Disagree (1)	2	3	4	Strongly agree (5)
1.1	Support of quality objectives					
1.2	Support of quality polices					
1.3	Providing resource ,training, and authority					
1.4	Establish a trust of trust and integrity					
2	Internal quality audit	Strongly Disagree (1)	2	3	4	Strongly agree (5)
2.1	There is good planning in the audit schedule					
2.2	There periodically is risk Assessment					
2.3	Periodically evaluating the method of internal quality auditor					
2.4	Examine products to determine if they meet quality requirements					
2.5	The audit is independent and objective					
3	Process control	Strongly Disagree (1)	2	3	4	Strongly agree (5)
3.1	The Process control is not violate a procedure					
	There is good inspection the quality of the product					
	There is frequent sample testing of products					
	There is good product standardization					
3.2	There is good Storage and handling of the product					

4	<b>Supplier control</b>	<b>Strongly Disagree (1)</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Strongly agree (5)</b>
4.1	Establish policies to govern supplier					
4.2	There is frequent Product Realization in the company					
4.3	There is good Customer information management					
4.4	There is a good instrument to Measuring, Analysis and improvement of the product					
4.5	There is good work environment, infrastructure and safety					
4.6	listen to your customer					
5	<b>Quality performance</b>	<b>Strongly Disagree (1)</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Strongly agree (5)</b>
5.1	Increasing Incoming of the company					
5.2	There is good in process of quality product					
5.3	Provide delivery in short period of time					
5.4	Solving customer complaint smoothly					
5.5	There is increment of products quantity					

**THANK YOU FOR YOUR COOPERATION**