

**THE EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICE ON THE  
ORGANIZATIONAL PERFORMANCE IN CASE OF HILINA ENRICHED FOODS PLC**

**A RESEARCH SUBMITTED TO FACULTY OF BUSINESS AND ECONOMICS DEPARTMENT  
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FOR THE DEGREE OF MASTER IN BUSINESS ADMINISTRATION**

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## DECLARATION

I, DEMELASH WORKU, declare that the research project entitled THE EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICE ON THE ORGANIZATIONAL PERFORMANCE IN CASE OF HILINA ENRICHED FOODS PLC is my original work that is done under the guidance and advice of my advisor and co advisor WUBISHET MENGESHA and REJEBUT MOHAMMED respectively.


This research project is done as partial fulfillment for Masters of Arts Degree in Business Administration (MBA)

This research has not been done before and all sources of materials used for the study have been appropriately acknowledged.

DEMELASH WORKU

**CERTIFICATION**

This is to certify that DEMELASH WORKU has done the study on the topic; THE EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICE ON THE ORGANIZATIONAL PERFORMANCE IN CASE OF HILINA ENRICHED FOODSPLC. This study is authentic and has not been done before by any other researcher on the same topic.

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## **ABSTRACT**

*The purpose of the study was examining the effects of total quality management implementation*

*on factory performance in Hilina enriched foods PLC. Explanatory research design was employed. Both qualitative and quantitative research methods were applied. In order to select the respondents from the total population of 253, simple random sampling method was applied and the sample size determination comes with 110. Survey data collected from respondents analyzed using descriptive, correlation and regression analysis. The finding of the study indicated that there was a significant relationship between total quality management and factory performance in general. Specifically, the independent variables come up with the following facts. Top management commitment, customer, continuous improvement strongly affect factor's performance while training and education, information and analysis system, employee empowerment and encouragement has modest role in the factory. There is significant effect on between top management commitment and employee empowerment and organization performance while its linear combination of the independent variable, variables were significantly related to the dependent variable. In the factory top management commitment, customer focus, continuous improvement and information and analysis system were considered as influential factor while training and education and employee empowerment given less attention. Finally, it is recommended that all variables of total quality management specifically employee training, education and employee empowerment should focus be given enough attention to enhance the factor's performance at the required level.*

***Keywords, Top management commitment, continuous improvement, employee empowerment and encouragement, Organizational Performance***



# CHAPTER ONE

## 1. INTRODUCTION

### 1. BACKGROUND OF THE STUDY

In today business world, there is an intense competition and ever changing customer demands. Corporations in every corner of the glob are taking advantages of the opportunity to share the benefits of world economic development. In such a competitive environment resulted from world globalization and liberalization, firms survive with much difficult unless they create the competitive advantage over their competitors (David, 2009)

With the increasing competitive, business survival pressure and the dynamic, changing customer-oriented environment total quality management (TQM) has been recognized as one of the important issues and generated a substantial amount of interest among managers and researchers. Therefore, TQM has been regarded as one of effective ways for firms to improve their competitive advantage (Kuei, 2001).

According to Henok (2013) a Policy Consultant in manufacturing sector assert the sector have been facing unprecedented competition or a survival of the fittest environment. Food processing and other factories are now interested more than ever before in adopting TQM techniques and tools to survive and excel in such a fierce rivalry environment

Food processing factories have constantly adopted their activities and internal configurations to reflect the new external realities. Failure to do this puts future success of the factories in jeopardy (Aosa, 1998).

In response to the above mentioned changes. Hilina Enriched Foods Plc has adopted Total Quality Management strategies. On the other hand, the emphasis on TQM as a new way of managing companies to improve competitiveness has increased considerably over the past few years. Different Studies showed the positive impact of total quality implementation on organizational performance.

Total Quality Management (TQM) has therefore become as a management approach of the factory and centered in quality, based on the participation of all its members and aiming at long

term success. TQM is a philosophy of managing organizations in a way which enables them to meet stakeholder's needs and expectations efficiently and effectively without compromising ethical values.

The food processing sector is similarly faced with these major challenge and threats which they are endeavoring to manage. They include changing competitive environment and increasing consumer awareness, competition from other packed food importers.

## **1.2 BACKGROUND OF THE FACTORY**

Hilina Enriched Foods PLC was established in 1998 to undertake the manufacturing and processing of a range of food products specifically designed to combat the various forms of malnutrition and other micronutrient deficiencies affecting children and other vulnerable groups in Ethiopia. When it was initially established, the center produced Vitamin A enriched sugar as well as iodized salt for UN agencies, non-governmental organizations (NGOs) and the general public. (Hilina Enriched Foods Plc., strategic document)

Today, Hilina has experienced significant growth in terms of both size and capital and has continued to install modern machinery and other equipment's. Hilina established an on-site food laboratory and has transformed itself into a state of the art and comprehensive food production facility. Hilina has been upgraded to specialize in the production of other nutritious and therapeutic foods for children to address the significant gap in the national food production system (Hilina Enriched Foods Plc., strategic document)

The Amharic name for Plumpy' nut is "Nefis Aden," which literally means "life saver." While some might regard this as an exaggeration, those who have witnessed the beneficial effects of Plumpy' nut will attest that it is very much a reality. There is also plumpy' Sup product which is also ready to use supplementary food for the rehabilitation of moderate acute malnutrition. Plumpy field products are working wonders for severely malnourished children throughout Ethiopia as it is a magic formula and one that we at Hilina are proud to promote. In addition to standing guard for the children of Ethiopia, the fact that 70% of the raw materials required for the production of these products are produced locally translates into many positive spin-off effects for the local economy (Hilina Enriched Foods Plc., strategic document)

### **1.3 STATEMENT OF THE PROBLEM**

The adoption of TQM by food processing factories has been troubled due to noncompliance with the procedure and principles of TQM implementation. While some factories, run TQM like a program which they expect to function and perform the magic by itself, others have used half-hearted approach to it, by using some bits and pieces of the principles. This has counted for the failure of most organization in meeting their expected target from implementing this management philosophy (Ghobadian et al, 1994).

As per Ugboro and Obeng, (2000) advice, it should be implementing to embrace customers by applying all possible quality management principles and implement them successfully to be able to delight their customers through efficient quality product. They also point out, in comparison with service; the manufacturing sector has lagged behind not only in terms of implementing the standard, but also in embracing the associated concepts of total quality management and continuous improvement

According to TQM experts, proper implementation of TQM in factories is a critical determinant in enhancing organizational performance. Ghobadian (1998) postulates that the quality management principles (QMPs) when consistently applied across an organization should engender optimal overall performance excellence far more effectively than a series of individually optimized activities.

Regarding Hilina Enriched Foods, though there is no empirical research conducted in the factory, the researcher preliminary reviews reveals the following. Managers and employees of Hilina Enriched Foods, almost all agree upon something. Even though there is growth of sales and expansion of market share, the growth the factory is not parallel and proportional with other competing factories in the industry. In its nature, being a food processing factory, it's too sensitive in detecting different micro organisms such as bacteria and fungus but employees were found poor commitment in keeping the factory rules and regulation. This negligence has adverse effect on the total quality management of the factory, though it impact were not investigated empirically.

From an informal interview with users and Customers, they are complaining on the test and other packaging elements of Hilina Enriched Foods Plc. From the above standing ground, Hilina Enriched Foods PLC being a late comer factory might faces some problems regarding its TQM

practice.

This study arises from the need to assess the current practice of TQM of Hilina Enriched Foods PLC from the perspective of its effectiveness for organizational performance in general and in its operational efficiency and employee satisfaction in particular by raising the following research questions.

## **1.4 THE RESEARCH QUESTIONS**

1. To what extent that top management commitment influence organizational performance
2. To what extent that customer focus influence organizational performance
3. To what extent that continuous improvement influence organizational performance
4. To what extent that training and education influence organizational performance
5. To what extent that information and analysis system influence organizational performance
6. To what extent that employee empowerment and encouragement influence organizational performance

## **1.5 OBJECTIVES OF THE STUDY**

### **1.5.1 GENERAL OBJECTIVE OF THE STUDY**

The general purpose of the study was to examine the effects of total quality management implementation on factory performance in Hilina enriched foods PLC.

### **1.5.2 SPECIFIC OBJECTIVES OF THE STUDY**

1. To determine the extent that top management commitment affect organizational performance
2. To determine the extent that Customer Focus affect organizational performance
3. To determine the extent that Continuous Improvement affect organizational performance
4. To determine the extent that Training and Education affect organizational performance
5. To determine the extent that Information and Analysis System affect organizational performance

performance

6. To determine the extent that Employee Empowerment And Encouragement affect organizational performance

## 1.7 SIGNIFICANCE OF THE RESEARCH

The aim of this study is to examine the effect of total quality management on organizational performance at Hilina enriched foods factory. This study will have lots of advantages to different stakeholders.

**For Manager:** the finding of the study showed the impact of total quality management at the factor level. The management of the factory may use the finding for decision making purpose.

**For the Government Body:** Products of the factory were sold at the international market. This implied that the factory is a means of foreign exchange and the quality issue may affect the government international trade and different means of tax incomes.

**For Customers:** Basically the main customer of the factory is NGO's. Those NGO's are concerned on product quality before distributing to end users that are highly drought infected children's and HIV victims and that helps the outstanding customer to check the quality and resulted implies on their health. Therefore this study would help them because of revealing quality issue at the end.

## 1.8 SCOPE OF THE STUDY

Even though the concept of total quality management and organizational performance is very wide and requires detail investigation of the practice and implementation, effectiveness and challenges of TQM. This study focused only on the investigating the effect of TQM practices on operational efficiency and employee satisfaction only based on evidence from Hilina enriched foods PLC. More specifically, this study identified six TQM practices those are Top management commitment, Customer focus, Continuous improvement, Training and Education, Information and Analysis System, Employee empowerment and encouragement and two organizational performance dimensions which are operational efficiency and employee satisfaction. In addition, the study analyzed a cross-sectional data that collected in the study period. Furthermore due to the current pandemic few data collection tools were applied.

## **1.9 LIMITATION OF THE STUDY**

The major constraints faced by the researcher while conducting this study were: First, lack of empirical research on the related study area especially in our country, and also the non-availability of adequately published and documented data on the topic.

Second, this study uses subjective measure of organizational performance by employees due to documented measure of organizational performance in the industry.

Lack of previous studies on the topic area globally as well as in Ethiopia and lack of secondary data which measures role of TQM on performance of the employees and organization enforce the researcher inclined on employee's perception of performance and TQM practice. Moreover the work nature of the respondents also enforces the researcher to use availability sampling which a convenience sampling is used to select individual's respondents who is available at a given time.

## **1.10 ORGANIZATION OF THE STUDY**

The paper is organized in five chapters i.e. the first chapter includes an introduction section which consists of background of the study, background of the company, statement of the problem, objectives, hypothesis, significance, scope and limitation of the study. Chapter two includes: review of related literature which has theoretical and empirical review part. Chapter Three: presents research design and methodology the researcher will employ to investigate the problem under study. Furthermore, data from respondents will be presented, analyzed, interpreted and discussed in the fourth chapter. The last section of the thesis will contain summary of results, concluding remarks and recommendations used for the Hilina Foods Factory.

## CHAPTER TWO

### 2. REVIEW OF RELATED LITERATURE

#### 2.1 THE CONCEPT OF TQM

Different quality gurus and philosophers defined TQM differently with respect to different perspectives. One of the most prominent features of the TQM literature is the absence of any uniform definition of TQM Talib, (2012). According to Prajogo and McDermott (2005), TQM is a management model that aims to meet customer needs and expectations within an organization through continuous improvement of the quality of goods and services and by integrating all functions and processes within an organization.

Brah et al (2002) defined TQM as a continuous quest for excellence by creating the right skills and attitudes in people to make prevention of defects possible and satisfy customers totally at all times.

Juran (1999) one of the quality gurus defined TQM as a management approach that centered on quality within an organization, based on involving all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society. Similarly, by focusing on everyone involvement on quality process to accomplish organizational goal and mission, Singh (2014) defined total quality management as integration of all the functions and process within an organization in order to achieve continuous improvement in goods and services. Total quality management also reduces wastes and invaluable activity while improving quality, efficiency and safety.

TQM focuses on improving the quality of an organization products and services and stresses that all of the organizations activities should be directed toward this goal (requires the whole organization-wide commitment to TQM). It requires the cooperation of managers in very function of an organization if it is to succeed Jones (2003).

TQM is a management philosophy that seeks to integrate all organizational functions that is marketing, finance, design, engineering, and production, customer service, to focus on meeting customer needs and organizational objectives Adam (2001). It views an organization as a collection of processes. It maintains that an organization must strive to continuously improve

these processes by incorporating the knowledge and experience of workers Manson (1996). TQM is an approach to improve competitiveness, effectiveness, and flexibility of an organization for the benefit of all stakeholders Ahire (2000). It is a way of planning, organizing each activity which is made up of a number of practices like customer focus, top management commitment, employee training, employees involvement, process management, supplier teaming, benchmarking, continuous improvement, quality measurement, quality audit, quality planning and leadership. These practices provide an efficient and effective way to improve quality within an organization helping not only to achieve the set objectives Schein (2013)

### 2.1.1 DEFINITION OF QUALITY

There is no common definition about quality; different scholar's defined quality differently. As reviewed by Ghobadian and Speller (1994) quality is defines by quality gurus as follows:-

**W. Edwards Deming** - He is widely considered as the person who assisted Japanese to bring about the quality revolution after the damage in World War II. He is also associated with statistical process control (SPC) and other problem solving techniques which measure performance in all processes. His definition of quality is "satisfy the customer, not merely to meet his expectations, but to exceed them". This implies quality is meeting and/or exceeding customers" expectation. Deming's philosophy starts and finishes with the customer. The purpose is to add value which the customer wants. Anything which does not do this is not a quality feature.

Joseph M. Juran - defines quality as "fitness for purpose or use". This definition is applicable to all organizations that are manufacturing, service, profit-making; or nonprofit-makers. Quality is judged by the user or customer.

Philips B Crosby - Defined quality as conformance to requirements thus the requirements of a product need to be defined and specified clearly so that they are properly understood.

Modern quality management philosophy practices and concepts has been strongly influenced by the thoughts of quality gurus Deming, Juran, Crosby, Feigenbaum, and Ishikawa Prajogo& McDermott, (2005); Yusuf et al., (2007); Khan, (2010), However, Mensah et al. (2012) as mentioned by Psomas and Jaca (2016) states that in this modern era the definition of quality should be seen as beyond merely meeting requirements, it should have additional and important dimensions of internal and external customer satisfaction focus, training, education and



empowerment of employees.

According to Samat, Ramayah and Saad (2006) the importance of quality is the main concern for many organizations, both public and private, most organizations in order to meet the challenges of the new global environment have started to consider quality as an essential part of their business plan. As described by them among all quality practices, increasingly organizations have focused on total quality management (TQM). TQM is the last stage in the evolution of quality control system which integrates all systems, methods and purposes within the organization.

## **2.2 ORIGIN AND EVOLUTION OF TQM**

Total quality management (TQM) movement can be traced back to the 1980s powered by major quality gurus like Deming, Juran, Crosby, and Feigenbaum, who was the first to use the term and also made the point of the need for Top management involvement. In addition, Ishikawa and Taguchi had major contributions to the TQM Movement Martínez-Lorente et al., 1998; Gupta, 2005; Fonseka, (2015).

In the 1950's total quality movement started in the United State of America (USA) more as quality control, went back to Japan and came back to the United State of America strengthened as a total quality management philosophy Awuor&Wambui, (2012); Fonseska, (2015). TQM first implemented in the developed countries, particularly in USA, Japan and Western Europe countries, as a means of maximizing customer satisfaction, gaining better product quality, and obtaining higher productivity through the systematic removal of waste and the reduction of non-productive activities (Yusuf et al., (2007); Martínez-Lorente et al., (1998). In the (1990) s, a significant volume of research was performed to investigate the relationship between practices of TQM and organizational performance, and TQM appears to be a well-accepted system of management (Martínez-Lorente et al., (1998); Yusuf et al., (2007); Gupta, (2005). These theories and researches have gradually developed a set of TQM theoretical systems. Based on the theoretical system and the practical results from the organizations, TQM has been proved as a particularly successful approach to improve organizational performance Yusuf et al., (2007); Gupta, (2005).

The evolution of TQM happened in a few stages which is identified as Inspection, Quality

Control, Quality Assurance and now total quality management Loughlin, 2008; Singh, (2014)

Inspection: This was the first stage in evolution of TQM. This stage involves examination, measurement, testing and gauging of material or items. Statistical Process control: It is a method of quality control by using statistical methods. The tools used in statistical process control were control charts. Quality Assurance: It is a way of preventing defects in manufactured products and avoiding problems when delivering services to customers. Total quality Management: It is the combination of all the functions and process within an organization in order to achieve continuous improvement in goods and services.

### **2.3 CRITICAL SUCCESS FACTORS (CSFS) OF TQM**

Researchers have put forth a number of definitions of Critical Success Factors (CSFs). According to Irfan and Kee (2013) critical success factors mean critical areas which organizations had to accomplish to attain its mission by examining and categorizing its impacts.

Al-Sabi (2017) also defined CSFs as comprehensive set of TQM practices. Precisely, in this study CSFs of TQM defined as a full package of TQM practices that should be implemented by organizations to attain its objectives and missions.

Several literature reviews of the previous studies on TQM has examined to identify what are the critical success factors of TQM in manufacturing sector specifically in tin food processing to select TQM frameworks for this study.

According to Talib and Rahman (2010) successful implementation of total quality management (TQM) is mainly linked with the critical dimensions or critical success factors (CSFs) which are responsible for achieving effective results. However, the previous literatures have provided different sets of critical success factors considered essential for the successful implementation of TQM but no study has identified a common set of practices for successful implementation of TQM The inconsistency of previous literatures in identifying CSFs of TQM creates difficulty to have commonly used CSFs.

Addition, they identified nine CSFs in service industry through extensive literature review that enhance the organizational performance in the form of improved productivity, quality, on-time delivery, less rework, customer satisfaction, increased market share, increased customer loyalty

and relations, and above all improved service quality. These TQM practices are: top management commitment, customer focus, training and education, continuous improvement and innovation, supplier quality management, employee involvement, employee encouragement, benchmarking, quality information and performance.

There is another important study which was done in Indian ICT Industries by Talib, Rahman and Akhtar (2012). They identified 10 most important TQM factors. These identifies TQM factors are; Top Management Commitment, Continuous improvement and Innovation, Quality Culture, Training and education, Customer focus, Teamwork, Quality System, Product and service design, Process Management, and Communication.

From the above literature the researcher identified six (6) TQM factors for this study (Top management commitment, Customer focus, Continuous improvement, Training and Education, Information and Analysis System and Employee empowerment and encouragement.

There are six TQM practices to manufacturing industry that are mentioned in different literatures are the following.

### **2.3.1 TOP MANAGEMENT COMMITMENT**

Top management commitment is a TQM factor that has been mentioned almost in all TQM literatures as a critical success factor of TQM. Top management commitment represents as an engine in mobilizing everyone in the organization and creates conducive environment for the successful implementation of TQM.

According to Pathirage, (2017) the essential task of the top management is to guarantee this transformation and ensure its commitment towards the TQM activities. In a TQM process, effective leadership should develop a clear mission statement and then build up strategies to support the mission. A sound foundation for initiating TQM activities is laid out by top management. Management's commitment towards quality sends positive signals down up to the shop floor and can inspire the whole organization.

According to Awuor and Wambui (2012) top management support is very crucial in implementing quality in an organization, however TQM process can be implemented effectively only when the whole organization accepts the responsibility and commitment of quality

management.

Top managers should understand and apply quality philosophies to achieve high performance levels in products and processes and to face the challenges of the new global competition. Top-management involvement should be demonstrated by actions that are needed and not just by words or declarations of quality policies. Thus, top management must exercise leadership abilities to influence the behavior of others Talib&Rahman, (2010)

### **2.3.2 CUSTOMER FOCUS**

Customer focus is the extent to which an organization continuously satisfies customer needs and expectations Zhang, (2000). Organizations should understand customers' demands and wants work to meet their requirements to satisfy customers and at the same time achieve organizational goal and missions which is fundamental concept of TQM.

According to Juran (1999) customer focus is to improving and enhancing business performance. It is the essence for success in today's business. For continuous improvement, a customer's requirements must be consistently measured and satisfied, methods such as market research, enquiring sales staff, and comparing competitors can be used to collect information.

Therefore TQM demands an organization continually examine its quality system to see if it is responsive to ever-changing customer requirements.

### **2.3.3 CONTINUOUS IMPROVEMENT**

According to (Malcolm Baldrige National Quality Award) core values or the concept of continuous improvement includes both incremental and breakthrough improvement activities in every operation, function, and work process in the company. It stresses that improvements may be made through enhancing value to customers; reducing errors, defects, and waste; improving responsiveness and cycle-time performance; improving productivity and effectiveness in the use of all resources; and improving the company's performance and leadership position in fulfilling its public responsibilities and corporate citizenship.

This requires asking everyone to do their jobs and ensure processes that are more effective, efficient, and adaptable. The principle of continuous improvement is keeping the never-ending

concept in everyone's mind and in every job Yusuf et al., (2007).

#### **2.3.4 TRAINING AND EDUCATION**

In the manufacturing sector, training and education means the training of employees and empowerment responsible for producing products. It is an essential part of TQM implementation, especially in manufacturing as it explores the knowledge to employees about the principles and core concept of TQM to achieve desired product. It also imparts knowledge of continuous improvement and innovation in manufacturing process to attain full benefits and business excellence. The core concept of training and education is to maintain high level of quality through the best use of talents and activities of an organization's entire workforce Talib &Rahman, (2010).

According to Yusuf et al. (2007) striving to maintain high levels of quality depends on the best use of the talents and abilities of a company's entire workforce. Training in quality-related concepts and tools is regarded as the most important factor in actually increasing employee's capacity to do their job, finding out and solving problems, releasing the full potential of workers and continuously improving quality. Further, training is usually related to changes. These changes include the variety of the business environment, improvement of organizational performance, higher requirements of operation, and the level of the employees.

Effective and efficient training programs in quality educate employees and managers for quality management implementation Talib &Rahman (2010). In this study also expected a strong relation between training and factories total quality performance.

#### **2.3.5 INFORMATION AND ANALYSIS SYSTEM**

Successful implementation of TQM can be achieved by equipping the employees with information regarding the process and the customers. Prompt, sufficient and pertinent data that are critical to the implementation and practice of TQM constitute information and analysis. In a TQM process people need to communicate across organizational levels, functions and locations to work out current problems, prevent new ones and implement change. Measures for proactive prevention rather than reactive correction are employed to monitor quality in order to sustain a true customer focus Sureshchandar (2010).

An organization should always analyze the feedback i.e. quality information which helps to improve the product quality on a continuous basis Talib &Rahman (2010).

### **2.3.6 EMPLOYEE EMPOWERMENT AND ENCOURAGEMENT**

According to Juran (1999) Empowerment is a condition in which the employee has the knowledge, skills, authority, and desire to decide and act within prescribed limits. The employee takes responsibility for the consequences of the actions and for contribution to the success of the enterprise. Juran explained the condition in an empowered organization; employees take action to respond to the needs and opportunities they face every day regarding customer satisfaction, safe operations, quality and value of products and services, environmental protection, business results, and continuous improvement of processes, products, and people.

Recognition and reward are both effective motivators and stimulators for desired performance and employee satisfaction. They are the key forms of positive reinforcement and for letting people know they are valuable members of the organization. People will strive to win them, not only for themselves but also for their team. Recognition and reward are acknowledged and promoted for goal-related activities. Recognition should be provided for the correct effort and results, for teams and individuals, for suggestions and achievements. But this does not always mean money. It should generate the employees' feeling of being appreciated, being approved, and having peer recognition. Reward can be given in many forms, times and places but must be meaningful and deserved Yusuf et al. (2007).

## **2.4 ORGANIZATIONAL PERFORMANCE**

One of the main elements to achieve an effective organizational management processes is the performance measurement. The performance of one organization can be directly related to its ability to achieve their strategic and financial objectives Li, (2006). The performance of organizations was largely neglected in past research, whereas some other Katou (2008) who were discussing the organizational performance with reference to the financial performance only. Stock et al. (2000) were also discussing the organizational performance through measuring both financial and market harmonic performance which includes the return on investment measures (ROI), sales profit and growth and market share progress. One fact must be also mentioned here

is that the organizational performance could be measured either depending on operational performance which is referring to the whole performance of one organization that includes financial performance, customer satisfaction and effectiveness of product quality Brah et al. (2000). Whereas the operational performance of one organization is directly handled with the enhanced delivery performance, flexibility, minimizing costs and errors and enhancing process productivity Nunnally, (1978).

#### **2.4.1 TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL PERFORMANCE**

Measurement of performance is considered as an essential element at all managerial approaches. Cost and quality are the two main measurements of organizational performance which directly affected by the total quality management practices Brun (2010)

Brun (2010) also agrees that applying various TQM practices such as training, process management, customer management, etc. influence employees performance which then directly affect the whole organization performance. Moreover, Gharakhani (2013) also indicated that TQM greatly influence the organizational performance especially in their financial performance.

Because of the increasing demand to achieve a high quality products and services, organizations have realized the importance of applying total quality management practices to the production processes in order to minimize costs and to create products with high quality characteristics. TQM is recognized as a strategy that considered customers as the main concern, in which it directly aims to provide them with a high quality services and products through adding continuous improvements in the production processes Harmon & Peterson, (1990).

Another researcher who is directly aimed to define the conflict of that existed between the thoughts of senior managers on TQM and middle level manager's visions. Soltani (2010) found that there exist four main TQM propositions which are affirmation of quality, individual, firm and the senior managers' functions. The main conclusions that were driven from Soltani research is that TQM is still considered as a new strategy and the main utilized approach to implement TQM is the quality control approach.

He also clarified the impact of TQM practices on the level of customer satisfaction especially in

the manufacturing sector and from the managers' perspective. The focus were planning in strategic way, management of processes and employees, leadership, customer concern, and measuring on both internal and external customers' satisfaction level for the quality of perceived products and services. This study has indicated that there is a positive relationship between TQM practices, employees focus with satisfaction levels of customers. The research findings also clarified that there is a strong relation between manager commitment and satisfaction of customers. On the other hand, some TQM practices such as planning in a strategic way and management of processes has less effect on satisfaction levels of customers.

Lord & Lawrence (2001) clarified that the management of quality process must start at the beginning of the project (the organization founding), and ends after achieving the quality standards. Each organizational member is also responsible to some extent on the organizational improvements. Quality can be defined as the ability of products and services to cover customers' demands and achieve high level of customer satisfaction Waldman, (1996).

Lakhal (2002) indicated that the practices of TQM is directly contributing in enhancing the performance of organizations by minimizing costs , enhancing the performance of staff members and increasing the degree of customer satisfaction .

Although Saizarbitoria (2006) clarified that TQM directly impact the performance of organizations in positive way, but Dooyoung (1998) indicated that in some cases the implementation of TQM cannot achieve the desired organizational goals.

## **2.5 EMPIRICAL LITERATURE REVIEW**

A study conducted by Talib and Rahman, (2010) proposed a TQM model which recognized as "Components of TQM" model. They clarified the main practices that could enhance the performance of organizations. The study also elaborates TQM practices include commitment of top-management, focus on customers, training and education, continuous improvement, supplier management, involvement and encouragement of employees, benchmarking, and quality information and performance. The outputs are the enhanced productivity and quality, the achievement of high level customer satisfaction, the improved customer loyalty and on-time delivery.

A study conducted by Samson & Terziovski (1999) pointed out that customer focus is the



underpinning principles for firms to implement TQM programs. Moreover they argued that the principle of customer focus could trap organizations into captive markets where they will focus on meeting the needs of existing customers and therefore view their business only through their current customer's eyes. As a result, these companies could fail to drive the search for innovative and novel solutions by ignoring the un served potential in the market.

Furthermore they added that TQM is combining the knowledge for the customers with other information and use the planning process to organize the future actions, managing the daily activities and achieving company's future goals.

A research conducted by (Soltani, 2005) asserts management leadership is considered to be major driver of TQM and it has a significant influence on determining whether or not a TQM program can be implemented effectively Management leadership in fact, refers to how management level guides and supervises personnel of a firm in an appropriate manner. Management level provides the necessary resources for training employees to meet the new requirements and/or changes that are resulted from TQM implementation, and consequently, creates a work environment which is conducive to employee involvement in the process of changes

In addition to soltani, researchers n Kaynak, (2003) point out effective management leadership is critical to influence the decision of selecting qualified suppliers and certifying suppliers for quality material

As per Monczka's (2012) conclusion management should be responsible for mentoring product design and considering market demands & consumer needs. In other words, the focus of management is essential for firms to produce goods that are manufacture able and meet the needs of customers. In conclusion, He asserts management level plays a significant role on conducting organizational operation and also highly influences the decision-making and resource allocation processes for supplier management and design management, respectively. Therefore, the authors propose that management level has positive effects on TQM.

According to Oakland, J. (2015) empowering employee's means sharing knowledge, encouraging, and recognizing their contributions. The study entails utilizing employees experience and operating with integrity helps to achieve high TQM in the organization. He also

remarks as Involvement creates awareness among the people in the organization which is important to meeting customer requirements. Lastly he concludes People get involved in the organization when they can identify constraints to their performance, evaluate their performance against set standards, actively seek opportunities to enhance their competence and freely share their work experience and knowledge. Employee's involvement acts as a strong stimulant and motivator to work, enhances creativity and innovation, provides an environment for people to accept ownership of problems and their responsibility to solve them and help understand the importance of their contribution in the organization.

According to Juran (1999, p.423) Empowerment is a condition in which the employee has the knowledge, skills, authority, and desire to decide and act within prescribed limits. The employee takes responsibility for the consequences of the actions and for contribution to the success of the enterprise

A research by Sureshchandar, (2010) declares information system is mandatory achieve a Successful implementation of TQM or it can be achieved by equipping the employees with information regarding the process and the customers.

## **2.6 RESEARCH GAPS**

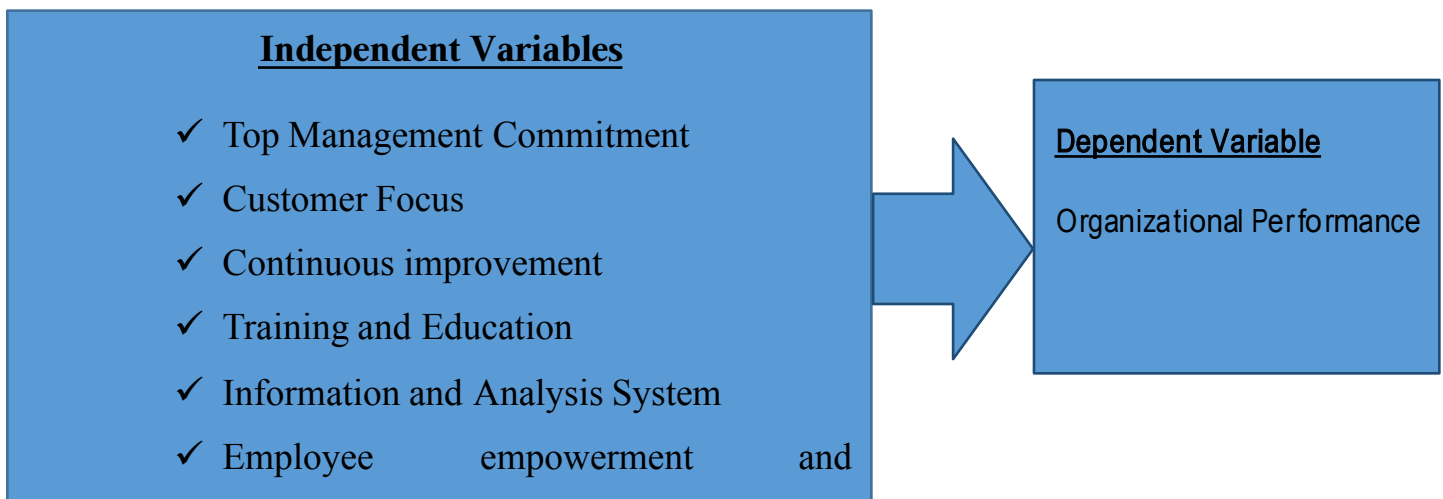
Researchers have greatly looked at the variable in details. However, a large number of literatures are written from a different cultural context as compared to the local culture under study. Ethiopia is still a developing economy and most of the structures have not been put in place, meaning that some of the ways proposed by some of the scholars to be the way forward may not work due to unpredictability of the situations in the country including our weak work culture, political violence, public demonstrations, and changes in trade policies, among many others. Some of these unique environmental factors that face a country like Ethiopia in general Hilina foods factory in particular have not been studied keenly.

Secondly, organizational culture is thinly defined to mean that all are expected to behave in a certain way. As much as this works best in the western world, it might be difficult especially in African countries like Ethiopia that has many cultures and vary in the way they look at things. Literature has not considered the variations of the different cultures exhibited by people who bring the same to the firms (people who influence culture in an organization)

## 2.7 CONCEPTUAL FRAME WORK

Conceptual framework indicates the main things to be studied. It shows up independent and dependent variables, and their assumed relationship that will be proved finally in data analysis. Based on the review of literature this study identified 6 essential TQM practices. These selected TQM practices have been used frequently by previous literatures in manufacturing industry and supposed to be the critical success factors of TQM, which was explained above. This conceptual framework was developed by the researcher Munizu (2013), and Olcay (2014). The independent variables is TQM principles (Top Management Commitment, Customer Focus, Continuous improvement, Training and Education, Information and Analysis System and Employee empowerment and encouragement) while the dependent variable is Organizational performance (Operation efficiency and employee satisfaction)

Figure 2.1 conceptual framework of Efficiency



Source: Survey Result, 2020

## CHAPTER THREE

### 3. RESEARCH METHODOLOGY

#### 3.1 RESEARCH DESIGN

To accomplish the study, researcher applied explanatory design. In other words, explanatory

research primarily focus on explain the nature of a demographic segment, with focusing on “why” a certain phenomenon occurs, in other words, it explains the cause, consequence and effect of the subject matter.

Regarding this study, the researcher will apply on explanatory design for different purpose. The design helped the researcher to examine the effect of TQM on Hilina Enriched Foods Plc.

### **3.2 RESEARCH APPROACH**

Research approach is a plan and procedure that consists of the steps of broad assumptions to detailed method of data collection, analysis and interpretation. It is therefore, based on the nature of the research problem being addressed

In this research, the researcher applied both qualitative and quantitative research approach. Qualitative research is an approach used largely in the social sciences to explore social interactions, systems and processes while quantitative approach emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon.

### **3.3. DATA SOURCE AND METHOD OF DATA COLLECTION**

In this study both primary and secondary data sources are used. With regard to secondary data source, relevant information was collected from reports of the factory and literatures thoroughly reviewed. These include reports, journals, books; websites etc. Primary Data was collected by questionnaire and interview questions. In addition, to have clear idea about the subject matter under this research, formal and in informal interviews were made with managers and experts of Hilina enriched foods factory

The instruments which were used to collect the necessary information regarding effect of total quality management practice in Hilina enriched food factory were secondary data analysis, interviews and questionnaires

### 3.4 RELIABILITY AND VALIDITY TEST

Reliability refers to the consistency or dependability of a measurement technique, and it is concerned with the consistency or stability of the score obtained from a measure or assessment over time and across settings or conditions. If the measurement is reliable, then there is less chance that the obtained score is due to random factors and measurement error (Kothari C. R., 2004). The internal consistencies of items were measured using Cronbach's alpha technique. Kothari C. R., 2004), Alpha is a measure for the internal consistencies of the items that together cover the specific factor.

Table 3.1: Reliability test result

Variables	No of Items	
Top Management Commitment	5	0.893
Customer Focus	3	0.883
Continuous improvement	6	0.883
Training and Education	3	0.881
Information and Analysis System	5	0.871
Employee empowerment and encouragement	8	0.891

Source: Survey Result, 2020

Cronbach's alpha reliability result of this study is on a average 0.882. Using rule of thumb of Kothari (2004) the Cronbach's alpha value of the study is within acceptable level. Regarding validity, specifically to total quality concept the researcher discussed with the quality department at Hilina Enriched foods Plc while in case of grammar and logical flow of questions the researcher consult the advisor for better improved. Due to this the validity issues were checked out.

### 3.5 POPULATION AND SAMPLING TECHNIQUES

In Hilina enriched foods plc. There are totally 253 permanent employees. Such numbers of the employees are assumed to be the population of this study.

### 3.6 SAMPLING PROCEDURE

In order to determine the sample size for the questionnaire survey, factory workers at different levels will be stratified based on the problem content knowledge and occupation. To do this, lists

of the entire factory workers already become under the researchers hand which primarily obtained from the factory administration then stratified it in to three groups.

The first group consisted production and quality heads shift leaders and supervisors, while Machine operators constituted the second group. The last group included casual workers and villagers.

### 3.7 SAMPLE SIZE DETERMINATION

In order to calculate the desired sample size from the target population, the researcher will be used the following formula;

Accordingly, to Kothari (2004):

$$n = \frac{Z^2 pq}{d^2} \dots\dots\dots \text{if } N > 10,000$$

$$fn = \frac{n}{1 + n/N} \dots\dots\dots \text{if } N < 10,000$$

Where N=target population

n= desired sample size

z= standard normal variant at the required confidence level (z-statistics)

p= estimated characteristics in target population

q=1-p (estimated characteristics in target population)

d=level of statistical significance (margin of error)

Therefore, the researcher were used the level of statistical significance 5% marginal error and z = 1.81, it is the value of standard variant at 95% confidence level. The researcher used 5% marginal error is because of there is no previous research or study conducted Hilina foods factory and the desired accuracy is tolerable up to 5% and therefore, the sample size is determined as by using the above formula,

$$n = \frac{Z^2 pq}{d^2}$$

$$fn = \frac{(1.81)^2 (0.5) (0.5)}{(0.07)^2} = 167$$

But when the population size is less than 10,000 the following formula will be used.

$$f_n = \frac{n}{1+n/N}$$

$$\frac{167}{(1+167/253)} = 101$$

Where,  $f_n$  = desired sample size when the population is less than 10,000

$n$  = sample size according to the previous formula

$N$  = estimated population size

Therefore, the sample size was 101 employees in Hilina enriched foods factory. By using sampling ratio or skip interval  $K = N/n$ . Then  $253/101 = 2.3$  which equal to 3. Finally by systematic sampling method, select the first respondents and lastly select the whole sample by 3th interval. Then the first respondent that will be selected by the lottery method from the list of employees will be No. 3. After that it will be selected 6, 9, 11, 14 and the like. In addition to this, the researcher conducted 9 concerned customers, including the interviewers by purposive sampling. Due to this total sample size was 110.

The following table shows the number of respondents with sample size and sampling techniques

Table 3.1 summary of samples

Stratum	Size of Population(N)	Proportion of total(p)	Sample size(n)	Sampling techniques
Permanent employees at Hilina foods	253	40%	101	systematic
Customers of Hilina	9	100%	9	convenience

Source: Human Resource Department, 2019

### 3.8 DATA ANALYSIS TECHNIQUES

After the data collected, data presentation and analysis is the necessary step. The information collected from both primary and secondary data sources through review of different documents and interviews informants, personal observations as well as questionnaire survey were organized

and narrated.

To analysis the data, Statically Package for Social science (SPSS) which is statistical software package would become applicable accordingly. To be specific, answers of respondents" on the questionnaire survey were summed up by frequency counts and then converted into percentages to provide the understandings of issue under discussion numerically. Regarding the quantitative data inferential statics that are correlation and regression and ANOVA were conducted via SPSS version 20

Regarding, the descriptive data obtained from the formal and informal interviews and qualitative data were analyzed by identifying the themes which informed the categories as they emerge from the data. Facts that were extracted from different documents were analyzed thematically and served to confirm study outcomes accordingly.

Indeed, data analysis was presented using tables and figures where necessary. Ultimately, generalizations were made and presented accordingly for the data by way of narrating and interpreting the situations.

### 3.9 MODEL SPECIFICATION

To examine the effect of total quality management practices on organizational performance the following linear regression model is developed. Variables are carefully selected in review of literature which needs to be specified. As a rule of thumb, the higher R<sup>2</sup> value in multiple regressions implies more likely that the important variables included in the model. Multiple Regression techniques employed to analyze the straight-line relationships among two or more variables and estimates the β's in the equation. Sample regression model equation for linear relationship among variables is;

$$y_j = \beta_0 + \beta_1 x_{1j} + \beta_2 x_{2j} + \dots + \beta_p x_{pj} + \epsilon_j$$

Where:

$Y_j$  is represents dependent variable for observation  $j$ .

$X_j$  is represents the independent variables (IV"s) for observation  $j$

$\beta_0$  is the intercept

$\beta$  is the unknown regression coefficients.

$\epsilon_j$  is the error (residual) of observation  $j$ .



Based on the above, the model is modified based on the research variables that described in the conceptual framework in chapter two, to examine the effect of total quality management practices on organizational performance of Hilina foods factory.

$$OP = \beta_0 + \beta_1 \text{TMC} + \beta_2 \text{CF} + \beta_3 \text{CI} + \beta_4 \text{TE} + \beta_5 \text{IS} + \beta_6 \text{EEE} + \varepsilon \dots\dots\dots 1$$

**OP** = organizational performance (Dependent Variable)

$\beta_1\text{TMC}$  = the partial change in organizational performance due to a change in Top management commitment while other things remain constant.

$\beta_2\text{CF}$  = the partial change in organizational performance due to a change in Customer focus while other things remain constant.

$\beta_3\text{CI}$  = the partial change in organizational performance due to a change in Continuous Improvement while other things remain constant.

$\beta_4\text{TE}$  = the partial change in organizational performance due to a change in Training and Education while other things remain constant.

$\beta_5\text{IS}$  = the partial change organizational performance due to a change in Information and Analysis System while other things remain constant.

$\beta_6\text{EEE}$  = the partial change in organizational performance due to a change in Employee Empowerment and encouragement while other things remain constant.

### **3.10 ETHICAL CONSIDERATION**

During data collection, respondents informed as to why the data would be collected. They informed about the objectives and methods of the study. The privacy of respondent kept safe. Moreover, respondents expected to provide their response voluntarily. Finally, any work of scholar would acknowledge at bibliography part.

## CHAPTER FOUR

### DATA ANALYSIS, DISCUSSION AND INTERPRETATION

#### 4.1 INTRODUCTION

This chapter covers the analysis and interpretation of the various data collected through the use of questionnaires and interview as per objectives of the study .The crucial emphasis of the research was to examining the effects of total quality management implementation on factory performance in Hilina enriched foods PLC. Primary data was collected from the employees of the factory using questionnaire and secondary data was collected through reviewing, journals, articles, books and the factors TQM policy, procedure and annual reports.

The collected data were described and analyzed using statistical tools: Descriptive and inferential statistics including linear regressions with the help of SPSS. The total number of employees at Hilina enriched foods PLC is two hundred fifty three (253). The samples of 110 employees including outstanding customers were taken and one hundred ten questionnaires were printed and distributed to respondents/employees. Out of 110 distributed questionnaires 100 of them are collected back which is 91% is collected. The total number of questions was 33 and below is the analysis of the collected data.

#### 4.1.1 DEMOGRAPHIC DATA

The demographic information of respondent gathered for the studies were sex, age and educational level.

Table 4.1 Gender, Age and Educational Level

No	Demographic characteristics	Description	Frequenc y	Percentag e
1	Gender	Male	60	60%
		Female	40	40%
2	Age	below 25	14	14%
		25- 35 years	41	41%
		36- 50 years	29	29%

3	Educational Level	above 50 years	16	16%
		Diploma Degree	30	30%
		BA/BSc. Degree	65	65%
		above MA/ MSc Degree	5	5%

Source: Survey Results, 2020

#### 4.1.2 GENDER OF RESPONDENTS

The study involved gender distribution of respondents in order to answer the questionnaires provided as shown on the table. The following figure 4.1 depicts that respondent of male and female participants. Out of 100 respondents 60 (60%) were male while 40 (40%) were females. This indicates that majority of Hilina enriched foods PLC employees are male. This implies that the male population of Hilina enriched foods PLC factory has the chance to be represented in every matter.

#### 4.1.3 AGE OF RESPONDENTS

When we look at the age group of respondents, the larger number of employees is between the ages of 25-35 which adds to 41 respondents representing to 41% of the total respondents.

Second largest age groups which constitute 29 % of the respondents are 36-50 years of age. The rest covers 30% of the population which accounts below 25 and above 50 years.

From this result we can observe that the majority of employees of Hilina enriched foods PLC are at the productive age group.

#### 4.1.4 EDUCATIONAL STATUS OF RESPONDENTS

Regarding the respondents educational background 65% of them were BA/BSc Degree holders while 30% of them are diploma holders. The remaining (5%) are above MA/SC holders. From this 70% of the employees are highly qualified which means that the practice of TQM in the factory can be easily understood and implemented as per the factory's quality standard.

## 4.2 THE CURRENT PRACTICE OF TOTAL QUALITY MANAGEMENT

In this section, the collected data was entered and reported using SPSS. The mean value and standard deviation of each factor is analyzed and presented. For a data set, the mean is the central value of a discrete set of numbers, specifically the sum of the values divided by the number of values. Standard deviation is a number used to tell how measurements for a group are spread out from the average (mean), or expected value. A low standard deviation means that most of the numbers are close to the average. A high standard deviation means that the numbers are more spread out.

**TABLE 4.2SUMMARIESOF INDEPENDENT VARIABLES**

No	Independent variables	Mean	Std. Deviation
1	Top management commitment	4.376	0.809956
2	Customer Focus	4.323	0.667603
3	Continuous Improvement	3.986	0.776887
4	Training and Education	2.261	0.743617
5	Information and Analysis System	3.848	0.909594
6	Employee Empowerment And Encouragement	2.726	0.816243

Source: Survey Result, 2020

### 4.2. 1 TOP MANAGEMENT COMMITMENT AND ORGANIZATIONAL PERFORMANCE

Table 4.3 Top Management Commitment

Questions items	Mean	Std. Devn.
High Top management commitment to TQM implementation	4.4400	.76811
Top management participates in the quality management system (QMS)	4.6000	.50000
Top management discusses quality issues in the meetings	4.4400	.86987

<b>of its members</b>		
<b>Top management incorporates the quality policy into the strategic planning.</b>	3.8800	1.12990
<b>Result are evaluated from Top mgt to check for improvement</b>	4.520	.7819

Source: Survey Result, 2020

The study set out to establish the extent to which respondents believed that the commitment of Top level management is critical for success of Total Quality Management. The respondents were presented with five Likert's scale questions relating to top management commitment. Regarding high top management commitment to TQM implementation, majority of respondents were agree that top management of Hilina enriched foods factory are committed enough to improve the TQM (Mean 4.4400, Std. DeV.76811). This result shows that majority of respondents (88%) agreed with the statement that top management support quality policies implementation within the institutions hence improving organizational performance.

In addition, Top management participates, discusses, incorporates the quality policy into the strategic planning and evaluated from top management (mean=4.36, SD0.985733333) or (87%) of the respondents agreed that top management of Hilina enriched foods factory engages in participation, discusses, and incorporates quality matters in their activity.

Researchers Awuor E. O. and Wambui J. (2012) point out top management commitment is regarded as essential to management initiatives. Measures of top management leadership for quality and board leadership for quality showed significant, positive relationships. Top management teams make strategic decisions, and the products of their decision making influence organizational performance.

This means that the stronger the commitment, the greater the potential for the quality success. External pressures for social performance encourage easily decoupled processes but that top management commitments can encourage both easily decoupled and integrated processes.

Furthermore as Brah S. and Madhu B. (2002) remark top management facilitates employee

empowerment and improved levels of job satisfaction through its leadership and commitment to the Total Quality Management (TQM) goal of customer satisfaction by creating an organizational climate that emphasizes total quality and customer satisfaction.

From an open ended question resonates assert Hilina enriched foods factory that has high top management commitment produces high quality products despite variations in individual constructs, and that in firms with low top management commitment four other constructs, i.e. customer focus, supplier quality management, empowerment, and internal quality information usage, are primary predictors of product quality.

#### 4.2.2 CUSTOMER FOCUS AND ORGANIZATIONAL PERFORMANCE

Table 4.4 Customer Focus and organizational performance

Question items	Mean	Std. Deviation
Staff of Hilina enriched foods plc. Provide products as promised	4.2500	.60792
Staff of Hilina enriched foods plc. have effective use of customer feedback	4.3600	.63770
Staff of Hilina enriched foods plc. give quick respond to customer complaints	4.3600	.75719

Source: Survey Result, 2020

The attention given to customer in Hilina enriched foods plc come up with (mean 4.323, SD 0.667) 86% of employees agree that all employees and managers in the factory give attention towards customers.

A Study Conducted By Dubale, T. E. (2010) remarks Customer focus is just one aspect of Quality Management and refers to paying keen attention to improving customer satisfaction which is aimed at customer retention, increasing customer loyalty, while at the same time increasing profits in the business, company or organization. It is about incorporating the customer's opinion into creation of a service or product and getting employees to look at the

process of service or product creation through the eyes of the customer.

88% of respondents agree that in Hilina enriched foods factory products were provided as promised and 12% of respondents become disagree on the time delivery of the product. Due to this quality Customers are more willing to purchase from Hilina enriched foods factory because they feel consider their needs when they create products and services. In Hilina enriched foods factory Customer service becomes a part of factory's brand.

A study conducted by Saunders, M., Lewis, P., & Thornhill, A. (2009) point out When customers hear the name of the business, they automatically associate it with knowledgeable and friendly sales professionals and a company dedicated to ensuring customers' needs are met.

### 4.2.3 CONTINUOUS IMPROVEMENT AND ORGANIZATIONAL PERFORMANCE

**Table 4.5 Continuous improvement and organizational performance**

<b>Questions items</b>	<b>Mean</b>	<b>Std. Deviat</b>
<b>Hilina enriched foods plc. staff review quality issue in top management meeting</b>	4.3600	.81035
<b>Feedback provided to employees on their quality performance</b>	3.7200	.61373
<b>Managers assume active roles as facilitators of continuous improvement, coaches of new methods, mentors and leaders of empowered employees.</b>	3.8000	.70711
<b>Hilina enriched foods plc. has assessments and improvement of processes, practices and services</b>	4.0400	.84063
<b>Quality data are used to evaluate managerial performance</b>	3.8400	.94340
<b>Hilina enriched foods plc. staff review quality issue in top management meeting</b>	4.1600	.74610

Source: Survey Result, 2020

As the above table showed the mean and the standard deviation of Continuous improvement with organizational performance (mean 3.99, SD0.777). In Hilina enriched foods plc Majority of the respondents (79.8%) agreed that employees are trained how engage in continuous improvement.

In Hilina enriched foods plc Continuous improvement is an organized approach to identifying opportunities for improvement that can help the factory meet its goals for increasing profits, reducing costs, and accelerating innovation. Continuous improvement is also used to enhance the quality of a product or service, and to improve safety. Continuous improvement is often part of a specific methodology such as Lean and Kaizen though this is not always the case.

A study conducted by Irfan, S. M., &Kee, D. H. (2013) point outs the foundation of continuous improvement is a cycle of capturing opportunities for improvement, implementing them, measuring the impact, and sharing the knowledge. With time and dedication, that cycle becomes self-sustaining as success inspires greater engagement, and a culture of continuous improvement spreads throughout an organization touching every process.

#### 4.2.4 TRAINING AND EDUCATION AND ORGANIZATIONAL PERFORMANCE

**Table 4.6: Training and Education and Organizational Performance**

Questions items	Mean	Std. Deviation
Hilina enriched foods plc. receives continuous training to provide good service	2.0840	.68799
Hilina enriched foods plc receives extensive customer service training before they come into contact with customers.	2.2200	.69041
Staff of Hilina enriched foods plc receives training on how to improve your product.	2.6800	.85245

Source: Survey Result, 2020

From the above table, the mean and standard deviation of Training and Education (mean= 2.261 SD=0.743617) in Hilina enriched foods plc. Majority of respondents (56.8%) disagree on the



practice of continual learning in the factory. In Hilina enriched foods plc factory training and development were not practiced as ongoing efforts that are made within factory to improve the performance and self-fulfillment of their employees through a variety of educational methods and programs.

A study conducted by Irfan, S. M., and Kee, D. H. (2013) explains in the modern workplace, efforts have taken on a broad range of applications from instruction in highly specific job skills to long-term professional development. He also remarks, training and development has emerged as a formal business function, an integral element of strategy, and a recognized profession with distinct theories and methodologies.

Hilina enriched foods plc were not practicing continual learning and other aspects of training and development as a means of promoting employee growth and acquiring a highly skilled work force. In fact, the quality of employees and the continual improvement of their skills and productivity through training were not recognized as vital factors in ensuring the long-term success and profitability of the factory. Top management of Hilina enriched foods plc did not try to create a corporate culture that supports continual learning.

According to Kulatunga, U., & Pathirage, C. (2017) "training" and "development" are used together to describe the overall improvement and education of an organization's employees. However, while closely related, there are important differences between the terms that center on the scope of the application.

In Hilina enrich foods factory, training programs have very specific and quantifiable goals, like operating annular piece of machinery, understanding a specific process, or performing certain procedures with great precision.

#### 4.2.5 INFORMATION AND ANALYSIS SYSTEM AND ORGANIZATIONAL PERFORMANCE

TABLE 4.7: Information and Analysis System and Organizational Performance

Questions items	Mean	Std. Deviatio
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	n	
Hilina enriched foods plc has an effective customer care system.	3.9200	.95394
Hilina enriched foods plc. has an effective communication system	3.8400	.94340
Hilina enriched foods plc. use advance technology	3.7600	.83066
Hilina enriched foods plc. has an effective use of data	3.8000	.86603
Hilina enriched foods plc. has documented procedures	3.9200	.95394

Source: Survey Result, 2020

As the above table shows the Mean and the standard deviation of information and analysis system (mean=3.848, SD 0.91). In Hilina enriched food plc majority of respondents agree on the effective implementation of Information system.

A study conducted by Boshoff, C., & Allen, J. (2000) remark management information systems and IT can increase factories performance. He also asserts the more volume of information (MIS) needed, the more advanced the IT that should be provided.

In Hilina enriched food plc majority of employees agree that Business strategy of the factory is more successful due to the existence of reliable advanced IT.

A study done by Bambauer-Sachse, S., & Rabeson, L. (2015) suggests the more use of advanced IT and information (MIS) provided, the more successful firm performance. IT can change and improve the efficiency and effectiveness of firm performance, while both management information systems and IT also improve and change the culture of firm performance to be more efficient and effective.

#### 4.2.6 EMPLOYEE EMPOWERMENT AND ORGANIZATIONAL PERFORMANCE

**Table4. 8: Employee Empowerment and organizational performance**

Questions items	Mean	Std. Deviation
Employees authorized to inspect their own work.	2.9600	.78951

Employees encouraged to find and fix problem	2.7600	.66332
Employees have given resources to fix problems	2.8000	.81650
Technical assistance given to employees for solving problems	2.8400	.85049
Supporting infrastructure given to employees for solving problems	2.0400	.88882
Employees are rewarded for dealing effectively with customers problems	2.1110	.902167
Employees are rewarded for satisfying complaining customers	2.8400	.85049
Employees receive visible recognition when they excel in serving customers	2.9600	.88882

**Source: Survey Result, 2020**

The mean and standard deviation of employee empowerment and organizational performance comes up (Mean= 2.73 SD 0.798). It refers to employees were not proactive and self-sufficient in assisting Hilina enriched foods factory to achieve its goals. In Hilina enriched food factory the term employee empowerment were not became prominent as part of the total quality management because majority of respondents (67.8%) do not agree that or reveals the lack of Employee empowerment in the factory.

Another practice of employee empowerment in Hilina enriched food PLC is a decrease in productivity.

A study conducted by Boshoff, C., & Allen, J. (2000) point outs a greater degree of employee commitment to organizational goals since employees can take some degree of ownership in the decisions made toward goal achievement.

In Hilina enriched food factory employees feel like their decisions do not matter. They did not feel accountable for the decisions they make.

## 4.3 THE ASSOCIATION BETWEEN TQM VARIABLE AND ORGANIZATIONAL PERFORMANCE

### 4.3.1 CORRELATION ANALYSIS

The Pearson's Product Movement Correlation Coefficient was computed to determine the relationships among top management commitment, customer focus, continuous improvement, training and education, information and analysis system, employee empowerment and encouragement. Correlation analysis is a useful way of exploiting relation (association) among variables. The value of the coefficient (r) ranges from -1 to +1. The value of coefficient of correlation (r) indicates both the strength and direction of the relationship. If  $r = -1$  there is perfectly negative correlation between the variables. If  $r = 0$  there is no relationship between the variables and if  $r = +1$  there is perfectly positive relationship between the variables (Kothari, C. R., 2004).

Table 4.12 Correlation among Total Quality Management Variables

Correlations		Top Management Commitment	Customer Focus	Continues improvement	Training	Information	Employee	Performance
Top Management Commitment	Pearson Correlation	1	.379	.470	.367	.342	.459	.459
	Sig. (2-tailed)		.001	.002	.001	.003	.003	.001
Customer Focus	Pearson Correlation	.379	1	.543	.367	.319	.353	.543
	Sig.(2-tailed)	.001		.000	.00	.001	.003	0.01
Continues Improvement	Pearson Correlation	.470	.543	1	.456	.303	.337	.361
	Sig. (2-tailed)	.004	.002		.004	.004	.005	.002

Training And Education	Pearson Correlation	.367	.367	.456	1	.254	.271	.251
	Sig. (2-tailed)	.001	.00	.004		.362	.736	.001
Information System	Pearson Correlation	.342	.319	.303	.254	1	.047	.259
	Sig. (2-tailed)	.002	.003	.004	.362		.005	.001
Employee Empowerment	Pearson Correlation	.459	.353	.335	.271	.047	1	.451
	Sig. (2-tailed)	.001	.002	.001	.003	.003		.003
Organizational performance	Pearson Correlation	.459	.543	.361	.251	.259	.451	1
	Sig. (2-tailed)	.001	0.01	.002	.001	.001	.003	

Source: Survey Result, 2020

Significant correlation existed between top management commitment and organizational performance ( $r=.4590$ ,  $p<0.05$ ). This implies that increase or decrease in the engagement of top management commitment is associated with similar change in factory performance.

There was also significant relationship between Customer Focus and organizational performance ( $r=.543$ ,  $p< 0.05$ ). Employee empowerment and organizational performance ( $r=.451$ ,  $p<0.05$ ). This implies that increase or decrease independent variable is associated with similar change in dependent variable which is organizational performance.

There is also positive significant correlation between training and education and continuous improvement ( $r=.456$ ,  $p<005$ ). This implies that the decrease and increase training and continuous improvement lead the same change in continuous improvement.

The correlation analysis indicates that there is positive correlations exist among total quality management variables.

#### 4.4 DIAGNOSTICS OF ASSUMPTIONS IN REGRESSION

Before conducting a regression analysis, the basic assumptions concerning the original data must be made. This is a mandatory prerequisite in explaining the relationships between dependent and explanatory variables. Four major assumptions have to be checked and proved to be met

reasonably well. In this study these important least square assumptions were checked and explained as below.

#### 4.4.1 SKEWNESS AND KURTOSIS

**Table 4.9 Testing the Skewness and Kurtosis of the Data**

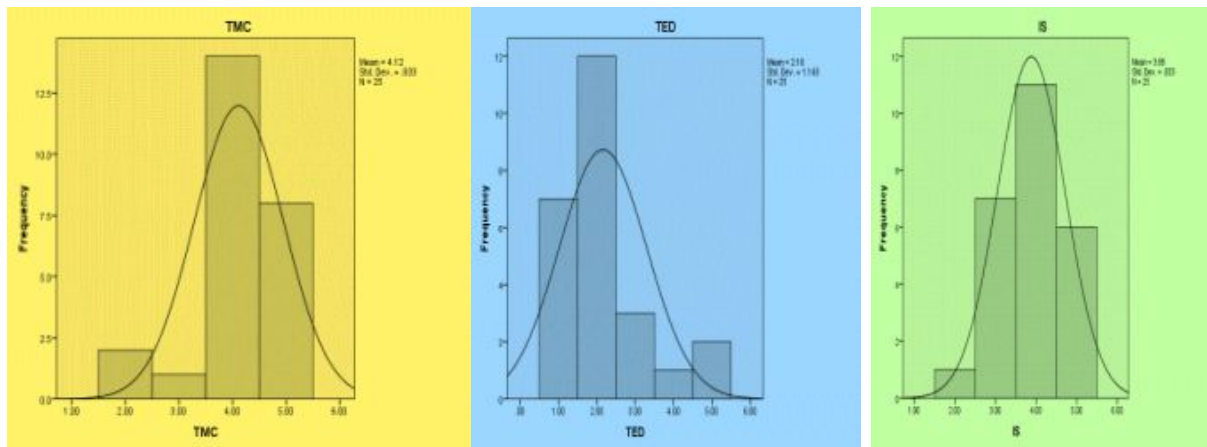
Kurtosis is a measure of the combined size of the two tails. It measures the amount of probability in the tails. Whereas, Skewness is essentially measures the relative size of the two tails. And, refer to distortion or asymmetry in a symmetrical bell curve, or normal distribution in a set of data. If the curve is shifted to the left or to the right, it is said to be skewness.

<b>Statistics</b>						
	Top management commitment	Customer Focus	Continuous Improvement	Training and Education	Employee Empowerment And Encouragement	Information and Analysis System
Skewness	.263	-.567	.108	-.284		.585
std. error of skewness	.427	.427	.427	.427		.427
Kurtosis	-.381	-.089	-1.085	-.443		.241
std. error of kurtosis	.833	.833	.833	.833		.833

Source: Survey Result, 2020

According to Kothari, C. R., (2004) the correlation value within the range of +1.96 and -1.96 are the said to be acceptable. Beyond these limits can be called skewed data He also argued that data is considered to be normal if Skewness is between -2 to +2 and Kurtosis is between -7 to +7. From rule of the thumb the researcher's data is normally distributed.

Figure 4.4 Data Distribution of independent variables

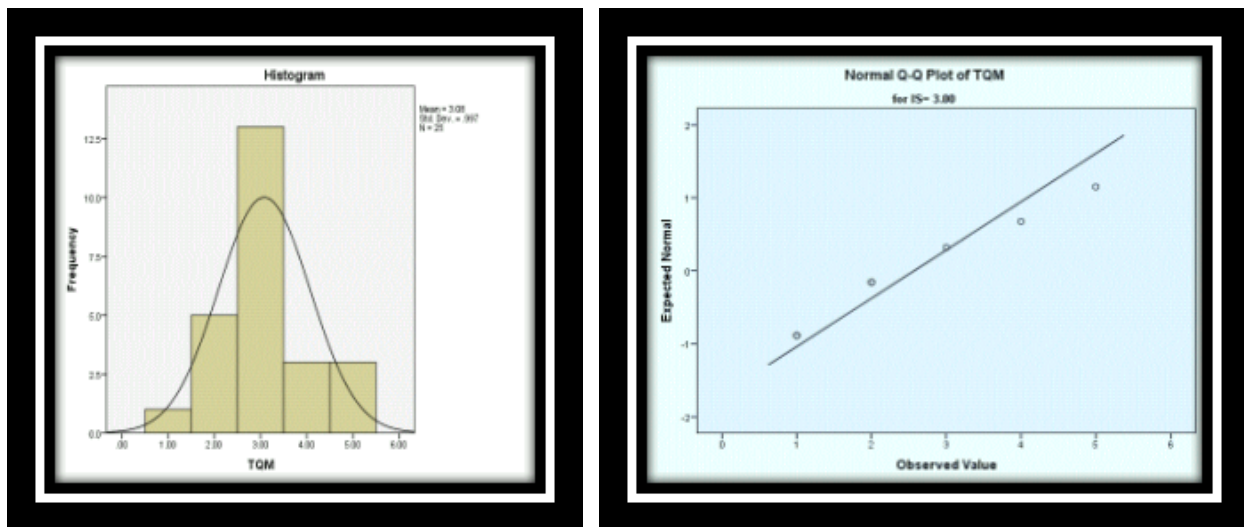


Source: Survey Result, 2020

#### 4.4.2 NORMALITY

Multiple regressions assume that variables have normal distributions (Darlington, 1968). This implies that errors are normally distributed, and that a plot of the values of the residuals will approximate a normal curve (Kothari, C. R., 2004). This assumption can be tested by looking at the P-P plot for the model together with histogram of the standardized residuals. The closer the dots lie to the diagonal line, the closer to normal the residuals are distributed.

Fig 4.5: Normality test



Source: Survey Result, 2020

In the above figure data distribution looks normal and in the P-P plots also the dots are reasonably closer to the normal line. The combination of both inspections support that the residuals are normally distributed.

#### 4.4.3 MULTICOLLINEARITY

Strong relationship between explanatory variables is a problem of multi-co linearity and not acceptable for ordinary list square regression analyses.

**Table 4.10 Multicollinearity test**

Coefficients			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Top management commitment	.966	1.035
	Customer Focus	.933	1.072
	Continuous Improvement	.951	1.052
	Training and Education	.919	1.088
	Information and Analysis System	.934	1.056
	Employee Empowerment And Encouragement	.943	1.076
a. Dependent Variable: TQM Performance			

**Source: Survey Result, 2020**

Variance-inflation factor (VIF) has also been checked and values are found smaller, which supports that multicollinearity is not a problem. Moreover, tolerance statistics in regression analysis helps to detect collinearity problem. Tolerance value runs from 0 to 1 and values closer to 1 indicates no multicollinearity problem (Kothari, C. R., 2004). In this study all the tolerances are above 0.9 and, therefore, the amount of variation in that construct is not explained by other predictors. All the two tests indicated that there is no multicollinearity problem.



#### 4.4.4 AUTOCORRELATION

Autocorrelation or independence of errors refers to the assumption that errors are independent of one another, implying that subjects are responding independently (Kothari, C. R., 2004). Durbin-Watson statistic can be used to test the assumption that our residuals are independent (or uncorrelated). This statistic can vary from 0 to 4. For this assumption to be met, the DW value needs to be close to 2. Values below 1 and above 3 are problematic and causes for concern.

**Table 4.11: Autocorrelation test**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.984 <sup>a</sup>	.967	.886	.05987	2.010
a. predictors: (constant), top management commitment, customer focus , continuous improvement, training and education, information and analysis system, employee empowerment and encouragement					
b. dependent variable: TQM Performance					

Source: Survey Result, 2020

#### 4.5 THE EFFECT OF TQM ON ORGANIZATIONAL PERFORMANCE

Multiple regression analysis applied to find out whether there was statistically significant relation surfaced between performance of total quality management and the six dimension (top management commitment, customer focus, continues improvement, training and education, information system and employee empowerment) of total quality management control variables or not.

Moreover, it helped to devise a formula that shows the relation between the dependent variable that is organizational performance and the independent variables (top management commitment, customer focus, continues improvement, training and education, information system and employee empowerment).

Table4.13 Model Summaries

Model Summary is to specify multiple models in a single regression command. This tells us the number of the model being reported “R”. R is the square root of R-squared and is the correlation between the observed and predicted values of dependent variables.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853 <sup>a</sup>	.626	.535	.17163
a. Predictors: (Constant), top management commitment, customer focus, continues improvement, training and education, information system and employee empowerment				

Table 4.14 ANOVAa results

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and form a basis for tests of significance.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.165	6	1.694	.230	.001 <sup>b</sup>
	Residual	13.675	18	.760		
	Total	23.840	24			
a. Dependent Variable: organizational performance						
b. Predictors: (Constant), top management commitment, customer focus, continues improvement, training and education, information system and employee empowerment						

TABES 4.15 Summaries of Coefficients

**Summaries**, a generic function used to produce result summaries of the results of various model fitting functions. The function invokes particular methods which depend on the class of the first argument. The **coefficient** of determination is a measurement used to explain how much variability of one factor can be caused by its relationship to another related factor.

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.196	1.769		2.372	.001
	Top Management Commitment	.385	.540	.102	.7129	.000
	Customer Focus	.358	.640	.069	.6629	.003
	Continues Improvement	.165	.630	.047	.2619	.003
	Training And Education	.396	.161	.054	2.459	.004
	Information System	.439	.230	.001	1.907	.003
	Employee Empowerment	.555	.534	.378	1.039	.002

a. Dependent Variable: organizational performance

Source: Survey Result, 2020

The e model analysis includes the independent variables (top management commitment, customer focus, continues improvement, training and education, information system, employee empowerment) and dependent variable (organizational performance).

As indicated in the above model summary and ANOVA table, the linear combination of the independent variable was significantly related to the dependent variable,  $R=.653a$ , adjusted R square=.535,  $F=23.0$  ( $p=0.001$ ).

An estimated 53.5% of total variation in the dependent variable, organizational performance, is jointly explained by the predictors, i.e., top management commitment, customer focus, continues improvement, training and education, information system, employee empowerment where as 48 % is explained by other factors. Therefore the total quality management of practice of the factory has equal determining power with other unexplained variables

#### 4.5.1 HYPOTHESIS TESTING

Based on the above model summery the hypothesis of the study tested as follows.

**Ho1: There is statistically significant relationship between top management commitment and organizational performances**

There is positive and significant relationship between top management commitment and organizational performance. The  $P < 0.05$  and the Value of Beta value .385 which shows that 38.5% variance in organizational performance is determined due to top management commitment. Thus top management commitment has positive and significant relation with organizational performance. Therefore H1 accepted

**Ho2: There is statistically significant relationship between customer Focus and organizational performances**

There is positive and significant relationship between customer Focus and organizational performance. The  $P < 0.05$  and the Value of Beta value .358 which shows that 35.8% variance in organizational performance is determined due to customer focus. Thus customer has positive and significant relation with organizational performance. Therefore H2 accepted

**HO3: There is statistically significant relationship between continuous Improvement organizational performances**

There is positive and significant relationship between continuous improvement and organizational performance. The  $P < 0.05$  and the Value of Beta .047 which shows that 4.7 % variance in organizational performance is determined due to continuous improvement. Thus continuous improvement has no positive and significant relation with organizational performance. Therefore H3 rejected.

**H4 There is no statistically significant relationship between training and Education organizational performances**

There is positive and significant relationship between training and education and organizational performance. The  $P < 0.05$  and the Value of Beta value .054 which shows that 5.4 % variance in organizational performance is determined due to training. Thus training has no positive and significant relation with organizational performance. Therefore H4 is rejected

**HO5: There is statistically significant relationship between information and**

## **Analysis System and organizational performances**

There is positive and significant relationship between information and organizational performance. The  $P < 0.05$  and the Value of Beta value .001 which shows that 1% variance in organizational performance is determined due to information system. Thus information system has no positive and significant relation with organizational performance. Therefore H5 rejected.

### **H06: There is no statistically significant relationship between employee empowerment and encouragement organizational performances**

There is positive and significant relationship between employee empowerment and organizational performance. The  $P < 0.05$  and the Value of Beta value .378 which show that 37.8% variance in organizational performance is determined due to employee empowerment. Thus employee empowerment has positive and significant relation with organizational performance. Therefore H6 accepted

## CHAPTER FIVE

### 5. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.1 SUMMARY OF FINDINGS

On the basis of the data analysis, the results support the following summary findings. The overall total quality management performance of Hilina Enrich Food Factory is rated as good with a total percentage of 79.4%. This indicates that Hilina enriched foods factory is not in its excellent performance level.

The data showed the existence of good relationship between top management commitment and organizational performance. Respondents revealed the prevalence of top management commitment to TQM implementation. Majority of respondents were agreed that top management of Hilina enriched foods factory is committed to improve the organizational performance via the total quality management. This result shows that majority of respondents (88%) agreed with the statement that top management support quality policies implementation within the institutions hence improving organizational performance.

The attention given to customer in Hilina enriched foods plc is at a best condition. In other words 86% of employees agree that all employees and managers in the factory give attention towards customers. Customer focus is highly considered to have influence in business performance of the organization. The organization focuses on customer needs; it focuses on understanding current and future customer needs. Similarly, increased revenue and market share obtained through flexible and fast response to market opportunities is considered to be an outcome of customer focus in the organization. 88% of respondents agree that in Hilina enriched foods factory products were provided as promised and 12% of respondents become disagree on the time delivery of the product. Due to this quality Customers are more willing to purchase from Hilina enriched foods factory because they feel consider their needs when they create products and services.

Regarding Continuous improvement, Majority of the respondents (79.8%) agreed that employees are committed on how to fulfill the customers need. In Hilina enriched foods plc Continuous improvement is an organized approach to identifying opportunities for improvement that can

help the factory meet its goals for increasing profits, reducing costs, and accelerating innovation but not the employees career. Continuous improvement is also used to enhance the quality of a product or service, and to improve safety.

In Hilina enriched food factory training and development were not practiced via ongoing manner. The mean and standard deviation of Training and Education were showed low value. In other words in Hilina enriched foods plc. Training and education were not practiced in comprehensive manner.

The practice of information and analysis system in the factory is in a good condition. In Hilina enriched food plc majority of respondents agree on the effective implementation of Information system. The factory used to effective ways it system to address the customers need.

Regarding employee empowerment and organizational performance, the factory was not implementing effective way. It refers to employees were not proactive and self-sufficient in assisting Hilina enriched foods factory to achieve its goals. In Hilina enriched foods factory the term employee empowerment were not became prominent as part of the total quality management because majority of respondents (67.8%) do not agree that or reveals the lack of Employee empowerment in the factory. Employees at all levels were not the crucial essence of the factory and their full involvements were not used for the organization benefit.

## **5.2 CONCLUSIONS**

The study examined the relationships between top management commitment, customer focus, continuous improvement, training and education , information and analysis system and

employee empowerment and encouragement and organizational performance.

This study concluded that top management commitment was critical for organizational performance. The study also found that top management in the institutions under study was willing to commit organizational resource in supporting total quality management. Results also indicated that institutional processes and procedures were standardized to meet total quality management requirements. Concerning customer focus, continuous improvement employees' involvement, this study concluded that employee involvement had a direct relationship with organizational performance. Employees were devoted to attend the customer's requirement within their respective responsibility. The factory focuses on current and future customer needs

Employees were not provided with adequate training and education to perform their tasks, and there were no clear communication channel between employees and top managers to have common understanding. Employees were not empowered and involved up the decision of the factory. Though Employee's were crucial to the factory, they have not been given the required level of attention.

Generally the study concluded that excellent performance level is not being realized by the factory. This is because only top management commitment, customer focus, continuous improvement, and IT system highly considered having influence in factor's performance while training and education of employees and their empowerment were not given due attention.

### **5.3 RECOMMENDATIONS**

Based on research findings and conclusions, the researcher felt that the following recommendations were necessary for Hilina enriched food factory.

- ❖ The factory's top management and share holders should improve the level of employee



motivation through training and education.

- ❖ The factory's top management should direct and link the employee's career structure towards the factory's goals and objectives.
- ❖ The top management and middle management of the factory should actively collect information that suggest new approaches, create a network of listening systems, among other strategies to understand the organizational environment and any signs of change.
- ❖ The top management and departmental managers of the factory should actively engage on employee's training and education program with total quality management of the factory.
- ❖ The top management and potential employees of the factory should properly draft strategies that enhance the participation of employee. And the factory should empower employees to decide up on themselves.

### **5.3 Limitation of the study**

The major constraints faced by the researcher while conducting this study were: First, lack of empirical research on the related study area especially in our country, and also the non-availability of adequately published and documented data on the topic.

Second, this study uses subjective measure of organizational performance by employees due to documented measure of organizational performance in the industry.

Lack of previous studies on the topic area globally as well as in Ethiopia and lack of secondary data which measures role of TQM on performance of the employees and organization enforce the researcher inclined on employee's perception of performance and TQM practice. Moreover the work nature of the respondents also enforces the researcher to use availability sampling which a convenience sampling is used to select individual's respondents who is available at a

given time

Directions for future researchers are listed below.

1. Regarding other top management variables that are not including in this research there are several so that the researcher can assess and support total quality management in the business sector.
2. Other than Hilina foods, other manufacturing industries Governmental and private company should focus on total quality management implementation.
3. Employees and other perceived experimental research about total quality management can be study is much better.

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**Appendices**  
JIMMA UNIVERSITY  
FACULTY OF BUSINESS AND ECONOMICS  
DEPARTMENT OF BUSINESS ADMINISTRATION  
ABH Compass Addis Ababa

**Questioners Filled By HILINA Food Processing Plc. Employees**

Dear Respondents!

I am a postgraduate student of the above mentioned university. I am currently undertaking a research project on the effect of total quality management practice on organizational performance in the case of HILINA enriched foods Plc. Please recall that you are selected as a possible participant because you are an employee of this organization. Your participation in the study is completely voluntary.

The research work is for academic purpose only. Any information obtained in connection with this study will remain strictly confidential.

The questionnaire will take approximately 20-30 minutes of your time. Your honest and true opinion will be valuable for this research. Thank you in advance for your assistance.

For any problem during or after the compilation of the questionnaires” you can contact me in the following address.

DemelashWorku

email-demelash\_wrk@yahoo.com

Mobile: 0944340758 or 0911947421



**Part one: Demographic Information**

- ✓ *Writing your name is not necessary.*
- ✓ *Put tick mark “√” for each question as required or answer the questions in the space provided.*

1. Sex                                    A. Male      B.Female
2. Age (Years)                        A. below 25    B.25- 35  
    C. 36- 50                                    D. above 50
3. Highest educational level  
  
A. Diploma Degree  
B. BA/BSc. Degree  
C. above MA/ MSc Degree

**Part II: Questions related to the Effect of Total Quality Management on Performance.**

**SDA=Strongly Disagree      SA=Strongly Agree**

**DA=Disagree                                    A=Agree**

**N=Neutral**

NO	Question items	SDA	DA	N	A	SA
	Questions related to TMC					
1	High Top management commitment to TQM implementation					
2	Top management participates in the quality management system (QMS)					
3	Top management discusses quality issues in the meetings of its members					
4	Top management incorporates the quality policy into the strategic planning.					
5	Results are evaluated from top management to					

	check for improvements					
	<b>B. Questions on Customer Focus</b>					
<b>6</b>	Staff of Hilina enriched food processing plc. provide products as promised					
<b>7</b>	Staff of Hilina enriched food processing plc. have effective use of customer feedback					
<b>8</b>	Staff of Hilina enriched food processing plc. give quick respond to customer complaints					
	<b>C. Continuous Improvement</b>					
<b>9</b>	Hilina enriched food processing plc. staff review quality issue in top management meeting					
<b>10</b>	Feedback provided to employees on their quality performance					
<b>11</b>	Managers assume active roles as facilitators of continuous improvement, coaches of new methods, mentors and leaders of empowered employees.					
<b>12</b>	Hilina enriched food processing plc. has assessments and improvement of processes, practices and services					
<b>13</b>	Quality data are used to evaluate managerial performance					
<b>14</b>	Hilina enriched food processing plc. staff review quality issue in top management meeting					
	<b>D. Training and Education</b>					
<b>15</b>	Hilina enriched food processing plc. receives continuous training to provide good service					
<b>16</b>	Hilina enriched food processing plc. receives extensive customer service training before they come into contact with customers.					
<b>17</b>	Staff of Hilina enriched food processing plc. receives training on how to improve your product.					
	<b>D. Information and Analysis System</b>					

18	Hilina enriched food processing plc. has an effective customer care system					
19	Hilina enriched food processing plc. has an effective communication system					
20	Hilina enriched food processing plc. use advance technology					
21	Hilina enriched food processing plc. has an effective use of data					
22	Hilina enriched food processing plc. has documented procedures					
	<b>E. Employee Empowerment And Encouragement</b>					
23	Employees authorized to inspect their own work.					
24	Employees encouraged to find and fix problem					
25	Employees have given resources to fix problems					
26	Technical assistance given to employees for solving problems					
27	Supporting infrastructure given to employees for solving problems					
28	Employees are rewarded for dealing effectively with customers problems					
29	Employees are rewarded for satisfying complaining customers					
30	Employees receive visible recognition when they excel in serving customers					
	<b>Questions for organizational performance</b>					
31	TQM practices like training and empowerment improves my ability to fix customer problem in a fair manner					
32	TQM enhanced customer focus in offering compensation like discount/refund/replacement for					

	product failure					
<b>33</b>	Due to TQM implementation no customer I dealt with leaves with problems unresolved					

34. How Do You the Total Quality Management Practice of Hilina Enriched Food Factory

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35. What Are the Gaps of Practicing Total Quality Management Practice of Hilina Enriched Food Factory

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Thank you in advance!

## Appendix 3

NO	Question items	Mean	Std. Deviation
<b>Top management commitment</b>			
1	High Top management commitment to TQM implementation	4.4400	.76811
2	Top management participates in the quality management system (QMS)	4.6000	.50000
3	Top management discusses quality issues in the meetings of its members	4.4400	.86987
4	Top management incorporates the quality policy into the strategic planning.	3.8800	1.12990
5	Results are evaluated from top management to check for improvements	3.8000	.95743
<b>Customer Focus</b>			
6	Staff of Hilina enriched food processing plc. provide products as promised	4.2500	.60792
7	Staff of Hilina enriched food processing plc. have effective use of customer feedback	4.3600	.63770
8	Staff of Hilina enriched food processing plc. give quick respond to customer complaints	4.3600	.75719
<b>Continuous Improvement</b>			
9	Hilina enriched food processing plc. staff review quality issue in top management meeting	4.3600	.81035
10	Feedback provided to employees on their quality performance	3.7200	.61373
11	Managers assume active roles as facilitators of continuous improvement, coaches of new methods, mentors and leaders of empowered employees.	3.8000	.70711
12	Hilina enriched food processing plc. has assessments and improvement of processes, practices and services	4.0400	.84063
13	Quality data are used to evaluate managerial performance	3.8400	.94340
14	Hilina enriched food processing plc. staff review quality issue in	4.1600	.74610

	top management meeting		
	<b>Training and Education</b>		
15	Hilina enriched food processing plc. receives continuous training to provide good service	2.8400	.68799
16	Hilina enriched food processing plc. Receives extensive customer service training before they come into contact with customers.	2.3200	.69041
17	Staff of Hilina enriched food processing plc. Receives training on how to improve your product.	2.6800	.85245
	<b>Information and Analysis System</b>		
18	Hilina enriched food processing plc. has an effective customer care system	3.6800	.74833
19	Hilina enriched food processing plc. has an effective communication system	3.8400	.94340
20	Hilina enriched food processing plc. use advance technology	3.7600	.83066
21	Hilina enriched food processing plc. has an effective use of data	3.8000	.86603
22	Hilina enriched food processing plc. has documented procedures	3.9200	.95394
	<b>Employee Empowerment And Encouragement</b>		
23	Employees authorized to inspect their own work.	2.9600	.78951
24	Employees encouraged to find and fix problem	2.7600	.66332
25	Employees have given resources to fix problems	2.8000	.81650
26	Technical assistance given to employees for solving problems	2.0400	.88882
27	Supporting infrastructure given to employees for solving problems	2.8400	.85049
28	Employees are rewarded for dealing effectively with customers problems	2.9600	.88882
29	Employees are rewarded for satisfying complaining customers	2.9600	.78951
30	Employees receive visible recognition when they excel in serving customers	2.7600	.66332
	<b>organizational performance</b>		
31	TQM practices like training and empowerment improves my ability to fix customer problem in a fair manner	3.9600	.97809

32	TQM enhanced customer focus in offering compensation like discount/refund/replacement for product failure	3.8000	.81650
33	Due to TQM implementation no customer I dealt with leaves with problems unresolved	3.7200	.97980

Source: Survey Result, 2020