



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MASTERS OF SIENCE IN QUALITY AND
PRODUCTIVITY MANAGEMENT
PRACTICES AND CHALLENGES IN
IMPLEMENTATION OF QUALITY MANAGEMENT
SYSTEM/ISO-9001:2015: THE CASE OF AGRO-FOOD
INDUSTRIES IN ADDIS ABABA, ETHIOPIA

By: Yosef Mengistu

May, 2012
Addis Ababa

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BY

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ID NUMBER: SGS 0566/2013 A

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY,
SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT
OF THE REQUIRMENTS FOR THE DEGREE OF MASTER OF
SCIENCE IN QUALITY AND PRODUCTIVITY MANAGEMENT**

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DECLARATION

I, the undersigned, declare that this thesis is my original work; prepared under the guidance of Dr. Melaku Girma. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Melaku Girma (Ph.D.) -----

Advisor Signature

St. Mary's University May, 2022

Addis Ababa

ACKNOWLEDGEMENTS

This research paper is made possible through the help and support from everyone including my Family, friends, instructors and in essence, all sentient beings especially please allow me to dedicate my acknowledgments of gratitude toward the following contributors.

First of all I would like to give my glory and praise to the Almighty God for his invaluable care, support and all the things throughout my life. Next I would like to express my thanks and appreciation to my Advisor Dr. Melaku Girma, for his guidance and review of the thesis. Besides, I would also like to thanks all organizations and individuals who contributed directly or indirectly by providing the necessary materials and support for realization of this research.

Finally, I am forever indebted to my beloved family for understanding, endless patience and encouragement when it was most required. My thanks and appreciations also go to my friend and people who have willingly helped me with their abilities to improve the quality of the thesis.

List of Abbreviations and Acronyms

AACCSA	Addis Ababa Chamber of Commerce and Sectoral Association
AGOA	African Growth and Opportunity Act
APEC	Asia Pacific Economic Cooperation
AQAP	Allied Quality Assurance Publications
BS	British Standard
CNU	Children's Nutritional Unit
DQS	no extension just it is a certifying agency
ECAE	Ethiopian Conformity Assessment Enterprise
EHNRI	Ethiopian Health and Nutrition Research Institute
ENAO	Ethiopian National Accreditation Office
ENI -	Ethiopian Nutritional Institute
ESA	Ethiopian Standard Agency
ESO	Ethiopian Standardization Organization
FAO	Food & Agriculture Organization
FGD	Focus group discussion
GDP	Growth Domestic Product
GMP	Good Manufacturing Practice
GTP	Growth and Transformation Plan
HACCP	Hazard Analysis Critical Control Point
ILO	International Labor Organization
IRP	Internal Resource Persons
ISO	International Organization for Standardization
ISOQAR	ISO- Quality Assurance Registered
NATO	North Atlantic Treaty Organization

NMI	National Metrology Institute
NQI	National Quality Infrastructure
NRIH	National Research Institute of Health
OECD	Organization for Economic Cooperation & Development
QM	Quality Management
QMS	Quality Management System
QSAE	Quality and Standards Authority of Ethiopia
SAP	Structural Adjustment Program
SPSS	Statistical Package for Social Sciences
SRS	Simple Random Sampling
TC	Technical Committee
UNIDO	United Nations industrial Development Organization
WW2	World War Second

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ABSTRACT

This thesis is aimed at analysing the Practices and challenges faced in implementation of ISO 9001:2015 standards in agro food companies of Addis Ababa Ethiopia. The study has employed a quantitative and qualitative research approach. Both primary and secondary data sources have been used. The primary data were collected from seven conveniently selected ISO 9001 certified agro food companies selecting 136 employees in a systematic random sampling way and from seven conveniently selected noncertified companies selecting 33 management members with a systematic random selection technique of sample respondents. A self-administered questionnaire was used as data collection method. The qualitative data collected through face to face interviews and FGD from key informants analysed and interpreted. The study confirmed that there is a slow trend in using this standard as mechanism of improvement in agro food companies. The other major findings are: Lack of promotion and awareness, lack of coordination among national quality infrastructure bodies and lack of policy frame work and economical background of the country are articulated. On the other hand, the presence of weak quality infrastructure across the country, Lack of support from the government (incentives, promotion, award, enactment etc), Business priority issues of the companies, Lack of awareness in benefits of QMS and Lack of understanding in the QMS process requirements executions were being identified as the main difficulties for the agro food companies not to implement ISO 9001. Companies which make attempt to get certified to ISO 9001 standard has been surging during the past years and for those already registered seem to face some challenges in implementing it. The findings are lack of corrective action and preventive action, involvement of people and lack of continual improvement. Moreover, the weakness of the main enablers for the success of matured quality system like national widened quality promotion, national quality infra structure, lack of enactment of legislation and policies and shortage of technology and skills has got a big impact on the gap that is presented in both trend and challenge of QMS. Hence, working on the enablers, on the identified challenges and on the main inhibitors is a recommendable issue. For future by adding some values on the prevailing researches to exhaust the benefit of QMS through impact and effect by enlarging the scope both in sector and geography is also a recommendable point.

Key words: *Trend, Challenge, Quality Management System, ISO, Agro food Companies*

CHAPTER ONE

INTRODUCTION

This chapter as preliminary part provided an introduction to the research issue. It gave basic subject matters of Quality Management System, Agro food industries and related concerns consisting of: Background of the study, statement of the problem, research questions, research objectives (general and specific), significance, scope, limitation of the study, definitions of key terms and organization of the study.

1.1 Background

In the past years a number of issues and trends have brought increased attention into safety and quality considerations in the agro-food sector. These include the expansion of the international trade of food fueled by advances in production, transport, information technology and other deployments in the cooperation of supply chains. In order to promote food trade and maintain consumer's trust in product quality and safety, quality management is of high importance for agro-food enterprises. Safety and quality standards, assurance systems and a legislative framework could build around the business concept of "quality management" (Krieger and Schiefer, 2006).

The development of management systems with focus on processes is not a new concept, having begun to receive attention in the eighties. Systems based on "good practices"; encompassing good agricultural, good hygienic, good manufacturing and good trade practice were developed. Since the nineties the international standard ISO 9000 has been popular in the industry. The reason for the development of the ISO 9000 was the publication of a consistent norm, which formulates a framework for quality management. In 1993, the European Union officially recognized the HACCP methodology as a standard production method for food manufacturers to implement and maintain a production control system. Furthermore, quality systems have been developed with specific requirements for the agro-food-industry and with the view on supply chains and networks (Krieger & Schiefer, 2004; Luning et al. 2002).

Quality Management System ISO 9001 has become increasingly popular and having a quality program in organization that has been used as an indicator that the organization products, services and operations are well run, reliable and continuously being improved. The reasons why

these practices and standards create pressure to engage in change are because important stakeholders such as major trading partners and customers value. (Lewis *et al*, 2009).

Quality Management System's international standards importance is not confined in a certain sector it benefits manufacturers, service providers, users, consumers and regulators and supports sustainable development, so its popularity is relevant today. Meisinger and Wagner, (2006) state that in majority of organization worldwide, ISO 9001 certification is the most important management tool for organizations to perform well, resources well utilized and customers well served. Since its introduction in 1987, the trend shows that ISO 9000 standards have received wide acceptance; the number of organizations certified for ISO 9001 has grown tremendously.

According to the ISO report, certification achieved 1,138,155 in 2014 with only 25 years. Out of these certificates issued in 2014 worldwide, the share of Africa is around 10,308 (0.9 %). Even though Africa started QMS certification in early nineties around 1993 this data shows how African firms don't utilize the benefits of implementing the system. However, promisingly the regional growth of certification is around 5% per annum in the past five years which is the second growth rate in the world next to Middle East which rate 5.5% annual growth (ISO Survey, 2014).

In Ethiopia; ISO 9001 certification has been started in 2002 and business firms can utilize benefits of implementing ISO 9001 QMS and improve their competitiveness in the export market there by improve their system's effectiveness and efficiency. However, the degree of utilization of opportunities of implementing ISO 9001 QMS is very low in developing countries in general and in Ethiopia in particular (ESA, 2014)

The manufacturing sector makes an important contribution to the Ethiopian economy and employs about 173 thousand people in the year 2012/2013. The sector had about 2,610 manufacturing establishments in the same year and it can be categorized into eight broad subsectors namely food and beverage products, textile and apparel products, leather and leather products, wood and pulp products, chemical and chemical products, rubber and plastic products, other non-metallic minerals products and metal and engineering products industries. The top two manufacturing subsector; food and beverage and metal and engineering industries accounted for 51% of the sector's GDP and the food and beverage sector alone accounted 38% of the

employment in the sector in the year 2012/2013. The manufacturing sector contribution to the GDP in 2012/2013 was 4.8% (AACCSA, 2015).

The performance of the sector has been affected by low productivity of workers and use of obsolete technologies which is attributed to the poor state of physical infrastructure, limited access to finance, limited research and development, poor institutional framework, and inadequate managerial technical skills (AACCSA, 2015). Nicholas (2006), the former World Bank chief economist and senior vice president, notes that without addressing market access and international standards compliance issues, African firms and farmers will be unable to take full advantage of market opening initiatives such as the U.S.'s African Growth and Opportunity Act.

According to Mateides (2006) QMS will solve these problems because it is a coordinated activity aimed at guiding and managing the organization with regards to quality, based on the structure of the organization, the methods, processes and resources necessary for the implementation of the quality management. Quality as the compliance with the requirements of the customers should therefore be the focus of each organization because it significantly affects customer satisfaction, loyalty, and the end result is the prosperity of an organization. Similarly quality management system can increase the ability to fulfill the agro-food industry manufacturer's own quality needs consistent quality follows up useful for identifying and prioritizing areas for continual improvement (Shemwell, 1998).

Generally, the main focus within quality management systems has been on how organizations can implement a QMS to the best abilities, and what results they can gain and benefit from it. Even if the significance of QMS is wide range and an identity for the competition in the global market the issue is not addressed well by different scholars and private and public sectors and the government do not give due attention in Ethiopia. Therefore, the aim of this paper is to propose alternative solution how organizations can prepare themselves for the inherent challenges with an implementation of a QMS and what strategies should stakeholder's takes into account to enhance the trend of QMS certification in Ethiopia.

1.2 Statement of the Problem

Stressing the need for an organization to adopt the practice of quality in the face of increasing competition and challenging operations cannot be over-emphasized. It is very clear and pertinent that quality has become a universally defined term of customer perception and expectation rather than in terms of production specialization and relative increase in customer requirements and perception. Nowadays, it is extremely difficult to tune on the television set, listen to radio or read through the pages of newspapers without finding the word “Quality”. This emphasizes the relevance of quality to both the manufacturer or provider of services and the general public. In view of this trend, it follows that for organizations to stay in operation, they must adopt quality control and qualitative managerial principles. This is why the relevance of Quality Management cannot be over-emphasized in this dynamic, complex, highly competitive and perilous business environment (Ayandele and Akpan, 2015).

Contrary to the widely spread benefits of implementing quality management system, in Ethiopia the QMS certification is often characterized by lower participation. According to ISO report, about 82 Ethiopian companies gain ISO 9001:2015QMS certificates by different certifying bodies, which mean only 0.7% of companies out of Africa. The result also put the country in lower rank compared to countries of East Africa like Kenya and Sudan (ISO Survey, 2014).

Similarly agro-food industry sectors (food and beverage) having the same trend there are around 753 companies are established in the country more than 40% (301) of the manufacturing industries are located in Addis (Amare, 2015). However, but only not more than 24 of them are implemented and got certificate of ISO 9001 by different certifying bodies in Ethiopia (ECAE, ISOQAR and DQS, 2016). The data revealed that most of the agro industries in Ethiopia are not practicing this important system and little is known about it by various industries. However, the sector is known by a lot of competitiveness

In addition to this; challenges are likely to occur when implementing a QMS. However, the magnitude and impact of these seems to differ depending on the specific capabilities and circumstances of the company (Carlsson and Carlsson, 1994) and (Cachadinha, 2009). Although the problems are specific to each company it is observed that there is a common problem among the companies which is acting proactively. If companies can plan and evaluate themselves prior

to the implementation of a QMS it is believed that it is possible to anticipate and avoid challenges/barriers that are likely to occur. However, with various reasons most companies cannot learn much from these practical examples and suffer by these challenges continuously.

Given the above scenarios, understanding the trend, major challenges and the reasons why companies in Ethiopia fail to give due attention to the QMS certification may help policy makers, certifying agencies, consultants etc to come up with innovations to deal with the problem and help companies to be competent and efficient.

Hence, this study attempted to contribute filling the knowledge gap and to provide an empirical basis for identifying options to increase the number of QMS certified companies and gave some directions to overcome the challenges that are observed in agro-food industries in Ethiopia.

1.3. Research Question

The present study was carried out to answer the following questions:

- What are the practices of ISO 9001:2015 quality management systems implementation looks like at agro industry?
- What are the major challenges of implementing the quality management system in the agro industries?
- Why agro food industries hesitate to get ISO 9001:2015certifications?

1.4 Objective of the Study

1.4.1 General objectives

The main objective of the study was to investigate the Practices and main challenges that the Ethiopian agro food companies face on the implementation of ISO 9001:2015 quality management systems (QMS).

1.4.2 Specific objectives

The specific objectives of this study were to:

- Analyze the Practices of ISO 9001:2015 quality management systems implementation in agro-food industries.
- Identify of different challenges in implementation of ISO 9001:2015quality management systems in agro-food industries.

- Examine why agro industries hesitate to implement ISO 9001:2015 quality management systems

1.5 Significance of the Study

As the international business environment becomes increasingly competitive, customers are more and more demanding where quality is concerned. The adoption of (QMS) therefore should be a strategic decision by an organization to ensure delivery of service and/or product that meets customer requirements. It is in no doubt that ISO standards offer practical solutions to technological problems. The active participation and interest of every developed country in ISO's work means that international standards represent international consensus on optimum technological solutions to standardization problems (U.N.I.D.O., 2006).

Based on the above rational, this thesis is expected to give some contributions for:

Organizations

Primarily this paper provides the knowledge needed by food and beverage manufacturing companies how to overcome the challenges faced while implementing ISO 9001.

Government

On the other hand the study will give direction for decision making and policy formulation in both public and private organizations with some key guidelines and targets on the challenges and trends of QMS implantation and implicate their strategic intervention.

Certifying Agencies and Consultants

Fourth the study will create a plat form for certifying agencies and consultants through the identification of the core challenges during implementation and providing empirical evidence why organizations are not that much interested on ISO 9001.

Researchers

This thesis is expected to provide some information for researchers who intent to examine the benefit, impact, challenge, barriers, awareness of ISO 9001 implementation empirically.

Other Organizations

Other organizations and stakeholders will find the study significant in that, it provides a useful framework for managing their organizations through ISO 9001 certification, thus understanding the challenges of quality management implementation will create a plat form for its implementation and will provide some clue how to tackle the challenges.

In this way, ISO 9001 certification becomes a motivational tool for the management, stakeholders, government, certifying agencies, consultants, customers and employees.

1.6. Scope of the Study

Subject scope

The present study looked insight the core challenges of the certified companies face on QMS implementation and explored the main hurdles which prevent non-certified companies for not to adopt the best internationally recognized management system standard ISO 9001 in the selected agro food organizations.

Geographic scope

The study only circulated around agro food industries which are found only in Addis Ababa.

Spatial scope

Since the research was picked two issues blended together the trend and the challenge it cover various responsible bodies which have a contribution both on the trend and the challenge. It incorporated representatives of certifying agencies & government organization (regulatory and technical), consultants and also managers, middle managers and employees of certified and non-certified agro food industries are subjected to be part of this study to get a full information and data.

1.7 Limitation of the Study

The limitation of the research were the exclusion of other agro industries which will have a negative impact in inferring conclusion on the level of QMS throughout the agro industries in the Addis Ababa. The rationale behind the selection of certain companies is due to limited budget of the researcher. There were also other performance indicators for the companies that are not subject to ISO certification and overlap of systems. Lack of reliable documents on the research area, biased reports about the implementation of QMS and lack of experience of the researcher in the area are also expected to be the limitations of the study.

1.8. Definitions of Key terms

Quality: Crosby (1991) defined the concept of ‘quality’ as “conformance to requirements”, pointing to the need for conformity assessment in order to ensure that the product complies with the specified requirements.

Management: According to Zlatanović (1999), the most used management definition is that of Henri Fayol. Fayol defined management as the most important process in job performance which involves managing a company in a broad way, which means estimating, organizing, commanding, coordinating and controlling.

Quality management: is the process whereby certain operations are performed to ensure the achievement of the objectives and improve company performance (Juran & Gryna, 1980).

Trend: the progress of QMS certification.

Implementation: is the carrying out, execution or practice of plan, a method or any design, model, specification, standard, or policy for doing something (Wikipedia, free encyclopaedia).

Dimensions: The constructs or the themes of quality variables that determined QMS implementation as referred in manual ISO 9001:2000.

Attributes: The individual elements of the dimension.

Companies/Organisation: This refers to private or public limited agro food industrial which the research established.

Challenge: any factor that hurdle or prejudice things as proper as expected

Agro food companies: The large-scale production processing and packaging of food using modern equipment and methods from agricultural products (Amare, 2015)

1.9 Organization of the Study

Chapter one provided an introduction to the area of the research. The chapter described the background of the thesis and is followed by a problem statement discussion, setting research questions and objectives of the study, scope and significance of the study the paper. It also included the limitations of the study.

In chapter two the thesis introduced the structure of the theoretical aspects and present the issues that are related to the research questions which make up the foundation of the thesis. It covered the empirical studies as well as the conceptual framework a framework that is related to the quality management systems.

Chapter three outlined the practical ways of how it intends to carry out the research and specifically which methods it was chosen. It presented the chosen respondents, how it carries out the interviews, access and criticism of primary sources.

In chapter four the thesis presented and analyzed the data collected from the structured and semi-structured questionnaire, interviews and focus group discussion at the case organizations.

Chapter five presented the major findings, conclusion and recommendations for organizations in general and for stakeholders based on the theoretical framework and empirical findings. The thesis concludes by suggesting approaches for further research with regard to or subject.

CHAPTER TWO

LITRATURE REVIEW

This chapter sketched the theoretical review, explained the concept and background of agro food industries and ISO 9001, empirical studies and the conceptual framework that related to the Practices and challenges of ISO 9001 ISO 9001:2015implementation. It also gave the background necessary to evaluate the variables with regards to the variables under the study.

2.1 Theoretical Literature Review

Theoretical literature reviews elaborate the issues related to theoretical background and widen the researcher understanding to view the worldwide outlook. Therefore, this topic explained theoretical aspects directed to ISO 9001:2015QMS implementations in agro food sector and related issues.

2.1.1 Back ground of Agro food industry

2.1.1.1 Definition and Concepts of Agro food industry

Agro-industry, understood here broadly as postharvest activities involved in the transformation, preservation and preparation of agricultural production for intermediary or final consumption, typically increases in importance with regard to agriculture and occupies a dominant position in manufacturing as developing countries step up their growth(Wilkinson and Rocha, 2009).Agro processing could also be defined as set of techno economic activities carried out for conservation and handling of agricultural produce and to make it usable as food, feed, fiber, fuel or industrial raw material (Kachru, 2014).

According to FAO (2007) agro-processing industry is a subset of manufacturing that processes raw materials and intermediate products derived from the agricultural sector. Agro-processing thus means transforming products that originate from agriculture, forestry and fisheries.” The Standard Industrial Classification also categorizes the following eleven divisions under the agro-processing industry: food, beverages, paper and paper products, wood and wood products, textiles, wearing apparel, furniture, tobacco, rubber products, footwear and leather and leather products.

Specifically the agro food sector can be seen as comprising: (i) products for subsistence and local markets (basically root crops); (ii) staples for urban domestic markets (predominantly cereals); (iii) traditional export commodities (coffee, cocoa, tea, nuts, cotton); (iv) components of animal protein diet (dairy products, oils and animal feed) and different meat chains (red meat, pigs, poultry) for both domestic and export markets; (v) fresh or non-traditional products (fruits, horticulture, flowers, seafood/aquiculture); (vi) differentiated traditional exports (fair trade, organics, origin products), which are now oriented also to domestic markets and (vii) beverages both alcoholic and non-alcoholic (Wilkinson and Rocha, 2009).

2.1.1.2 History of Agro Food Industry in Ethiopia

The history of Ethiopian manufacturing industry is more or less related to the post Ethio-Italy war (Getenet and Admit, 2005). It should be noted, that during the Italian occupation or aggression, there were small-scale manufacturing producing consumer goods such as soap and textiles. About 67 percent of the establishments were fully and partially owned by foreigners (Eshetu, 2003). In the second half of 1940s, there was very few manufacturing industry, which accounted for only 1% of the national income. Industrialization really begun in the 1950s and was consolidated in the following three successive five-year developments plans (Getnet, 2003).

After the collapse of the Imperial regime, the Derg nationalized enterprises involved in major economic activities and the private sector was allowed only to participate in small-scale industries and handicraft activities. With regard to industrialization, there were not any economic plans for the first four years (1975-1978). In 1984; the regime issued a comprehensive and long-term development plan, which came to be known as the Ten-Year Perspective Plan, covering the period from 1985 to 1994. The development strategy was the same, import substitution industrialization. The major difference was that during the socialist regime, the strategy was state-led (Getnet 2003).

The current Government is pursuing “Agricultural Development Led Industrialization” as opposed to the previous regimes. It is believed that priority to agriculture in the shorthand medium term will create a big domestic market for industry and supply food and draw material to industry and this is anticipated to strengthen the inter-sect oral linkages between agriculture and industry and will lead the economy to the development of industry. The problem, however,

is that the urban sector of the economy is somehow ignored and the focus on agriculture has not even emancipated peasants from the havoc of periodic famine. There have been long years of adverse policies and economic management in which the private sector remained inactive and where the state sector lacked the dynamism required to foster industrial growth. Ethiopia's industrialization effort has succeeded or failed in establishing internal and external competitiveness (Getenet and Admit, 2005).

2.1.1.3 Contribution of Agro Food Industry in Ethiopia

Industrialization is seen as a motor behind many of the processes usually termed "social transformation" and "modernization" (UNIDO, 2004). The following features can be isolated as the important characteristics of industrializations: first, it is not a onetime or sudden occurrence but rather a sustained process; second, it brings about structural changes or transformations of national economy, especially, in the composition of output and the pattern of employment; and third, it requires the application of modern science and technology to the production process. It is, therefore, an inevitable part of the process of change for the improvement of the per capita income of a nation. It leads to change in the traditional structure of an economy. In general, it has significant role in the economic development. The key and dynamic role of this process is played by the manufacturing sector (Urgaia, 2007).

Specifically the agro-processing sector in developing countries occupies a relevant place in overall turnover and value added, particularly for the -developing countries. Three indicators are used in order to measure the importance of agriculture: Agricultural value added percentage share of GDP, percentage share of agricultural employment (%) and the size of agricultural production (Radmila, 2013).The African countries included: Ethiopia, Eritrea and Senegal, food and beverages represent more than 70% of agro-industry and on average, about 52% of total manufacturing value added corresponds to the agro-processing sector; In agriculture-based countries the contribution of agro processing to total manufacturing is 66%, while in transforming and urbanized countries the figures are respectively, 38% and 37%(Wilkinson and Rocha, 2009).

According to P.A. and D. Kaija. (2007) Practices show that there has been a rapid increase of production value adding via agribusiness opportunities relative to primary agricultural

production. Demand from agro-processing increases as does the effective size of the market for agricultural products. Traders and agro-processing firms furnish crucial inputs and services to the farm sector, inducing productivity and product quality improvements, stimulating market growth and innovation throughout the value chains.

The food and beverages sector is one of the main components of Ethiopia's manufacturing sector. The first round GTP (2010-1015) ranked agro processing industries among top priority industries. Among the large and medium manufacturing processors, which total 2,610 manufacturers, 753 establishments are in the food and beverage subsector and employed more than 67,000 people (AACCSA, 2015). More than 40% (1044) of the manufacturing industries are located in Addis. More than 31% (324) of the manufacturing industries fell in the category of Food and Beverages. Well over 175,000 persons were engaged in the manufacturing industries. More than 38% (67,000) of these persons engaged were reported to be in the Food and Beverages Industry Group. Almost 33% of the value added to the national accounts by manufacturing industries was contributed by Food and Beverages Industry (Amare, 2015)

According to UNIDO's (2004) strategic plan of the sector, food industries development in Ethiopia is still very much in its infancy; their products have difficulties in complying with international standards and the trade balance for processed food products remains substantially negative, which is an indication of very high, unexploited domestic market potential for food industry development. Habtamu (2010) major factors contributed for low development of the sector are low effort to improve process technology, marketing management and conforming to standards, low labor productivity, intense competition in the world market, small size and type of ownership.

Even if the sector is bounded by various internal and external constraints it is an important source of employment opportunities and base of the economy. In view of this, the paper targeted the sector to assess the QMS implementation to sustain the agro food manufacturing industry contribution for the country and to enhance their competitiveness in global market.

2.1.2 Concept and Definition of Quality

Quality is not goodness or luxury, or shininess; it is not intangible and therefore not immeasurable; it is not unaffordable, not originated by the workers, not something that originates

in the quality department; and quality is not conformity to requirements (Crosby 1991). He further adds that quality is the responsibility of everyone in the organization and that quality is measurable. The process of instilling quality improvement is a never-ending phenomenon. In general there are two approaches to manage the quality of a product or a service. Product quality deals with the quality of the final product, while process quality deals with the quality of the processes required to producing goods and/or services.

ISO 9000 defines the quality of a product or a service as the totality of its features and characteristics that bear on its ability to satisfy stated or implied needs. Quality is the composite of the culture, attitude and values of an organization that strives to provide the customers with the products and services that satisfy their present and future needs.

According to ISO 9000:2005 quality also defined as; Quality is the ongoing process of building and sustaining relationships by assessing, anticipating, and fulfilling stated and implied need. Quality is the attainment of prescribed standards and the degree to which a set of inherent characteristics fulfill requirements

2.1.3 History of ISO 9000(Quality Management Concept)

The quality management system developed by the International Organization for Standardization is highly related to early military systems (Hallström, 2000 cited by Sandström and Svanberg, 2011). ISO 9000 can be traced back to the military standards developed by the US Military, the NATO, and the British military in the 1930's (Hallström, 2000 cited by Sandström and Svanberg, 2011).It dates back to World War 2 (WW2). Before the war, it was customary for military authorities to inspect large military projects such as the building of war ships. With the increased demand for these ships in WW2, the ships had to be produced faster by building them in pieces first and then putting the pieces together at alter stage. These pieces had to be measured and controlled by military authorities; therefore the allied forced developed the first "MIL-SPECS" (Military Specifications) (van Bruggen et al., 2002 cited by Manders 2015).

After WW2, attention to organization's quality was added to the standards apart from product requirements and "MIL-Q9858" was introduced. This was the forerunner of"AQAPs" Allied Quality Assurance Publications. At a certain moment in time the NATO partners agreed for economic reasons that when they place an order from a member country, military authorities in

that member country could supervise the production. The path to certification was created. In 1963, the first AQAP which provided requirements for contractual suppliers' organizations came into existence. When a company wanted to do business with the military, the organization's quality was first checked by a group of military staff. If the company in question met all the requirements, it received the AQAP certificate. This became a requisite for doing business with the military. It did not take long for civil bodies, certification organizations, to take over the inspection activities (van Bruggen et al., 2002 cited by Manders 2015).

Because of the positive experience with this quality assurance in military production, the civil side got interested in it: Why not apply the same approach in business-to-business environments? Standards were necessary for assuring quality; therefore some countries developed quality assurance standards based on the military AQAPs. Because of the continuous increase in cross-border trade, the necessity to have an internationally accepted set of criteria increased. This resulted in the ISO 9000 standards (van Bruggen et al., 2002 cited by Manders 2015).

2.1.4 ISO 9001:2015 Quality Management System

A quality management system is the way our organization directs, and controls those business activities, which are associated with quality. Broadly, it consists of your organizational structure together with the planning, processes, resources and documentation that you use to achieve your quality objectives, to provide improvement of your products and services and to meet your customer's requirements (ISO 9000).

Quality management systems are not just for big companies only. Since quality management systems are about how the business is managed, they can be applied to all sizes of companies and to all aspects of management, such as your marketing, sales and financial activities. It is up to you to decide the extent of application (ESA, 2011)

Quality management system standards should not be confused with product standards. Most organizations new to the concepts of quality management systems and in particular the ISO 9000 series of standards confuse product or service quality with the concept of quality management.

The ISO 9000 family of standards can be applied to all organizations regardless of type, size and product/service provided (ISO 9000:2000). The standards in the family are:

- ISO 9000:2005 - Quality Management Systems - Fundamentals and Vocabulary.
It provides an appreciation of the fundamental principles of quality management systems and an explanation of the terminology used in the family of standards.
- ISO 9001:2015 - Quality Management Systems – Requirements
It provides requirements which if meet will enable organizations to demonstrate they have the capability to consistently provide product/service that meet customer and applicable statutory and regulatory requirements.
- ISO 9004:2009 - Managing for the sustained success of an organization – A quality management approaches.
It provides guidance to organizations to support the achievement of sustained success by a quality management approach. It focuses on how to make a quality management system more efficient and effective
- ISO 19011:2011 - Guidelines for auditing Management Systems

2.1.5 Conceptual Model of ISO 9001:2015 Quality Management System

The model of ISO 9001:2000 is presented –in figure1and it serves as a framework of how organization should work in regard to quality and more specifically, what the organization requires to do (Dale *et al.*, 2007). The model shows five principal elements, which each include a set of requirements, actions, and processes.

The first element is ‘continuous improvement of the quality management system’ (top box in the Figure 1), which includes general requirements of a quality management system and documentation requirements. In this element organization are expected to “establish, document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements of this international standard” (BS ISO 9001, 2000).

The second element is ‘management responsibility’ and covers the demanded level of management commitment, customer focus, quality policy, planning, responsibility, authority and communication (Dale *et al.*, 2007).

The third element of the ISO 9001:2000 framework is ‘resource management’ and includes provision of resources, human resources, infrastructure, and work environment (Dale *et al.*, 2007).

The fourth element is ‘product realization’ and covers the planning of product realization, customer-related processes, design and development, purchasing, production and service provision, and control of monitoring and measuring devices (Dale *et al.*, 2007).

The fifth and last element of the framework is ‘measurement, analysis and improvement. This element suggests that organizations should “plan and implement the monitoring, measurement, analysis and improvement processes needed: (a) to demonstrate conformity of the product; (b) to ensure conformity of the quality management system and (c) to continually improve the effectiveness of the quality management system” (Dale *et al.*, 2007).

The model (see Figure 1) takes the view that everything to do with quality starts and ends with the customer. So the model is customer driven. In the diagram, the customer is shown on both the left and right. Most often it will be the same customer, but it could be a different one.

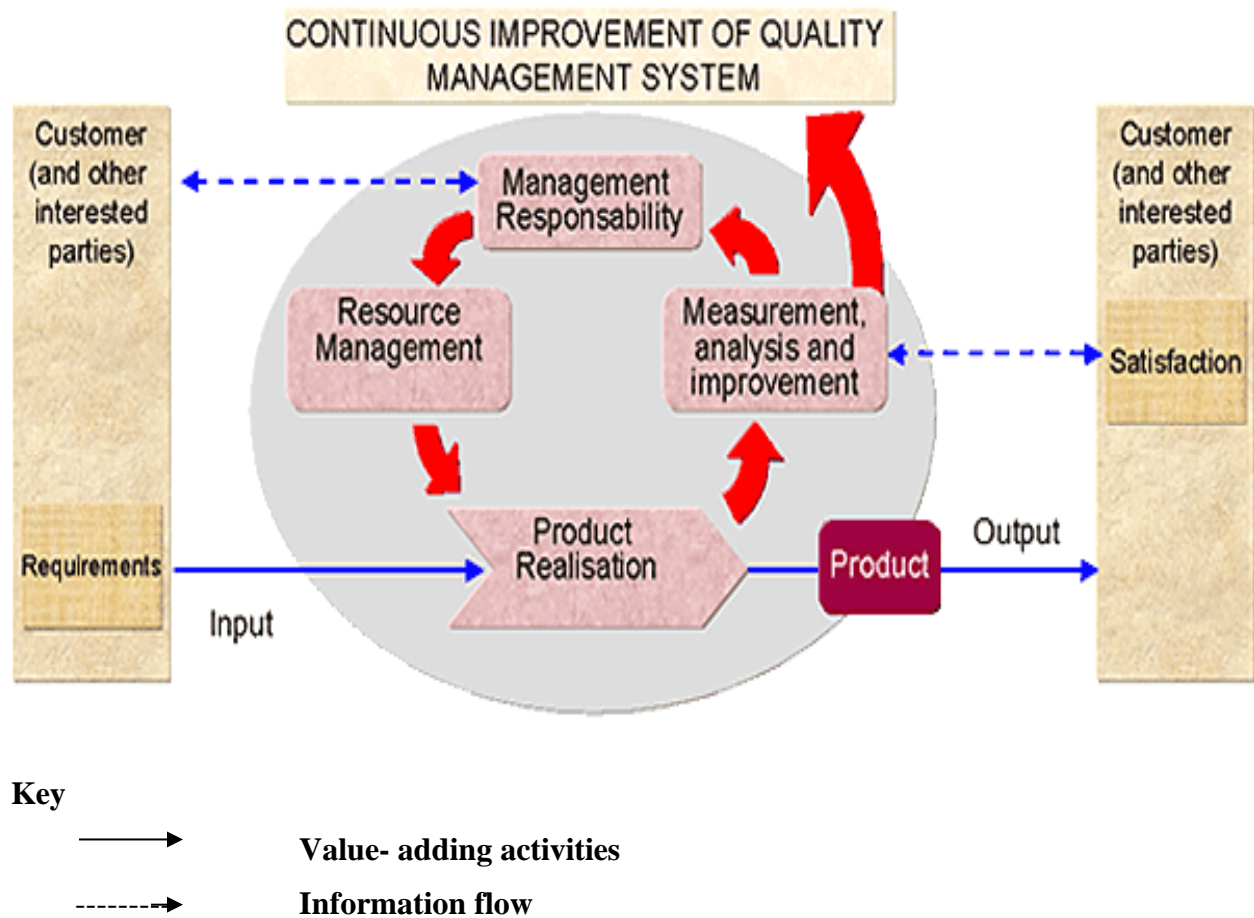


Figure 1: Model of a process-based quality management system

One of the great features of the ISO 9001:2015 version is the increased use of feedback as a powerful management tool—one that will underpin your business if you are not already using this technique in your management system. Feedback employs some form of monitoring or measurement to detect when things require attention. This is used to alert the operator or manager to do something to bring things back to normal. Indeed, without such mechanisms, waste will be higher and moral lower; both of which will affect the bottom line.

2.1.6 Quality Management Principles

To lead and operate an organization successfully, it is necessary to direct and control it in a systematic and transparent manner. Success can result from implementing and maintaining a management system that is designed to continually improve performance while addressing the needs of all interested parties. Managing an organization encompasses quality management amongst other management disciplines.

According to ISO 9001, eight quality management principles have been identified that can be used by top management in order to lead the organizations towards improved performance.

Customer focus

Customer is the central point around which any business revolves, and so taking care of their present and future needs is mandatory for success and strives to exceed customer expectation.

Leadership

Leadership establishes unity of purpose and direction of the organization. Management commitment is mandatory to ensure that the quality built in through the various processes is taken forward to all the levels and functions of the organization and maintained throughout. Providing adequate resources at the right time, to the right extent is an indication of the management commitment. Paying attention to the employees' issues, making the working environment friendly and comfortable, providing opportunities for growth, etc. will also be the responsibility of the top management.

Engagement of people

People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.

Process approach

A desired result is achieved more efficiently when activities and related resource are managed as a process.

Continual improvement

This is a pre requisite of any quality movement. Continual improvement to the organization's overall performance should be a permanent objective of the organization. In organizations where quality standards are implemented, the improvement plans are finalized well in advance, in order to counter the challenges. Proper and timely reviews can reveal the actual status of improvement and suggest corrective action (ISO 9004:2000). Continual Improvement should get reflected not only in the quality of the results, but more so in the enhancement of the capabilities to produce better results in the ensuing future.

Evidence Based Decision Making

In order to facilitate decision making effectively, there is need to deploy certain tools. This will help to avoid any bias while taking decisions, on account of familiarity or otherwise. The synergy of the team will also improve when decisions taken are fair. Effective decisions are based on the analysis of data and information.

Mutually beneficial supplier relationships

An organization and its suppliers are interdependent and mutually beneficial relationship enhances the ability of both to create value.

2.1.7 The Elements of Quality Management System

Quality is the personification of the culture, attitude and the values of an organization that strives to provide the customers with the products and services which satisfy their needs. In order to be successful in implementing a quality management system like ISO 9001:2000, an organization is obliged to concentrate on the eight key elements (Nayantara 1989).

Ethics: Professional and business ethics demand that the practices followed in an organization do not harm or bring in damage to others who carry out similar activities. There should not be any attempt by the management to promote unhealthy competition or bring in enmity with other business houses.

Integrity: The organization has to practice a very high level of integrity within and among the employees so that they do not resort to malpractices to achieve their objectives. Professional honesty

and loyalty imbibed and practiced by the organization will improve the belongingness of the employees.

Trust: A very high level of trust is required for the growth of the organization as the flow of information in both directions, top to bottom and bottom to top need to be controlled. Moreover the information explosion has shrunk the boundaries of the world. Maintaining the security of information as mentioned in the standards like ISMS (Information Security Management System) has become essential to combat competition.

Training: This is a mandatory requirement for ISO 9001:2000-certified organizations. The training cycle goes through processes such as identification of training needs, implementation of training, training evaluation, retraining if required, and eventually going in for multi-skilling or job rotation as the case may be.

Teamwork: Team work acts as the engine for the enforcement of quality. Tools such as quality circles, cross-functioning teams, suggestion schemes, etc. serve to promote team work. Team building is as much an art as it is a science and only those with leadership qualities can build a well-knit team.

Leadership: In order to achieve success, one has to lead from the front and the leader has to be a role model who will practice what he/she preaches. Unless the leader exhibits inborn qualities like empathy, proactiveness, impartiality, honesty, and loyalty to the organization, success will remain a dream for ever.

Recognition: The contributions of the individual employees or of the teams have to be recognized and rewarded then and there. Non-monetary and monetary techniques may be deployed for recognizing the efforts depending on the type, volume and the timing of the contribution.

However, the dictum "justice delayed is justice denied" is applicable to recognition of the contribution too.

Communication: This has an important role to play to achieve organizational success. While grape vine communication is to be totally discouraged, accessibility of regular employees to the higher-ups, openness in dealings and real time communication are essential for maintaining the health of the organization.

2.1.8 Step in Implementation of ISO 9001:2015

The first step in the implementation of ISO 9001:2015 is to assess the organization's present status and its culture. A study of the organization's history, its present needs and the existing

quality of work-life of the employees should precede the discussions leading to the implementation of ISO 9001:2015. If the present reality does not live with these important preconditions, implementation of ISO 9001:2015 should be kept in silent until the organization reaches a state where success is visible in the near future. If an organization has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, it will be easier to implement ISO 9001:2015. If an organization has not been historically reactive and has no skill at improving its operating systems, there will be both employee skepticism and a shortage of skilled change-agents. If this condition prevails, a comprehensive program of management and leadership development may be instituted (Nayantara 1989).

A management audit is a good assessment tool to identify present levels of organizational effectiveness and areas in which the change is needed. An organization should be basically healthy, prior to administering ISO 9001:2015. If it has significant problems such as a very unstable funding base, weak administrative systems, lack of managerial skills, or poor employee morale, ISO 9001:2015 is not recommended at that point of time. However, a certain level of stress is probably desirable to initiate QMS. People have to feel the need for a change. Kanter (1983) addresses this phenomenon by resorting to the concept of building blocks which is present in a predominant way to effect organizational change. These forces include departure from traditional thinking, a crisis or a galvanizing event, strategic decisions, individual "prime movers, If any action vehicles.

Departures from traditional activities are those which usually occur at the lower levels of the organization, and entrepreneurs move away from the normal ways of operating to solve a problem. A crisis, if it is not too disabling, can also help create a sense of urgency which can mobilize people to act. In the case of ISO 9001:2015, this may be a cut in the funding or a threat for this, or demands from the consumers or other stakeholders for improved quality of service. Whenever a crisis props up, an effective leader may intervene strategically by articulating a new vision of the future to take the organization forward. A plan to implement ISO 9001:2015 may be such a strategic decision. Such a leader may turn out to be a prime mover, who will take charge of championing the new idea and showing others how it will lead them where they want to go.

Finally, action vehicles are needed and mechanisms or structures essential to enable the change should occur and become institutionalized Kanter (1983).

2.1.9 Steps in Managing the Transition to ISO 9001:2015

Beckhard and Pritchard (1992) have outlined the basic steps in managing a transition for a quality management system such as ISO 9001:2015 through identifying the tasks to be executed, creating the necessary infrastructure, developing the strategies for enhancing commitment, designing the mechanisms to communicate the change, and allocating the requisite resources. Identification of tasks would include study of the present state of the art, assessing readiness for change through a force field analysis; creating a model of the desired state, announcing the change goals to the organization; and assigning responsibilities and resources. This final step would include appointing an external consultancy and assigning an individual within the organization to oversee the whole mechanism. This should be the responsibility of the top management.

In fact, the activity of designing the transition management mechanisms is to be undertaken by the top Management. Formation of an organization-wide steering committee to plan and review the progress will be the most appropriate action in this direction.

To communicate the change, mechanisms other than the routine ones need to be custom-built and developed. Special meetings of the employees designed as an input or a dialogue session, where executives also will be present, may be used to kick off the process. Quality management newsletters may be an effective organ to keep the employees abreast of the activities and accomplishments of the organization (Nayantara, 1989)

Management of the resources for the change effort is very important and a judicious combination of IRPs (internal resource persons) and external consultants can give promising results. They will be receiving training in change management, which they can pass on to others later.

The entire employees should be actively involved in ISO 9001:2000 implementation. It may be noted in this context that implementation would be a complex, interactive, and long drawn-out process. The leaders will have to maintain their commitment, keep the processes transparent, provide the requisite support, and hold the personnel accountable for the results. There should be

total involvement of all the interested parties, which will include stakeholders, shareholders, employees, banks, public, etc (Nyantara, 1989).

2.1.10 Quality Journey in Ethiopia

International Organization for Standardization, the authorized body for standards formulation, was founded in the year 1946 with its head-quarters in Geneva, Switzerland. Most countries in the world are members of ISO including Ethiopia (Alolayan, 2014)

In Ethiopian context, there are many reasons for enhancing and necessitate the promotion and application of quality, metrology and standardization. Among the many reasons economic development and technological progress are the main one. In addition the following are the main reasons): To fulfill international requirement and regulations, to fulfill national needs and responsibility and, to support the country export and import trades (QSAE, 2010).

The rate of growth can directly be related to the social and political conditions of the country. The ideology and relative stability of the government in power at the time significantly determined the development of the industries. And this, in return, had an impact on the development of quality concepts. Thus the development of quality concepts in the agro food processing industries can easily be studied by classifying it into three periods:

I. Before 1973:

This period created most industries and those bodies that are directly involved in the promotion and regulation of food quality were established in. Good examples of such bodies include the Quality & Standard Authority of Ethiopia (QSAE) and Ethiopian Health and Nutrition Research Institute (EHNRI) (Ezra, 2004)

In 1958, a bilateral agreement was made between the Imperial Ethiopia Government and the Institute Pasteur of Paris for the establishment of the "Institute Pasteur d' Ethiopie" after the dissolution of the Medical Research Institute. In addition to the researches and vaccination services, the institute renders a laboratory service especially for microbiological elements. With the termination of the bilateral agreement in 1972, the Ministry of Public Health took over the administration of the institute and renamed it as "Imperial Central Laboratory and Research Institute .

Problems related with the standard of imported & exported products ignited the quality and standard development endeavors in country. These problems include the lack of standards for electrical equipment and hygiene level of water supply and the lack of building code faced by the construction projects all over the country.

In 1949, the first legislation, "The Grain Board Act", was passed to regulate the quality of exported agricultural products such as grains and flour. To address problems in the industrial sector, a department for standard was set up in the Ministry of Tourism and Industry in 1964. As the need for standards increase due to the rise of product number and variety, the department of standard at the ministry was re-established on an organizational level under the name "Ethiopian Standardization Organization" (ESO) in 1970. Its objectives were to improve and regulate the quality of manufactured products and to regulate the export of manufactured products.

In 1972, it published the first 108 standards, which included standards for measurement equipment's calibration, agricultural products (oil seed, grains, leather and coffee), cement, iron and steel products and paper. To secure the interest of the country, the Ethiopia Standard Organization became a member of ISO and TC in 1972 and The International Organization for Legal Metrology in 1973 (Ezra, 2014).

II. During 1973 - 1991:

Since 1974, the country has adopted a centrally planned socialist economy system. Many state 'owned enterprise set - up, and nearly all the private companies were confiscated or bought by the government. An enterprise was basically a factory or production unit where the production was assigned according to the central plans. The government has established special departments to perform both the procurement and marketing functions for industries. Because of quota system in a non-competitive environment, the majority of companies had no clear quality vision and mission, and their management lacked the initiative to steer quality activities through corporate strategies and policies (Ezra, 2014)

Although the establishment goes back to the imperial period, Ethiopian Nutritional Institute (ENI) has contributed to food quality development in terms of nutrition. It was set up in 1962 as Children's Nutritional Unit (CNU) and later renamed as ENI in 1978. It makes researches on nutritional problems of the country and promotes balance diet through books, posters, leaflets etc

all over the country. To solve the malnutrition and famine problem, ENI played a vital role in formulating supplement food items that are manufactured on industrial scale. These include food items locally called "FAFA", "Dubei" and "Edget", which were famous since 1986 (QSAE, 2010).

Both "Imperial Central Laboratory and Research Institute" and ESO were reorganized and rename as National Research Institute of Health (NRIH) in 1985 and Ethiopian Standard Authority (ESA) in 1986. The role of the NRIH has grown from a simple laboratory service into the administration of quality control of food and beverages as well as biological and chemical preparation and supervision of public health Laboratories and ESO was authorized to develop standards and regulate quality in both agricultural and industrial sectors. Ethiopia also became a member of African Regional Organization for Standardization in 1976 (Ezra, 2014).

III. Post 1991:

In 1987, the Ethiopia Standard Institute was renamed and has been raised to a status of an authority – The Ethiopia Standard Authority,' taking the important practices of internal standardization into consideration. In 1998, The Ethiopia Standard Authority was reestablished as a Quality and Standard Authority of Ethiopia (QSAE). Ministries and government offices were also re-structured to accommodate these changes (Ezra, 2014)

Up to 2010, there were a “totally integrated approach” which is all the functions related to standards, metrology, inspection, testing and certifications are all provided by a single organization that is Quality and Standard Authority of Ethiopia QSAE. QSAE is also responsible for administering mandatory standards now it is on the hand of ministry of trade and others. QSAE as Ethiopian Standard Body has undergone several structural and name changes since its first birth back in 1970, since 2010it is splitted into four different independent institutions which are Ethiopian Standard Body (ESA), Ethiopian National Accreditation Office (ENAO), The National Metrology Institute (NMI) and Ethiopian Conformity Assessment Enterprise (ECAE) (ECBP, 2009).

Ethiopian Standard Agency (ESA) is a governmental agency which is accountable to Ministry of Science and Technology, and has a National Standardization council which work together with the agency, the member of the council is drawn from appropriate Governmental and Other

bodies and designated by the government. Ethiopian standards agency has three core business areas which mainly focus on the standard formulation, training and Technical support and organizing and disseminating standards (Regulation 193, 2010).

The National Metrology Institute (NMI) of Ethiopia is established by the Council of Ministers regulation No. 194/2010 since 10th February 2011. The Institute is responsible for the maintenance of Ethiopian National Measurement Standards and Certified Reference Materials (CRM). It also provides calibration, training and consultancy services in the areas of metrology and scientific equipment (Regulation 194, 2010).

Ethiopian National Accreditation Office (ENAO) was established as an autonomous federal government office having its own legal personality. The mandate of ENAO is to accredit, by formal third-party recognition, the competence of Conformity Assessment Bodies (CABs) to perform specific activities, such as test, calibrations, certifications or inspections (Regulation 195, 2010).

Ethiopian Conformity Assessment Enterprise (ECAE): In February 2011, ECAE was established as a federal owned Public Enterprise, governed by the Ministry of Science and Technology. ECAE at present is the major conformity assessment organization in the country providing Testing laboratory, Inspection, and Certification services to the industry and to the public. ECAE has the headquarters and main laboratory facilities are located in Addis Ababa and an additional eight branch offices are operational in various parts of the country (Regulation 196, 2010).

As a result the food processing industries started to make efforts to catch up with the latest quality concepts. One such effort is the projects for the implementation of HACCP at different factory with the assistance of UNIDO a number of food processing organizations have embarked on the implementation of HACCP in their plant. There were also changes to the organizations directly involved in food quality in the country during this period (Ezra, 2014).

Although the adoption and development of national quality infrastructure for standard implementation is important, it is equally important to have a certifying body for the implementation these standards. However, there are finger counted internationally accredited certifying bodies for any of the international standards in the country (Ezra, 2014).

2.2 Empirical Studies

Lu and Sohal (1993), based on their study on Australian organizations, have listed the factors that are likely to contribute to the success of QMS implementation. Identification of the strategic direction of the business, i.e., of the senior management having a clear and uniform understanding of the mission, vision and policies of the organization, is very important. Understanding the customers' expectations and communicating the same throughout the organization is essential to achieve customer satisfaction and eventually customer delight. A well-defined plan for the implementation of a Quality Management System, in terms of the time frame, resources, training and supportive organizational structure, is necessary to achieve success. The infrastructure for this system will consist of a steering committee, strengthened by one or more layers of improvement teams.

Mohanty and Lakhe (1998) attempt to identify the critical factors for QMS implementation, through a survey-based research carried out in Indian industries. Meanings and operational measures of such critical factors are articulated and developed by involving the industry managers as the appropriate subjects. Internal consistency and reliability tests are applied to these measures.

Amar and Zain (2002) performed an empirical study to examine the obstacles encountered by manufacturing companies in the implementation of quality programs. The authors identified eleven pertinent factors which act as barriers to implement quality programs in Indonesia. The factors are: human resource, management, attitude towards quality, organizational culture, interdepartmental relations, raw materials, machines and equipment's, information, methods, training, and finance. The authors reported that several of these eleven factors are found to hinder quality programs in other parts of the world, and therefore the remedies to these obstacles could be somewhat similar.

Palo and Padhi (2003), hold that Quality Management System (QMS) is a never-ending journey of the improvement of work processes. It operates according to the premise that organizations cannot rest comfortably without continuously improving whatever is being done. The authors have found that training creates awareness, enhances employees' commitment to quality policy and strategy, facilitates teamwork, upgrades performance standards, and bolsters the skills and

abilities of the employees. However, any organization needs to focus more on improving communication competencies as well as multiple skill development, and imparting customer value training. Organizing training in the quality management systems needs more budgetary allocation, commitment and support of, and enthusiasm from, the top management.

Hesham and Magd (2007) conducted an empirical study on a sample of industrial companies in Egypt. The purpose of their study was to evaluate ISO 9001:2000 implementations in Egypt by identifying the critical success factors contributing to the success of the standards. Furthermore, the authors identified the problems associated with ISO implementation. The authors reported that management commitment was found to be an important factor contributing to the success implementation of ISO 9001, while the need to change the existing system to fit ISO 9001 and workers resistance to implement the standards were viewed as the most important problems facing the Egyptian manufacturing companies.

Germán and Landinet. Al (2013), this article analyzes the dissemination of ISO 9001, the main global management standards, within Africa. The work refers to the diffusion of ISO 9001 standard in terms of its certification intensity. In this article, the dissemination of ISO 9001 in Africa has been analyzed. The general certification intensity of the continent is of 0.18; in other words, the proportion of the contribution of Africa to the global GDP of the world is more than five times superior to the proportion of ISO 9001 certificates located in Africa.

Jamal and Theuri (2015) conclude that the implementation progress should be monitored to ensure that the quality management system is effective and conforms to the standard. These activities include internal quality audit and management review. However, successful implementation of ISO 9001 in organization can be elusive. One of the key reasons for this is that many organizations overlook the complexity of the implementation processes and the organizational changes that are needed to ensure the QMS is fully functional.

Ezra (2004), the implementation process of QMS is long and result may not be observed immediately. It will require trainings, involvement of experts from different field of study and a considerable amount of investment. With hard and committed effort a profound achievement can be attained. This includes the reduction in cost of production, better relation with customers and suppliers, more committed and motivated workforce, internationally competitive products and

manufacturing establishments, the development of reliable and good supply of raw material source, and better utilization of manufacturing capacity. In addition Government and non-government organizations play a pivotal role in the implementation process. Government bodies such as Ministries (Agriculture, Trade, Industry, Health), Research Centers, QSAE are vital in coordinating activities such as raw material supply, nutritional development of food items, food safety, and implementation of quality standards and regulations. These bodies can also be involved in setting up facilities that promote the implementation of quality like laboratories and research and training institutes. Non-government organizations have already started to be involved in this quality concept development process. HACCP implementation program of UNIDO is a good example.

Daniel (2010) the benefits gained by implementing ISO 9001 QMS in the EFFORT corporate organizations were improved process and procedures, improved awareness of employees for quality, provision of better customer service. Even though more than a million organizations have been certified to ISO QMS 9001 standard till date, and also despite the huge number of research findings revealing the perceived benefits of implementing QMS, there were certain common problems faced by majority of these certified organizations, which influenced their business performance by sitting Kumar and Balakrishnan (2011) and summarized these problems broadly as: Leadership related issues (Inadequate Commitment by Top Management), Lack of Motivation, Recognition, Organizational learning, Strategic Planning and long term focus, Strategy Related Issues (Mission, Vision, Values, Strategic Planning, Strategy Mapping, Cascading down the line, KPIs and Initiatives), Quality System related issues (Weak PDCA cycle, generic system, internal audit not in depth, non-value adding meetings/trainings and excessive paperwork), Society oriented gaps (Corporate Social Responsibility, Environmental Management and Sustainability).

Overall, the review so far is believed to be important input for the proposed study. attempts will be made to compare the findings of the earlier researchers quoted in the literature review with the findings of the research scholar in respect of Quality Management Systems followed in selected agro food organizations. This formed the basis for the study.

All of the above researchers agreed on the following issues: quality has become so important that the world is uniting around a single quality standard. ISO 9000 ISO 9000 is a family of standards

which relate to QMS and are designed to assist organizations in meeting their customers' and stakeholders' needs through the implementation of this management system. Challenges are likely to occur when implementing a QMS, however the magnitude and impact of these seems to differ depending on the specific capabilities and circumstances of the company (Carlsson and Carlsson (1994), and (Cachadinha 2009). Although the problems are specific to each company we see that there is a common problem among the companies which is acting proactively. If companies can plan and evaluate themselves prior to the implementation of a QMS it is believed that possible to anticipate and avoid challenges/barriers that are likely to occur.

2.3 Research Gaps

Despite studies tried to elaborate various issues that are rotated around ISO 9001 QMS implementation. However, there are some research gaps are observed and to list down some of them:

- i. Most of the studies focused mostly on the specific issue like problems or barriers or benefit or importance of QMS implementation in the organizations. Beyond from this they did not investigate the enablers that foster QMS implementation and support to attain a matured QM and how to create a good national and organizational image.
- ii. Researchers are done widely in the rest of the world related to QMS. However, there are very few studies has been done and available in Ethiopia particularly QMS on agro food industries.
- iii. Even from these few papers in the country there were gaps identified particularly,
 - a) Most of them are case studies therefore it is difficult to generalize and infer the findings for other companies and to bring a change.
 - b) Almost all the papers worked on only certified companies; they did not cover the noncertified companies to examine the reason not to have the certificate. Hence, the papers did not give a multifaceted direction for stakeholders how to enhance and improve the certification method.
 - c) Some of them were used only structured type of questioner and interviews without incorporating other data gathering instruments like FGD which helps to get critical information's from the government, and certifying agencies and other stakeholders.

Due to this the researcher tried to investigate all the issues related to QMS implementation holistically to get a full picture on the Practices and challenges of QMS implementation by fulfilling the above research gaps.

2.4 Conceptual Framework

Conceptual framework is defined as the result of when a researcher conceptualizes the relation between variables in the study and shows the relationship graphically or diagrammatically (Otieno, 2014).

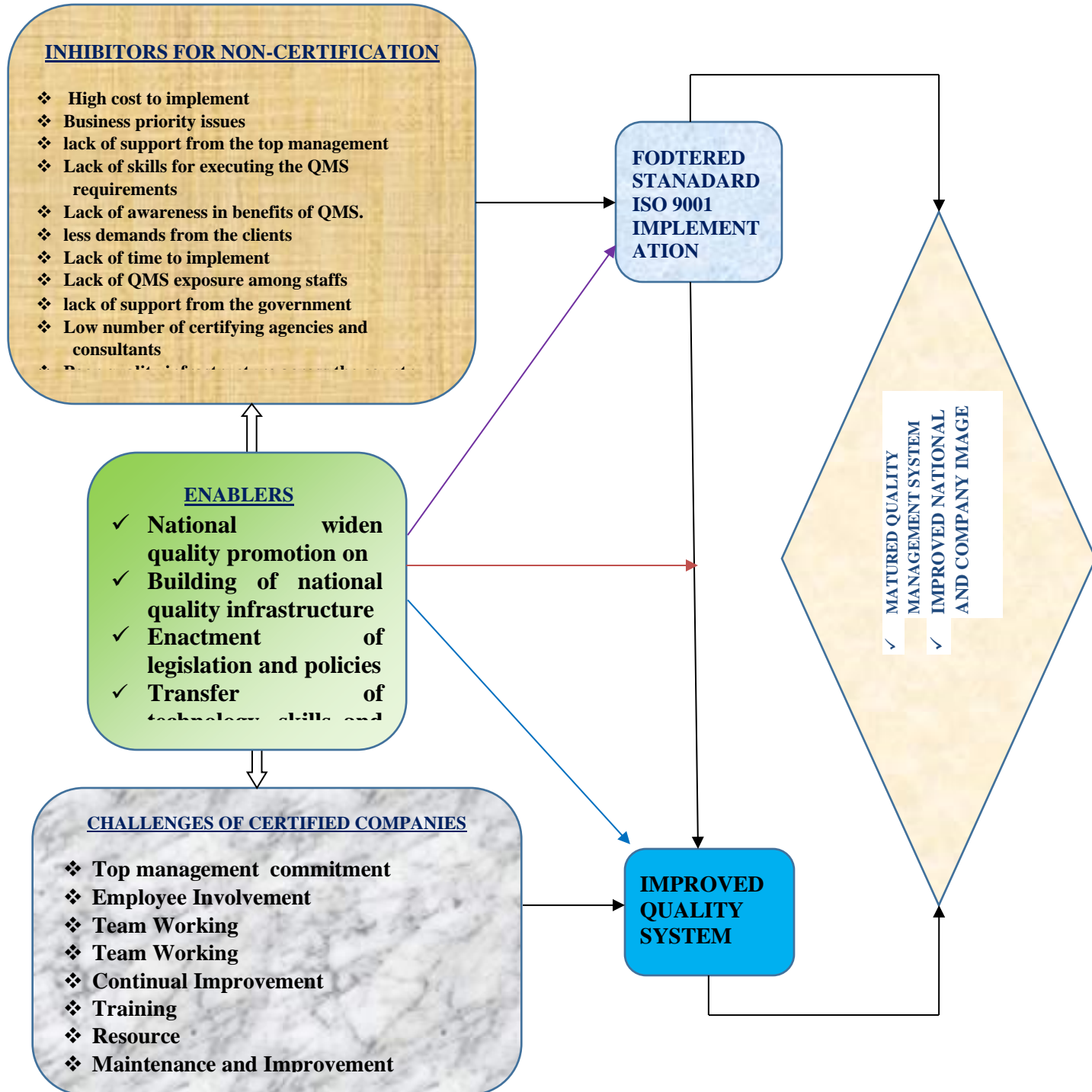


Figure. 2. Conceptual framework of QMS implementation (Source, own formulation)

1. Quality Enablers

- i. National wide promotion on quality movement! Integrated and coordinated national quality program is essential to develop quality awareness among people, customers and consumers of products and services and among companies, which are producers and suppliers. This can be done through education by curriculum and through training. (Daniel and Fasika, 2003)
- ii. Building of national quality infrastructure: Develop a plan to put the basic element of QMS in place: Having identified the gap' the organization then needs to look at the various methods, both prescriptive and non-prescriptive, of introducing the basics of QMS (Daniel and Fasika, 2003)
- iii. Enactment of legislation and policies; Different authors suggested that government should intervene to improve the legal framework and to impose some schemes of control and supervisions to achieve effective implementation of ISO 9000 standards (Zeng et al. 2007)
- iv. Transfer of technology, skills and management: The next step is to create, within the organization, appropriate expertise on self-assessment. In this way these managers will form the critical mass within the organization to start internal assessor training for the remainder of management group. Full self-assessment: After a small number of pilots have been undertaken a decision will need to be taken concerning which model, criteria and self-assessment process and are to be applied throughout the whole organization.

2. ISO 9001-The challenges during implementation

The core elements for the sustainability of the implementation must acquire the following key issues

i. Top management commitment

The top management should take the initiative to not only to finalize the business strategy, but also to use quality of the end product as the force to reckon with. The QM has been implemented successfully in any organization if its top management team is committed to apply and maintain it, involved in the implementation processes and periodic review is carried out on it. (Liang,1997).

ii. Employee Involvement

Employee involvement or engagement has been defined as a heightened emotional and intellectual connection that an employee has for his or her job, organization, manager, or coworkers that, in turn, influences him or her to apply additional discretionary effort to his or her work. So for any strategy to succeed, organizational leaders need employees who are engaged and connected to their jobs, applying that extra effort willingly to implement change (Gibbons, 2006).

iii. Continual Improvement

Continual Improvement is the hallmark of a quality management system. Quality circles, Cross functional teams, suggestion-schemes, brain-storming sessions and case studies assist the implementation of continual improvement. In order to ensure the future of the organization and satisfaction of all agencies including the customers, the management creates a culture for improving the performance of processes and products. This will be periodically reviewed in the Management reviews and necessary corrective actions taken (BS ISO 9001:2015)

iv. Internal communication

Communication is the gateway for transmission of information and transparency and clarity are essential to avoid grapevine communication. The freedom to communicate will improve cohesion among the employees (Crosby, 1991).

v. Training

Mature organizations reported high volumes of training in many fields ranging from general awareness to technical courses. Training differs according to the level of the employee. Training should enhance the understanding of the business and processes. Employees should be given the tools necessary to examine these processes, propose changes to them, and understand the consequences of these changes (Nayantara 1989).

vi. Resources

Bhuiyan and Alam (2005) argue that, implementing ISO Standards does certainly require the involvement of several resources, especially human and financial resources. An adequate financial resource is needed by an organization to offset the related costs incurred throughout the ISO Standards implementation process, such as fees for

consultancy services, training fees, costs related to certification processes as well as other relevant costs.

vii. Maintenance and continual improvement

This element indicates that organizations should “plan and implement the monitoring, measurement, analysis and improvement processes needed to demonstrate conformity of the product, to ensure conformity of the quality management system and to continually improve the effectiveness of the quality management system” (BS ISO 9001:2015).

3. Inhibitors for non-certification

There are various inhibitors that are considered as a reason not to implement QMS. These inhibitors may vary across sectors but to mention the common ones: Business priority issues (to have low sense of urgency to apply for QMS recently), It needs high cost to implement QMS, The lack of support from the top management to have QMS certificate, Lack of skills for executing the QMS requirements, Absence of organizations to be taken as a bench mark, Lack of awareness in benefits of QMS, There is less demands of QMS certification from the clients, Lack of understanding in the QMS process requirement etc.

CHAPTER THREE

RESEARCH METHODOLOGY

This section briefly explained the research design, research approach, population under the study, sampling techniques and sample size determination, method of data collection, data sources and data collection tools, data analysis method, validity and reliability test and ethical considerations.

3.1 Research Design

A research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. The plan is the complete scheme or programme of the research. It includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data. (Kerlinger,1986 cited by Kumar, 1988). It outlines how information is to be gathered for an assessment or evaluation that includes identifying the method of acquisition of the data, the instruments to be used, how these administered, and how the information organized and analyzed (Miles and Huberman, 1994; Yin, 2009)

The research design employed in this study was descriptive research design. It combined both quantitative and qualitative data as a means to build the ‘what’ and the ‘why’ of the topic’. It involved a series of rational decisions considering all of the research methods and components that enable the conduct of the research.

3.2. Research Approach

Several research approaches can be adopted to conduct a research study. A combination of qualitative and quantitative approaches can build on the strengths and minimize the weaknesses of both (Dahlan, 2009). This thesis therefore implemented mixed approaches in a concurrent manner to broaden, deepen, to build and to increase internal and external validity and findings of the research. Concurrent procedures is in which the researcher converges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In this approach, the investigator collects both forms of data at the same time during the study and then integrates the information in the interpretation of the overall results (Creswell, 2003).

3.3 Data Sources and Type

Both primary and secondary data sources were used for the study. Primary data collected from QMS implementing organizations, non-certified companies, QMS certifying agencies, consultants and government organizations. Secondary source of data obtained from different documents such as internet, books, published materials and magazines which are written in the area of QMS and agro food manufacturing industries. Secondary data have a benefit of covering the background work needed to help advance the research study.

3.4 Data Collection Method

The data needed for this study collected from potential agro food companies residing in Addis Ababa. Before starting actual data collection, the questionnaire prepared and pre-tested for further revision of the instrument and ultimately to be sure that important issues had not been left. After this the questionnaire revised and distributed for the employees of certified companies and management members of noncertified companies in systematic random way. However, the management members of noncertified companies primarily selected purposively other than the employees because it is believed that they are capable and appropriate to answer the second research question which is “why companies hesitate to have ISO 9001 certificate”. After purposively identified the management group the questionnaire distributed in systematic random way. Concurrently the interview and the FGD preceded by the researcher through purposive selection and secondary data collected from various sources like internet, books, published materials and magazines..

3.5 Data Collection Tools

There are various data collection tools to gather the significant information that are related to the research questions and the research objectives. Therefore, this study used the following data collection tools to get the appropriate information:

3.5.1 Primary Data Collection Tools

3.5.1.1 Structured and Semi Structured Questionnaire

- A self-administered structured and semi structured questionnaire designed for employees who work on all departments at all levels of certified companies and for management members of noncertified agro food companies to obtain relevant data separately.

The questionnaires designed for certified and noncertified were completely different since both were attempted to address different objectives. They were also designed carefully so as to not miss any relevant information. Among others, five levels Likert Scale question applicable to obtain the required information. The Likert scale is preferred because it allows measuring the degree of the respondents in a scale of 1 to 5 (from the least to the most) as to how they disagree or agree the attributes or factors which presented as questions (Cooper and Pamela, 2003 cited by Kidus, 2016).

3.5.1.2 Interview

Open ended questions prepared and conducted with purposively selected directorates, division heads and who have the power to lead, coordinate and support the QMS implementation process in both categorical companies. This is very vital to exploit the core qualitative aspects of QMS implementation focusing on the Practices and challenge and to cross check the data gathered through the questionnaire.

3.5.1.3 Focus Group Discussion (FGD)

Focus group discussion is a rapid assessment, semi structured data gathering method in which a purposively selected set of participants gather together to discuss issues and concerns based on a list of key themes drawn-up by the researcher (Kumar, 2005). In this study FGD was held with managers and selected higher experts that represented certifying agencies, government organizations, consultants and non-government organization work on QMS related issues.

3.5.2 Secondary data collection tools

In this study, information from the secondary sources of data have been collected from different published and unpublished secondary materials which include manuals, regulations, websites and others have also been used as inputs of main sources of secondary data.

3.6. Sampling Design

In order to enhance generalization and validity taking the adequate and appropriate sample size and employing appropriate sample design needs special care and emphasis (Kothari, 2004). There are two major types of sampling design, probability and non-probability methods. Probability methods differ from non-probability methods in terms of whether elements in the population had some chance or probability of selection (Saunders et al., 2009). In this study, the researcher used probability sampling and non-probability sampling blended together to provide respondents with an equal chance of being selected from the overall population.

3.6.1 Population of the Study

The population of the study incorporated two targets sets of categories. The first was the population of the companies. According to AACCSA (2015) among the large and medium manufacturing processors, which total 2,610 manufacturers, 753 establishments are in the food and beverage. More than 40% (1044) of the manufacturing industries are located in Addis. From these more than 31% (324) of the manufacturing industries fell in the category of Food and Beverages. In addition there are around 24 certified companies are presented in Addis Ababa. Therefore, the organizational population constituted 24 certified and (324-24=300) noncertified agro food companies which are located in Addis Ababa. The second was the population of the respondents. From the above organizational population seven certified and seven noncertified agro food companies were selected. From these 206 employees from certified and 36 management members from noncertified were the respondents' population. General Managers, representative of certifying agencies, government organizations, consultants and non-government organization work on QMS related issues was also constituted in the population of the study.

3.6.2 Sampling Frame

Sampling frame is the list of all elements in the population from which the sample is drawn (The SAGE Encyclopedia of social science research methods, 2004 cited by Bersisa, 2015). The sampling frame for this study was the list of all 24 certified and 300 non certified agro food companies that are cited in Addis Ababa and also it constituted a list of 206 employees from the selected seven certified and a list of 36 management members from the selected seven noncertified companies. Eleven (11) members of selected from certifying agencies, government organizations, consultants and non-government organization that work on QMS related issues was constituted in the study.

3.6.3 Sampling Unit

The sampling unit is the level at which the data is collected (Bersisa, 2015 pp 55). The set of sampling units that was considered for this study were ISO 9001 certified agro food companies and noncertified companies employees, managers and general managers/owners and stakeholders who participate in quality and standardization like certifying agencies, consultants, government etc.

Table 1 Distribution of population:

Sampling unit		Sampling techniques	Total population	Sample size	Methodology used
ISO 9001 certified	Employees	Systematic random sampling	206	136	questionnaire
	General managers	Purposive	7	7	Interview
ISO 9001 noncertified management members	Management members	Purposive and random	36	33	Questionnaire
	General managers	Purposive	7	7	Interview

Source: field survey, 2017

3.6.4 Unit of analysis

The unit of analysis refers to the entity that is being analyzed in scientific research (Dolma, 2010 cited by Bersisa, 2015). In this study the unit of analysis were the employees of certified and management members of noncertified agro food companies and FGD of stakeholders and the interviewed of general managers.

3.6.5 Sampling Techniques

The sampling techniques that were employed in this thesis were probability and no probability. To take the principal sample the researcher used purposive, convenient and systematic random sampling. The first step was from 24 certified agro food companies in Addis Ababa seven companies (30% of 24) were selected in a convenient sampling technique for ease of access as well as to meet the objective of the research. The second step was selecting another seven noncertified companies parallel to the certified ones from the total of 300 noncertified companies conveniently. The researcher chosen only seven noncertified companies instead of taking 30% of 300 as similar proportion as the certified was due to lack of time, cost and capacity. Therefore, for the betterment of the study the researcher put the number of certified companies as a reference and chosen seven noncertified companies.

The third step was distributing the questionnaire systematic random way for the employees of certified companies and management members of noncertified companies. In systematic sampling the sampling frame is first divided into a number of segments called intervals. Then, from the first interval, using the SRS technique, one element is selected (Kumar, 2005). Hence by getting a logical number proportionally the respondents were selected. However, the management members of noncertified companies primarily selected purposively other than the employees in case of noncertified was because of it is believed that they are capable and appropriate to answer the second research question which is “why companies hesitate to have ISO 9001 certificate” as well as the question by itself had an administrative and managerial character.

In addition 14 general managers from a total 14 companies for interview purpose and 11 participants of a FGD which work on quality and standardization from government body, certifying agencies, consultants, AACCSA, and Ethiopian Quality Award in purposive manner were also constituted.

3.6.4 Sample Size Determination

3.6.4.1 Quantitative sampling: Because of time and resource limitation and its advantage for the study, from 30 available agro food companies which are believed to be eligible for certification in the country, a total of 24 are sited in Addis Ababa. From this target population, seven (30% of 24) was selected as mentioned in the above procedure. In parallel with this, there are 300 noncertified agro food companies are presented in Addis Ababa from this the same amount another seven noncertified companies were selected. It constituted a list of 206 employees from the selected seven certified and a list of 36 management members from the selected seven noncertified companies.

Since the population under the study is considered to be finite, the following formula is employed to calculate the sample size (Kothari, 2004).

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

Where, n=sample size

e = acceptable error (precision), and

N is the total population size; hence

a). For certified companies

$$n = \frac{206}{1+206(0.05)^2}$$

Where, e=0.05 and N=206

n= 136, for certified companies.

b). For noncertified companies

$$n = \frac{36}{1+36(0.05)^2}$$

Where, e=0.05 and N=36

n= 33

3.6.3.2 Qualitative sampling: In order to get reliable and additional information it is better to discuss face to face with managers and other stakeholders in relation to trend and challenges of QMS implementation. Hence, purposively selected general managers, representatives of certifying agencies, government bodies, and consultants were selected as samples that were appropriate to elaborate a qualitative aspect.

3.7. Data Analysis Method

3.7.1 Quantitative data analysis

The quantitative data were collected and sorted using the data collection tools as mentioned above, quantitative responses sorted, coded, computed and analyzed using Statistical Package for Social Sciences (SPSS). Appropriate statistical analysis such as frequencies, percentage and mean score analyses in aggregate were used. The data presented using tables, graphs and charts.

3.7.2 Qualitative data analysis

Analyzing qualitative data involve reading through the interview and focus group discussion and other data, coding the data and drawing connection between discrete pieces of data (Kothari, 2004). This study involved analyzing the findings of interview and FGD by rearranging with the appropriate objective and finally based on content analysis the data were cross checked with quantitative findings.

3.8 Validity and Reliability

A pilot study was undertaken to enrich the validity of the questionnaire. The rule of thumb is that 1% of the sample should constitute the pilot test (Cooper & Schilder, 2011). So, a preliminary tests was undertaken with 3 Ethiopian Standards Agency trainers and 2 companies' quality managers the formal questionnaire launched for final wording and sentence checking. The quasi-final version of the questionnaire was then piloted on two agro food companies that are sited in Addis Ababa. Their feedback regarding their comprehension of the questionnaire was discussed in detail and suggestions were incorporated into the final version.

To scan the reliability of the responses, the questions framed for Cronbach's Coefficient alpha test which is is the most common measure of internal consistency. If the value is higher than 0.7 for Cronbach's Coefficient Alpha, the data is suitable for further analysis.

Table 2. Reliability test result dimensions/theme

No.	Dimension	Number of attributes	Cronbach's Coefficient Alpha
1	Top management commitment	6	0.892
2	Employee involvement	6	0.732
3	Team working	5	0.894
4	Internal communication	3	0.599
5	Continual improvement	4	0.623
6	Training	3	0.78
7	Resource	4	0.737
8	Maintenance	4	0.571

Source: Own survey 2017 based on (SPSS)

From Table 2 one can realized that top management commitment, employees' involvement, team working, training and resource dimensions got a Cronbach's Coefficient alpha great than 0.7 which indicates there is an internal consistency of the response. However, internal communication continual improvement and maintenance dimensions got Cronbach's Coefficient Alpha value less than 0.7 which indicates there is no internal consistency of the response.

3.9. Ethical Considerations

Christians (2000) mentions the minimum requirement for a research to undertake in domain of research ethics is to commence participant awareness regarding subject matter of research, informed consent, privacy and confidentiality, and accuracy. Therefore, in conducting this research, the following ethical considerations were taken into account: Respondents informed fully about the purpose, methods and uses of the research, what their participation in the research entails and what risks, if any, will exist, The confidentiality of information that supplied and the anonymity of respondents respected and The independence of the research clear, and any conflicts of interest or partiality were explained.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

This chapter presented and analysed the data gathered through questionnaires, interviews, focus group discussions and from secondary sources that included manuals, regulations, websites and other research findings. The questionnaire was collected from employees of both ISO 9001 certified and noncertified agro food companies that are sited in Addis Ababa. While the interviews were conducted with the general managers or owners of each companies. A focused group discussion was conducted with the government bodies, certifying agencies and consultants, chamber of commerce and Ethiopian Quality Award (EQA) who work on quality and standardization.

4.1 Response Rate

The total sample size was drawn from the conveniently selected seven ISO 9001 certified and seven noncertified total of 14 agro food manufacturing industries. All the questionnaires distributed to employees and management members, interviews were conducted with general managers (owners) of the companies and FGD had taken with certifying agencies, government bodies, consultants, EQA and AACCSA. In the case of certified companies where the data collected, out of the 136 questionnaires administered, 109 were filled and returned, which represents 80.1% response rate. In the case of noncertified companies out of 33 questionnaires distributed 22 were returned which mean 66.7% fill and returned. This response rate is considered satisfactory to make conclusions for the study. According to Mugenda and Mugenda (2008) observed that a 50% response rate is adequate, 60% good and above, while 70% rated very well. This collaborates with Bailey (2010) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on this assertion, the response rate in this case is beyond good.

Table 3. Response Rate for the Data Collection

Sample unit	Methodology	Sample size		Respondent/ participant in frequency and percent		
		Certified	Non certified	Certified	Non certified	Others stakeholders
1 General managers/ owners	Interview	7	7	7(100%)	5(71.4%)	0
2 Employees	Questionnaire	136	33	109(80.2%)	22(66.7%)	0
3 Professionals from different sectors	FGD	-	-	-	-	9(88.9%)

Source: field survey, April 2022

4.2 Demographic Characteristics of Respondents

Four relevant demographic variables of the respondents was gathered as background information. These are sex, position, level of education, and experience of the respondents. These characteristics of the respondents are summarized in Table5. From this one can easily understand that respondents with different background were participated in all companies of which most of them are with the background that enables them to fairly react to the requirement of this study.

Table 4. Demographic characteristics of respondents

No.	Item	Description	Frequency and percent of Respondents	
			Certified	Non certified
1	Sex	Male	80 (73.4)	15(68.2)
		Female	29 (26.6)	7(31.8)
		Total	109 (100)	22(100)
2	Educational background	Certificate	24(22.0)	0
		Diploma	25(22.9)	5(22.7)
		BA/BSC	55(50.5)	13(59.1)
		Above BA/BSC	5(4.6)	4(18.2)
	Total	109 (100)	22(100)	
3	Work experience	Less than a year	11(10.1)	3(13.6)
		2-5	51(46.8)	11(50.0)
		6-10	26(23.7)	7(31.8)
		Above 10 years	21(19.3)	1(4.5)
		Total	109 (100)	22(100)
4	Work position	Manager	23(21.1)	17(77.3)
		Experts	59(54.1)	1(4.5)
		Other	27(24.8)	23(18.2)
		Total	109(100)	22(100)

Source: field survey, April 2022

The descriptive statistics that is indicated in Table 5Item 1 presented the respondents in terms of gender to get a balanced view of both sides. In case of certified companies 80(73.4 %) respondents were males whereas 29 (26.6 %) of the respondent were females. In case of noncertified companies 15(68.2%) were males and 6(27.3%) were females. This indicates that more numbers of male respondents took part in both companies. According to the companies document the number of males in the organizations are more than females. Therefore, it was expected that there would be a variation of number concerning sex of respondents.

Regarding educational backgrounds stated in Table 5item 2, certified companies have the following educational background share. 24(22.0%) have certificate, 25(22.9%) have diploma, 55(50.5%) of the respondents have degree while 4(3.7%) of the respondents were above degree holders. In the case of noncertified 5(22.7%) were diploma holders, 13(59.1%) degree and 4(18.2%) above degree holders. In both companies the data denoted majority of the respondents are degree holders which is good for the researcher to get adequate and relevant information about the questions which had been provided because educated people can easily understand and answer the question properly.

Table 5 item 3 revealed work experience. In case of certified 11(10.1%) of the respondents have less than a year work experience while 51(46.8%) have 2-5 years' experience, 25(22.9%) of the respondents have above 6-10years' experience while 21(19.3%) of the respondents has above 10 years work experience. In case of noncertified 3(13.6%) have less than a year experience, 11(50%) have 2-5years experience, 7(11.8%) have 6-10years and 1(4.5%) of them have above 10years experience. From the above data in both categories majority of the respondent fallen within a range of 2-5 years' work experience which was well enough to get on valuable information. This is due to employees who have enough years of experience tend to have more information compared to employees who have less experience

As far as work position as illustrated in the same Table item 4, in case of certified companies 23(21.1%) were in work position of management, 59(54.1%) were technical experts and 27(24.8%) were others work position like janitor, supervisor etc. This implies that majority of the respondents were experts. This fact demonstrate that experts expected to be responsible in day today activities and have a chance to detect the progress of the system and it was good for the researcher to gather relevant information from these active participants. However, it needs

careful use of information that was gathered from all respondents through a rational justification, elaboration and gathering of further information. In case of noncertified the researcher had chosen management members only due to the characteristics of the question that were provided to get the appropriate and relevant data.

4.3 Analysis of ISO 9001 Trend

The ISO 9000 family of standards was launched, in its initial form, in 1987, and underwent substantial revisions in 1994, 2000, 2008 and 2015 by the International Standardization Organization (Sumaedi and Medi Yarmen, 2015). Today the ISO 9000 series consist of a set of standards and represents an internationally consensus of what good quality management practices are. The ISO 9000 series has four major standards: ISO 9000, ISO 9001, ISO 9004, and ISO 19011 (Dale *etal.*, 2007).

This section of the thesis was tried to elaborate the first research question and objective and evaluated the trend of the quality management system in Addis Ababa Ethiopia particularly the agro food processing companies and to acquire an overview of quality management systems applied in Ethiopian companies. It mainly used secondary data from various sources but also primary data have been used through a FGD with certifying agencies, consultants, government organizations.

4.3.1 Worldwide Overview of ISO 9001 (secondary data)

As can be demonstrated in Table 6 and Chart1; by late 2014 from a total of 200 countries the number of ISO 9001 worldwide certifications achieved 1,185,112 all over the world. This number of certificates compared with the figure for the end of the year 2000 is more than double (ISO survey, 2018). Hence, from the secondary data below in Chart 1, one can realize that the demand of ISO 9001 is very high with continuous growth and non-stopping even if there are ups and downs in some years.

Table 5. Continental distribution of ISO 9001

Year	2002	2003	2004	2008	2009	2010	2011	2012	2013	2014
TOTAL	561766	497919	660132	980322	1063751	1118510	1079228	1096987	1126460	1138155
Africa	4529	3769	4865	8534	8435	7667	8164	9674	9816	10308
Central and South America	13679	9303	17016	37458	35549	49260	51685	51459	52466	50256
North America	53806	40185	49962	47896	41947	36632	37530	38586	48579	50533
Europe	292878	242455	320748	455303	500286	530039	459367	469739	482620	483710
East Asia and Pacific	177767	185846	240938	366491	408498	438477	471836	476106	467320	476027
Central and South Asia	9383	9162	13856	44171	44432	37596	33577	32373	44847	45365
Middle East	9724	7199	12747	20469	24604	18839	17069	19050	20812	21956

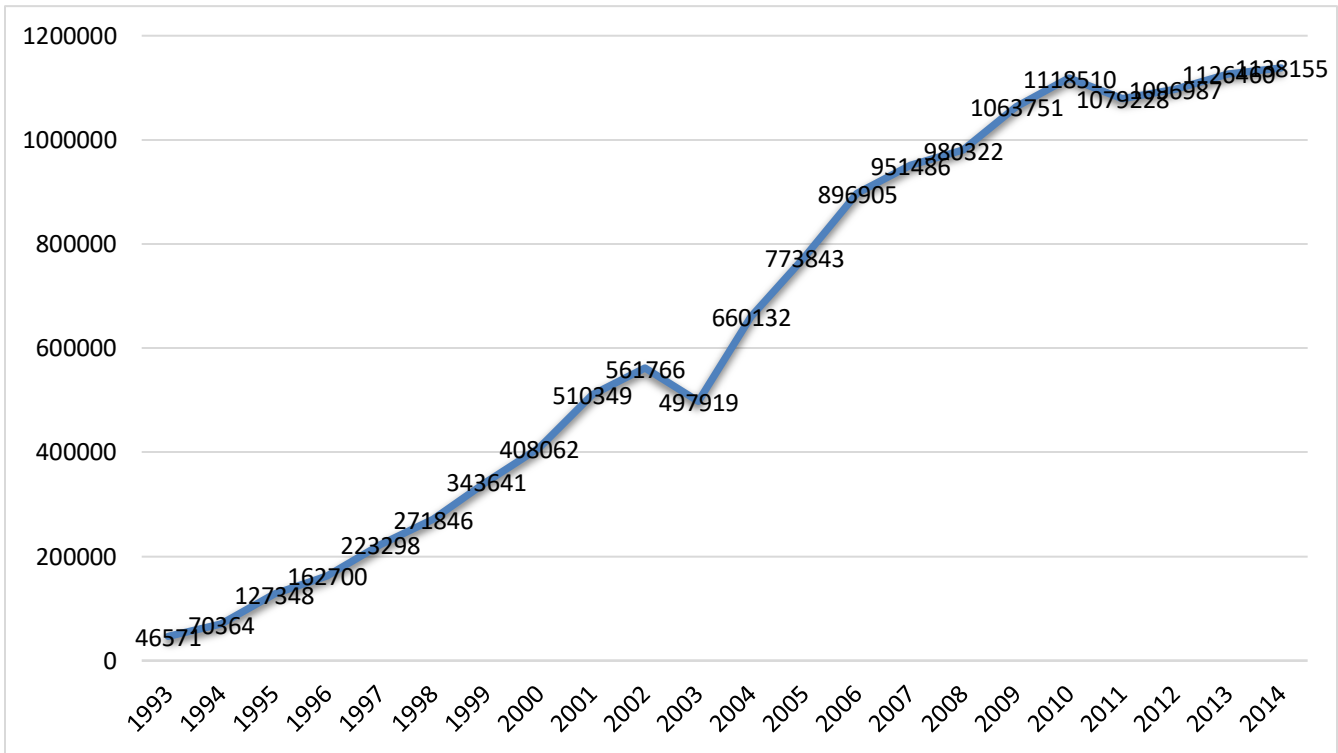


Chart 1. Worldwide Overview of ISO 9001

Source: Own preparation based on ISO 2014 survey.

I. Continental distribution of ISO 9001(secondary data)

As illustrated in Table 5 and Chart 2 below, the developed nations especially Europe and Asian-pacific use the system potentially and they tried to exploit the benefit that can be mined from

ISO 9001. It is clearly demonstrated that when comparing the number of ISO 9001 issued certifications and their worldwide distribution by 2014, we can see that the highest demand was in Europe 483710(42.5%), followed closely by East Asia and Pacific 476027(41.8%), North America 50533 (4.4%), Central and South Asia 45365 (3.9%). Africa accounts an insignificant number. In this continent, the demand of ISO 9001 is very low and it only account 10,308 (0.9%) of the world ISO 9001 certificates.

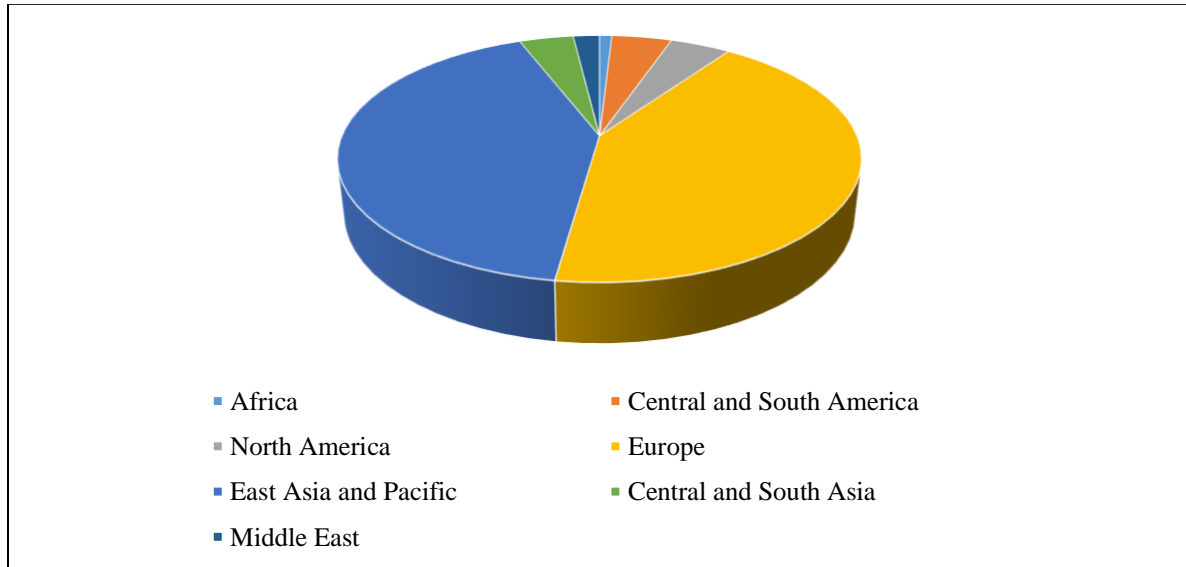


Chart 2. Continental Distribution of ISO 9001
Source: Own preparation on the basis of ISO survey (2014)

II. Country distribution of ISO 9001 (secondary data)

From Chart 3 one can infer that from the top 10 countries still the higher share of ISO 9001 is from developed nations even though China embraces the record to make them behind. China is the country with the largest number of certificates in the world (having a total of 342,800 by the end of 2014), followed by Italy (with 168,960), and Germany (with 55,363).

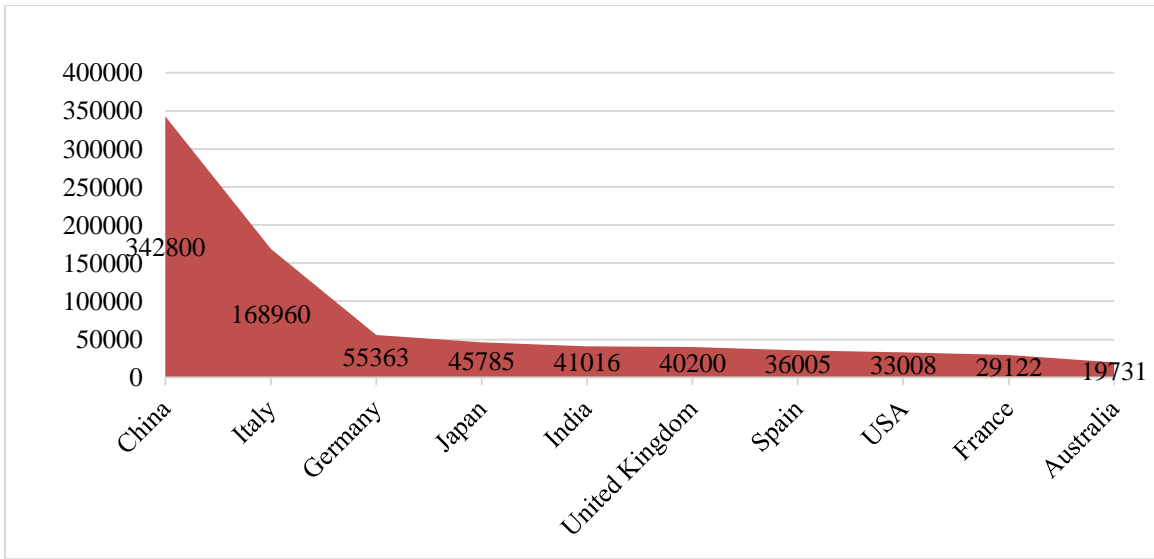


Chart 3 Industrial distribution of ISO 9001: country based

Source: Own preparation on the basis of the ISO survey (2014)

III. Industrial distribution of ISO 9001(secondary data)

Industries also have their own share to reveal the system importance in each sector. Chart 4 denotes that the most certification (118,652) were issued in the area of metal and metallic products processing, followed closely by the area of electric and optic components production (86,728 certifications), then construction (85,250 certificates). Concerning the study area of this thesis which is food and beverage, it shares lower number of companies 31,182 (2.7%) of the total industrial distribution.

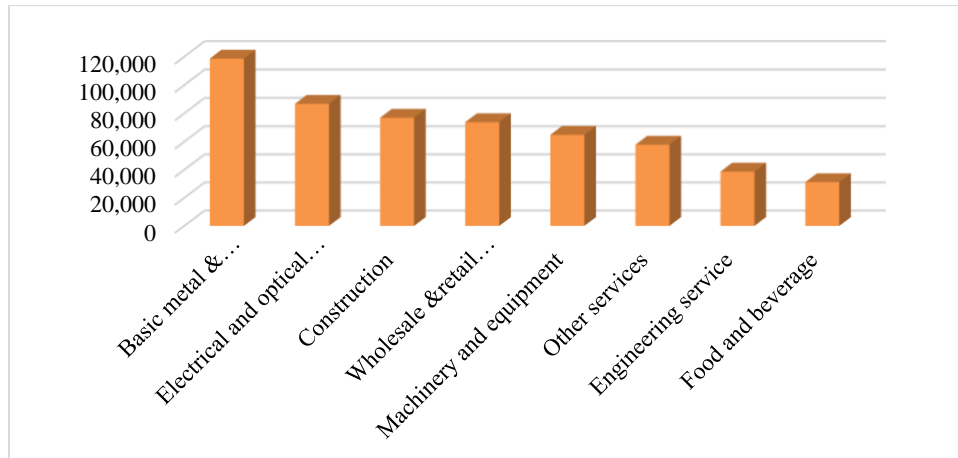


Chart 4 Industrial Distribution of ISO 9001: sector based

Source: Own preparation on the basis of the ISO survey (2014)

4.3.2 ISO 9001 Trend within Africa (secondary data)

As indicated on Chart 5, In Africa ISO 9001 certification is not a very important concern for companies. In this continent, there are 10,308 certifications which is only the 0.9% of the certifications in the world. It should be remarkable, the number of certificates of South Africa 3,782 (40.08%), Egypt 2,159, (24.32%) and Morocco 815 (6.26%).

In this continent only the share of four countries; South Africa, Egypt, Tunisia, Morocco and Algeria have more than the 85% of the African certificates. Specifically, in 1995, the 93 % (1,454) of the African ISO 9001 certificates were located in South Africa, in 2000 the 72%, in 2005 the 46% and in 2014 the 40%. Moreover, in the Chart 4 revealed that the certification intensity has gone down from 4.79 in 1995 to 2.06 in 2014. The case of Egypt is totally different in 1995 there were only 45 certificated companies, the 2.8% of the African ISO 9001 certificates, in 2014 in Egypt, there were 2,383 certificated companies that is the 24.32% of the African certificates.

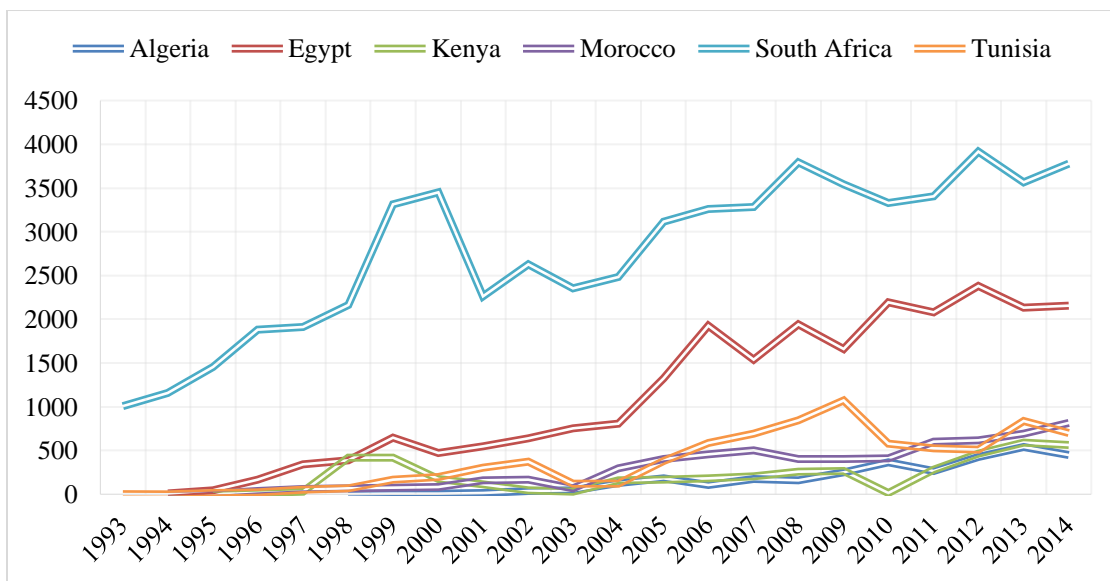


Chart 5. Top 6 African Countries ISO 9001 Distribution
Source: Own preparation on the basis of the ISO survey (2014)

On the other hand Chart 4 revealed that, Morocco, Tunisia, Kenya and Algeria have increased their intensity noticeably during this period (1995-2014) but in a different way. Kenya had the highest intensity of the six countries in 2014, due to a huge increase from 2011 to 2014. A

similar diffusion has been in Morocco but its intensity is similar to the average of the continent. The case of Tunisia is totally different, the number of certificates have fallen down from 1,072 in 2009 to 702 in 2014. In Algeria the number of certificates has increased gradually.

4.3.3 ISO 9001 Trend in Ethiopia (secondary and primary data)

In Ethiopia; ISO 9001 certification has been started in 2002 and business firms try to utilize the benefits of implementing ISO 9001 QMS and improve their competitiveness in the market by improving their system’s effectiveness and efficiency. However, from the widely spread benefits of implementing quality management system, in Ethiopia the QMS certification is often characterized by lower participation and slow trend. According to ISO (2014) report, only about 82 Ethiopian companies gain ISO 9001:2015QMS certificates by different certifying bodies, which mean only 0.7% of companies out of Africa. The result also put the country in lower rank compared to countries of East Africa like Kenya, Uganda and Sudan (ISO Survey, 2014) as demonstrated in Chart 6.

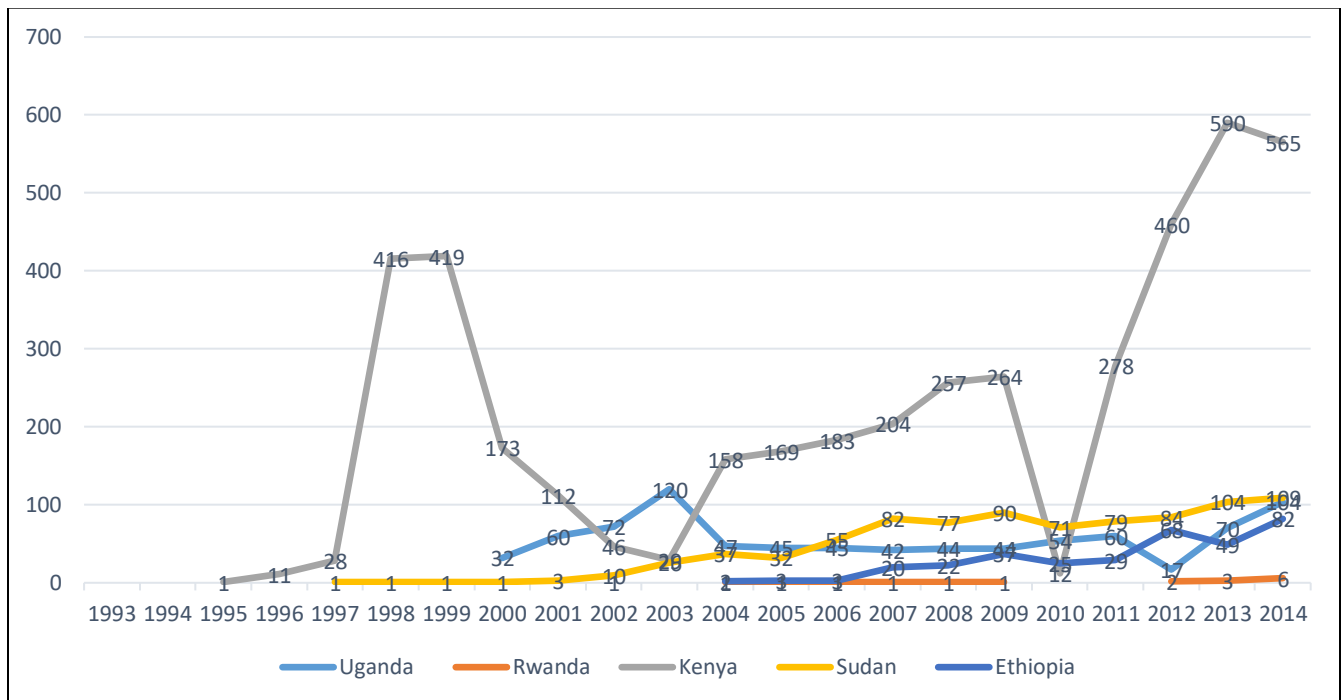


Chart 6 East African Countries ISO 9001 Distribution

Source: Own preparation on the basis of the ISO survey (2014)

When the certification trend in Ethiopia was analysed it has consistency growth with an average annual intensity of 13% as demonstrated in Chart 6. However, when it is compared to other African countries which relatively have the same economic with Ethiopian, the companies are far behind both in intensity and number. As mentioned above Kenya has a total of 565 ISO 9001 certified companies with a higher annual intensity among African countries of 24.3%. Among five East African countries Ethiopia ranks in fourth place. This shows how much companies are not aware of, interested and used QMS system.

4.3.4 ISO 9001 Trend in Addis Ababa (secondary data)

Due to the absence of organized data it was so difficult to analyse the trend of ISO 9001 certification in case of Addis Ababa. However, according to the rough data that is obtained from three certifying agencies (DQS, ISOQAR, and ECEA) ADDIS ABABA takes the larger proportion compared to other cities of the country. As indicated on Chart 7 there are around 130 companies who got certification in the country as a whole. Out of this around 76 (58.5%) of them reside in Addis Ababa. Particularly, the distribution of agro food companies got an average result. Among the top five sectors agro food companies take a share of 35.5% (27). Engineering and construction takes the highest share 38 (50.0%) among the others.

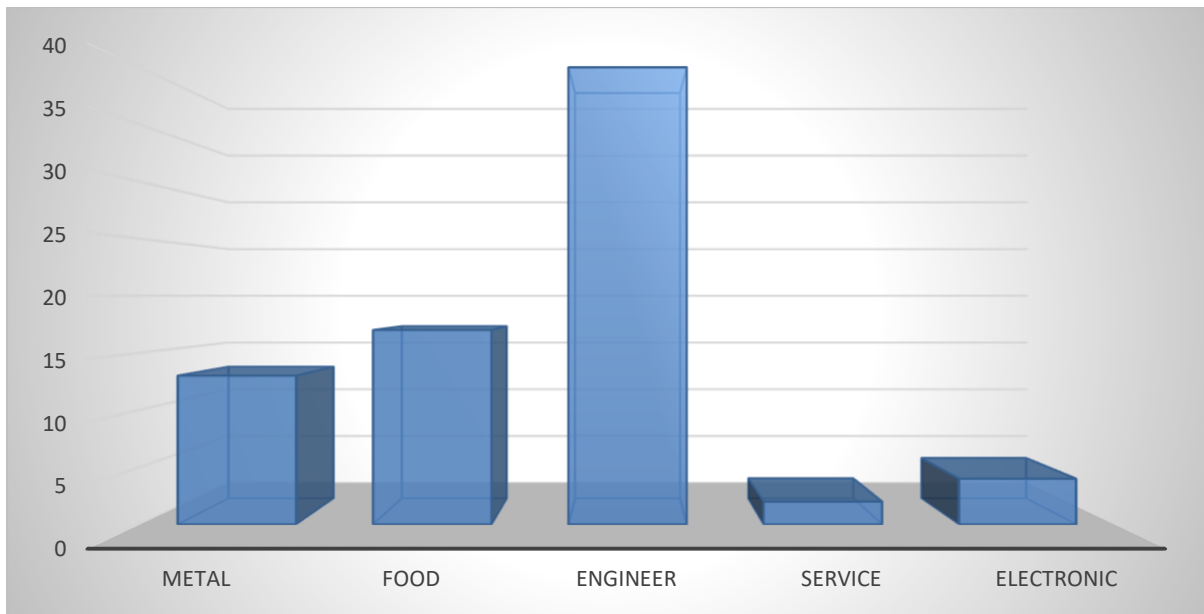


Chart 7 Industrial distribution

Source: Own formulation based on certifying agencies report, 2016

4.3.5 Reason behind for the slow trend of ISO 9001 certificate

In addition to the above secondary data the researcher conducted a FGD to analyse the first objectives of this thesis with regards to the trend of ISO 9001 certification in Addis Ababa. Thus, the following primary data were identified as main causes for the slow trend and lower number based on the FGD session.

I. Awareness and promotion gap

According to the panellist of FGD, awareness creation and promotion is the main driving force in current business environment. The primary initiation to perform something comes from the awareness level what that particular body perceived and understands. Therefore, the current poor quality situation that exist in our country is primarily emanates from the awareness and understanding gap towards quality and standardization. According to the panellists this gap may vary across different sectors accordingly but the following are common;

A. Companies Awareness Gap

Most companies focus on product certification instead of system certification and they do not realize the significance of system standardization. They perceived that they can achieve the market demand by ordinary production system without having any system certification like ISO 9001 or implementing other system standards.

In connection with the above issue companies believed that the people interest towards quality is very poor due to this they do not give value for quality in the market instead focus on price. Hence, companies perceived it is meaningless for them using standards instead they focus on market price and other competition factors.

In addition companies do not recognize the role of standardization to enhance their organizational effectiveness and efficiency due to this they only focus on the market issues instead of enhancing their organizational effectiveness and efficiency. Even the certified companies their main interest is not to have standardization for globalized ownership and to be competitive it is for short period bid or tender.

B. Lack of promotion by certifying agencies and consultants

To meet an apex of certification system there must be a coordinated and joint effort of stockholders like certifying agency, consultant, regulatory body etc. however, there is a wide gap coordination between these bodies to promote the significance of quality and standardization.

They all work in disintegrated manner even there is no any opportunity for certifying agencies to promote their task as well as issues related to quality.

C. Lack of promotion by government, ESA

ESA is the primary authorized body to work on quality and standardization in the country by coordinating various responsible bodies. According to "Ethiopian Regulation No. 193/2010- Standards Agency Establishment Council of Ministers Regulation" Article 6 sub article 7 it has a mandate of developing and implementing awareness creation strategies for consumers on quality and standards. However, there is no clear strategy on awareness and promotion and still there is an inconsistent awareness and promotion system about quality and standardization through various electronic, printing Medias or other potential mechanisms.

The panellists also rose that the efforts that are not done to incorporate standardization and quality in all levels of education curriculum are less. According to them it is possible to benchmark other countries experience like South Korea and South Africa. When the panellists go through deeply they revealed the absence of research and development program or system to promote, develop and get it maturity level on quality and standardization.

They also indicated there is no steady promotion mechanism in international level about the quality of Ethiopian products to build country image and to initiate Ethiopian companies. Finally they point out that the system that is designed to promote organizations who implement and get success through using standards is not that much strong.

II. Lack of Coordination among National Quality Infrastructure(NQI) Bodies

The national quality infrastructure comprises all the institutes (private and public) required to establish and implement standardization, metrology, inspection, testing, and certification and accreditation services to demonstrable and acceptable evidence that products or services meet requirements, whether defined by the market place or by authorities. NQI institutes also have a catalytic effect for technology capability and transfer bringing international technologies through international standards (NQI strategic document, 2009).

However, the panellists depicted that the current infrastructure has human resource deficiencies, poor promotional activities, poor and time consuming service, poor linkages with relevant stakeholders. They put their concern as the NQI is an urgent issue that require the leadership of the government of Ethiopia.

III. Economical Factor

As per the panellists economy also another factor with regards to standards. A report of the European Commission (2001) strengthens this point. ISO certifications should be weighed against the number of potential ISO certifiable enterprises in each country, and by industry structure of enterprises, in order to ascertain the degree of diffusion within the economy. It is the entire ratio between the percentage of participation in the number of global certificates issued and the percentage participation in the world GDP has direct linkage. That is why the ratio between the percentage shares of the number of certificates issued is less in Africa because the percentage share of total GDP of Africa is less (Landinet *al*, 2010).

IV. Lack of regulation and policy framework

Establishing proper policy framework and strengthening government's supervision are the major required tools to perform any activity. Panellists from FGD confirmed that currently Ethiopia has no quality policy that governs all stakeholders who work on quality and standardization. They noted that:

“The government supervises certification bodies by establishing the legal framework. Certification bodies monitor certified organizations according to the ISO 9001 standard based on regulation. Only based upon this relationship can a mature certification market be established? No! It is true that currently, the ENAO, is legally authorized to accredit bodies operating assessment and certification of management systems but it lacks capacity and have no governing policy. Therefore, the country is suffering by a non-direction and a non-destination quality movement”.

4.4 Analysis of survey data for the hesitation of firms to have certification

The second objective of this thesis was to examine the reasons behind why firms hesitate to have ISO 9001 certification. The researcher tried to use a survey data through questionnaire and interview to gather the appropriate information. The questionnaire was distributed for management members in systematic random technique because the issue had majorly an administrative character and managers are most likely capable and appropriate to answer this question. Likert scale was used on the questionnaire to measure the different perceptions of management members of or that are very nearby in quality related activities about the inhibitors faced by them for implementing the ISO-9001 QMS in their organizations.

Table 6 Frequency and percentage distribution of reason not having ISO 9001 certificate

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean
1	Business priority issues (to have low sense of urgency to apply for QMS recently)	Frequency	1	14	5	1	1	2.56
		Percent	4.5	63.6	22.7	4.5	4.5	
2	It needs high cost to implement QMS.	Frequency		3	12	7		3.18
		Percent		13.6	54.5	31.8		
3	The lack of support from the top management to have QMS certificate	Frequency	2	6	2	11	1	3.14
		Percent	9.1	27.3	9.1	50.0	4.5	
4	Lack of skills for executing the QMS requirements.	Frequency	1	12	2	5	2	2.57
		Percent	4.5	54.5	9.1	22.7	9.1	
5	Absence of organizations to be taken as a bench mark	Frequency	5	5	4	6	2	2.77
		Percent	22.7	22.7	18.2	27.3	9.1	
6	Lack of awareness in benefits of QMS.	Frequency	1	14		6	1	2.64
		Percent	4.5	63.6		27.3	4.5	
7	There is less demands of QMS certification from the clients.	Frequency	2	8		10	2	3.09
		Percent	9.1	36.4		45.5	9.1	
8	Lack of understanding in the QMS process requirement	Frequency	2	12		6	2	2.73
		Percent	9.1	54.5		27.3	9.1	
9	Lack of time to implement QMS/Time consuming	Frequency		6	4	9	3	3.41
		Percent		27.3	18.2	40.9	13.6	
10	Lack of QMS exposure among staffs	Frequency	1	10	3	5	3	2.95
		Percent	4.5	45.5	13.6	22.7	13.6	
11	The lack of support from the government (incentives, promotion, award, enactment etc)	Frequency	1	13	4	3	1	2.55
		Percent	4.5	59.1	18.2	13.6	4.5	
12	The quality infrastructure across the country is not that much supportive to build the system of QMS.	Frequency	4	12	4	1	1	2.23
		Percent	18.2	54.5	18.2	4.5	4.5	
13	Law number of certifying agencies and consultants of QMS	Frequency	5	8	2	5	2	2.95
		Percent	22.7	36.4	9.1	22.7	9.1	

Source: field survey, April 2022

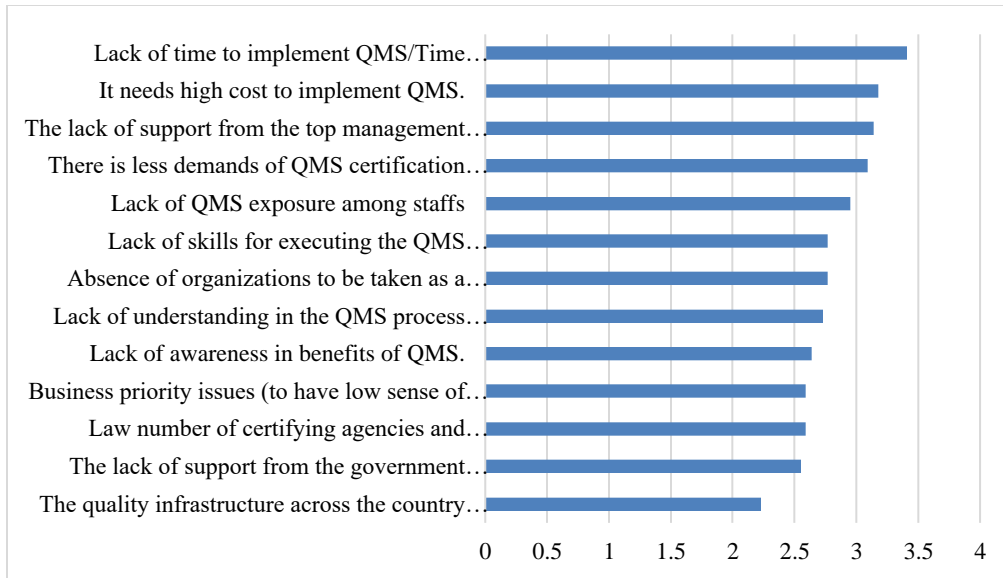


Chart 8 Mean score of reason for not having ISO certificate
Source: field survey, April 2022

By examining critically the mean value, the top inhibitors which creates hurdle in the way not to implement the international standard ISO-9001 were established in the above Table 6 and Chart 8.

From the data the top five which has got a mean value around 2.5 and less (agreement range) were taken into account as the main difficulties that block companies not to come the certificate system. To describe them; The quality infrastructure across the country is not that much supportive to build the system of QMS, Lack of support from the government (incentives, promotion, award, enactment etc), Business priority issues (have low sense of urgency to apply for QMS recently), Lack of awareness in benefits of QMS and Lack of understanding in the QMS process requirement.

The interview session also strengthen the above findings. The interviewees elaborated the detail as follow:

Regarding the quality infrastructure across the country there is no clear guideline to govern the quality system and lack coordination. According to the interviewees different bodies are coming every time from different government bodies on the same issue with different approach giving different directives to implement various regulations. Due to this they suffer to move in consistent manner with regards to quality and other issues.

In line with this they expose there is a lack of support from the government. According to them organization which use standards are not promoted, incentivised that much, the enactment measure is also weak on noncertified companies.

Under business priority issue they reflected that most of them at this time they have a shortage of working place and equipment. Hence, currently their main focus are to expand their working place and planting different equipment that make them competitive and productive.

Concerning lack of awareness in benefits of QMS, they portrayed that they do not know the benefit of QMS even some of them do not know the name of QMS. The other point that is considered critically is that lack of understanding in the QMS process requirement execution. According to the interviewees even if they have some awareness about QMS they lack extensive capacity to execute the requirements. Majorly they are also concerned how to relate the requirements of QMS with the final product of their company.

4.5 Analysis of survey data on the challenges of ISO 9001 implementation in certified companies

4.5.1 Analysis of challenges related to Top Management Commitment

Actions speak louder than words, leaders should walk the talk, these are common mantras repeated among employees and researchers alike. If there is a contradicting message coming from leadership, employees will select for the status quo. It is therefore, the role of leadership to communicate the new mission to the employees sincerely and clearly and provide evidence of genuineness with action (Adam 2015).

The commitment of Top Management can be articulated in several efforts and it varies across organizations. However, in case of QMS it is considered as excellent if the following attributes are in practice: Identification of product realisation processes that add value in nature, Check and reprovred the availability of enough resources, Establishment of quality policy & objectives and communicating them, Established open environment to all employees to participate in meeting the organization's goals, Provision of trained human resources and The employees are appreciated, recognized and rewarded for good work, which is one of the obligations of the top management. Based on this the subsequent table summarized and presented the responses.

Table 7. Frequency and percentage distribution of challenges of QMS implementation related to top management commitment.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Identification of product realisation processes which are value-adding in nature	Frequency	36	52	11	8	2
		Percent	33.0	47.7	10.1	7.3	1.8
2	Established and communicated quality policy & objectives are	Frequency	42	50	8	6	2
		Percent	38.5	45.9	7.3	5.5	1.8
3	Check and reprovred the availability of enough resources	Frequency	33	55	12	6	2
		Percent	30.3	50.5	11.0	6.3	1.7
4	Provision of trained human resources,	Frequency	35	55	8	9	2
		Percent	32.1	50.5	7.3	8.3	1.8
5	Established open environment to all employees to participate in meeting the organization's goals.	Frequency	8	26	7	64	4
		Percent	7.3	23.9	6.4	58.7	3.7
6	The employees are appreciated, recognized and rewarded for good work, which is one of the obligations of the top management	Frequency	14	22	9	61	3
		Percent	12.8	21	8.3	56.0	1.9

Source: field survey, April 2022

Table 7 Attribute 1 presented the data with regards to the commitment of the top management on identification of product realisation processes which are value-adding in nature in their organisations. In relation to this 77.7% (sum of agree and strongly agree), 10.1% of the respondents undecided and the rest 10.1% of the respondents said do not agree (sum of strongly disagree and disagree). This highly reflects the fact that top management took special efforts on product realization processes which can add values to demonstrate the required final product of any label of quality.

The information that is gathered from interview also coincides with this fact. Majority of the general managers confirm that the efforts that are carried out by the top management to realize processes which are value-adding in nature is high. Therefore, from the above both quantitative and qualitative data it can be concluded that an attribute of identifying product realisation processes which are value-adding in nature has a positive involvement by the top management.

As noted in Table 7 attribute 2 with respect to the commitment of top management in establishing quality objectives and policy and communicating them, 84.4% of the response is in

fall under agreement (agree plus strongly agree), 7.1% of the employees' response fall under the range of disagreement and 7.3% neutral. This indicates that majority of the respondents acknowledge the commitment of top management in establishing quality objectives and policy and communicating them.

From the interview session also the top management has worked hard in order to ensure the communication of quality objectives, understood and applied across the organization through different mechanisms like through regular awareness program, trainings, posting in different places, printing media (monthly newspaper, pamphlets, broacher) etc. Based on the survey and the interview one can perceived that establishing quality objectives and policy and communicating them has got a big focus in certified agro food companies.

The other important issue that was raised for the respondents was weather the top management is committed to check and reprovded the availability of enough resources or not. As illusted inTable 7 attribute 3, 80.8% of the employees respond as agree and strongly agree, around 8.2% response ranges within disagree and strongly disagree and 6.4% remain uncertain. This implies that there is a commitment of top management towards in checking and reprovving the availability of enough resources.

Interview also validates the above data. General Managers interviewing that one of their main task is checking and reprovving the availability of enough resources. Hence, the data that is found from interview and questionnaire indicates that the commitment of the top management in checking and reprovving the availability of enough resources is better.

In link with this; Dale *et al.*, 2007 is a supportive study for this issue. However, checking and reprovving the availability of enough resources take in account the organizational structure, procedures, processes and resources needed to implement quality management.

Moreover the data that is gathered from the respondents is not only towards material resource it is also directed to the provision of trained human resource by the top management. Table 7 and Attribute 4 revealed that the majority of the response 82.6% ranges between agree and strongly agree, 10.1% of them said in the range of disagree and strongly disagree and the remaining 7.3% undecided on this question. From this one can realize that, the organisations' top management is committed to avail trained human resource to meet the needs of organisations.

Likewise, the information from the interview also reapproved the survey. According to the interview data since QMS needs appropriate trained human power with regard to meet the quality objectives it is their priority issue to fulfil this.

When the survey goes through further as indicated on Table 7 attribute 5, unlike from the above attributes the respondents reflected their response negatively on the commitment of the top management towards establishing open environment in which all employees can participate in meeting the organization's goals. 21.2% say in the level of agreement, 62.4% put their answers in the range of disagreement and 6.4% undecided. The data clearly reflect that organizations are not established open environment in which all employees can participate in meeting the organization's goals. Nayantara, 1989 also exhaust the lack of open environment. These are absence of trust integrity and honesty within and among the employees so that they do not resort to malpractices to achieve their objectives.

However, during interview the managers' believed that there is an open environment for employees to reflect their opinion freely but during further investigation the options are minimum and narrow.

With regards to the top management commitment giving recognition and appreciation of employees as indicated in Table 7 attribute 6, 23.9% which the sum is of agree and strongly agree, majority or 57.8% do not agree, and 8.3% of the respondents remain neutral This implies that organizations are not that much enthusiastic to recognize appreciation of employees for their good work done.

From the interview; the general managers have agreed on this point partially. They said that they tried to implement some mechanisms to give recognition and appreciation for successful employees despite it is not that much satisfactory. Hence, it is possible to conclude that there is a gap in giving recognition and appreciation for successful employees by the companies. This study supported by Mahfouz and Saeed (2015). They stated that organizations have lack reward and motivation system.

To sum up this theme, one can generalized that there is a positive outlook at large by the respondents and interviewees with respect to the top management commitment in various aspects as shown in Table 7. However, there are gaps in establishing open environment in which all

employees can participate in meeting the organization’s goals and giving recognition and appreciation for successful employees by the companies.

Apart from analysing the challenges of each attribute that are related to top management commitment it is also important to find out if there exist any association between the questions in the same group since it helps the top management to prioritize the attribute that are highly correlated. Hence, correlation matrix was analysed based on the succeeding Table 8

Table 8 Correlations matrix of top management commitment attributes

Attributes	2	3	4	5
Top management identifies the product realization processes which can add values (1)	.532**	.564**	.525**	.212*
Quality policy and quality objectives are established and communicated by the top management (2)	1	.445**	.446**	.254**
The top management checked and reproved the availability of enough resources(3)		1	.532**	.196*
The top management avail trained human resources meet the needs (4)			1	.230*
Top management established open environment in which all employees can participate in meeting the organization’s goals (5)				1
The employees are appreciated, recognized and rewarded for good work, which is one of the obligations of the top management (6)				

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

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source: field survey, April 2022

Table 8 shows that

There is significant relation between all attributes. Which means there is a significant relation between: “Identification of product realisation processes” and “Establishment of quality policy and objectives” and “checked and reproved the availability of enough resources” and “Provision of Trained Resources” and “Recognition and Appreciation for outstanding Contributions” and ' Establishment of open environment” (p <0.05).

From this one can realize that the top management should carefully fulfil all these aspects simultaneously with equal effort.

4.5.2. Analysis of challenges related with Employee Involvement

Employee involvement or engagement has been defined as heightened emotional and intellectual connection that an employee has for his or her job, organization, manager, or coworkers that, in turn, influences him or her to apply additional discretionary effort to his or her work (Gibbons, 2006). So for any strategy to succeed, organizational leaders need employees who are engaged and connected to their jobs, applying that extra effort willingly to implement change (Jamal, 2015).

The presence of Employee Involvement gets reflected through attributes such as: Promotion of innovative efforts, Accepting of ownership and responsibility to solve problems, Actively seeking opportunities to enhance own competencies, knowledge and experience, Involvement in objective setting and decision making, Associating with establishing individual and team objectives and Being part of the team, which manages process performance and evaluates the results

Taking this concept in consideration, assessing the challenges that are related with employee involvement were carried out in agro food industries and the responses and findings are summarized and presented in Table 9 below.

Table 9 Frequency and percentage distribution of challenges of QMS implementation related to Employee Involvement.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	I Accept ownership and responsibility to solve problems	Frequency	35	67	1	6	
		Percent	32.1	61.5	0.9	5.5	
2	I am actively seeking opportunities to enhance my competencies, knowledge and experience (through self-improvement program, if any)	Frequency	27	54	8	19	-
		Percent	24.8	49.5	7.3	17.4	
3	I am associated with establishing individual and team objectives	Frequency	18	31	7	49	4
		Percent	16.5	28.4	6.4	45	3.7
4	I am a part of the team, which manages process performance and evaluates the results	Frequency	23	26	8	48	4
		Percent	21.1	23.9	7.3	44.0	3.7
5	All the members in our unit are involved in the objective setting, objective realization and decision making process	Frequency	13	20	7	64	5
		Percent	11.9	18.3	6.4	58.7	4.6
6	Our innovative efforts are encouraged	Frequency	21	28	5	51	4
		Percent	19.3	25.7	4.6	46.8	3.7

Source, field survey, April 2022

As explained in Table 9 attribute 1, 96.3% of the respondents reflected their agreement (strongly agree plus agree), 5.5% disagree (sum of strongly disagree and disagree) and 0.9% uncertain regarding the issue of accepting of ownership and responsibility to solve problems. This clearly demonstrates that individuals accept ownership and responsibility to solve problems in their organization.

Most of the general managers that are participated in the interview period also acknowledge the sense of ownership and responsibility of their employees to solve problems. This implies that individuals' sense of ownership and responsibility to solve problems is positive.

In connection to the above attribute Table 9 attribute 2 verified that 74.3% of the response fallen under the range of agree and strongly agree, 17.4% do not agree and 7.3% neutral in seeking of opportunities to enhance their competencies, knowledge and experience. This data confirm that the initiation of the employees is high to enhance their capacity at very opportunities of any tasks to cop up their profession.

From the interview session the general managers believed that the issue is somewhat encouraging even if it is not satisfactory. According to the general managers most of the employees are dependent on formal training or capacity building programs instead of self-development in every opportunities or peer teaching or across the department. From this one can assumed that there is a average initiation by the employee in seeking of opportunities to enhance their competencies, knowledge and experience

As it is displayed in Table 9 attribute 3, the data specifies that 44.9% of the respondents' answer ranges with in strongly agree and agree, 48.7% within the range of disagree and strongly disagree and the remaining 6.4% uncertain on the basis of they are associated weather with individual or team objectives. This confirms that employees are not associated with individual and team objectives.

However, the interview differs from this response. Managers believe that they tried to associate individuals with their individual and team objectives through on job and out job trainings and different awareness programs.

In FGD the idea reflected that there is a big awareness gap to associate their objectives with team objectives. Most of the time they do not know their own particular objective. Even if they know their objective they lack skill how to relate with team objectives.

The question that was raised in Table 9 attribute 4 has another link with employee involvement which is whether they are part of the team which manages process performance and evaluates the results or not. It revealed that 21.1% and 23.9% responded strongly agree and agree respectively. This shows that 45.0% of the respondent is agreed on the issue, 3.7% said neutral, 51.3% of the respondents' replied in the range of disagree and strongly disagree. Therefore, the result indicate that majority of the respondents do not agreed on the fact that employees to be part of the team which manages process performance and evaluates the results.

Table 9 attribute 5 presented weather the employees in their unit are involved in the objective setting, objective realization and decision making process or not. The data confirmed that only 30.2% responded in the range of agreement, 6.4% neutral and 63.3% do not agree on this attribute. This implies employees are not involved in objective setting, objective realization and decision making.

The interviewers also accept this concern partially. Most of the time the objectives are drawn by the QMS technical team or by the top management.

Table 9 attribute 6 distinguished that 45.0% of the respondents answered in the range of agreement, 4.6% neutral and 50.5% answered in the range of disagreement to address the concern towards the encouragement of the innovative efforts of the employees. This displayed that the employee are not encouraged in their innovative work in their tasks.

Most of the interview participants also accept the gaps of encouragement of innovative work in their tasks. Beyond from this there is no system of innovation to participates, encourages, train and enhance the employee innovative capacity. Mahfouz and Saeed, 2015 study also align with this finding by indicating the lack of giving recognition for employee innovative efforts..

As a summary from Table 9 one can realized that the presence of certain gaps but in general employee involvement in these organizations is in a good level. There are some main constraints in relation to encouragement of the innovative efforts of the employees.

To comprehend if there is any association between the attributes in the same theme of employee involvement a correlation matrix was conducted and the results are demonstrated below in Table 10.

Table 10 Correlations matrix of employee involvement					
Attributes	2	3	4	5	6
I Accept ownership and responsibility to solve problems (1)	0.117	0.08	.301**	0.161	.209*
I am actively seeking opportunities to enhance my competencies, knowledge and experience (through self-improvement program, if any. (2)	1	0.188	0.081	0.147	0.179
I am associated with establishing individual and team objectives (3)		1	0.166	0.148	0.169
I am a part of the team, which manages process performance and evaluates the results (4)			1	.340**	.296**
All the members in our unit are involved in the objective setting, objective realization and decision making process (5)				1	0.171
Our innovative efforts are encouraged (6)					1

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

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source: field survey, 2022

Table 10 shows that

1. There is significant relation only between “Accepting ownership and responsibility to solve problems” and “Part of the team, which manages process performance and evaluates the results” and “Our innovative efforts are encouraged”. In addition ‘I am a part of the team, which manages process performance and evaluates the results’ and ‘All the members in our unit are involved in the objective setting, objective realization’ and ‘decision making process and Our innovative efforts are encouraged’ ($p < 0.05$)
2. There is no significant relation between “Accepting ownership and responsibility to solve problems” and “actively seeking opportunities to enhance my competencies and knowledge and experience” and “I am associated with establishing individual and team objectives” and “All the members in our unit are involved in the objective setting, objective realization and decision making process”. ($p > 0.05$).

Therefore, this indicates that organization shall give more attention on the attributes which are highly correlated with equal effort simultaneously.

4.5.3 Analysis of challenges related to Team Working

Deming (1981/82) the initiative taken by the top management in team building will be clearly visible from the way of functioning of the employees. The effectiveness of quality management also depends on the extent of team working, and closes interpersonal relations increases its efficiency and he had also stressed that barriers across the departments should be broken, if quality is to be improved.

To elaborate the dimension 'team working' the following attributes should be taken in consideration: Pooling of expertise, Participation in process improvements, Cause and effect analysis, Shared vision to take decisions and Clear processes interface interaction between each departments and units. Therefore, to assess the quality attribute of 'team working' THE succeeding Table 11 presented and analysed it below.

Table 11 Frequency and percentage distribution of challenges of QMS implementation related to Team Working.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Pooling of expertise and resources helps to tackle variety and complexity of problems	Frequency	27	46	17	17	2
		Percent	24.8	42.2	15.6	15.6	1.8
2	There is a team effort to carry out cause and effect Analysis	Frequency	28	46	16	15	3
		Percent	25.7	42.2	14.7	13.8	2.8
3	Shared vision guides to take decisions on technical matters	Frequency	19	55	19	11	5
		Percent	17.4	50.5	17.4	10.1	4.6
4	We participate in the process improvements related to quality up gradation	Frequency	30	43	13	18	5
		Percent	27.5	39.4	11.9	16.5	4.6
5	There is clear processes interface interaction between each departments and units that results cross-functional participation between the departments	Frequency	31	46	14	14	4
		Percent	28.4	42.2	12.8	12.8	3.7

Source: field survey, April, 2022

According to Table 11 attribute 1, 24.8% and 42.2% said strongly agree and agree respectively with the total of 67.0% agreement, 15.6% neutral and 15.6% and 1.8% of disagreed and strongly disagree respectively with a total of 17.4% disagreement towards pooling of expertise and resources helps to tackle variety and complexity of problems. This implies that organizations are dedicated to pool expertise and resources to tackle variety and complexity of problems.

The interview session response also matches with the questionnaire response. However, the FGD session has a different view regarding the above scenario. The panelist argue that in most companies QMS task is given for a certain individual or team that carries all of the burden to tackle the problems instead of pooling all expertise or employees to carry out the responsibility throughout the company.

Related to the above attribute an assessment was also conducted concerning about the team effort to carry out cause and effect analysis to tackle a certain problem. According to Table 11 attribute 2, 67.9% of the respondents put their view in the range of agree and strongly agree, 17.7% neutral and 16.6% put their view in the range of disagree and strongly disagree. This indicates there is a team effort to carry out cause and effect that are existed in a certain task or problem.

Concerning the effectiveness of the issue of shared vision guides to take decisions on technical matter, 77.9% in range of agreement, 17.4% neutral and 16.7% in the range of disagreement as stated in Table 11 attribute 3. This confirms that the extent of using shared vision guides to take decisions on technical matter is high.

Regarding the participation in the process improvements related to quality up gradation as mentioned in Table 11 attribute 4, majority of the respondents (66.9%) replied on agreement level 11.9% neutral and 21.1% in the level of disagreement. This response rate refer there is a big participation of employees in the process improvements related to quality up gradation.

At the same time question was raised as stated in same table attribute 5 concerning processes interface interaction between each departments and units that results cross-functional participation between the departments. 70.6% in the range of agreement, 12.8% neutral and 16.5% in the range of disagreement. This confirms that there is a very good interface interaction between each departments and units to achieve a result in all cross functional participation between departments.

As a summary even though there is a reservation by the FGD panellist concerning pooling of expertise and resources to tackle variety and complexity of problems, the data reflected a positive outlook on the topic of team working in agro food companies. However, this study contradicts with the study of Mahfouz and Saeed that was conducted on 2015. According to their study there is a big gap regarding team working in general

Besides, to analyse the association of the attributes within the same theme correlation matrix was conducted. This will give some clue on the subject of in which attributes that we have to focus or priority. Table 12 gives the values of correlation matrix for team working.

Attributes	2	3	4	5
Pooling of expertise and resources helps to tackle variety and complexity of problems (1)	.663**	.507**	.620**	.581**
There is a team effort to carry out cause and effect analysis (2)	1	.622**	.660**	.595**
Shared vision guides to take decisions on technical matters (3)		1	.699**	.538**
We participate in the process improvements related to quality up gradation (4)			1	.739**
There is clear processes interface interaction between each departments and units that results cross-functional participation between the departments (5)				1

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source: field survey, 2022

Table 12 shows that

There is significant relation between “Pooling of expertise and resources” and “Team effort to carry out cause and effect analysis” and “Shared vision guides to take decisions on technical matters” and “Participation in the process improvements related to quality up gradation” and “Clear processes interface interaction between each departments and units that results cross-functional participation between the departments”. ($p < 0.05$). Hence, companies should give attention for all attributes that are stated in team working with equal effort concurrently.

4.5.4 Analysis of challenges related to Internal Communication

Communication plays a critical role in quality management. No doubt, transparency will contribute to the overall growth of the organisation. Effective communication, cooperation, and teamwork throughout the organization are essential (Crosby, 1991)

Internal communication has the following attributes in QMS: Communication of feedback on obstacles faced, Communication on effectiveness of quality management system, and Communication of on the effectiveness & efficiency of media of communication.

To examine the attributes of internal communication Table 13 was established in the following manner.

Table 13 Frequency and percentage distribution of challenges of QMS implementation related to internal communication.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	We are encouraged to communicate the feedback on the obstacles, we face in achieving improvement goals	Frequency	17	39	5	46	2
		Percent	15.6	35.8	4.6	42.2	1.8
2	Communication on the effectiveness of quality management system takes place across the organization periodically	Frequency	37	41	18	12	1
		Percent	33.9	37.6	16.5	11.9	0.9
3	We have an effective and efficient process of Communication of the likes e-mail, office-look out, memos, communication boards or any other	Frequency	32	47	16	11	3
		Percent	29.4	43.1	14.7	10.1	2.8

Source: field survey, 2022

In Table 13 attribute 1, 51.4% of the response fall under the range of agree and strongly agree, 4.6% neutral and 44% fall under the range of disagree and strongly disagree towards the issue of their level of encouragement by the organization to communicate the feedback on the obstacles they face in achieving improvement goals. This implies that majority of the respondents agree on the level of encouragement by their organization to communicate the feedback on the obstacles they face in achieving improvement goals. However, the data confirms that not less number of respondents (44%) answered do not disagree. This expresses that organizations should give attention to this issue and work on exhaustively to improve and attain the desired communication level.

On the same Table attribute 2, concerning the communication of the QMS implementation effectiveness that takes place across the organization periodically, 71.5% of the respondents on agreement range, 16.5% disagreed and 12.8% within the range of disagreement. This reflects there is a good communication on the effectiveness of quality management system takes place across the organization periodically.

To check the effectiveness and efficiency of communication it was provided another question as stated in Table 13 attribute 3. The result revealed that majority of the respondents which is around 62.5% agree, 14.7% neutral and 12.9% do not agree. This shows there are effective and efficient communication tools like e-mail, office-look out, memos, communication boards or any other that are designed by the organizations.

The findings that are elaborated during interview session also similar with the employees' response in all aspects of internal communication.

To sum up this theme, there were three attributes provide to the respondents. Accordingly, all the results have the same future which fallen under a majority of agreement level. Barak Michelle, 2011, supports this study findings regards to internal communication but the effective communication with customers, employees and stakeholders has become challenging, even when conducted with same cultural framework. It is essential to think of that business, if the stakeholder needs are not identified, achieved and communicated to them, the business cannot flourish on long time, regardless of ISO certification

Moreover to analyze the association between the attributes under internal communication, correlation matrix was conducted as shown in Table 14.

Attributes	2	3
We are encouraged to communicate the feedback on the obstacles, we face in achieving improvement goals (1)	0.127	0.038
Communication on the effectiveness of quality management system takes place across the organization periodically (2)	1	.647**
We have an effective & efficient process of Communication of the likes e-mail, office-look out, memos, communication boards or any other (3)		1

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source: field study, April 2022

Table 14 shows that

1. There is significant relation between “Communication on the effectiveness of quality management system takes place across the organization periodically” and “Effectiveness & efficiency of the process of Communication. ($p < 0.05$)
2. There is no significant relation between “encouragements to communicate the feedback on the obstacles they face in achieving improvement goals” and “Communication on the effectiveness of quality management system takes place across the organization periodically”. ($p > 0.05$)

This implies that companies should give due attention on the correlated issues more.

4.5.5 Analysis of challenges related to Continual Improvement

The present and future direction should be passed through a continual improvement to excel the desire status of the organization and to compete with the environment. Hence, providing a framework for continual improvement to increase the profitability of enhancing customer satisfaction and the satisfaction of interested parties is mandatory (Kungu, 2010).

The attributes of this theme can be shortlisted as follows: periodic reviewing of the system, to ensure the adequacy and effectiveness of the system implemented, continually improvement through different strategic interventions and quality tools, Systematic monitoring, evaluation and validation and Systematically documentation of improvements made and the failures occurring. The findings of quality attributes of continual improvement are established in the consequent Table 15.

Table 15 Frequency and percentage distribution of challenges of QMS implementation related to continual improvement.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Top Management is committed in reviewing the system periodically, to ensure the adequacy and effectiveness of the system implemented	Frequency	17	27	14	51	0
		Percent	15.6	24.8	12.8	46.8	
2	The processes of the organization are continually improved through different strategic interventions and quality tools.	Frequency	9	14	7	77	2
		Percent	8.3	12.8	6.4	70.6	1.8
3	The processes of the organizations systematically monitored, evaluated and validated	Frequency	21	26	10	52	0
		Percent	19.3	23.9	10.1	47.7	0
4	The improvements made and the failures occurring are systematically documented with the same strength	Frequency	20	46	27	13	3
		Percent	18.3	42.2	24.8	11.9	2.7

Source, field survey, April 2022

Based on Table 15 attribute 1, around 40.4% in the level of agreement which is the sum of agree and strongly agree, 12.8% maintain undecided and 46.8% do not agree in relation to top management commitment in reviewing the system periodically to ensure the adequacy and effectiveness of the system implemented. From this one can infer that majority of the respondents disagree in this attribute. Relatively not less respondents agree on this issue but that top management needs a lot to do on this aspect to continually improve the system.

Data that is sourced from the interview with the general managers confirmed that they periodically conduct management review. On the other hand, the data that was found from FGD match with the employees' response. According to the panelist there is a big gap in conducting management review periodically according to the plan.

Table 15 attribute 2 depicts that 21.1% in agreement level, 6.4% remain uncertain and majority of the respondents 72.4% do not agree (sum of disagree and strongly disagree) towards the strategic intervention to continually improve organization using quality tools. This implies that companies are not capable of intervening through strategic way with quality tools to bring continual improvement in their organization.

From the interview hearing general managers have accepted there is a gap in strategic intervention. What they confess is that instead of intervening through strategic way with quality tools they mainly focus on day to day market activities and profits. The FGD data also strengthen this issue; mostly companies do not use strategic mechanism that sated on the standard and the idea of the consultant and certifying bodies. There is continuous feedback and external audit periodically by certifying agencies but they are not that much committed to use this feedback and strategic interventions.

In relation to continual improvement organizations still face another gap with regard to systematically monitoring, evaluation and validation of processes of the organizations. According to Table 15 attribute 3 revealed this fact as 47.7% do not agree, 10.1 uncertain and 43.2% ranges between agree and disagree. This shows that the way that companies undergone to monitor, evaluate and validate of their processes is not systematic. From FGD it is indicated that companies' major concern is not the system efficiency instead they focus on the final product quality or price.

Consequently to assess the continual improvement status another question in this theme was provided to the respondents. Majority of the respondents fall under the range of agreement which is around 60.5%, 24.8% neutral and 14.6% do not agree on the improvements that are made and the failures that are occurring are systematically documented. This reflects companies are devoted to document the improvements made and the failures occurring systematically.

To come to summary, unlike to the others themes this theme has faced a big gap. Unless there is continual improvement there would not be a matured system. Continual improvement is achieved by means of the process orientation approach of standard. This study agreed with descriptive result of barriers regarding continual improvement by Mahfouz and Saeed (2015).

Furthermore to analyze the association between the attributes under continual improvement a correlation matrix was conducted as shown in Table 16.

Table 16 Correlations matrix of continual improvement			
Attributes	2	3	4
Top Management is committed in reviewing the system periodically, to ensure the adequacy and effectiveness of the system implemented (1)	0.012*	-0.08	.197*
The processes of the organization are continually improved through different strategic interventions and quality tools.(2)	1	0.061	0.114*
The processes of the organizations systematically monitored, evaluated and validated (3)		1	0.158*
The improvements made and the failures occurring are systematically documented with the same strength.(4)			1

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source, field survey, April 2022

Table 17 shows that

1. There is significant relation between “Top Management is committed in reviewing the system periodically” and “The processes of the organization are continually improved through different strategic interventions and quality tools”.(p<0.05)
2. There is no significant relation between “Top Management is committed in reviewing the system periodically” and “The processes of the organizations systematically monitored, evaluated and validated”. (p>0.05)

From this one can realized that there is a correlation between some attributes. Therefore, companies should give more focus with equal effort concurrently for those attributes which have correlation.

4.5.6 Analysis of challenges related to Training

Continuous education and training at all levels is necessary to foster a common language of quality and to develop employee skills and knowledge. Effective communication, cooperation, and teamwork throughout the organization are essential and this comes through training. (Juran, 1998).

The attribute of Training can be qualified as follows: Trainings are provided for the staffs based on the competency gap identified, Frequency of training are good enough throughout the season and Trainings are selected and relevant to the technical work.

The quality attributes of training are presented and articulated in Table 17 as follow

Table 17 Frequency and percentage distribution of challenges of QMS implementation related to training.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Trainings are provided for the staffs based on the competency gap identified	Frequency	43	40	12	11	3
		Percent	39.4	36.7	11.0	10.1	2.7
2	The frequency of training are good enough throughout the seaseon	Frequency	20	29	8	50	2
		Percent	18.3	26.6	7.3	45.9	1.8
3	The trainings are selected and relevantto the technical work	Frequency	33	45	16	9	6
		Percent	30.3	41.3	14.7	8.3	5.5

Source, field survey, April 2022

As shown in the above Table 17 attribute 1 regarding the trainings that are provided for the employees is based on their competency or not, the survey revealed that 76.1% accounts the sum of agree and strongly agree, 11.0% neutral and the remaining 12.8% do not agree This implies that companies provide enough training for their employees based on their competency gap that are identified..

Besides, in the case of the frequency of the trainings there was a majority of disagreements. According to Table 17 attribute 2, 44.9% agree (sum of agree and strongly agree), 7.3% remain neutral and 47.7% of the respondents do not agree on the frequency of the training that is provided by their companies. This reflects companies are not that much concerned on the frequency of the trainings.

Ashire *et al.* 1996 support this finding and the training strategy assessment scale in any organization should be measured by availability of training resources, number of training and retraining times of every employee, employees satisfaction for training and level of employee's participating in the same training session.

Parallel to this the responses on Table 17 attribute 3 clarify more the issues that are related to training. Which means 71.3% responded positive (agree and strongly agree), 14.7 undecided and 13.8% do not agree (sum of agree and strongly disagree) on the relevancy of the trainings to their technical work. This indicates that the trainings that are given for the employees is highly fit with their technical work.

Palo and Padhi (2003) findings match with this study but any organization needs to focus more on improving communication competencies as well as multiple skill development, and imparting customer value training.

For further analysis of the association among the attributes of training theme a correlation matrix was conducted as indicated in Table 18 below.

Table 18 Correlations matrix of training		
Attributes	2	3
Adequate trainings are provided for the staffs based on the competency gap identified (1)	.503**	.597**
The frequency of training are good enough throughout the season.(2)	1	.532**
The trainings are selected and relevant to the technical work (3)		1

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source, field survey, April 2022

Table 18 shows that

There is significant relation between “Adequacy trainings” and “Frequency of training” and “Relevancy of training” ($p < 0.05$). Therefore, companies give attention in all attributes of training with equal and synchronized effort.

4.5.7 Analysis of challenges related to Resource

Bhuiyan and Alam (2005) implementing ISO Standards does certainly require the involvement of several resources, especially human and financial resources. An adequate financial resource is needed by an organization to offset the related costs incurred throughout the ISO Standards implementation process, such as fees for consultancy services, training fees, costs related to certification processes as well as other relevant costs. On the other hand, human resources are also necessary to execute activities concerning documentation and internal audits.

The attributes that build up resource provision are: Sufficient finance are provided, Availability of Materials (both equipment’s and machineries), Sufficient and qualified personnel and Technology intervention in the product realization processes.

Putting this scenario in mind, the quality attributes of resource were analysed based on Table 19 below.

Table 19 Frequency and percentage distribution of challenges of QMS implementation related to resource.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Sufficient finance are provided to proceed the duties	Frequency	31	47	17	14	0
		Percent	28.4	43.1	15.6	11.9	
2	Material (both equipments and machineries) are available to cop up the quality management tasks	Frequency	21	24	4	58	1
		Percent	19.3	22.0	3.7	53.2	0.9
3	There are enough and qualified personnel in organization	Frequency	31	52	13	11	1
		Percent	28.4	47.7	11.9	10.1	0.9
4	There is visible technology intervention in the product realization processes.	Frequency	31	58	12	6	1
		Percent	28.4	53.2	11.0	5.5	0.9

Source, field survey, April 2022

From table 19 attribute 1, 71.5% (sum of agree and strongly agree), 15.6% neutral and 11.9 disagree on the point of the provision of sufficient financial resource to proceed the duties. This indicates companies are not hesitating to incur enough finance to perform the organization activities.

In relation to this; Table 19 attribute 2 illustrated 76.1% of the respondents agree, 11.9% neutral and 11% do not agree towards the availability of enough and qualified personnel in organization. This implies companies massively work on to avail enough and qualified personnel in their organizations.

In contrast to the above attribute, , 41.3% are in the range of agreement, 3.7% neutral and 54.1% respond do not agree with regards to provision of material (both equipment and machineries) to cop up the quality management tasks. The interviewees also agreed on this response. This shows that even if they incur enough money there is a problem in availing enough materials to cop up the quality management tasks.

According to the FGD this is due to the shortage of foreign currency. Many agro food companies bring their raw materials and equipments from abroad which need high foreign currency due to this companies are facing constraints of equipments and raw materials.

In accordance, question was exposed weather there is a visible technology intervention in the product realization processes or not. According to the data that is mentioned in table 19 attribute 4, 81.6% agree, 11.0% neutral and 6.4% do not agree (sum of disagree and strongly disagree). From this one can perceive that agro food companies devoted a lot to fulfill visible technology intervention in the product realization processes.

In summary there is an encouraging effort that is done by the companies to realize the provision of resources even though they suffer by external factors that are related to foreign currency. This result contradicts with Amar and Zain (2002) that identified lack of sufficient funds and financial support to mobilize QM driven activities such as instituting training programs and providing quality resources are difficulties encountered by Indonesian organizations in implementing QMS-ISO 9000.

In order to confirm the association of the attributes a correlation matrix was conducted as indicated in Table 20 below.

Table 20. Correlations matrix of resource (N=109)

Attributes	2	3	4
Sufficient finance are provided to proceed the duties (1)	.227*	.465**	.496**
Material (both equipment and machineries) are available to cop up the quality management tasks (2)	1	.352**	.460**
There are enough and qualified personnel in organization (3)		1	.634**
There is visible technology intervention in the product realization processes.(4)			1

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

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

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source, field survey, April 2022

Table 20 shows that

- There is a significant relation among all attributes of resource: Sufficient finance are provided to proceed the duties and Material (both equipment and machineries) are available to cop up the quality management tasks and There are enough and qualified personnel in organization and There is visible technology intervention in the product realization processes ($p < 0.05$)

4.5.8 Analysis of challenges related to system Maintenance and Improvement

This period is important if an organization wants to continuously improve and reap the long term benefits of having a quality management system in place Success can result from implementing and maintaining a quality management system that is designed to continually improve performance while addressing the needs of all interested parties. (Nanda, 2005).

Based on this the attributes of quality management maintenance are itemized as: The company do have internal quality audit program and audit plan that are reviewed periodically, Internal audit is conducted as per the schedule by competent personnel, Management review is conducted to ensure the QMS effectiveness and adequacy as per the procedure and Corrective and preventive actions are planned and implemented to rectify all identified during internal quality audit.

Taking the above theoretical frame into consideration, the quality attributes of maintenance was discussed and analysed based on Table 21.

Table 21 frequency and percentage distribution of challenges of QMS implementation related to maintenance.

No.	Attributes		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The company do have internal quality audit program and audit plan that are reviewed periodically	Frequency	29	28	14	38	
		Percent	26.6	25.7	12.8	34.5	
2	Internal audit is conducted as per the schedule by competent personnel	Frequency	39	48	16	6	
		Percent	35.8	44.0	14.6	5.5	
3	Management review is conducted to ensure the QMS effectiveness and adequacy as per the procedure	Frequency	35	33	16	22	3
		Percent	32.1	30.3	14.7	20.2	2.7
4	Corrective and preventive actions are planned and implemented to rectify all identified during internal quality audit.	Frequency	19	25	11	54	
		Percent	17.4	22.9	10.1	49.5	

Source, field survey, April 2022

According to Table 21 attribute 1, majority of the respondents 62.3% (sum of agree and strongly agree) acknowledge the internal quality audit program and audit plan that are reviewed periodically, 12.8% neutral and 34.5% disagree. This infer that companies of ISO 9001 certified agro food companies periodically conduct internal quality audit program and have audit plan.

Conciding with this Table 21 attribute 2 revealed that 75.8% (sum of agree and strongly agree) recognize the internal audit that is conducted as per the schedule by competent personnel, 14.6% remain undecided and 5.5% disagree. This implies companies tries to led the internal audit as per their schedule by an appropraite perssonel.

Table 21, attribute 3 noted that 62.4% replied in the range of strongly agree and agree, 14.7% neutral and 22.7% do not agree on the concept of management review. This appeal companies have given a big attention to management review that ensure the QMS effectiveness and to be in adequateperiod of time as per the procedure.

In the survey, the respondents were asked to evaluate the status related to corrective and preventive actions. As mentioned in Table 8 attribute 2, 40.3% of the respondents said agree, 10.1% neutral and 49.5% do not agree towards corrective and preventive actions that are taken based on the findings of the quality audit. This indicates that there is a gap in companies in using the findings of the audit to take corrective and preventive actions.

In summary the data revealed that the issues that are related to maintenance can be put in a good rank. However, the companies are facing a problem with regards to corrective and preventive actions. The panelists also put their concern on corrective and preventive actions. According to them there is a gap in using the feedbacks that is given from external examiners to take corrective and preventive actions. Jamal, 2015 also agree on this point and noted that the implementation progress should be monitored to ensure that the quality management system is effective and conforms to the standard. These activities include internal quality audit, formal corrective and preventive actions and management review.

In order to know whether there is any association between the questions in the theme of continual improvement, Correlation matrix was analysed in the following in Table 22.

Table 22 correlations matrix of maintenance			
Attributes	2	3	4
The company do have internal quality audit program and audit plan that are reviewed periodically (1)	.481**	.198*	.101
Internal quality is conducted as per the schedule by competent personnel (2)	1	.612**	.158
Management review is conducted to ensure the QMS effectiveness and adequacy as per the procedure (2)		1	.157
Corrective and preventive actions are planned and implemented to rectify all identified during internal quality audit.(2)			1
**. Correlation is significant at the 0.01 level (2-tailed).			
*. Correlation is significant at the 0.05 level (2-tailed).			

NOTE: the numbers that are given in the above row are the same attributes that is indicated in bracket of the column section

Source, field survey, April 2022

Table 22 shows that

1. There is a significant correlation between “Internal quality audit program and audit plan” and “Internal is conducted as per the schedule by competent personnel” and Management review is conducted to ensure the QMS effectiveness and adequacy as per the procedure. (p> 0.05)
2. There is no significant correlation between “Internal quality audit program and audit plan” and “Corrective and preventive actions”.

From this one can deduced that there is a correlation between some attributes of maintenance. These are “Internal quality audit program and audit plan”, “Internal is conducted as per the schedule by competent personnel” and Management review is conducted to ensure the QMS effectiveness. Hence, companies should focus in these attributes more.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presents summary of findings, conclusions and recommendations extracted from the previous chapter and the researcher point out the fundamental issues in relation to the implementation of ISO 9001 Quality Management System in agro food manufacturing industries.

5.1 Summary of Major Findings

This study tried to elaborate the Practices and challenges of implementation of quality management system in the case of agro food manufacturing companies. The following major findings are observed from the discussion and analysis part:

5.1.1 Findings in Relation to Trend of QMS

- ✚ The certifications of ISO 9001 worldwide achieved a remarkable record especially in developed nations which is more than doubling compared with the figure for the end of the year 2000. However, data show that the share African countries are very small when it compare to the other world. Beyond from this the growth and status of Addis Ababa/ Ethiopian companies is very insignificant.
- ✚ Reasons behind the slow trend and low number of ISO certification in Addis Ababa /Ethiopia can be characterized by various setups. The prominent ones are the gap of promotion and awareness, lack of coordination among national quality infrastructure bodies, economical background of the country and lack of policy frame work.

5.1.2 Findings in Relation to “why firms does hesitate to have QMS certification”

- ✚ The national quality infrastructure across the country is not that much supportive to build the system of QMS, Lack of support from the government (incentives, promotion, award, enactment etc), Business priority issues of companies, Lack of awareness in benefits of QMS and Lack of understanding in the QMS process requirement were being the identified main difficulties for the agro food companies not to have ISO 9001 standards.

5.1.3 Findings in relation to challenges of QMS implementation

- ✚ Establishing open environment in which all employees can participate in meeting the organization's goals and the absence of giving recognition and appreciation for employees for their good work done are the analysed challenges in agro food companies towards top management commitment theme.
- ✚ Pertaining to employee involvement dimension; lack of involving employees in objective setting, objective realization and decision making and absence of encouraging system in their innovative work in their tasks were the major challenges that are reflected by the participants.
- ✚ With regards to continual improvement two challenges has got high recognition by most respondents. The first is companies are not capable of intervening through strategic way with quality tools to bring continual improvement in their organization. The second the way that companies undergone to monitor, evaluate and validate of their processes is not systematic.
- ✚ Less frequent trainings is another challenge that is observed in agro food processing industries in relation to training dimension.
- ✚ As far as resource dimension companies suffer a lot in absence of provision of equipment due to shortage foreign currency. Since Many agro food companies bring their raw materials and equipment from abroad which need high foreign currency.
- ✚ Eventhough companies tried to conduct internal audit asper schedule there is a gap in taking corrective and preventive actions based on the findings of the quality audit and the direction of the external auditor.

5.2 Conclusion

This thesis was conducted to assess the trend and challenges of ISO 9001 in selected 14 agro food organisations in Addis Ababa encircling both ISO 9001 certified and noncertified, spread over various types of processing, such as oil, coffee, injera, biscuit, flour, cereals, spices, alcoholic and non-alcoholic beverage that owned by both government and private. Pertaining the certification, among the certified companies seventy percent of the organizations that were selected for the study had obtained ISO 9001 certificate before five years. The rest thirty percent had obtained ISO 9001 certificate before three years.

ISO 9001 is globally a highly adopted system standard. Moreover, the significance of standards is clearly tangible in all activities of human life. However, findings of this study revealed that there is an insignificant growth rate observed in Addis Ababa and Ethiopia. The reasons behind this scenario is; the gap of promotion and awareness, lack of coordination among national quality infrastructure bodies, economical background of the country and lack of policy frame work.

In Ethiopia that firms are not that much interested to use standards in their day today production activities. In agro food industries it is almost mandatory using standards to produce quality products since it is directly linked to human life and health. The reasons can be categorized into three forms. The first is Attitudinal; an attempt to earn profit without using any standard. The second is lack of capacity, awareness and understanding of companies towards standards. The last but not the least is that lack of support from various responsible bodies (unsupportive NQI system and lack of incentives, promotion, award and enactment).

On the other hand it is known that challenges are likely to occur when implementing a QMS. However, the magnitude and impact of these seems to differ depending on the specific capabilities and circumstances of the company. The assessment proved that there is a satisfactory situation with regards to QMS implementation in agro food companies in Addis Ababa. Out of 34 variables that were subjected to be answered 9 (nine) of them face a clear gaps. Out of these nine challenges employees involvement, continual improvement and maintenance need a critical focus. If companies can plan and evaluate themselves prior to the implementation of a QMS it is believed that it is possible to anticipate and avoid challenges that are likely to occur.

In general ISO 90001: 2015 does not get enough attention in the country at all. It is obvious it needs further investigation and research must be conducted to identify the reasons and to assess its benefit, impact and effect on different sectors at large. However, to do this it needs a joint and coordinated effort from all stakeholders that works on quality and standardization. As a final of final if the limitations are not resolved immediately the country will lose her country quality image and lack competitiveness in the global market.

5.3 Recommendations

5.3.1 Recommendations to policy makers /Government

As implicated in the analysis part the country is suffering by a non-destination and undefined direction of quality movement due to the absence of quality policy. Hence, policy makers should give attention in developing a quality policy framework as a priority task and oversee and give guidance for all responsible bodies.

The existing poor and inconsistent awareness creation and promotion system and absence of strategy results an insignificant understanding in all level of the society. Therefore, to solve it permanently and strategically the researcher recommends the following ideas

- ✓ Develop and implement a strategy on awareness and promotion program to bring its effectiveness and to exploit all the potential sources of promotion like electronic and printing Medias
- ✓ Education in standards must be escalated to be part of the National Educational policy to create a sustainable awareness of standardization and quality. National Standard Bodies take the lion role and convince the central governments to include in curricula in all levels of education from primary schools to universities and institutions of higher learning. In parallel with this, securing the fund & plan, designing a responsible body and keeping continuous innovation shall be done in equal concentration.
- ✓ Magnifying the significance of standard through research and development program is also a critical issue that should be addressed. Currently there is no any legal body that is work on the research and development program in a permanent basis. Research and development will increase the interest of different companies and pull different professionals to participate in it. Hence, it is vital to work on this or to establish a responsible body to facilitate it.
- ✓ Due to the absence of different civic associations which work on standardization system the country lack an informant and supporter who implicate and fill various gaps. Hence, establishing various concerned civic societies who work on quality and standard like “Association of standard professionals”, public associations, traders associations,

manufacturers associations and creating a forum that overlook and give direction on quality and standards.

- ✓ Expanding and diversifying the quality award system is also another touchable issue.

The other sensitive issue that must be addressed potentially is that, the National Quality Infrastructure of Ethiopia. It has been transited from what is known as “Totally Integrated Model” to “Functional system”. The current NQI is in early stage lacks various gaps. Therefore, enhancing their efficiency and effectiveness and mounting their coordination is a vital task.

The last but not the least recommendable idea at large is that, standardization has a link with economy as depicted in the analysis part. Hence, here it is important keeping the growth of the country in a diversified manner in link with quality and standardization which will build the national quality image and competitiveness with developed nations.

5.3.2 Recommendations for ISO 9001 certified organizations

Since there are gaps in relation to employee involvement, continual improvement and maintenance companies shall work on these issues with special attention.

On the other hand implementing a Quality Management System is not just to get the certificate or for temporary purpose like bid or tender but putting into use the documented QMS is essential. The typical objective of having ISO certified is producing products that consistently meet customer needs, reducing costs and waste and increasing confidence in the production systems capability. Therefore, before going for certification checking the motive, status and weakness of the company that must be amended is a recommendable concern.

5.3.3 Recommendations for noncertified companies.

Globalisation of the market economies has urged corporate in all the sectors to concentrate on maintaining a sustainable competitive edge, which is directly related to the upkeep of quality, both in terms of the services as well the products. For business managers considering implementing ISO 9001 it have various benefits. These benefits stem from the signal the certificate provides in the market and/or from benefits generated by the quality management system itself: lower cost and/or increased sales. The benefits depend on the market situation as well as on company performance, and have to be balanced against the cost of implementation.

Here, the time dimension is important – initially the balance can be negative but most companies manage to reap benefits over the medium to long-term. The impact on stock value is limited so this should not be the reason for implementation. Benefits from the system itself depend on the motivation to implement it, and on management commitment.

5.3.4 Recommendations for certifying agencies and consultants

Based on the finding, consultants and auditors should keep focusing more on employee involvement, continual improvement and maintenance of ISO-9001 based on the requirements of the standard.

Certification bodies should also pay attention to employee involvement, continual improvement and maintenance and they should make sure that the employees are using the quality management system and take serious measures on due of the professional ethics.

5.3.5 Recommendation for further research

The researcher had recommended three areas for further research

1. Enlarging the subject and geographic scope beyond working on assessment and is recommendable to extend to impact, effect of ISO 9001 implementation in the overall country.
2. Studying the relation between various tools like KIZEN, BSC, BPR, QMS etc and their impact among each other when they are implemented in the same companies is another recommendation.
3. QMS and Food Safety Management System (ISO 22000) have a similar futurity in their objective but companies are confusing in which they will work on. Therefore, it is highly recommendable to work on the difference of the two standards particularly their implementation challenge and the effect in food companies.

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Appendix I

Questionnaire to be filled by ISO 9001 Certified Agro-Food Industries Employees

(Both Amharic And English)

A. English Questionnaire

Questionnaire to be filled by the Agro-Food Industries Employees

Dear respondents, I am a postgraduate student of St. Merry University and currently undertaking a research on “PRACTICES AND CHALLENGES OF QMS/ISO 9001 2015 IMPLEMENTATION” taking AGRO-FOOD manufacturing industries as a case study for the Partial Fulfillment of Master’s Degree in Public Management and it is for academic purpose.

Therefore, you are kindly requested to answer the questions honestly and thus you are required to feel free because the researcher assures you that all written responses are confidential and will be kept completely in secret. For genuinely doing so by devoting your time and exerting efforts, the researcher really remains very grateful to you. Meanwhile, the outcome of this study will highly depend on your sincere and timely response.

If you have any questions or comments, please contact **Yosef Mengistu (Mobile 0911543990)**.

Thank you in advance for your cooperation!!!

General instruction:

- No need to write your name
- Respond to each question by putting (√) mark to your choice and clearly state your ideas in the blank spaces provided.
- Please, do not leave the open-ended question unanswered.

Part 1: Demographic information		
Sex	Male	<input type="radio"/>
	Female	<input type="radio"/>
Educational background	Certificate	<input type="radio"/>
	Diploma (Level IV and Level V)	<input type="radio"/>
	BA/BSc	<input type="radio"/>
	Above BA/BSc	<input type="radio"/>
Service year in your Enterprise	Less than 1 year	<input type="radio"/>
	2 -5 years	<input type="radio"/>
	6 - 10 years	<input type="radio"/>
	above 10 years	<input type="radio"/>

Work Position in the company	Quality Manager/Quality Management	<input type="radio"/>
	Purchasing and Logistics Manager	<input type="radio"/>
	Maintenance Manager	<input type="radio"/>
	Finance Manager	<input type="radio"/>
	Expert	<input type="radio"/>
	Other (<i>please specify</i>)	<input type="radio"/>

Part 2

Dear respondents:

This part contains questions related to on “THE CHALLENGES THAT YOUR COMPANY FACE THROUGH THE IMPLEMENTATION OF ISO 9001- QMS.” Please express your level of agreement/disagreement in the five point scale.

Part 2: Questions Related to Challenges of QMS implementation	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Top management commitment related questions					
Top management identifies the product realization processes which can add values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality policy and quality objectives are established and communicated by the top management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The top management checked and reproved the availability of enough resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The top management avail trained human resources meet the needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Top management established open environment in which all employees can participate in meeting the organization's goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The employees are recognized and appreciated by the top management for the good work done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employee Involvement related questions					
I Accept ownership and responsibility to solve problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am actively seeking opportunities to enhance my competencies, knowledge and experience (through self-improvement program, if any)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am associated with establishing individual and team objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a part of the team, which manages process performance and evaluates the results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All the members in our unit are involved in the objective setting, objective realization and decision making process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our innovative efforts are encouraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team Working related questions					
Pooling of expertise and resources helps to tackle variety and complexity of problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a team effort to carry out cause and effect Analysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shared vision guides to take decisions on technical matters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We participate in the process improvements related to quality up gradation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is clear processes interface interaction between each departments and units that results cross-functional participation between the departments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal Communication related questions					
We are encouraged to communicate the feedback on the obstacles, we face in achieving improvement goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication on the effectiveness of quality management system takes place across the organization periodically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have an effective & efficient process of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Communication of the likes e-mail, office-look out, memos, communication boards or any other	
Continual Improvement related questions	
Top Management is committed in reviewing the system periodically, to ensure the adequacy and effectiveness of the system implemented	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Corrective actions are taken without the undue delay, to eliminate the causes of nonconformities in order to prevent recurrence	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
The processes of the organization are continually improved through different strategic interventions and quality tools.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
The processes of the organizations systematically monitored, evaluated and validated	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
The improvements made and the failures occurring are systematically documented with the same strength.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Training related questions	
Adquate trainings are provided for the staffs based on the competency gap identified	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
The frequency of training are good enough throughout the seaseon.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
The trainings are selected and relevantto the technical work	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Resource related questions	
Sufficient finance are provided to proceed the duties	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Material (both equipements and machineries) are available to cop up the quality management tasks	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
There are enough and qualified personnel in organization	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
There is visible technology intervention in the product realization processes.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Maintenance and Improvement related questions	
The company do have internal quality audit program and audit plan that are reviewed periodically	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Internal quality is conducted as per the schedule by competent personnel	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Management review is conducted to ensure the QMS effectiveness and adequacy as per the procedure	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Corrective and preventive actions are planned and implemented to rectify all identified during internal quality audit.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

A. Amharic Questionnaire

የግብርና ምግብ አምራች ድርጅቶች ስራተኞች የሚሞላ መጠይቅ

የተከበራቹ የዚህ መጠይቅ መላሾች፡ እኔ በአሁን ወቅት በኢትዮጵያ ሲቪል ሰርቪስ ዩንቨርሲቲ በሕዝብ አስተዳደር የሁለተኛ ዲግሪ ተማሪ ስሆን « በጥራት ስራ አመራር ስርዓት (አይሶ 9001) የአተገባበር እድገት ሁኔታና በአተገባበር ውቅት እያገጠሙ ያሉ ተግዳሮቶች» በሚል ርዕስ ጉደይ የመመረቁ ጽሁፌን በአዲስ አበባ ውስጥ በሚገኙ የግብርና ምግብ አምራች ድርጅቶች ላይ እየሰራሁ እገኛለሁ።

በመሆኑም እርስዎም ለዚህ ጥናት ግብዓት ይሆን ዘንድ ይህን መጠይቅ እንዲሞሉ በአክብሮት እጠይቃለሁ። የሰጡት ምላሽ ሙሉ በሙሉ ምስጢራዊነቱ የተጠበቀና ለዚህ ጥናት ብቻ በግብዓትነት የሚያገለግል በመሆኑ በሙሉ ነጻነትና ታማኝነት እንዲሞሉ በአክብሮት ደግሜ እጠይቃለሁ። ጊዜዎትን በአግባቡ ሰጥተው መጠይቁን እንደሚሞሉ ተስፋ በማድረግ እጅጉን ትልቅነት ደስታ ይሰማኛል። ስለሆነም ይህ ጥናት በእርስዎ ምላሽ ላይ የተመሰረተ መሆኑን ለማስገንዘብ እወዳለሁ።

ምናልባት ጥያቄና ግልጽ ያልሆኑ ነጥቦች ካሉ ሳሙኤል ደምሴ በማለት በሞባይል ቁጥር 0911543990 ወይም ኢሜይል አድራሻ-josyhawe@gmail.com).

ከሁሉ አስቀድሞ ለሚያደርጉልኝ ሙሉ ትብብር ላመሰግን እወዳለሁ!!!

አጠቃላይ መመሪያ፡

- ስሞትን መጻፍ አይጠበቅብትም
- ሁሉንም የጥያቄ ምላሾች ይህንን ምልክት (✓) ባላው ክፍት ቦታ በማድረግ ምላሾችን ይግለጹ
- እባኩትን ምንም ጥያቄ መልስ ሳይሰጡ ክፍት አትትዋቸው

ክፍል 1: መሰረታዊ የግል መረጃዎች		
ጾታ	ወንድ	<input type="radio"/>
	ሴት	<input type="radio"/>
የትምህርት ደረጃ	1-12	<input type="radio"/>
	ሰርተፍኬት	<input type="radio"/>
	ዲፕሎማ (ደረጃ አራትና እና አምስት)	<input type="radio"/>

	ዲግሪ	<input type="radio"/>
	ከድግሪ በላይ	<input type="radio"/>
የስራ ልምድ በዚህ ድርጅት ውስጥ	ከአንድ አመት በታች	<input type="radio"/>
	ከ1-5 ዓመት	<input type="radio"/>
	ከ6-10 ዓመት	<input type="radio"/>
	ከ10 ዓመት በላይ	<input type="radio"/>
የሥራ ኃላፊነት (ደረጃ) (በታ)	የጥራት አመራር	<input type="radio"/>
	የገንዘብና አቅርቦት ክፍል ኃላፊ ፊ	<input type="radio"/>
	የጥገና ክፍል ኃላፊ	<input type="radio"/>
	የፋይናንስ ክፍል ኃላፊ	<input type="radio"/>
	ባለሙያ	<input type="radio"/>
	ሌላ ካለ ይጥቀሱ	<input type="radio"/>

ክፍል 2

የተከበራቹ የዚህ መጠይቅ መላሾች:

በዚህኛው የመጠይቅ ክፍል የተካተቱት «በጥራ ስራ አመራር አተገባበር ወቅት ያጋጠሙና እያጋጠሙ ያሉ ተግዳሮቶች (ችግሮች) እና ተያያዥ ጉዳዮች» ናቸው። በመሆኑም በተዘረዘሩት ጥያቄዎች ዙሪያ የመስማማትዎና ያለመስማማትዎን መጠን ባሉት ክፍት ቦታዎች ይህንን ምልክት በማስቀመጥ ምላሽዎን እንዲሰጡ በአክብሮት እጠይቃለሁ።

ክፍል 2: በጥራ ስራ አመራር አተገባበር ዙሪያ ያጋጠሙና እያጋጠሙ ያሉ ተግዳሮቶች (ችግሮች) ዙሪያ	በጣም እስማማለሁ	እስማማለሁ	አላውቅም	አልስማማም	በጣም አልስማማም
የከፍተኛ አመራሩ ተነሳሽነት (ቁርጠኝነት) ጋር የተያያዙ ጥያቄዎች					
ከፍተኛ አመራሩ በምርቶች ላይ እሴት የሚጨምሩ የስራ ሂደቶችን ሂደቶችን (processes) ለይቷል (ይለያል)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ከፍተኛ አመራሩ የጥራት ፖሊሲና ዓላማ በማዘጋጀት ለሁሉም ሰራተኞች በማስተዋወቅ እንዲረዱት አድርጓል።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የከፍተኛ አመራሩ የስራ ማስፈጸሚያ ግብዓቶች መሟላታቸውን ያረጋግጣል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የከፍተኛ አመራሩ በቂ የሰለጠነ የሰው ኃይል አሟልቷል / ያሟላል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የከፍተኛ አመራሩ ሰራተኞች በድረጅቱ ግብ ዙሪያ በግልፅ እንዲወያዩ ምቹ ሁኔታዎችንና ከባቢዎችን ይፈጥራል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ከፍተኛ አመራሩ ውጤታማ ለሆኑ ሰራተኞች ተገቢውን እውቅናና ማበረታቻ ይሰጣል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ከሰራተኞች ተሳትፎ ጋር የተያያዙ ጥያቄዎች					
ችግሮችን ለመፍታት በባለቤትነትና በኃላፊነት ስሜት ተሳትፎ አደርጋለሁ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ባገኘሁት አጋጣሚና ሁኔታ የራሴን እውቀት፣ ተወዳዳሪነትና ልምድ ላማሳግ ጥረት አደርጋለሁ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የግልና የቡድን ዓላማ በአግባቡ እንዲቀረፅ ጥምረት ፈጥሮ አሰራለሁ ለተግባራዊነቱም እጥራልሁ።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የሥራ ሂደቶችን አፈጻጸም የሚመራውና ውጤትን የሚለካው	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ቡድን አካል ነኝ					
ሁሉም ሰራተኞች በድረጅቱ ዓላማ/ግብ ዝግጅት፣ትግበራና ውሳኔ አሰጣጥ ላይ ተሳትፈዋል (ይሳተፋሉ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ለፈጠራ እና ለአዲስ ነገር ግኝት የምናደርገውን ጥረት ድርጅቱ ያበረታታል።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የቡድንን ስራዎች ጋር የተያያዙ ጥያቄዎች					
ባለሙያዎችንና በማስተባበር እና በማቀናጀት ግብዓትን በሚገባ ተጠቅሞ ትላልቅ ችግሮችን የመፍታት ልምድ አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የችግሮችን መንስኤ በማጥናት ዘላቂ መፍትሄ የሚሰጥ የጋራ ጥረት አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ቴክኒካዊ ጉዳዮች ላይ የሚሰጠው ውሳኔ የድርጅቱን ራዕይና ስትራቴጂካዊ ጉዳይ ከግምት ያስገባ ነው	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በክፍሎች እንዲሁም በቡድኖች መካከል ተሳትፎን የሚያሳድግ ግልፅ የሆነና የተሳሳተ የእርስ በእርስ የግኝቶች ስርዓ አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የውስጥ ግንኙነት ጋር የተያያዙ ጥያቄዎች					
ግብን ከማሰካት አኳያ በሚያጋጥሙ ችግሮች ዙሪያ ሀሳብ ለመስጠትና ግብረመልስ ለመቀበል እንበረታታለን	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በጥረት ስራ አመራር ስርዓት ውጤታማነት ዙሪያ በታቀደ የግዜ ገደብ ግንኙነት ይደረጋል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በቂና ውጤታማ የሆነ የግንኙነት ዘዴዎችና ሂደቶች ለምሳሌ የውስጥ ማስታወሻ፣ ሰሌዳ መጽሔት፣ ኢ-ሜይል፣ የቢሮ መገናኛ የመሳሰሉት አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ቀጣይነት ያለው መሻሻልን ጋር የተያያዙ ጥያቄዎች					
ክፍተኛ አመራሩ የጥራት ስራ አመራር ስርዓት ውጤታማነት በቀጣይነት እንዲሻሻል ቁርጠኛ ነው።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ከስራዎች ጋር ተስማሚ ያልሆኑ ጉዳዮች በሚያጋጥሙ ወቅት በጊዜው የእርምጃ የመከላከያ እርምጃ ይወሰዳል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የድርጅቱ የሥራ ሂደት የተለያዩ ስትራቴጂካዊ ለውጦችን በማድረግ ቀጣይነት ባለው መሻሻል ውስጥ ነው	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የድርጅቱ የሥራ ሂደት ስርዓት ባለው መልኩ እየተመራና እየተመዘነ ይገኛል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
መሻሻሎችና የሚያጋጥሙ ስህተቶችና ውድቀቶች ስርዓት ባለው መንገድ እየተመዘገቡ ይቀመጣሉ።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ከስልጠና ጋር የተያያዙ ጥያቄዎች					
የሰራተኛውን የአቅም ክፍተት መሰረት በማድረግ በቂ የሆነ ስልጠናዎች ይሰጣሉ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የሚሰጡት የስልጠና አይነቶች ወቅቱን ጠብቀው በየግዜው ይከናወናሉ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የሚሰጡት ስልጠናዎች ከቴክኒካዊ ስራዎች ጋር ግንኙነት ያላቸውና አጋዥ ናቸው	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

የገንዘብ፣ የቁሳቁስና የሰው ኃይል እንዲሁም የቴክኖሎጂ አቀርቦት ጋር የተያያዙ ጥያቄዎች

በቂ የሆነ የሥራ ማስኬጃ በጀት ይመደባል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ስራዎችን ለማከናወን በቂ የሆነ የቁሳቁስ አቀርቦት አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በቂ የሆነና የሰለጠነ የሰው ኃይል በድርጅት ውስጥ አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ምርትን በሚፈለገው መልኩ ከማምረት አኳያ በቂ የሆነ የቴክኖሎጂ አጠቃቀም አቀርቦት አለ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ስርዓቱን በአግባቡ ከማስቀጠልና ከማሻሻል ጋር የተያያዙ ጥያቄዎች

ድርጅቱ በታቀደለት የጊዜ ገደብ የሚከለስ የውስጥ ጥራት አዲት እቅድና ፕረግራም አለው	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የውስጥ ጥራት አዲት በታቀደለት የጊዜ ገደብ በተገቢው የሰለጠነ የሰው ኃይል ይከናወናል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ሥራ አመራሩ ስርዓት ውጤታማነት ለማረጋገጥ በተቀመጠው ስርዓተ ሂደት መሰረት የከፍተኛ አመራሩ ግምገማ ያደርጋል	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በውስጥ የጥራት አዲት መሰረት የእርምጃና የመከላከያ እርምጃዎች በማቀድና በመተግበር ችግሮችን ለመፍታት ጥረት ይደረጋል።	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ጊዜዎን ሰውተው ይህንን መጠይቅ በትዕግስት ስለሞሉልኝ በጣም አመሰግናለሁ!!!

Appendix II

Questionnaire to be filled by ISO 9001 Non Certified Agro-Food Industries Employees (Both Amharic and English)

A. English Questionnaire

Questionnaire to be filled by the Agro-Food Industries Employees

Dear respondents, I am a postgraduate student of St. Merry University and currently undertaking a research on “Practices and Challenges in Implementation of Quality Management System/ISO-9001:2015” taking AGRO-FOOD manufacturing industries as a case study for the Partial Fulfillment of Master’s Degree in Public Management and it is for academic purpose ONLY.

Therefore, you are kindly requested to answer the questions honestly and thus you are required to feel free because the researcher assures you that all written responses are confidential and will be kept completely in secret. For genuinely doing so by devoting your time and exerting efforts, the researcher really remains very grateful to you. Meanwhile, the outcome of this study will highly depend on your sincere and timely response.

If you have any questions or comments, please contact **Yosef Mengistu** (Mobile 251-911543990 or email-josyhawe@gmail.com).

Thank you in advance for your cooperation!!!

General instruction:

- No need to write your name
- Respond to each question by putting (✓) mark to your choice and clearly state your ideas in the blank spaces provided.
- Please, do not leave the open-ended question unanswered.

Part 1: Demographic information			
Sex	Male	<input type="radio"/>	
	Female	<input type="radio"/>	
Educational level	Certificate	<input type="radio"/>	BA/BSc <input type="radio"/>
	Diploma (Level IV and Level V)	<input type="radio"/>	Above BA/BSc <input type="radio"/>
Service year in the company	Less than 1 year	<input type="radio"/>	6 - 10 years <input type="radio"/>
	2 -5 years	<input type="radio"/>	above 10 years <input type="radio"/>

Work position in the company	Quality Manager/Quality Management <input type="radio"/>	Purchasing Manager <input type="radio"/>
	Logistics Manager	Maintenance Manager <input type="radio"/>
	Finance Manager <input type="radio"/>	
	OTHER(<i>please specify</i>)	

Part 2

Dear respondents:

This part contains questions related to on “THE REASONS WHY YOUR COMPANY NOT BEING QMS CERTIFIED”. Please express your level of agreement/ disagreement in the five point scale.

Part 2: Questions related to reasons not being certified to QMS, it is because	Strongly agree	Agree	Neutral	Disagree	Strongly disagreed
Business priority issues (to have low sense of urgency to apply for QMS recently)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It needs high cost to implement QMS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of support from the top management to have QMS certificate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of skills for executing the QMS requirements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence of organizations to be taken as a bench mark	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of awareness in benefits of QMS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is less demands of QMS certification from the clients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of understanding in the QMS process requirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of time to implement QMS/Time consuming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of QMS exposure among staffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lack of support from the government (incentives, promotion, award, enactment etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality infrastructure across the country is not that much supportive to build the system of QMS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Law number of certifying agencies and consultants of QMS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please mention other reasons of not having QMS					
.....					
.....					
.....					
.....					
.....					

Thank you for your committed cooperation, participation, time and consideration!!!

B. Amharic Questionnaire

የግብርና ምግብ አምራች ድርጅቶች ስራተኞች የሚሞላ መጠይቅ

የተከበራቹ የዚህ መጠይቅ መላሾች፡ እኔ በአሁን ወቅት በኢትዮጵያ ሲቪል ሰርቪስ ዩንቨርሲቲ በሕዝብ አስተዳደር የሁለተኛ ዲግሪ ተማሪ ስሆን « በጥራት ስራ አመራር ስርዓት (አይሶ 9001) የአተገባበር እድገት ሁኔታና በአተገባበር ወቅት እያገጠሙ ያሉ ተግዳሮቶች» በሚል ርዕስ ጉደይ የመመረቁ ጽሁፌን በአዲስ አበባ ውስጥ በሚገኙ የግብርና ምግብ አምራች ድርጅቶች ላይ እየሰራሁ እገኛለሁ።

በመሆኑም እርስዎም ለዚህ ጥናት ግብዓት ይሆን ዘንድ ይህን መጠይቅ እንዲሞሉ በአክብሮት እጠይቃለሁ። የሰጡት ምላሽ ሙሉ በሙሉ ምስጢራዊነቱ የተጠበቀና ለዚህ ጥናት ብቻ በግብዓትነት የሚያገለግል በመሆኑ በሙሉ ነጻነትና ታማኝነት እንዲሞሉ በአክብሮት ደግሜ እጠይቃለሁ። ጊዜዎትን በአግባቡ ሰጥተው መጠይቁን እንደሚሞሉ ተስፋ በማድረግና በማግኘት ይህ ጥናት በእርስዎ ምላሽ ላይ የተመሰረተ መሆኑን ለማስገንዘብ እወዳለሁ።

ምናልባት ጥያቄና ግልጽ ያልሆኑ ነጥቦች ጉዳዮች ካሉ ሳሙኤል ደምሴ በማለት በሞባይል ቁጥር 0911543990 ወይም ኢሜይል አድራሻ- josyhawe@gmail.com ከሁሉ አስቀድሞ ለሚያደርጉልኝ ሙሉ ትብብር ላመሰግን እወዳለሁ!!!

አጠቃላይ መመሪያ:

- ስሞትን መጻፍ አይጠበቅብትም
- ሁሉንም የጥያቄ ምላሾች ይህንን ምልክት ባላው ክፍት ቦታ በማድረግ ምላሾችን ይግለጹ
- እባኩትን ምንም ጥያቄ መልስ ሳይሰጡ ክፍት አትትዋቸው

ክፍል 1: መሰረታዊ ግላዊ መረጃዎች		
ጾታ	ወንድ	<input type="radio"/>
	ሴት	<input type="radio"/>
የትምህርት ደረጃ	1-12	<input type="radio"/>
	ሰርተፍኬት	<input type="radio"/>
	ዲፕሎማ (ደረጃ አራትና እና አምስት)	<input type="radio"/>
	ዲግሪ	<input type="radio"/>
	ከድግሪ በላይ	<input type="radio"/>
የስራ ልምድ በዚህ ድርጅት ውስጥ	ከአንድ አመት በታች	<input type="radio"/>
	ከ1-5 ዓመት	<input type="radio"/>
	ከ6-10 ዓመት	<input type="radio"/>
	ከ10 ዓመት በላይ	<input type="radio"/>
የሥራ ኃላፊነት (ደረጃ) (ቦታ)	የጥራት አመራር	<input type="radio"/>
	የግዢ ና አቅርቦት ክፍል ኃላፊ ፊ	<input type="radio"/>
	የፋይናንስ ክፍል ኃላፊ	<input type="radio"/>
	ባለሙያ	<input type="radio"/>
	ሌላ ካለ ይጥቀሱ	<input type="radio"/>

ክፍል 2
የተከበራቹ የዚህ መጠይቅ መላሾች:

በዚህኛው የመጠይቅ ክፍል ያካተቱት «የጥራት ስራ አመራር ስርዓትን ድርጅታቹ ላለመተግበሩ ምክንያቶች ጋር የተያያዙ ጥያቄዎች» ናቸው። በመሆኑም በተዘረዘሩት ጥያቄዎች ዙሪያ የመስማማትዎና ያለመስማማትዎን ነጥብ ባሉት ክፍት ቦታዎች ይህንን ምልክት (✓) በማስቀመጥ ምላሽዎን እንዲሰጡ በአክብሮት እጠይቃለሁ።

ክፍል 2: የጥራት ስራ አመራር ስርዓትን ድርጅታቹ ላለመተግበሩ ምክንያቶች	በጣም እስማማለሁ	እስማማለሁ	አላውቅም	አልስማማም	በጣም አልስማማም
ለሌሎች የስራ ጉዳዮች ቅድሚያ በመሰጠቱ (የጥራት ስራ አመራር ስርዓትን መተግበር ለድርጅቱ አንገብጋቢ ጉዳይ ባለመሆኑ)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ለመተግበር የከፍተኛ አመራሩ ድጋፍ አነስተኛ በመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ለመተግበር ከፍተኛ ገንዘብ የሚጠይቅ በመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ለመተግበር ያለው ክህሎትና አናሳ በመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በጥራት ስራ አመራር ስርዓትን በመተግበር አርአያ የሚሆን ወይም ምርጥ ተሞክሮ ሊወሰድበት የሚችል ድርጅት አለመኖሩ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በጥራት ስራ አመራር ስርዓት ጥቅም ዙሪያ አናሳ ግንዛቤ በመኖሩ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በደንበኞች ዘንድ የጥራት ስራ አመራር ስርዓት ሰርተፍኬት ጥያቄ አናሳ በመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በጥራት ስራ አመራር ስርዓት መስፈርቶች ዙሪያ በቂ እውቀት ባለመኖሩ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓት ለመተግበር የሚወስደው ጊዜ ረጅም በመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
በሰራተኞች ዘንድ በጥራት ስራ አመራር ስርዓት ዙሪያ ያለው ግንዛቤ ተነሳሽነት አናሳ መሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ለመተግበር ከመንግስት ያለው ድጋፍ አናሳ በመሆኑ (ድጎማ፣ እውቅና ማስተዋወቂያ፣ ሽልማት፣ህጋዊ ድጋፍ.....)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ለመተግበር ያለው የጥራት መሰረተ መዋቅር ያን ያህል ደጋፊና አበረታች አለመሆኑ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
የጥራት ስራ አመራር ስርዓትን ሰርተፍኬት የሚሰጡና የምክር አገልግልት የሚሰጡ ተቋማትና ግልሰቦች አነስተኛ መሆን	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
እባኩን የጥራት ስራ አመራር ስርዓትን ድርጅቱ ላለመተግበሩ ምክንያቶች ካሉ እዚህ ይግለጹ					
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ጊዜዎን ሰውተው ይህንን መጠይቅ በትዕግስት ስለሞሉልኝ በአክብሮት አመሰግናለሁ!

APPENDIX III

Interview with certified company's managers

Basic organizational information			
Type of company	Public Ownership	Private	Composite /both private and public
Type of product (most usual type) company produced	Food	Beverage	Both
Year established			
Major customer sector	Government	Private	Foreigner
How long has the organization been implementing QMS	< 5 years	< 5 – 10 years	> 10 years

1. What was the Motives for implementing QMS
 - To effectively and efficiently control production activities
 - To minimize poor quality of food processes and products
 - To enter the international market
 - For the betterment of the company's overall management system
 - As a requirement of the by customer
 - To fulfill clients' requests as part of the bidding process
 - To improve the company's prestige (e.g. image, reputation)
 - To improve business performance
 - For promotion purpose
 - Please mention if there is other motive

2. What is the overview of the practices of QMS in your organization? regarding maintenance and improvements?

3. What are the efforts that are done by the top management looks like to realize the quality objectives?

4. Is the company provided enough resource (human, material and financial) to meet the quality objective /Intended Objectives?

5. Are the employees are well involved in various aspects to realize the quality objectives? What are the indicators?

6. Are the teams built appropriately to realize quality objectives? What are the indicators?

7. Is there adequate training? is training's technically fit to meet the quality objective?

8. Does the internal audit and management review very capable to assure the continual improvement? In what ways can QMS practices be further/continuously improved?
9. What are the external encouraging and discouraging factors?
10. In your opinion, what are the main challenges through the implementation of QMS? Which challenges are still influencing your operation today?
11. What do you suggest to overcome the challenges of QMS implementation in your COMPANY.

APPENDIX IV.

Interview with Managers of Non-Certified

Basic organizational information			
Type of company	Public Ownership	Private	Composite /both private and public
Type of product (most usual	Food	Beverage	Both

type) company produced			
Year established			
Major customer	Government	Private	Foreigner

1. Who is your customer? For international or domestic market?
2. What are the activities that your company done to ensure quality?
3. Have you ever implement any kind of system to ensure quality of your organization system? If yes please mention it?
4. Who is the most responsible for quality in the organization?
5. What is the quality awareness level in the organization?
6. What does it looks like the acceptability of your product by the general public or the customer?
7. Have you ever asked by customers or clients weather you have QMS certificate or not?
8. Have you ever asked by anyone to be certified of QMS? By whom? When? How many times?
9. What are things your company forgone (Loose) because of your lack of certification QMS list?
10. How do you see the commitment of the top management to implement this system?
11. Have you ever discussed about this issue (QMS) in the management or do you incorporate it in the Annul plan?
12. How do you see the willingness and initiation by the owners?
13. Is there a push by the management and hesitation by the owners?
14. Does your company have a plan to be certified? When? If not why?
15. Would you mind to tell me about QMS and its benefit?
16. What factors (Internal or External) that led you not to implement QMS?
17. What opportunities are there to implement QMS?

APPENDIX V.

QUESTIONS THAT WAS HELD IN THE FOCUS GROUP DISCUSSION

Certification data that is conducted by ISO (2018) on QMS

Year of certification	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
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Number certified	QMS	Ethiopia	1	-	2	3	3	20	22	37	25	29	68	49	82	86	96	106	120
		Kenya	46	29	158	169	183	204	257	264	12	178	460	590	565	600	615	607	623
		Sudan	10	26	37	32	55	82	77	90	71	79	84	104	109	115	92	101	111

Trend related questions:

1. What are the reasons for the fluctuation (ups and downs) of the trend of QMS certification in Ethiopia as can be seen in the above data?
2. Compared to other African countries particularly east African countries, QMS certification progress seems slow, please suggest your reasons and views on it?
3. Is the renewal system is difficult? Since the number of firms who withdraw from the system vary significantly in various years, and ask why?)
4. Is there any appreciate for the new entrant firms to step up the QMS implementation?

Why firms hesitate to have QMS certificate?

5. What is the **real** benefit (business perspective) of registering ISO? (please prioritize the benefits)
6. So, why not the remaining particularly the remaining agro industries (almost 96% or 720 companies) hesitate enjoying QMS certification? (PLEASE prioritize the reasons)

What are the real Challenges while implementing QMS?

7. Do the challenges vary by sector? by geo-boundary? by years of establishment? What are really particular to agro food industries
8. What are the main external factors that challenges companies who get QMS certificate
 - o lack of National Widen Quality Promotion through education and training
 - o lack of a well-organized Building of National Quality Infra Structure
 - o absence of Enactment of Legislation & Policies
 - o Transfer of Technology, Skills & Management
 - o Low number of consultant and certifying agencies
 - o Others
9. What are the main internal factors that challenges companies who get QMS certificate
 - o Lack of support from the top management.
 - o Skills required for executing the ISO Standards.

- Demands from the clients.
- High cost to implement QMS.
- Lack of understanding in the process requirement.
- Lack of time to implement QMS/Time consuming.
- Lack of QMS exposure among workers.
- Lack of documentation for suppliers, materials and services
- Employee resistance or
- others

What are the alternative solutions to overcome the challenges that firms face while implementing QMS and for enhancing trend of certification:

10. What do you comment regarding the certification process up to renewal as a whole in Ethiopian?
11. What things shall be fulfilled /done to upgrade the QMS implementation to create a matured QMS and to build national image:
 - By firms themselves
 - by the government
 - Certifying agencies
 - Consultancies
12. What do you advice firms for non – registered or dropped outs about this matter? (by capacity?)
13. Additional questions can be raised by the participants (or participant are allowed to raise further questions) that are related to the research to incorporate further information.



Focused Group Discussion at Mahider Foods PLC



Top Management Interview at Halala Food PLC



Production Area Observation and Visit at Terara Coffee



Top Management Interview at Terara Coffee



Observation and Visit at Elfora