

### Sudan University for science & technology College of graduate studies



#### **Deanship of Development and Excellence**

Role of Implementation of (ISO 9001:2008) on Job Satisfaction and Employee Performance in DAL Food Group. (A case Study of Sayga Flour Mills)

دور تطبيق المواصفة (ISO 9001:2008) على الرضا الوظيفي وأداء العاملين بمجموعة دال الغذائية." دراسة حالة: مطاحن سيقا للغلال "

A Thesis Submitted in Fulfilment of the Requirements for the Degree of Master in Quality and Excellence.

Prepared by: Supervised by:

Shuhdy Shazaly Mawolod Shazaly Dr: Abdalmoneim Bashir

February 2020



#### **Dedication**

To my beloved parents, whose love and prayer have sustained me throughout my life, and who gave me great encouragement to be the best I can be, and to have high expectations of myself. Despite the distance, I feel they are always with me, strengthening and guiding me.

To the love of my life, my wife, my sons, and my daughter. Their strength and support helped me struggle through the most difficult and busy of times. Without their patience, this study would not have been completed.

To my noble family, my brothers, sisters, nephews and nieces, who have been a continuous source of motivation and inspiration throughout the study.

#### Acknowledgment

First of all, I would like to thank ALLAH (God), the most gracious and the most merciful, who provided me with the strength and patience to overcome many challenges along the way to achieving my hopes. My sincere thanks and appreciation go to ALLAH for giving me the perseverance and dedication to complete this study.

I cannot express the depth of thanks and gratitude owed to my supervisors, Dr. Abdalmoneim Bashir, for his great efforts in motivation, assistance, professional guidance and commitment to facilitating the challenges throughout my academic journey. He have provided me with the helpful advice and deep insights that I needed to fulfil my ambition. I cannot thank them enough and I feel extremely lucky to have him as supervisor.

I would like to thank the Sayga Flour Mills Case Study for granting access to their Staff to collect the required data. I would also like to thank all the respondents in the company for their generous cooperation.

I wish to express my warm thanks to all staff in the College of graduate studies at the Sudan University for science & technology for their continuous efforts in offering a supportive study environment.

I would like to express my sincere thanks to all my friends and colleagues for the wonderful collaboration we have worked on together, and I wish them all the best.

#### **Abstract**

The study aimed to examine the impacts of ISO 9001:2008 implementation on job satisfaction and employee performance as a part of quality management system for DAL Group with case study of Sayga Flour Mills.

The study adopted descriptive research. The study employed purposive sampling to select population of interested in the study, A sample of 130 respondents chosen, comprised of: General Manager, Head of Department, Engineers, Employees and Workers.

Semi-structured questionnaires has been adopted as tool of data collection under this study, First section: Personal Information (Gender, Age, Academic Qualification, Marital Status, Administrative Level, and Experience). Second section: Impacts of Implementation ISO 9001:2008 Quality Management System on Employee Satisfaction (29 Statements): Reliability of data was checked by applying Cronbach's Alpha = 0.92.

Collected data and responses from questionnaires was coded and screened in the Statistical Package for Social Sciences (SPSS version 24) program for analysis.

The study concluded that ISO 9001:2008 implementation has direct positive impact on quality and system standards, job satisfaction and performance of employee and the majority agreed that implementation of ISO have positive impact on Sayga Flour Mills. In light of findings, the study suggested some recommendations: all requirements of ISO 9001:2008 are generic and are intended to be applicable to all organizations, regardless of type, size and product provided, availability of human and financial support to increase job satisfaction, Several factors driving employee performance, the work environment, availability of support from senior management.

#### مستخلص البحث

هدف البحث إلى دراسة دور تطبيق المواصفة ISO 9001:2008 على الرضا الوظيفي وأداء العاملين كجزء من نظام إدارة الجودة لمجموعة دال مع التطبيق على مطاحن سيقا للغلال.

اعتمد البحث على المنهج الوصفي استخدمت العينة القصدية لاختيار مجتمع البحث، وتم اختيار عينة تكونت من 130 فردا تتألف من: المدير العام، رؤساء الأقسام، المهندسين والموظفين والعاملين.

كما اعتمدت الاستبانة كأداة لجمع البيانات، تكونت الاستبانة من قسمين، القسم الأول البيانات الشخصية، القسم الثاني تناول تأثير تطبيق المواصفة 9001:2008 9001:2008 على الرضا الوظيفي وأداء العاملين، أظهرت أداة البحث درجة عالية من الصدق والثبات وبلغ معامل الفاكرونباخ = 0.92، تم جمع البيانات وترميزها وتحليلها بواسطة برنامج الحزمة الإحصائية للعلوم الاجتماعية ( SPSS).

وخلصت الدراسة إلى أن تطبيق المواصفة ISO 9001:2008 لها تأثير ايجابي مباشر على معايير الجودة والنظام، والرضا الوظيفي، وأداء العاملين، حيث اتفق غالبية المبحوثين على أن تطبيق ISO 9001:2008 له تأثير ايجابي على ماحن سيقا للغلال.

في ضوء النتائج أوصى البحث بالتالي: المواصفة قابلة للتطبيق في كل المنظمات بعض النظر عن نوع وحجم والمنتج الذي تقدمه، توافر الدعم البشري والمالي يزيد من الرضا الوظيفي، هناك عدة عوامل تؤثر أداء الموظف منها بيئة العمل ودعم الإدارة العليا.

#### **Table of content**

Content	Page
Dedication	i
Acknowledgment	ii
Abstract in English	iii
Abstract in Arabic	iv
Table of content	V
List of Tables	vii
List of Figures	viii
Chapter One: Introduction	1
1.1 Background to the Study	1
1.2 Research Objectives	2
1.3 Research problem	2
1.4 Research Significance	3
1.5 Research questions	3
1.6 Research hypothesis	3
Chapter Two: Literature Review	1
2. Introduction	4
2.1 Quality Management System (QMS)	5
2.1.1 The Concept of Quality Management	6
2.1.2 What is Quality Management System?	6
2.2 Principles of ISO9001:2008	8
2. 2.1 Auditing ISO9001:2008	9
2. 2.2 Quality management systems Requirements in ISO9001:2008	9
2. 2.3 Quality management systems ISO9001:2008 in Industry	9
2.3 The Employees	11
2.3.1 Employee Satisfaction	11
2.3.2 Employee Care?	12
2.3.3 Employee performance	13
2.4 Dal group (sayga flour mills)	13
2.5 History Details	14
2.6 Sayga Food Industries	17
2.6.1: Quality Policy	18
2.6.2: Sayga Company commitment	20
2.7 Previous studies	21
Chapter Three: Methodology	
3.1 Introduction	29
3.2 Research Approach	29
3.4 Population of the Study (Target Population)	30
3.5 Sampling Design and Sample size	30
3.5.1 Sampling Design	30

3.5.2 Sample Size	31
3.6 Method of Data Collection	31
3.6.1 Primary Data	31
3.7 Data Collection Tools	32
3.7.1 Questionnaire	33
3.8. Questionnaire Reliability	33
3.8.1 Questionnaire Validity	34
3.9 Data screening	34
3.10 Ethical Issues	34
CHAPTER FOUR: Results and Discussion	
4.1 Introduction	35
4.1.1 Rate of Respondents	35
4.2 Demographic Characteristics of the Respondents	35
4.2.1 Gender	36
4.2.2 Marital Status	36
4.2.3: occupation of Respondents	37
4.2.4: Experience of Respondents	38
4.2.5: Academic Qualifications of Respondents	38
4.2.6: Age groups of Respondents	39
4.3 Data analysis	40
4.4 Discussion	47
HAPTER FIVE: Conclusion and Recommendations	
5.1 Conclusion	50
5.2 Recommendations	50
5.3 Suggestions	51
References	52

#### **List of Tables**

Table	Page
Table 3.8.1: Reliability Statistics for Cronbach's alpha.	34
Table 4.2.1. Frequency of Gender of Respondents.	35
Table 4.2.2. Frequency of Marital Status of Respondents.	36
Table 4.2. 3. Frequency of occupation of Respondents.	37
Table 4.2. 4. Frequency of Experience of Respondents.	38
Table 4.2.5. Frequency of Academic Qualifications of Respondents.	38
Table 4. 2.6. Frequency of Respondents Age groups.	39
Table 4.3.1 Descriptive statistics of the first dimension attitudes toward the	41
Quality and System Standards.	41
Table 4.3.2 Inference statistics of the first dimension.	42
Table 4.3.3. Descriptive statistics of the second dimension Job Satisfaction.	43
Table 4.3.4 Inference statistics of the second dimension.	44
Table 4.3.5. Descriptive statistics of the third dimension Effect of ISO on Employees' Performance.	45
Table 4.3.6 Inference statistics of the third dimension.	46
Table 4.3.7 Correlations between ISO 9001:2008 and questionnaire domains	47
Table 4.3.8. Descriptive statistics of the impact of Applying ISO 9001:2008	47
in Syga Flour Mills.	

#### **List of Figures**

Figure	Page
Figure 4.2.1. Frequency of Respondents Gender	36
Figure 4.2.2. Frequency of Marital Status of Respondents	36
Figure 4. 2.3. Frequency of occupation of Respondents	37
Figure 4.2. 4. Frequency of Experience of Respondents	38
Figure 4.2.5. Frequency of Academic Qualifications of Respondents	39
Figure 4. 2.6. Frequency of Respondents Age groups	39

# **Chapter One Introduction**

### **Chapter One INTRODUCTION**

#### 1.1 Background to the Study.

The meaning of quality can be defined as understanding of customer's requirement, expectations and buying behaviors. Although many researchers have been carried out on quality and its significant level, quality still remains a term that is not easy to be understood and, as a result, many definitions of "quality":

Differences in the quality reflect the differences in the quality of some in gradient or attributes possessed by product. (Abbott, 1955).

Quality is fitness for use. (Juran, 1974).

Conforming to requirements. (Crosby, 1979).

ISO 9000 Quality Management System refer to Fundamentals and Vocabulary ISO (2000), it has defined quality as a degree to which a set of inherent characteristics fulfills requirements. This definition has gathered the above three definitions of quality.

The definition scope is not only covering product but also management system (ISO 9001) certification and performance in manufacturing industries (Yeap Hock Cheng 2004). Quality is an important issue for industrial organization. Therefore, during the last several years' quality management system have been promoted as a tool at improvement for many organizations.

The most well-known quality management system is the International standardization organization ISO 9001:2008 which has widely been adopted by industrial organizations. These organizations depend on their customers and therefore, should understand current and future customer needs, meet customer requirements and strive to exceed customers' expectation. Since the quality management system ISO 9001:2008 begins with customer requirements and ends with customer satisfaction, this research concentrated on measuring the impact of implementation ISO 9001:2008 (quality management systems on employee's satisfaction), internal customers.

#### 1.2 Research Objectives

The research aims to achieve the following:

- 1. To identify the Impact of Implementation ISO9001:2008 on employee satisfaction.
- 2. To measuring the level of the job satisfaction for the employee in Dal group.
- 3. To enhance employee satisfaction.
- 4. To improve organizational performance.

#### 1.3 Research problem :

Key Reasons for Job Dissatisfaction and Poor Employee Many employees feel dissatisfied with their jobs at one point or another. Some employees leave their jobs for better opportunities, while others choose to stay.

Employees with low job satisfaction can negatively affect a company because they typically lack motivation, perform poorly and possess negative attitudes. These symptoms can directly affect a company's bottom line. Managers should understand the reasons employees are unhappy at work. Understanding the causes can help managers find the right solutions.

We want to increase the employee satisfaction because it is found lower in customer satisfaction in sayga and dal group as general. In this research, we are used some ways to treat this problem.

#### 1.4 Research Significance:

This research becomes important due to lack of researches that assess the impact of implementation ISO 9001:2008 (quality management systems) on employee's satisfaction in dal group sayga. The manufacturing field require a high degree of product quality for the customer with low cost.

Therefore, there is an aggressiveness in manufacturing sector forces organization to implement the best practices of quality systems to deliver high quality at low cost. Dal group (Sayga) implemented ISO 9001:2008 quality management systems, their work focuses on identifying the impact of the results on employee satisfaction.

#### 1.5 Research questions:

- 1. Does implementation of ISO 9001:2008 have positive significant impact on Quality and System Standards?
- 2. Does implementation of ISO 9001:2008 have positive significant impact on the job satisfaction among the employees in Sayga Flour Mills?
- 3. Does implementation of ISO 9001:2008 have positive significant impact on employee performance?
- 4. Is there any significant relationship between ISO 9001:2008 Quality and System Standards ,employee satisfaction and employee performance?

5. Does implementation of ISO 9001:2008 have positive significant impact on Sayga Flour Mills?

#### 1.6 Research hypothesis:

- 1. There is an impact of implementation ISO 9001:2008 among Dal group.
- 2. There is a high level of job satisfaction among the employees in dal group.
- 3. There is an impact of implementation ISO 9001:2008 on employee Performance.
- 4. There is relationship between ISO 9001:2008 and employee satisfaction improvement.

# **Chapter Two**Literature Review

#### **Chapter Two**

#### Literature Review

#### 2. Introduction

The term for" ISO" refers to the international organization for standardization. You may be curious about the difference between the names of the organization: international organization for standardization (www.iso.ch/infoe/intro.htm). [10].

ISO is a non-governmental organization established in 1947 in Geneva, Switzerland. Today, ISO has more than one hundred-member countries. The mission of ISO is to promote the development of standardization and related activities in the global marketplace, to simplify the international exchange of goods and services, and to develop cooperation in the spheres of intellectual, scientific, technological and economic activities (The Perfect Manual)

ISO is the International Organization for Standardization. ISO has a membership of some 160\* national standards bodies from countries large and small, industrialized, developing and in transition, in all regions of the world (www.iso.org./iso/news).

ISO's portfolio of over 18600 a standard provides business, government and society with practical tools for all three dimensions of sustainable development: economic, environmental and social (www.iso.org./iso/news).

ISO standards make a positive contribution to the world we live in. They facilitate trade, spread knowledge, disseminate innovative advances in technology, and share good management and conformity assessment practices (www.iso.org./iso/news)

ISO only develops standards for which there is a clear market requirement. The work is carried out by experts in the subject drawn directly from the industrial, technical and business sectors that have identified the need for the standard, and which subsequently put the standard to use. These experts may be joined by others with relevant knowledge, such as representatives of government agencies, testing laboratories, consumer associations and academia, and by international governmental and nongovernmental organizations (www.iso.org./iso/news).

An ISO International Standard represents a global consensus on the state of the art in the subject of that standard (www.iso.org./iso/news).

#### 2.1 Quality Management System (QMS):

(QMS) is a set of policies, processes and procedures required for planning and execution (production/development/service) in the core business area of an organization (i.e., areas that can impact the organization's ability to meet customer requirements). ISO 9001 is an example of a Quality Management System.

Some people generically refer to the group of documents as a QMS, but specifically, it refers to the entire system – the documents just describe it. This demo will show you what a documented ISO 9001 Quality Management System (QMS) looks like and how the documents all flow

A QMS integrates the various internal processes within the organization and intends to provide a process approach for project execution. A process based QMS enables the organizations to identify measure, control and improve the various core business processes that will ultimately lead to improved business performance.

A complete ISO 9001 Quality Management System must address all the requirements of ISO 9001, including the ISO 9001 documentation requirements.

#### 2.1.1 The Concept of Quality Management

together.

A Quality Management System in its basic concept is quite simple. It seeks to:

- 1. Recognize interested party requirements including Licenses to Trade, guidelines, customer requirements, and the chosen management system standard(s).
- 2. Ensure that all requirements have been met.
- 3. Confirm that employees receive applicable training in the quality system requirements.
- 4. Determine processes, their interaction, inputs and outputs.
- 5. Produce records or evidence that system requirements have been met.
- 6. Measure, monitor and report the performance of the QMS.
- 7. Plan changes to the QMS and take actions to address risks and opportunities as a result of changes.

- 8. Perform internal audit to analyze the QMS and correct nonconformities.
- 9. Continually improve the QMS.

Products to help you create a Quality Management System Our Complete ISO 9001 QMS includes the ISO 9001 Quality Manual, Procedures & Forms Our step-by-step guide explains how to implement a QMS ISO 9001 Requirements Training helps you to understand the ISO 9001 requirements.

#### 2.1.2 What is Quality Management System?

There are many definitions for general quality management systems. Most of them emphasize the use of some type of system that is repeatable, measurable and constantly improving.

In an ISO 9001 (or other ISO standards) quality system, this structured way of delivering a better service or product is supported by documented information such as procedures, work instructions, policies and forms. The key is to provide all those who must execute the quality system with documented, understandable and workable instructions, which define both expectations, responsibilities and actions to achieve the stated quality goals.

Most of the systems include some type of external and internal auditing process that ensures that the system complies with requirements.

At its core, a quality management system is an integrative element, uniting diverse aspects of a company into a unified purpose of delivering products/services in their best form. Rather than be seen as a cost burden, an effective quality management system is viewed as a key component of success.

Quality management systems focus on:

- 1. Being centered on the customer or consumer of the good or service, actively providing that customer with the best value possible.
- 2. Some type of continuous improvement program, which implies that there is not a "perfect" state, all processes can be continually improved upon.
- 3. An efficiency imperative that says waste must be reduced and all resources maximized.
- 4. Top management is to support and provide adequate resources to achieve goals.
- 5. It aids or facilitates a clear understanding of expectations between all participants.
- 6. Measurement and accurate data collection are incorporated to support data-driven decision making.
- 7. Documentation of QMS processes is maintained and controlled.

#### **2.2 Principles of ISO9001:2008**

ISO 9001 is a model for QMS based on eight quality management principles which are :( www.iso.org/iso/qmp\_2012).

- **1. Customer focus:** Organizations depend on their customers and therefore should understand current and future customer needs, should meet customer requirements and strive to exceed customer expectations.
- **2. Leadership:** Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.
- **3. Involvement 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.

- **4. Process approach:** A desired result is achieved more efficiently when activities and related resources are managed as a process.
- **5. System approach to management:** Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.
- **6. Continual improvement:** Continual improvement of the organization's overall performance should be a permanent objective of the organization.
- **7. Factual approach to decision making:** Effective decisions are based on the analysis of data and information's
- **8. Mutually beneficial supplier relationships:** An organization and its suppliers are interdependent, and a mutually beneficial relationship enhances the ability of both to create value.

#### 2. 2.1 Auditing ISO9001:2008

ISO9001:2008 has five auditable requirements which are: (Poksinska, Marc (2002)).

- 1. Quality Management System. (Clause 4)
- 2. Management Responsibility. (Clause 5).
- 3. Recourse Management. (Clause 6).
- 4. Product Realization Process. (Clause 7).
- 5. Measurement, Analysis and Improvement. (Clause 8).

## **2. 2.2 Quality management systems Requirements in ISO9001:2008** ISO9001:2008 Quality management systems Requirements: (Poksinska, Marc, 2002).

- 1. Scope.
- 2. Normative Reference.
- 3. Terms and definitions (specific to ISO 9001, not specified in ISO 9000).
- 4. Quality Management System.

- 5. Management Responsibility.
- 6. Resource Management.
- 7. Product Realization.
- 8. Measurement, analysis and improvement.

#### 2.2.3 Quality management system ISO9001:2008 in industry:

In the manufacturing industry it is commonly stated that "Quality drives productivity." Improved productivity is a source of greater revenues, employment opportunities and technological advances. However, this has not been the case historically, and in the early 19th century, it was recognized that some markets, such as those in Asia, preferred cheaper products to those of quality most discussions of quality refer to a finished part, wherever it is in the process. Inspection, which is what, quality insurance usually means, is historical, since the work is done. The best way to think about quality is in process control. If the process is under control, inspection is not necessary.

However, there is one characteristic of modern quality that is universal. In the past, when we tried to improve quality, typically defined as producing fewer defective parts, we did so at the expense of increased cost, increased task time, longer cycle time, etc. We could not get fewer defective parts and lower cost and shorter cycle times, and so on. However, when modern quality techniques are applied correctly to business, engineering, manufacturing or assembly processes, all aspects of quality - customer satisfaction and fewer defects/errors and cycle time and task time/productivity and total cost, etc. - must all improve or, if one of these aspects does not improve, it must at least stay stable and not decline. So modern quality has the characteristic that it creates AND-based benefits, not OR-based benefits (Chow-Chua, Tan Boon ,2003).

Quality, especially in manufacturing and diverse industries, is regulated, tested, and certified. Diverse methods, models and standards are provided to test the quality. For instance, the Fitness for Use (FFU), concept introduced to help test the quality of various types of electrical and electronic equipment, including household appliances and video/audio equipment, All types of equipment are manufactured in accordance to relevant standards, including performance testing requirements. FFU testing means testing products to ensure their 'fitness for purpose'; that is, to certify their quality as well as durability (Crosby. Philip, 1979). [3].

#### 2.3 The Employees:

Employees may not be interested in the products and services but are interested in the conditions in which they are required to work, Employees are stakeholders because they can withdraw their labor.

The internal customer we tend to think of products and services being supplied to customers and in the wake of TQM, we also think of internal and external customers but in reality, there is no such thing as an internal customer.

A customer is a stakeholder; they have entered into acommitment in return for some benefits that possession of a product or experience of a service may bring. The internal receivers of products are not stakeholders therefore they are not customers.

ISO 9000:2000 defines the customer as an organization or person that receives a product, It is implied that the organization and person referred to is external to the organization supplying the product because to interpret the term customer as either internal or external would make nonsense of requirements in ISO 9001 where the term customer is used.( Juran, J. M., 1995).

#### 2.3.1 Employee Satisfaction:

Employee satisfaction is essential to the success of any business. A high rate of employee contentedness is directly related to a lower turnover rate. Thus, keeping employees' satisfied with their careers should be a major priority for every employer. While this is a well known fact in management practices, economic downturns like the current one seem to cause employers to ignore it.

There are numerous reasons why employees can become discouraged with their jobs and resign, including high stress, lack of communication within the company, lack of recognition, or limited opportunity for growth. Management should actively seek to improve these factors if they hope to lower their turnover rate. Even in an economic downturn, turnover is an expense best avoided. (Timpe, A. D, 1986).

#### 2.3.2 Employee Care?

It is important that employers care about the happiness of their employees. Recent statistics show that throughout their careers, American workers hold an average of eight jobs (Rudman, 2003). The rate of turnover because employees are unhappy is alarming.

Even is an economic downturn, employers must spend an enormous amount of money recruiting new employees, going through the hiring process, and finally training new employees. Dissatisfaction has many negative side effects for the company, while satisfaction results in a much better retention rate.

The effects of dissatisfaction that results in an employee's withdrawal from job and company can range from mild to severe. Tardiness, in showing up for work and coming back from breaks, shows a lack of interest by the employee for his or her responsibilities. This may escalate to the employee not showing up to work entirely.

Some less obvious signs of withdrawal from the job including: taking care of personal matters while at work, playing games, engaging in non-work related talk, spending time on social networks, and diminishing job performance.

These withdrawal behaviors, when evidence of dissatisfaction, may end with an employee leaving the workplace; "the heuristic model posits that thinking of quitting is the most".

#### 2.3.3 Employee performance:

Employee Performance Management is a process for establishing a shared workforce understanding about what is to be achieved at an organization level. It is about aligning the organizational objectives with the employees' agreed measures, skills, competency requirements, development plans and the delivery of results. The emphasis is on improvement, learning and development in order to achieve the overall business strategy and to create a high performance workforce. (A handbook for Measuring Employee Performance.)

#### 2.4 DAL Group.

The history of the Group is rich in success stories from each of its businesses. Today the Group offers a range of products and services to businesses and consumers the length and breadth of the country.

#### **History Timeline**: http://www.dalgroup.com/history/

1951: Sayer & Colley was founded by two British businessmen. The company specializes in trading engineering products, such as bearings and belts, and is later awarded the Caterpillar dealership for Sudan.

1966: Caterpillar transferred the dealership to Mr. Daoud Abdellatif and his newly created Sudanese tractors Company (SUTRAC).

1970 – 1979: SUTRAC and Sayer & Colley are both nationalized. Then returned to full private ownership. Mr. Osama Daoud Abdellatif also

changes the name of the company from Sayer & Colley to DAL Engineering (after the initials of his father).

1989 – 1980: DAL Agriculture, which provides agricultural contracting services, is established. Then, as the group starts to grow, DAL Property Development is established to provide architectural design, construction and facilities maintenance services.

1990 – 1995: DAL Motors is founded as a natural extension of the company's engineering activities and is awarded the exclusive Mitsubishi dealership for Sudan.

2000 – 2005: The individual companies are consolidated under the 'DAL Group'. Also, The group is awarded the contract to become the sole bottler and distributor for the Coca-Cola Company brands (Coca Cola, Sprite, Fanta) in Sudan, and DAL Food industries (DFI) is established.

2006 – 2010: DAL Dairy imports 1,000 Holstein/Friesian dairy cows from Australia. Also,DAL Motors is awarded the Mercedes-Benz franchise and KIA franchise.

#### **2.5 History Details:** http://www.dalgroup.com/history/

- 1951 Sayer & Colley was founded by two British businessmen. The company specialises in trading engineering products, such as bearings and belts, and is later awarded the Caterpillar dealership for Sudan.
- 1966 Ten years after Sudan's independence, Caterpillar decides to transfer the dealership to a Sudanese company, the original British owners retained a minority share. The contract is awarded to Mr. Daoud Abdellatif and his newly created Sudanese tractors Company (SUTRAC). 1970 1971 SUTRAC and Sayer & Colley are both nationalized. Within a year, the companies have been denationalized with the government
- a year, the companies have been denationalized with the government retaining a minority share (the British partners are bought out).
- -1975 Mr. Daoud Abdellatif's eldest son, Mr. Osama Daoud Abdellatif, joins SUTRAC.

- 1978 1979 Mr. Osama Daoud Abdellatif becomes SUTRACs Sales Manager. The two companies are returned to full private ownership and the minority government share is bought out. Mr. Osama Daoud Abdellatif also changes the name of the company from Sayer & Colley to DAL Engineering (after the initials of his father.(
- 1984 DAL Agriculture, which provides agricultural contracting services, is established and built on SUTRAC's ties with the agricultural sector.

The majority of the work is in the fertile Al-Jezeera State (south of Khartoum) where DAL Agriculture in responsible for ploughing more than a million acres of farmland. The company also starts to buy land and grow sorghum.

- 1988 As the group starts to grow, DAL Property Development is established to provide architectural design, construction and facilities maintenance services.
- -1994 DAL Motors is founded as a natural extension of the company's engineering activities and is awarded the exclusive Mitsubishi dealership for Sudan.
- 1995 1996 During the early 1990's, DAL Agriculture is often paid in whet rather than cash. Spotting an opportunity, the Daoud Abdellatif family starts to trade flour.

Sayga Flour Mills is established as Sudan's first large scale, high quality flour mills, with flour sold to bakers across Sudan. Today Sayga is one of the largest milling operations in the region with a capacity for milling more than one million tonnes of grains per annum.

1997 – 1998 The dairy processing company, Blue Nile Dairy (today DAL Dairy) in launched, the venture starts out as a place for the family to relax after long days in the office. DAL Medical is established, with just one product to its name. Today the portfolio comprises hundreds of products

from leading multinational pharmaceuticals brands. Sudanese Liquid Air (SLA) -the producer and distributor of medical and industrial gases- joins the group. The company was established in 1949 as a branch of the French company, Air Liquide, and was taken unto Sudanese ownership in 1964.

- 2000 Blue Nile Dairy becomes the first company in Sudan to be awarded ISO status. Sayga's Bakery Development School is launched. It trains bakers, and later housewives, in modern baking techniques.
- 2002 The group is awarded the contract to become the sole bottler and distributor for the Coca-Cola Company brands (Coca Cola, Sprite, Fanta) in Sudan, and DAL Food industries (DFI) is established. The bottling plant is held up as a regional benchmark in terms of quality and standards.
- 2003 The individual companies are consolidated under the 'DAL Group'.
- 2004 Khartoum International Community School (KICS) is established to provide a first class, international education to the local and international communities in Khartoum. DAL Property establishes a property joint venture, Al Mogran, a large scale business and residential development in the heart of Khartoum, on the banks of the White Nile.
- 2005 Sayga unveils its pasta plant and launches its Nobo pasta brand as part of its diversification strategy.
- 2006 DAL Motors is awarded the Mercedes-Benz franchise, SUTRAC launches its Caterpillar Retail Store and becomes the first one-stop-shop solution provider for contractors in Sudan. DAL Engineering becomes the distributor for specialist brands Manitou, Valtra, Sampo and Grove.
- 2008 A new company called SUTRAC. South is founded to cover the
   South of Sudan. DAL Engineering becomes the distributor for specialist

brands Sonalika, Pottinger, Jacto and Tatu. Sayga is selected as the distributor for Kraft and Unilever.

- 2009 DAL Motors is awarded the KIA franchise. The Fenti golf course is launched: the first phase of a joint venture to create a top end property real estate development in Soba (southeast Khartoum). DAL Agriculture starts the commercial production of alfalfa for export to the Gulf.

2010 – DAL Dairy imports 1,000 Holstein/Friesian dairy cows from Australia. DAL Dairy moves into its new dairy processing facility, which has been designed in conjunction with Tetra Pak.

SUTRAC becomes one of the first three dealers worldwide to have a full term of Caterpillar certified training instructors. DAL Medical is selected as the distributor for GlaxoSmithKline.

#### 2.6 SAYGA FOOD INDUSTRIES. https://africa2trust.com/Member/

Sayga is Sudan's premier food company and one of the country's most dynamic and successful organizations. Sayga is well-positioned to be Sudan's first regional food company and partner of choice.

In 1996, Sayga Flour Mills began producing Sayga's flagship product, high-quality bakery flour, supplying the dietary needs of the majority of the Sudanese population. This wheat-based flour is produced by highly sophisticated Swiss machinery with fully-automated production lines for flour, semolina and bran to meet the various requirements of both the retail and industrial food sectors.

With an equally powerful supply chain, Sayga boasts its own bulk-grain terminal and storage silos at Port Sudan, enabling the supply of our mills with approximately 1,500,000 MTs of grains, annually. Deliveries are handled through both road and rail transportation, including Sayga>s own fleet of railway locomotives, shunters and wagons. With a geographic presence in 90% of Sudan, growth will also be fueled by providing

supply services to third parties within Sudan and beyond. One such venture is through a newly established shipping agency.

Sayga's successful foray into a diversified food company positions us as a market leader in both local home-grown and multinational brands. Sayga packages powdered milk under the 'Foremost' and 'Capo' brands and household sugar under the 'Safi' brand, and produces a successful range of 'Nobo' and 'Milli' pastas. New developments include the introduction of 'Zadna' sorghum flour as part of a traditional foods product range. In 2008, Sayga became the partner of choice for global food companies Kraft and Unilever, strengthening Sayga's leadership position in the local and regional food markets.

#### 2.6.1: Quality Policy: https://africa2trust.com/Member/

A pioneer in setting standards in the food industry, Sayga is the first Sudanese company to be awarded HACCP accreditation, an internationally recognized food safety system, in addition to Lloyd's Register of Quality Assurance (ISO9001:2000) in July 2001.

Sudan's first Bakery Development Center and Mobile Bakery School demonstrate our leadership in corporate social responsibility. Recent responsible investment includes the 'Green Bakery Project' to promote the use of environmentally-friendly gas burners, and our leadership in the elimination of potassium bromate throughout bakeries in Sudan.

Sayga's success is due to maintaining exceptionally high standards across all our products and services, ensuring that Sayga continues to lead and Sayga leading the way. https://africa2trust.com/Member/

#### **Mission:**

Sayga's mission is to be the largest and most profitable miller in Sudan whilst manufacturing, packing and distributing a range of basic foodstuffs to international standards. We shall endeavour to provide product

consistency, assured quality, efficient service and value-for-money to all customers throughout Sudan and beyond.

#### Goal:

- To provide a comprehensive range of top-quality products at affordable prices that consistently meet our customers' changing needs and exceed their expectations.
- -To accomplish this we will conduct regular consumer research, implement product development programs to further enhance quality and value, and ensure that our manufacturing standards are continuously reviewed and maintained at the current highest levels.

By achieving this we will ensure Sayga's continued success, its long-term growth and the maintenance and enhancement of its image as a producer of high quality products which are readily available at competitive prices. Sayga continuously improves the level of its staff technically, financially and socially. The entire organization is aware of the Company Quality and Safety values, which are communicated through regular training sessions.

#### **Basic Believes and Values:**

- 1. We provide a range of quality food products for people in Sudan and in neighboring countries.
- 2. We pay particular attention to ensuring our products meet the needs of local markets and support people's traditional preferences.
- 3. We create a new era in Sudanese enterprise by exemplifying international business standards.
- 4. We provide the best through adopting state of the art manufacturing technology.
- 5. We ensure the timely delivery of products to our customers wherever they are without waste.

- 6. We contribute to the economy and make a difference as a company and individuals to the daily life of our community by being good corporate citizens.
- 7. We highly value our employees and recognize that our success depends on their active engagement, loyalty and commitment.

#### 2.6.2: Sayga Company commitment:

At Sayga Investment Company we are wholly committed to satisfying the needs and expectations of our customers by working within the principles of a Quality System.

We will endeavour to ensure this commitment is long - term by achieving the following objectives-:

- 1. Implementing the principles of ISO 9001:2000 and continually improving its effectiveness.
- 2. roviding high quality products consistent with those standards.
- 3. Improving the level of our staff technically, financially and socially, and minimizing losses in both products and production time.
- 4. Customer Relationship Management is essential to us and therefore product support and customer training are top priorities.
- 5. Sayga Flour Mills is also committed to developing products to suit the requirements of its customers. We believe this is essential to maintaining our position as market leader.
- 6. Finally, we believe in the highest ethical values which we strive to adopt in all our business dealings, thus building long-term, mutually beneficial relationships with our customers.

#### 2.7: Previous studies:

Theories regarding Quality Management System implementation have been described in detail. On other side there are numbers of researchers who have attempted to explain the impacts of QMS implementation on employee Satisfaction and performance which form the review of empirical studies in this section and has a particular focus on those that have been conducted from Sudan, Africa and worldwide in general and it is presented as follows:

**Study No.1:** Entitled "The effects of quality management practices on customer satisfaction and innovation: a perspective from Jordan" By Abbas Al-Refaie (2011)

Article: in International Journal of Productivity and Quality Management · October 2011.

This research examines the structural relationships between nine quality management practices and investigates the impact of these practices on customer satisfaction (CS) and innovation for 130 ISO 9001 certified firms in Jordan. The main results include: (1) CS is directly and positively related to customer focus, continuous improvement and human resource (HR) management, while innovation is directly and positively affected by leadership and HR management; (2) leadership has an indirect positive impact on CS, while it positively affects CS; (3) process management (PM) is positively related to supplier management (SM), quality tools and techniques (QTTs) and HR management, while it has an indirect and positive effect on CS; HR management is positively related to leadership and it has a direct positive impact on CS, innovation, PM and QTTs and (5) finally, SM has a direct positive effect on PM. In conclusion, the awareness of Jordanian firms of these relationships may guide them to improve their internal performance as well as strengthen their external competition.

**Study No.2:** Entitled "The total quality management and its impact on human resource development at the Dal Group Sayga - Capo 2010-2014" By Hassan, Mubarak Dawoud Suleiman (2015).

URI: http://repository.sustech.edu/handle/ Ph.d thesis.

This study aimed to address the impact of the application of TQM approach on human resource development in productive organizations, through a field study of the Dal Industrial Group (Sayga -Capo). Using the descriptive analytical method.

The research community was formulated based on previous studies. The nature of the study was based on the random sample. The questionnaire was used as a main tool for data collection. Where the research sample was chosen from all employees of Dal Industrial Group of Companies (Sayga -Capo). The SPSS statistical program was used to analyze data through a set of statistical methods such as iterations, percentages, averages, deviations, (F) test, simple regression analysis, and multiple and regression analysis.

A number of (100) questionnaires were distributed to workers at different administrative levels, and (86) questionnaires that were valid for analysis were retrieved, as they were analyzed to test the validity of the main hypothesis and the sub-hypotheses and verify their validity. The results of the study showed:

- 1. That the application of the dimensions of total quality management has a statistically significant relationship with the development of human resources in productive organizations.
- 2. The existence of differences in the opinions of the sample members with regard to developing indicators measuring the capabilities of organizations is attributed to demographic variables (age, educational qualification, job title, work experience, number of training times).

#### **Study Recommendations:**

1. The necessity of applying the comprehensive quality management approach in productive organizations to ensure training and development of human resources.

2. The need for Sudanese productive organizations to adopt the implementation of the philosophy of the comprehensive quality management approach with its dimensions

**Study No.3:** Entitled "Impact of Implementation ISO 9001:2008 Quality Management Systems on Employee Satisfaction (Case study: National Industry Company- Omdurman-Sudan)" By Ismail, Saria Widdat Alla (2016.

URI: http://repository.sustech.edu/handle/ Master thesis.

The purpose of this study was to investigate the impact of implementation of ISO 9001:2008 quality management systems on employee's satisfaction in National Industries Company Omdurman /Sudan, where researcher used a descriptive approach to its appropriateness for the purposes of the study.

This study was conducted on a sample of (70) employees of National industries company employees. Questionnaire designed as a tool to collect data.(SPSS) software program for statistical treatments appropriate to put the study for it according to the following changes: (gender, educational level, age, job).

Results from the analysis of employee's feedback showed positive trends about 64.8% from the impact of National industries company employees. The study found that National Industries Company is committed to adopting and applying the principle of ISO9001:2008, which is reflected in the employees' feedback results towards the company, which explained that the adoption of ISO ISO9001:2008 standard has appositive impact satisfaction in the national industries company

**Study No.4:** Entitled "The role of applying the concept of total quality management in the food industries to customer satisfaction" By Elhassan, Taghreed Ahmed Mohamed (2017).

URI: http://repository.sustech.edu/handle/ Master thesis.

The study examined the role of applying the concept of total quality management in the food industries to customer satisfaction from the workers' point of view. The importance of scientific study lies in the role played by total quality management in improving the performance of the institution represented in customer satisfaction, and thus achieving a distinct level compared to competitors working in the same sector. As for the practical importance of the study, it is considered a step to conduct more studies that show the importance of total quality in industries Food at customer satisfaction. The study aimed to know the role of applying the concept of total quality management to customer satisfaction, and the study relied on social exchange theory and previous studies.

Through which the study's hypotheses were formulated: There is a relationship between the concept of total quality and customer satisfaction, the study community was the employees of the DAL Group for Food Industries, Saeed Factory for Foodstuffs, Muawiyah Al-Barir Group for Food. questionnaires distributed to participants, and 120 questionnaires were returned , i.e. 88% of the total distributed questionnaires. Descriptive statistics methods (frequencies, percentages, deviations and averages) and analytical methods (factor analysis, path analysis by AMOS program) were used for data analysis and hypothesis testing.

The study has reached several results, including: a positive relationship between continuous improvement and development and customer satisfaction, and a positive relationship between administrative systems and employee satisfaction. Ensures all improvement and development projects to be implemented, and work to provide rewards and incentives to employees and workers in order to encourage them to provide their best assets and achieve the goals required of them.

**Study No.5:** Entitled "Quality Management System, Employee Satisfaction and Employee Performance IN Private Higher Education Institution: A Proposed Frame Work" By Norreha Othman et. al. (2017). Norreha Othman et. al., / International Journal of Management Research & Review IJMRR/June 2017/ Volume 7/Issue 6/Article No-7/681-686, ISSN: 2249-7196

Effectiveness and importance of quality management system are hardly seen in private higher education institution in Malaysia, even-though many articles have mentioned the effectiveness of quality management system in public higher education institutions. The roles of academic staff in education services are undeniable. Their good performance will lead to higher education institutions' performance as well as a country as a whole.

Their performance will be affected by many factors such as motivational factors, government and organization's policies, organizational factors and work-life balance. After reviewing numerous literatures, this study proposed a new framework on quality management system, employee satisfaction and employee performance of academic staff in private higher education institutions.

**Study No.6:** Entitled "The Impacts of ISO9001:2008 Implementation on Employees Job Satisfaction" By Elias Bekele and Shimelese Zewedie. (2017)

Global Journal of Management and Business Research: Administration and Management, Volume 17 Issue 3 Version 1.0 Year 2017.

The main objective of this study is to examine the impacts of implementing ISO9001:2008 practice towards employee's job satisfaction in Dire tannery located in Addis Abeba Kolfe Keranyo sub city. The paper proposed main hypothesis and 4 sub-hypotheses and tests on the relationship between ISO9001:2008 practices and job satisfaction.

The data for this study were collected using self-administered questioners from a total of 167 respondents in representative from seven departments of the tannery. Stratified sampling technique was used to draw samples out of the population. Out of this 167 questionnaires distributed 136 was collected back. The data was analyzed using descriptive statistics, correlation analysis and regressions.

The result revealed that, customer focus; training and education, empowerment and team work and continues improvement are all positively associated with employee's job satisfaction. It is also found that "empowerment and teamwork" and "continuous improvement" explains 46.5 percent of job satisfaction variance which is significant.

**Study No.7:** Entitled "The Impacts of ISO 9001 Quality Management System Implementation on Employees' Performance OF Pension Funds in Tanzania: A Case of National Social Security Fund (NSSF)" By Fatma Mohammad Nassor. (2015).

A Dissertation Submitted For the Degree of Master in Project Management (MPM) of the Open University of Tanzania.

The study aimed at examining the impacts of ISO 9001 quality management system implementation on employee performance of pension funds in Tanzania, for the case of National Social security Fund (NSSF). The study was necessitated by the lack of sample literature linking of ISO 9001 to employees' performance. The explanatory research designs with the case study strategy were adopted in the study.

The study focused on NSSF –Temeke Regional Office being the largest region of NSSF in Tanzania in terms of revenue collection and it is the first region to be ISO certified where by effective assessment of the impacts was explored. The study involved a total of fifty seven targeted respondents who supplied with structured self administered questionnaires.

Purposive and simple random sampling methodologies were applied to select respondents. The findings of the study revealed that management commitment has a positive impact on the employees' performance in the pension fund at NSSF.

On the other hand internal communication, workplace physical environment and capacity enhancement found to have a positive impact on employees' performance. These findings are in line with the existing literature of quality management system implementation. The study recommends the adoption of QMS practices in all pension funds in Tanzania and all districts of NSSF.

Also the Management of pension funds should be committed to ensure the availability of mechanism of internal communication which will result to the employees' performance.

Finally regular capacity building program like on job training should be adopted as well as allocation of resources towards establishment of conductive environment which will ensure higher productivity of the employees to the pension funds in Tanzania.

# CHAPTER THREE METHODOLOGY

#### **CHAPTER THREE**

#### **METHODOLOGY**

#### 3.1 Introduction:

This chapter describes the research Approach, the target population, sample and sampling procedures, reliability and validity of the research instruments as well as the techniques used in data analysis.

#### 3.2 Research Approach:

The most important problem after defining the research problem is preparing the design of the project. A research design helps to decide upon issues like what, when, where, how much, by what means etc, with regard to research study. In general, the research Approach is the conceptual structures within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data, Selttiz et al (1962).

The study adopted descriptive research. Saunders et al (2003), Studies that establish causal relationships between variables may be termed explanatory studies, the emphasis here is on studying a situation or a problem in order to explain the relationships between variables.

The study attempt to collect data from members of a population in order to determine the status of that population with respect to one or more variables. The ultimate goal is to learn about a large population by surveying a sample of that population that was used to explain what is in existence in respect to conditions or variables that are found in a given situation without influencing the variables, the study was to establish the correlation and causal relationship between quality management system implementation and employees performance of an organization, Also the study adopted case study strategy.

Robson (2002) defines case study as 'a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence' and in which multiple source are used.

#### 3.3 Case of the Study:

The study was conducted in Sayga Food Industries, which is located in Khartoum North. This company selected because it is a premier food company and one of the country's most dynamic and successful organizations. In addition, it was the first company in Sudan to be awarded ISO status and therefore researcher believed that the case study would give a wide and varied view of the problem under study.

#### **3.4 Population of the Study (Target Population):**

The population of interested in the study comprised of General Manager, Head of Department, Engineers, Employees and Workers.

#### 3.5 Sampling Design and Sample size:

A sample is a part of the target population that has been procedurally selected to represent it. Sampling is the process of systematically selecting representative elements of a population.

#### 3.5.1 Sampling Design:

Purposive sampling is popular in qualitative research proposed among other cases, purposive sampling can be appropriate where there's maximum variation in responses and it serves to identify important common patterns that cut across variations.

Therefore, the sampling procedure was chosen since the study had more knowledgeable and readily available respondents. Simple random sampling was used to avoid biasness and every individual to have an equal chance to participate in the study. It also ensured that the cost per observation was greatly reduced.

The study employed purposive sampling to select the General Manager, Head of Department and simple random sampling was used to select the Engineers, Employees and Workers. In purposive sampling, Subjects are selected because of some characteristic.

#### 3.5.2 Sample Size:

A sample size of the study was 130 respondents chosen for in Sayga Food Industries. The sample size of the study was calculated using the formula below as recommended by Saunders (2004):

$$Z^2 * (p) * (1-p)/c^2$$

Where:

Z = Z value (1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal (p= 50%)

c = confidence interval (margin error) expressed as decimal (c=13%)

 $n=(1.96)^2*(0.5)*(1-0.5)/(0.13)^2=56.58$  approximately 57 persons for accuracy researcher distributed 130 questionnaires.

#### 3.6 Method of Data Collection:

#### 3.6.1 Primary Data:

The study adopted primary data as a source of collecting information regarding the impacts of ISO 9001 quality management system implementation on employee satisfaction and performance.

Through primary data the researcher was able to probe more information from the respondents.

#### **3.7 Data Collection Tools:**

This refers to the tools to be used for collecting data and how this tool has been developed, the data collection instruments tool that were used to collect data from the selected respondents were questionnaires. Selection of this tool was guided by the nature of data to be collected, time available and objectives of the study.

#### 3.7.1 Questionnaire:

The semi-structured questionnaires has been adopted as tool of data collection under this study of assessing the impacts of ISO 9001:2008 quality management system implementation on employee satisfaction.

Questionnaire in a general term include all techniques of data collection in which each person is asked to respond to the same set of questions in a pre-determined order DeVaus (2002).

The self-administered questionnaires completed by the respondents delivered by hand to each respondent and collected later (delivery and collection questionnaires). An adequate time was given for the respondent to answer questions, and the respondent used semi-structured questionnaires to avoid misunderstanding or wrong interpretation.

Robson (2002), questionnaire work best with standardized questions that you can be confident will be interpreted the same way by all respondents. It is noteworthy that a 5-point Likert scale was used to measure the attitudes of respondents toward particular statements. The participants marked their agreement with five categories; the higher the category chosen, the greater the strength of agreement (1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither (N), 4 = Agree (A) and 5 = Strongly Agree (SA). The participants drew a tick symbol ( $\forall$ ) on their choices, this allowed the researcher to draw conclusions based on comparisons made from the responses. The researcher opted to use questionnaires to collect a lot of information over a very short period, In order to answer these questions, the questionnaire given to the participants of this study consisted four main sections:

First section: Personal Information (Gender, Age, Academic Qualification, Marital Status, Administrative Level, Experience).

Second section: Impacts of Implementation ISO 9001:2008 Quality Management System on Employee Satisfaction (29 Statements):

First Dimension: Quality and System Standards (12 Statements).

Second Dimension: Job Satisfaction (10 Statements)

Third Dimension: Impacts of Implementation ISO 9001:2008 Quality Management System (7 Statements).

#### 3.8 Questionnaire Reliability and Validity:

#### 3.8.1 Reliability of questionnaire:

According to Saunders et al (2003), Reliability refers to the extent to which data collection techniques or analysis procedures will yield consistent findings.

Reliability of data was checked by applying Cronbach's Alpha formula, which measures internal consistency or average correlation of items in a survey instrument to gauge its reliability.

Reliability coefficient = 
$$\frac{n}{N-1}$$
 \*  $\frac{1 - \text{Total variations questions}}{\text{variation total grades}}$ 

#### 3.8.2 Validity of questionnaire:

According to Saunders et al (2003), Validity is concerned with whether the findings are really about what they appear to be about. It is the accuracy and meaningfulness of inferences, which are based on the research results. Validity coefficient computed by take the square root of the reliability coefficient.

Validity coefficient = 
$$\sqrt{\frac{n}{N-1}} * \frac{1 - \text{Total variations questions}}{\text{variation total grades}}$$

Table 3.8.1 shows that Cronbach's Alpha coefficients for dimensions ranged between (0.83-0.92) and whole questionnaire Alpha coefficient is (0.92) which exceeds the acceptance cut point (0.75). While Validity coefficients for dimensions ranged between (0.91-0.96) and whole questionnaire Validity coefficient is (0.96). Cronbach's Alpha coefficients obtained indicate a high level of internal consistency of the scale, so the instrument valid to apply and conduct field study.

Table 3.8.1: questionnaire Reliability and Validity Statistics

Dimension	Reliability coefficient Cronbach's Alpha	Validity coefficient  √ Reliability coefficient	N of Items
Quality and System Standards	0.84	0.92	12
Job Satisfaction	0.83	0.91	10
The impacts of Applying ISO on Employees' Performance	0.92	0.96	7
Whole Questionnaire	0.92	0.96	29

Source: research data.

#### 3.9 Data screening:

Data was screened to ensure that responses are legible and understandable and that responses are within an acceptable range and are complete. Collected data and responses from questionnaires was coded and entered into the Statistical Package for Social Sciences (SPSS) program for analysis.

#### **3.10 Ethical Issues**:

To ensure that the study complied with the ethical issues pertaining research undertaking, a permission to conduct the research was sought from Sayga Flour Mills. A full disclosure of all the activities concerning the study were explained to the authorities and this involved the study intention, which was only for learning purposes.

A high level of confidentiality and privacy was observed and the findings of the study will only submitted to Sudan University for science & technology and Sayga Flour Mills.

# CHAPTER FOUR RESULTS AND DISCUSSION

#### **CHAPTER FOUR**

#### RESULTS AND DISCUSSION

#### 4.1 Introduction:

This section presents a brief description of the demographic characteristics of the sampled respondents involved in this study. Such a description is considered to be very important in providing a better understanding of the respondents included in the study and therefore provide a good foundation for a detailed discussion of the results based on the stipulated objectives of the study. The demographic characteristics included rate of responses, Gender, Age, Academic Qualifications, Marital Status, Administrative Level and Experience of respondents, the objective of this chapter is to present results and discussion on the findings.

The chapter has been structured as follows; 4.1 Rate of Respondents, 4.2 present demographic characteristics of respondents 4.3 data analysis 4.4 provides discussion.

#### **4.1.1 Rate of Respondents:**

The rate of responses from the questionnaire as per sample size, the total of 130 (100 %) respondents were able to respond on the questionnaires delivered to them at Sayga Flour Mills, this implies that the findings of the study covered the maximum proportional of the respondents. Therefore, findings are valid and describe the reality of research problem.

#### 4.2 Demographic Characteristics of the Respondents:

This first section of the questionnaire asked for personal information to identify the characteristics and distribution of participants based on their Gender, Age, Academic Qualifications, Marital Status, Administrative Level and Experience.

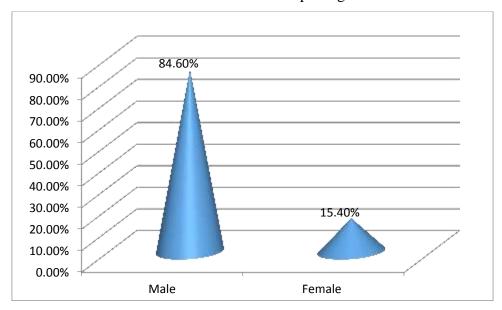
#### **4.2.1 Gender:**

The total number of questionnaire respondents was n=130. The distribution of participants, based on their gender are n=110 (84.6%) male and n=20 (15.4%) female as shown in the table 4.2.1

Table 4.2.1. Frequency of Gender of Respondents

Gender	Frequencies	Percentage
Male	110	84.6%
Female	20	15.4%
Total	130	100.0%

Source: IBM SPSS 24 package



Source: excel 2016

Figure 4.2.1. Frequency of Respondents Gender

#### **4.2.2 Marital Status:**

Regarding Marital Status data indicates, n=93 (71.5%) participants fall into the category of Single, followed by n=24 (18.5%) participants were Married, the rest of participants is distributed between the category of Divorced n=9 (6.9%) and Widowed n=4 (3.1%).

**Table 4.2.2. Frequency of Marital Status of Respondents** 

Marital Status	Frequencies	Percentage
Married	24	18.5%
Single	93	71.5%
Divorced	9	6.9%
Widowed	4	3.1%
Total	130	100.0%

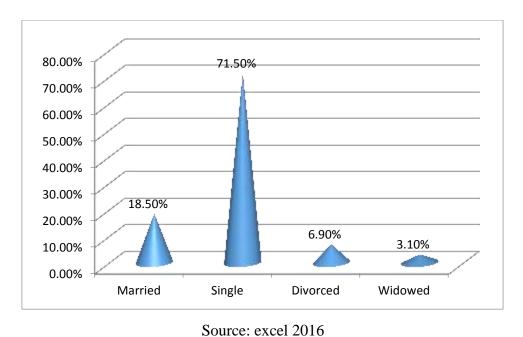


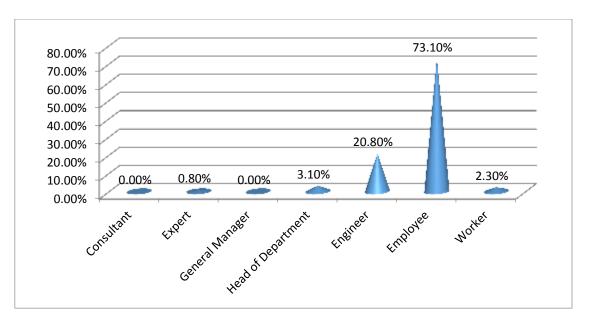
Figure 4.2.2. Frequency of Marital Status of Respondents

#### **4.2.3: occupation of Respondents:**

The occupation phase included five categories of positions, n=95 (73.1%) participants fall into the category of Employee, followed by n=27 (20.8%) participants were Engineers, whereas the main occupation of the rest of participants is distributed between the category of Head of Department n=4 (3.1%), the category of Worker n=3 (2.3%) and one Expert (0.8%).

Table 4.2. 3. Frequency of occupation of Respondents

occupation	Frequencies	Percentage
Employee	95	73.1%
Engineer	27	20.8%
Head of Department	4	3.1%
Worker	3	2.3%
Expert	1	0.8%
Consultant	0	0.0%
General Manager	0	0.0%
Total	130	100.0%



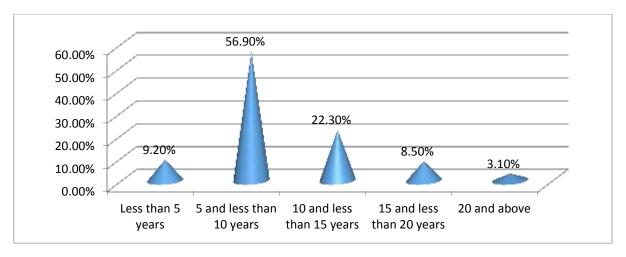
Source: excel 2016

Figure 4. 2.3. Frequency of occupation of Respondents 4.2.4: Experience of Respondents:

In terms of experience, n=74 (56.9%) of the participants have experience (5 and less than 10 years), followed by n=29 (24 %) of the participants have experience (10 and less than 15 years), then n=12 (9.2 %) had some experience (less than five years), n=11 (8.5 %) had experience (15 and less than 20 years) and n=4 (3.1%) had experience 20 years and above in the field of work.

**Table 4.2. 4. Frequency of Experience of Respondents** 

Experience in years	Frequencies	Percentage
Less than 5 years	12	9.2%
5 and less than 10 years	74	56.9%
10 and less than 15 years	29	22.3%
15 and less than 20 years	11	8.5%
20 and above	4	3.1%
Total	130	100.0%



Source: excel 2016

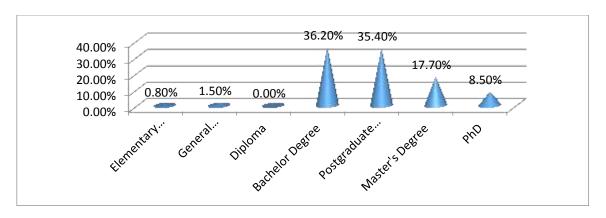
Figure 4.2. 4. Frequency of Experience of Respondents

#### 4.2.5: Academic Qualifications of Respondents:

Regarding Academic Qualifications of Respondents n=47 (36.2%) of the participants have a Bachelor Degree followed by n=46 (35.4 %) of the participants have Postgraduate Diploma, then n=23 (17.7%) had Master Degree, while n=11 (8.5%) were Ph.D. holders, n=2 (1.5%) were holders of Secondary School Certificate and one of the participant (0.8%) had Elementary School Certificate.

Table 4.2.5. Frequency of Academic Qualifications of Respondents

Academic Qualifications	Frequencies	Percentage
Bachelor Degree	47	36.2%
Postgraduate Diploma	46	35.4%
Master's Degree	23	17.7%
PhD	11	8.5%
General Secondary School	2	1.5%
Certificate		
Elementary School Certificate	1	0.8%
Diploma	0	0.0%
Total	130	100.0%



Source: excel 2016

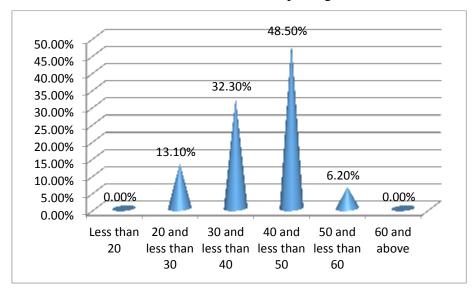
Figure 4.2. 5. Frequency of Academic Qualifications of Respondents 4.2.6: Age groups of Respondents:

With respect to age groups n=63 (48.5%) of the participants have aged (40 and less 50 years) followed by n=42 (32.3%) of the participants have aged (30 and less than 40 years), then n=17 (13.1%) aged (20 and less than 30 years), while n=8 (6.2%) aged (50 and less than 60 years).

Table 4. 2.6. Frequency of Respondents Age groups

Age groups	Frequencies	Percentage
40 and less than 50	63	48.5%
30 and less than 40	42	32.3%
20 and less than 30	17	13.1%
50 and less than 60	8	6.2%
Less than 20	0	0.0%
60 and above	0	0.0%
Total	130	100.0%

Source: IBM SPSS 24 package



Source: excel 2016

Figure 4. 6. Frequency of Respondents Age groups

#### 4.3 Data analysis:

This section reports the results of the dimensions of the second section of the questionnaire, which was focused on the role of Implementation ISO 9001:2008 Quality Management System on Employee Satisfaction in Syaga food industry.

The statements presenting positive engagement attitudes and practices of respondents.

Data analysis including both distributive statistics and inference statistics, distributive statistics contain: frequencies, percentages and ranks of the statements responses, inference statistics based on chi square test and the median of responses, to identify which items had the highest or lowest incidence of agreement within the study.

1/ Does implementation of ISO 9001:2008 have positive significant impact on Quality and System Standards?

From table 4.3.1 it can be observed that respondents strongly agree upon: Among the objectives of the Company is to obtain international certification for applying quality standards (56.9%), The belief of the higher administration in quality motivates the effort to obtain the ISO certificate (50%) and The employees are convinced that quality is one of their most important responsibilities towards achieving the Company's goals (49.2%).

The findings revealed that respondents agreed up on: The Company improves the employee's performance in accordance with assessment results (56.2%), The Company seeks to spread the concept of quality (ISO) among the different levels of administration(54.6%), The Company's obtaining of the ISO contributes to the reduction of accidents and internal struggles (54.5%), Continual improvement of employee's performance is easily achieved and is seen as reinforcing the Company's objectives (53.8%), The Company urges the employees to suggest any amendments or improvements as they see fit (50.8%), The Company's awareness of the value of the ISO system gives it truthfulness that fosters quality administration (50%), Employees participate in the preparation and development of improvement plans and quality control policy (47.7%), The Company views

mistakes as chances for learning (46.9%), The application of comprehensive quality system (ISO) is not important, and it is just unnecessary paper work (43.9%).

Table 4.3.1 Descriptive statistics of the first dimension attitudes toward the Quality and System Standards.

No	Statements		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Agreement
1	Among the objectives of the Company is to obtain international certification for applying quality	F	74	52	4	0	0	SA
	andards (ISO)		56.9	40.0	3.1	0.0	0.0	
2	The Company seeks to spread the concept of quality	F	55	71	4	0	0	A
	(ISO) among the different levels of administration	%	42.3	54.6	3.1	0.0	0.0	
3	The application of comprehensive quality system (ISO)	F	56	57	5	6	6	A
	is not important, and it is just unnecessary paper work	%	43.1	43.9	3.9	4.7	4.7	
4	The Company's awareness of the value of the ISO system gives it truthfulness that fosters quality	F	59	65	2	3	1	A
	administration	%	45.4	50.0	1.5	2.3	0.8	
5	The Company's obtaining of the ISO contributes to the	F	55	67	5	3	0	A
	reduction of accidents and internal struggles	%	42.3	54.5	3.8	2.3	0.0	
6	The belief of the higher administration in quality motivates the effort to obtain the ISO certificate		65	62	3	0	0	SA
			50.0	47.7	2.3	0.0	0.0	
7	The employees are convinced that quality is one of their	F	64	60	6	0	0	SA
	most important responsibilities towards achieving the Company's goals.	%	49.2	46.2	4.6	0.0	0.0	
8	The Company improves the employee's performance in	F	37	73	19	1	0	A
	accordance with assessment results	%	28.5	56.2	14.6	0.8	0.0	
9	The Company urges the employees to suggest any	F	43	66	19	2	0	A
	amendments or improvements as they see fit	%	33.1	50.8	14.6	1.5	0.0	
10	The Company views mistakes as chances for learning	F	30	61	18	18	3	A
	The Company views inistances as chances for fear ining	%	23.1	46.9	13.8	13.8	2.3	
11	Employees participate in the preparation and development of improvement plans and quality control policy		40	62	24	4	0	A
			30.8	47.7	18.5	3.1	0.0	
12	Continual improvement of employee's performance is	F	48	70	11	1	0	A
	easily achieved and is seen as reinforcing the Company's objectives	%	36.9	53.8	8.5	0.8	0.0	

Table 4.3.2 Inference statistics of the first dimension.

No	Statements	Chi-square	d.f	P-value	Median
1	Among the objectives of the Company is to obtain international certification for applying quality standards (ISO)	59.13	2	0.000	5.00
2	The Company seeks to spread the concept of quality (ISO) among the different levels of administration	56.50	2	0.000	4.00
3	The application of comprehensive quality system (ISO) is not important, and it is just unnecessary paper work	117.86	4	0.000	4.00
4	The Company's awareness of the value of the ISO system gives it truthfulness that fosters quality administration	166.92	4	0.000	4.00
5	The Company's obtaining of the ISO contributes to the reduction of accidents and internal struggles	102.24	3	0.000	4.00
6	The belief of the higher administration in quality motivates the effort to obtain the ISO certificate	56.41	2	0.000	4.50
.7	The employees are convinced that quality is one of their most important responsibilities towards achieving the Company's goals.	48.24	2	0.000	4.00
8	The Company improves the employee's performance in accordance with assessment results	87.23	3	0.000	4.00
9	The Company urges the employees to suggest any amendments or improvements as they see fit	72.15	3	0.000	4.00
10	The Company views mistakes as chances for learning	73.00	3	0.000	4.00
11	Employees participate in the preparation and development of improvement plans and quality control policy	55.72	3	0.000	4.00
12	Continual improvement of employee's performance is easily achieved and is seen as reinforcing the Company's objectives	95.41	3	0.000	4.00

Source: IBM SPSS 24 package

From table (4.3.2) the value of chi – square calculated to obtain the differences among the participants' responses in the first dimension attitudes toward the Quality and System Standards, P-values (0.000) which is lower than the level of significant value (5%), These refer to participants' agreement on statements of the dimension and no differences were observed, since Median of responses ranged between (4-5).

2/ Does implementation of ISO 9001:2008 have positive significant impact on the job satisfaction among the employees in Sayga Flour Mills?

Table (4.3.3.) results revealed that: (50.8%) of the participants strongly agreed that their jobs is important in achieving the Company's objectives, and by (46.9%) strongly agreed that supervisor treats them respectfully.

While they agree on the rest of the statements as following: (56.9%) of the participants thought, that job allows them the chance to improve, (48.5%) of the participants receive clear information from the managers and supervisors about their job goals, (47.6%) the workers are appreciated whenever we do a perfect job, (46.2%) of the participants generally satisfied with their jobs, while (43.1%) of the participants feel that the work does not suit their academic qualifications, (41.5%) said the company provides them with many facilities, (40.8%) of the participants see that Recruitment and Promotion regulations meet the needs of the work environment and (39.2%) of the participants thought that Salaries are commensurate with the job.

Table 4.3.3. Descriptive statistics of the second dimension Job Satisfaction.

No	Statements		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Agreement
13	I feel that my job is important in achieving	F	66	59	5	0	0	SA
	the Company's objectives	%	50.8	45.4	3.8	0.0	0.0	
14	My job allows me the chance to improve myself.	F	39	74	17	0	0	А
		%	30.0	56.9	13.1	0.0	0.0	
15		F	31	56	18	17	8	А
	I feel that my work does not suit my academic qualifications.	%	23.8	43.1	13.8	13.1	6.2	
16	Me and my colleagues are appreciated	F	46	62	20	2	0	
	whenever we do a perfect job	%	35.4	47.6	15.4	1.5	0.0	А
17	My supervisor treats me respectfully	F	61	54	13	1	1	
		%	46.9	41.5	10.0	0.8	0.8	SA
18	The Company provides me with many	F	41	54	21	11	3	
	facilities	%	31.5	41.5	16.2	8.5	2.3	А
19	The information I receive from the managers	F	52	63	15	0	0	
	and supervisors as for the goals of my job is clear	%	40.0	48.5	11.5	0.0	0.0	А
20		F	47	60	22	1	0	А
	Generally, I am satisfied with my job	%	36.2	46.2	16.9	0.8	0.0	
21	Recruitment and Promotion regulations meet	F	41	53	28	8	0	А
	the needs of the work environment	%	31.5	40.8	21.56	6.2	0.0	
22	Salarias are commonsurate with the ich	F	35	51	21	23	0	
	Salaries are commensurate with the job	%	26.9	39.2	16.2	17.7	0.0	А

Table 4.3.4 Inference statistics of the second dimension.

No	Statements	Chi- square	d.f	p-value	Median
13	I feel that my job is important in achieving the Company's objectives	51.43	2	0.000	5.00
14	My job allows me the chance to improve myself.	38.13	2	0.000	4.00
15	I feel that my work does not suit my academic qualifications.	53.61	4	0.000	4.00
16	Me and my colleagues are appreciated whenever we do a perfect job	64.51	3	0.000	4.00
17	My supervisor treats me respectfully	131.84	4	0.000	4.00
18	The Company provides me with many facilities	68.76	4	0.000	4.00
19	The information I receive from the managers and supervisors as for the goals of my job is clear	29.18	2	0.000	4.00
20	Generally, I am satisfied with my job	63.66	3	0.000	4.00
21	Recruitment and Promotion regulations meet the needs of the work environment	34.24	3	0.000	4.00
22	Salaries are commensurate with the job.	17.56	3	0.000	4.00

Source: IBM SPSS 24 package

From table (4.3.4) the value of chi – square calculated to obtain the differences among the participants' responses in the second dimension Job Satisfaction, P-values (0.000) which is lower than the level of significant value (5%), these refer to participants' were Satisfied from their jobs, based on statements of the dimension and no differences were observed, since Median of responses ranged between (4-5).

3/ Does implementation of ISO 9001:2008 have positive significant impact on employee performance?

From the table (4.3.5.) results showed that respondents agreements ranged between(50.8-62.3%) upon all statements of the dimension, (62.3%) of them see that effective means of communication between the employees and administration are available to facilitate decision making and achieve the Company's goals, followed by (56.9%) The employee's resistance to change negatively influences the ISO system, then (54.6%) The employees are carefully selected to perform their jobs, and they are highly qualified to handle quality problems, with the same percent (53.8%) respondents see that the company urges the employees to contact the administration in case of any difficulties and the employee is considered an internal customer who participates in setting the Company's strategies, while (53.1%) feel proud to be part of this company because of the application of the ISO 2008: 2009 ,(50.8%) of the respondents agreed that company's obtaining of the ISO certificate led to improvement.

Table 4.3.5. Descriptive statistics of the third dimension Effect of Applying ISO on Employees' Performance.

Employees' Performance.										
No	Statements		Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	Agreement		
23	The Company's obtaining of the ISO	F	48	66	13	3	0	А		
	certificate led to improvement	%	36.9	50.8	10.0	2.3	0.0	A		
24	Effective means of communication	F	41	81	7	1	0			
	between the employees and administration are available to facilitate decision making and achieve the Company's goals.	%	31.5	62.3	5.4	0.8	0.0	А		
25	The employee's resistance to change	F	35	74	17	4	0	А		
	negatively influences the ISO system	%	26.9	56.9	13.1	3.1	0.0			
26	The Company Urges the employees	F	41	70	15	4	0			
	to contact the administration in case of any difficulties	%	31.5	53.8	11.5	3.1	0.0	А		
27	The employees are carefully selected	F	42	71	14	2	1			
	to perform their jobs, and they are highly qualified to handle quality problems.	%	32.3	54.6	10.8	1.5	0.8	А		
28	The application of the ISO 2008:	F	44	69	17	0	0			
	2009 caused me to feel proud to be part of this Company	%	33.8	53.1	13.1	0.0	0.0	А		
29	The employee is considered an	F	41	70	16	3	0			
	internal customer who participates in setting the Company's strategies.	%	31.5	53.8	12.3	2.3	0.0	A		

Table 4.3.6 Inference statistics of third dimension.

No	Statements	Chi-square	d.f	p-value	Median
23	The Company's obtaining of the ISO certificate led to improvement	80.40	3	0.000	4.00
24	Effective means of communication between the employees and administration are available to facilitate decision making and achieve the Company's goals.	125.13	3	0.000	4.00
25	The employee's resistance to change negatively influences the ISO system	85.56	3	0.000	4.00
26	The Company Urges the employees to contact the administration in case of any difficulties	79.90	3	0.000	4.00
27	The employees are carefully selected to perform their jobs, and they are highly qualified to handle quality problems.	139.46	4	0.000	4.00
28	The application of the ISO 2008: 2009 caused me to feel proud to be part of this Company	31.21	2	0.000	4.00
29	The employee is considered an internal customer who participates in setting the Company's strategies.	80.64	3	0.000	4.00

Source: IBM SPSS 24 package

From table (4.3.6) the value of chi – square calculated to obtain the differences among the participants' responses in the third dimension effect of applying ISO on employees' Performance, P-values (0.000) which is lower than the level of significant value (5%), these refer to applying ISO on had effect employees' performance, based on statements of the dimension and no differences were observed, since median of responses was (4).

4/ Is there any significant relationship between ISO 9001:2008 Quality and System Standards, employee satisfaction and employee performance?

From table 4.3.7, the analysis of data show that there are significant correlation between ISO 9001:2008 application ,employee satisfaction and employee performance , so it can be concluded that ISO 9001:2008 enhancement have positive impacts on employees' performance for the case of Syga mail flour.

Table 4.3.7 Correlations between ISO 9001:2008 and questionnaire domains

		Whole Questionnaire	Quality and System Standards	Job Satisfaction	Employees' Performance
Whole	Pearson Correlation	1	.856**	.857**	.817**
Questionnaire	Sig. (2-tailed)		.000	.000	.000
	N	125	125	125	125
Quality and	Pearson Correlation	.856**	1	.586**	.556**
System Standards	System Sig. (2-tailed) .000			.000	.000
Standards	N	125	125	125	125
I-1 C-4'-f4'-	Pearson Correlation	.857**	.586**	1	.563**
Job Satisfaction	Sig. (2-tailed)	.000	.000		.000
	N	125	125	125	125
Employees'	Pearson Correlation	.817**	.556**	.563**	1
Performance	Sig. (2-tailed)	.000	.000	.000	
	N	125	125	125	125

<sup>\*\*</sup> Correlations is significant ( $\alpha = 0.01$ )

Source: IBM SPSS 24 package

5/ Does implementation of ISO 9001:2008 have positive significant impact on Sayga Flour Mills?

To answer this question researcher summing up questionnaire domains results as following: From table 4.3.8, the analysis of data show that Applying ISO 9001:2008 have positive impacts on Quality and System Standards , Job Satisfaction and employees' performance for the case of Syga Flour Mills.

Table 4.3.8. Descriptive statistics of the impact of Applying ISO 9001:2008 in Syga Flour Mills.

Domain	N	Chi- square	Df	Sig.	Median	Agreement	Statistical significant
Quality and System Standards	130	125.13	3	0.000	4.00	Agree	Significant
Job Satisfaction	130	142.14	3	0.000	4.00	Agree	Significant
Employees' Performance	130	64.51	3	0.000	4.00	Agree	Significant

#### **4.4 Discussion:**

From the above presented result, the following have been analyzed as follows: The findings of the study revealed that,

1. Quality and System Standards Domain has value of the Chi-square test equal to (125.13) and significant value (0.000) which less than (0.05) the probability value of acceptance hypothesis and median value was (4.00).

This implies that when quality management system is well implemented by considering principles and ISO 9001:2008 standard and commitment of higher management, this finding is similar with study of Al-Refaie (2011) studied Jordanian firms and concluded, the awareness of Jordanian firms of these relationships may guide them to improve their internal performance as well as strengthen their external competition,

This finding is similar to the study of Ismail, (2016) who concluded National Industries Company is committed to adopting and applying the principle of ISO 9001:2008, which is reflected positive trends about 64.8% from the impact of National industries company employees' feedback.

2. The result of the study depicted the agreement of opinions that ISO 9001:2008 enhancement lead to the increase of job satisfaction, the Chisquare test equal to (142.14) and significant value (0.000) and median value was (4.00).

This implies salaries, Recruitment and Promotion regulations; provide facilities and respectful treatment from managers and supervisors.

This finding has the similar nature with the study conducted by Ismail, (2016) who suggested that adoption of ISO ISO9001:2008 standard has a positive impact satisfaction in the national industries company. This

finding is similar to the study of Elhassan, (2017) who suggested a positive relationship between continuous improvement and development and customer satisfaction provide rewards and incentives to employees and workers in order to encourage them to provide their best assets and achieve the goals required of them.

3. Findings suggested that adoption of ISO ISO9001:2008 standard are interrelated and have far-reaching impact on the employee performance with median value was (4.00) and Chi-square test equal to (64.51) and significant value (0.000). This implies that when quality management system is well implemented by considering principles and ISO 9001:2008 standard, the performance of employee will eventually improved.

This finding is similar to the study of Nassor, (2015) who concluded that internal communication, workplace physical environment and capacity enhancement found to have a positive impact on employees' performance

This finding agreed with the findings of a study By Hassan, (2015) conducted in DAL Group Sayga - Capo (2010-2014) about quality management and its impact on human resource development, findings proved that the application of the dimensions of total quality management has a statistically significant relationship with the development of human resources in productive organizations.

4. Also the findings of the study revealed that, there is a significantly correlation between Quality and System Standards, the job satisfaction and the employee performance and ISO 9001:2008 implementation.

This finding is similar to the study of Elhassan, (2017) who suggested a positive relationship between administrative systems and employee satisfaction. Also agreed with study conducted by Elias Bekele and Shimelese Zewedie. (2017) and results revealed that customer focus;

training and education, empowerment and team work and continues improvement are all positively associated with employee's job satisfaction.

5. The respondents agreed that implementation of ISO 9001:2008 have positive significant impact on Sayga Flour Mills. This implies that the good the Quality and System Standards, Job Satisfaction and employees' performance.

This finding is similar to the study of Nassor, (2015) who concluded that management commitment has a positive impact on the employees' performance.

### **CHAPTER FIVE**

**CONCLUSION AND RECOMMENDATIOS** 

#### **CHAPTER FIVE**

#### CONCLUSION AND RECOMMENDATIONS

The study examined the impacts of ISO 9001:2008 implementation on quality and system standards, job satisfaction and employee performance for Sayga Flour Mills.

#### **5.1 Conclusion:**

The result of the study revealed that:

- 1. Quality and System Standards has significant acceptance (0.000) and median value was (4.00).
- 2. Opinions agreed that ISO 9001:2008 enhancement lead to the increase of job satisfaction and median value was (4.00).
- 3. The study indicated that Standards of ISO ISO9001:2008 have impact on the employee performance with median value was (4.00) and (0.000) proportional of acceptance.
- 4. The study noticed significant correlation between Quality and System Standards, the job satisfaction, the employee performance and ISO 9001:2008 implementation.
- 5. The majority agreed that implementation of ISO have positive impact on Sayga Flour Mills and Grand median value was (4.00).

#### **5.2 Recommendations:**

In light of findings, the study recommends the following:

- 1. All requirements of ISO 9001:2008 are generic and are intended to be applicable to all organizations, regardless of type, size and product provided.
- 2. Availability of human and financial support to increase job satisfaction.
- 3. Several factors driving employee performance, the work environment, availability of support from senior management.
- 4. The need for Sudanese productive organizations to adopt the implementation of the philosophy of the comprehensive quality management approach with its dimensions

5. Programs of building capacity and other training necessary to the employees are implemented and taken into consideration as on job training play greater role in increasing employee productivity.

#### **5.3 Suggestions:**

- 1. More variables can be used to assess the impacts of ISO 9001 quality management system like financial performance, organizational reputation, cost minimization and customer satisfaction as independent variables.
- 2. The same study of assessing the impact of quality management system can be conducted by considering another research methodology like secondary data of instead of primary data of this study.
- 3. The study can be conducted by changing case study like Telecommunication companies, schools, banking industries, listed firms to investigate whether the same result can be obtained.

### REFERENCES

#### REFERENCES

- 1. Hand Book For Measuring Employee Performance
- 2. Al-Refaie, Abbas (2011) "The effects of quality management practices on customer satisfaction and innovation: a perspective from Jordan": International Journal of Productivity and Quality Management · October 2011
- 3. Chow- Chua, Clare; Goh, Mark; Wan, Tan Boon (2003)."Does ISO 9000 certification improve business performance?" International Journal of Quality & Reliability Management.
- 4. Crosby, Philip (1979). Quality is Free . New York: McGraw.
- 5. DeVaus, D. A. (2002). Surveys in Social Research.St.Leonards,NSW. 5<sup>th</sup> edition.
- 6. Elhassan, Taghreed Ahmed Mohamed (2017) "The role of applying the concept of total quality management in the food industries to customer satisfaction" URI: http://repository.sustech.edu/handle/ Master thesis.
- 7. Elias Bekele and Shimelese Zewedie. (2017) "The Impacts of ISO9001:2008 Implementation on Employees Job Satisfaction" Global Journal of Management and Business Research: Administration and Management, Volume 17 Issue 3 Version 1.0 Year 2017.
- 8. Hassan, Mubarak Dawoud Suleiman (2015) "The total quality management and its impact on human resource development at the Dal Group Sayga Capo 2010-2014" URI: http://repository.sustech.edu/handle/ Ph.d thesis.
- 9. Ismail, Saria WiddatAlla (2016) "Impact of Implementation ISO 9001:2008 Quality Management Systems on Employee Satisfaction

- (Case study: National Industry Company- Omdurman-Sudan)" URI: http://repository.sustech.edu/handle/ Master thesis.
- 10.Juran, J.M., (1995). Managerial Break through Second Edition 6
- 11.Koslowsky, M. & Krausz, M. (2002).Voluntary employee Withdrawal and in attendance. New York: Plenum Publishers.
- 12.Nassor, Fatma Mohammad. (2015 "The Impacts of ISO 9001 Quality Management System Implementation on Employees' Performance OF Pension Funds in Tanzania: A Case of National Social Security Fund (NSSF)" A Dissertation Submitted For the Degree of Master in Project Management (MPM) of the Open University of Tanzania.
- 13.Norreha Othman et. al. (2017) "Quality Management System, Employee Satisfaction and Employee Performance IN Private Higher Education Institution: A Proposed Frame Work" / International Journal of Management Research & Review IJMRR/June 2017/ Volume 7/Issue 6/Article No-7/681-686, ISSN: 2249-7196
- 14. Poksinska, Bozena; Dahlgaard, JensJörn; Antoni, Marc (2002)." The state of ISO 9000 certification: A study of Swedish organizations". The TQM Magazine.
- 15.Robson, C., (2002). Real World Research: A Resourse for Social Scientists and Practitioner- Researchers. 2<sup>nd</sup> edition.
- 16.Rudman, R. (2003).Performance planning & review: 2nd edition Sydney, Australia: Allen and Unwin Academic.The Perfect Manual.
- 17. Saunders, M., Lewis, P. and Thornhill, A. (2003), Research Methods for Business Students. 3<sup>rd</sup> Edition, Prentice Hall.

- 18.Selttiz, S., Wrightsman, L. and Cook, S. W. (1962). Research Methods in Social Relations.New York: Holt, Rinehart and Winston.
- 19. Timpe, A.D. (1986). Motivation of personnel: The art and science of management. New York: Factson File Publications.
- 20. History Timeline: http://www.dalgroup.com/history/
- 21. www.iso.org/iso/qmp\_2012.pdf.
- 22. www.iso.org./iso/news.htm .
- 23.www.iso.ch/ info/intro.htm.

## **APPENDICES**

## Appendix 1: The structure of the questionnaire (English) Sudan University for Sciences and Technology

#### **Deanship of Postgraduate Studies**

## Master of Comprehensive Quality Management and Excellence A Questionnaire for A scientific Study

**First section: Personal Information:** 

Please put ( v) in the appropriate bracket (choose one)

1. Sex: Male ( ) Female
2. Age: Less than 20 ( ) 20 and less than 30 ( ) 30 and less than 40
( )
40 and less than 50 ( ) 50 and less than 60 ( ) 60 and
above ( )
3. Academic Qualifications: Elementary School Certificate ( ) General
Secondary School Certificate ( ) Diploma ( ) Bachelor Degree ( )
Postgraduate Diploma ( ) Master Degree ( ) PhD ( )
4. Marital Status: Married ( ) Single ( ) Divorced ( ) Widowed (
)
5. Administrative Level: Consultant ( ) Expert ( ) General Manager ( )
Head of Department ( ) Engineer ( ) Employee ( ) Worker ( )
6. Professional Experience: Less than 5 years ( ) 5 and less than 10 years ( )
10 and less than 15 years ( ) 15 and less than 20 years ( ) 20 years and
above ( )

## Second part: Impact of Implementation ISO 9001:2008 Quality Management System on Employee Satisfaction

Please put  $(\sqrt{\ })$  in the appropriate box (choose one)

No.	ITEM	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
	Quality and System Standards					
1	ng the objectives of the Company is to obtain international certification for applying quality standards (ISO)					
2	The Company seeks to spread the concept of quality (ISO) among the different levels of administration					
3	The application of comprehensive quality system (ISO) is not important, and it is just unnecessary paper work					
4	The Company's awareness of the value of the ISO system gives it truthfulness that fosters quality administration					
5	The Company's obtaining of the ISO contributes to the reduction of accidents and internal struggles					
6	The belief of the higher administration in quality motivates the effort to obtain the ISO certificate					
7	The employees are convinced that quality is one of their most important responsibilities towards achieving the Company's goals.					
8	The Company improves the employee's performance in accordance with assessment results					

_				
9	The Company urges the employees to suggest any amendments or improvements as they see fit			
10	The Company views mistakes as chances for learning			
11	Employees participate in the preparation and development of improvement plans and quality control policy			
12	Continual improvement of employee's performance is easily achieved and is seen as reinforcing the Company's objectives			
	Job Satisfaction			
13	I feel that my job is important in achieving the Company's objectives			
14	My job allows me the chance to improve myself.			
15	I feel that my work does not suit my academic qualifications.			
16	Me and my colleagues are appreciated whenever we do a perfect job			
17	My supervisor treats me respectfully			
18	The Company provides me with many facilities			
19	The information I receive from the managers and supervisors as for the goals of my job is clear			
20	Generally, I am satisfied with my job			
21	Recruitment and Promotion regulations meet the needs of the work environment			

22	Salaries are commensurate with the job.						
	The Effect of Applying ISO on Employees' Performance						
23	The Company's obtaining of the ISO certificate led to improvement						
24	Effective means of communication between the employees and administration are available to facilitate decision making and achieve the Company's goals.						
25	The employee's resistance to change negatively influences the ISO system						
26	The Company Urges the employees to contact the administration in case of any difficulties						
27	The employees are carefully selected to perform their jobs, and they are highly qualified to handle quality problems.						
28	The application of the ISO 2008: 2009 caused me to feel proud to be part of this Company						
29	The employee is considered an internal customer who participates in setting the Company's strategies.						

#### **Appendix 2: The structure of the questionnaire (Arabic)**

جامعة السودان للعلوم والتكنولوجيا

عمادة الدراسات العليا

ماجستير إدارة الجودة الشاملة والامتياز

استبيان بحث علمي

القسم الأول: البيانات الأساسية:

الرجاء وضع علامة $(\sqrt)$ مع الخيار الذي يناسبك (اختر اجابة واحدة)
1. النوع : ذكر ( ) أنثى ( )
2. العمر : ( ) أقل من 20 عاما ( ) 20 وأقل من 30 ( ) 30 وأقل من
40 ( ) 40 و اقل من 50 ( ) 50 وأقل من 60 ( ) 60 وأكثر
<ol> <li>المؤهل الأكاديمي : شهادة ابتدائي ( ) شهادة الثانوية العامة ( )</li> </ol>
) دبلوم (
بكالوريوس ( ) دبلوم عالي ( ) ماجستير ( )
دكتوراه ( )
<ol> <li>الحالة الاجتماعية : أعزب ( ) متزوج ( ) مطلق ( )</li> </ol>
أرمل ( )
5. المستوى الإداري: مستشار ( ) خبير ( ) مدير عام ( ) مدير
قسم ( ) مهندس ( ) موظف ( ) ( ) عامل
<ul> <li>6. الخبرة : اقل من 5 سنوات ( ) 5 سنوات و اقل من 10 ( ) 10 سنوات و</li> </ul>
اقل من 15 ( )
15سنه و اقل من 20 ( ) 20 سنة فأكثر ( )

## القسم الثاني: أثر تطبيق المواصفة (ISO 9001:2008) على نظام إدارة الجودة، الرضا الوظيفي وأداء العاملين:

#### الرجاء وضع علامة $(\sqrt{})$ مع الخيار الذي يناسبك (اختر اجابة واحدة)

لا أو افق بشدة	لا أو افق	إلى حد ما	أو افق	أو افق بشدة	البيان	۴
					الجودة ومعايير النظام	
					من أهداف الشركة الحصول على شهادة عالمية لتطبيق الجودة (الأيزو)	1
					تقوم الشركة بنشر مفهوم الجودة (الأيزو) بين مختلف المستويات الإدارية	2
					تطبيق نظام الجودة الشاملة (الأيزو) غير مهم وعبارة عن كثرة في الأوراق	3
					وعي الشركة بقيمة نظام الايزو يعطيه مصداقية تكون عونا لإدارة الجودة	4
					حصول الشركة على شهادة المطابقة (الأيزو) ساهم في التقليل من الحوادث والصراعات الداخلية	5
					إيمان الإدارة العليا من الأسباب التي دفعتها لنيل شهادة (الأيزو)	6
					الموظفين على قناعة بأن الجودة من أهم مسؤولياتهم في تحقيق أهداف الشركة	7
					تقوم الشركة بتحسين أداء الموظفين تبعا لنتيجة التقويم	8
					الشركة تقوم بحث موظفيها لاقتراح أي تعديلات وتحسينات يرونها مناسبة	9
					تنظر الشركة للأخطاء على أنها فرص للتعلم	10
					يشارك العاملون بالشركة في إعداد وتطوير خطط التحسين وضبط الجودة	11

التحسين المستمر لأداء الموظفين يعتبر أمرا مسهلا ومعززا لتحقيق الأهداف	12
الرضا الوظيفي	
أشعر أن مهمتي مهمة لتحقيق أهداف الشركة	13
يسمح لي عملي بالتحسين	14
أشعر أن عملي لا يناسب مؤهلاتي العلمية	15
يتم تقديري وتقدير زملائي كلما أنجزنا أعمالنا بإتقان	16
يعاملني رئيسي باحترام	17
تتيح لي الشركة الكثير من التسهيلات	18
المعلومات التي أتلقاها من المدراء والمشرفين حول أهداف عملي واضحة	19
بالنسبة لي	
أرضا عن العمل بشكل عام	20
لائحة العمل والترقيات تلبي احتياجات بيئة العمل	21
تتناسب الرواتب مع العمل	22
تطبيق المواصفة على أداء الموظفين	أثر
حصول الشركة على شهادة (الأيزو) أدى إلى التحسين	23
تتوفر وسائل إيصال فعالة بين العاملين للتسهيل في إتخاذا القرارات وتحقيق	24
الأهداف	
ثقافة العاملين وعدم تقبل التغيير يؤثر سلبا على نظام الأيزو	25
الشركة تقوم بحث موظفيها للاتصال بالإدارة في حال مواجهتهم أي	26
مصاعب	

27	الموظفون منتقون بعناية فائقة للقيام بوظائفهم ومؤهلين بشكل كبير لحل		
	مشاكل الجودة		
28	تطبيق الأيزو 9001:2008 أدى إلى الاعتزاز بوجودي في هذه الشركة		
29	يعتبر الموظف عميل داخلي يشارك في وضع الإستراتيجية للشركة		