ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

PRACTICES AND CHALLENGES OF KAIZEN IMPLEMENTATION

(CASE STUDY- ETHIO TELECOM ADDI ABABA OFFICES)

BY

AMANUEL TEKLU

JULY 2014

ADDIS ABABA, ETHIOPIA

PRACTICES AND CHALLENGES OF KAIZEN IMPLEMENTATION

(CASE STUDY- ETHIO TELECOM ADDI ABABA OFFICES)

BY

AMANUEL TEKLU

A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY COLLEGE, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

JULY, 2014

ADDIS ABABA, ETHIOPIA

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

PRACTICES AND CHALLENGES OF KAIZEN IMPLEMENTATION

(CASE STUDY- ETHIO TELECOM ADDI ABABA OFFICES)

BY

AMANUEL TEKLU

APPROVED BY BOARD OF EXAMINERS

_____   _____

Dean, Graduate Studies   **Signature & Date**

_____   _____

Advisor   **Signature & Date**

_____

                                      _____

External Examiner   **Signature & Date**

_____   _____

Internal Examiner   **Signature & Date**

DECLARATION

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

_____   _____

Name   Signature July, 2014

TABLE OF CONTENTS

Acknowledgments

Abbreviations and acronyms

ADSL	Asymmetric Digital Subscribers Line
BPR	Business process reengineering
CAF	Customer Acquisition Form
CCQC	Cross Cutting Quality Circles
EKI	Ethiopian Kaizen Institute
ETA	Ethiopian Telecommunication Authority
ETC	Ethiopian Telecommunication Corporation
EVDO	Evolution data only
FAN	Fixed access network
FL- NGN	Fixed line Next Generation Network
GTP	Growth and Transformation Plan
JICA	Japan International Cooperation Agency
KPI	Key performance indicator
MCIT	Ministry of Communication & Information Technology
MSAG	Multi-service access gateway
PDCA	Plan, Do, Check and Act
PT&T	Post Telegraph and Telephone
QCC	Quality Control Circles/Quality Circles
QCD	Quality, Cost and Delivery
Q & P	Quality and process Division
SDCA	Standardize, Do, Check and Act

SIM   Subscriber identity module

SLA   Service level agreement

SQC   Standard Quality Circles

TPS `   Toyota Production System

TQM   Total Quality Management

TT   Trouble Ticket

WCDMA   Wide band code division multiple access

3G   Third Generations

5S's   Sorting, Setting in Order, Shining/Sweeping, Standardizing and Sustaining

List of tables

List of figures

List of photographs

Abstract

KAIZEN is a system of continual undertaking by an organization to improve its business activities and processes with the goal to improve quality of products and services so that the organization can meet full customer satisfaction. KAIZEN can be built in and run with an integrated and company-wide approach through collaboration of all the levels of the organization that are top management, middle managers and front-line employees. Commitment, genuine participation and motivation of all the three actors are critical factors. The purpose of this study aimed at assessing the practices and challenges that faces Ethio telecom in implementing and sustaining kaizen. Quality circles are established and the five S's were deployed as a beginning of kaizen implementation in Ethio telecom. The research is descriptive research type and its very basic aim is to explore or to gain additional information about the subject area and to identify areas of further investigation. The study employed simple random sampling for members of the standard quality circle to select the sample. It is found out that, top management commitment in building and sustaining a continuous improvement culture, clear communication channel, involvement of all members of the company, training on kaizen methodologies as well as fair and equitable motivational schemes including empowerment has a great impact on the effectiveness of kaizen practices. The levels of all the above mentioned factors are well not practiced in Ethio telecom in ingraining the culture of kaizen. Revisiting the mission statement, engaging top management in owning kaizen and delivering training on a continuous basis for all members of the company besides to working together with institutions specialized in kaizen plays a great role in bringing the aspired change from kaizen.

CHAPTER ONE

1. INTRODUCTION

This chapter presents an overview of the entire study. It includes background of the study, statement of the problem, objective of the study, research questions, definition of terms, significance of the study, scope of the study and organization of the research report.

1.1 Background of the study

In Japanese, kaizen means "continuous improvement." The word implies improvement that involves everyone—both managers and workers—and entails relatively little expense (Masaki Imai, 2000). The introduction of kaizen traces back to post WWII. The Toyota Production System is known for kaizen, where all line personnel are expected to stop their moving production line in case of any abnormality and, along with their supervisor, suggest an improvement to resolve the abnormality which may initiate a kaizen. This show kaizen has brought great success in the Japanese economic current economic condition and originates in the manufacturing sectors.

Katsuki.et.al, 2008 describes that Kaizen is more than just a means of improvement because it represent the daily struggles occurring in the workplace and the manner in which these struggles are overcome. Kaizen can be applied to any area in need of improvement. Although the philosophy of Kaizen is mostly applicable manufacturing areas, currently most service sectors are engaged in deploying kaizen as their leading quality management tool. Applicability areas of kaizen are not limited to manufacturing rather it can be applied in different sectors of the economy that require continuous improvement in their activities.

From an economic perspective, a service is an intangible commodity and can be seen as the intangible equivalent of tangible economic goods (Suarez.et.al, 2009). Service organizations require special management approaches that go beyond simply adapting of management techniques prevailing in manufacturing organizations. Unlike that of manufactured entity, service sectors requires due emphasis in the deployment of kaizen or any management system due to their salient features that distinguish them. The challenges in service management change with

the degree of customer contact, the service's individual customization, and intensity of labor (Katsuki.et.al, 2008).

The introduction of kaizen in Ethiopia does not have a long history as compared to other management systems like business process reengineering (BPR). Kaizen institute was established under the ministry of trade the then ministry of trade and industry at 2009 after a bilateral agreement between government of Ethiopia and Japan is signed (company magazine of EKI, 2013). This kaizen unit in coordination with consultants from JICA selected 30 pilot manufacturing industries within and around Addis and endorsed its applicability and effectiveness to expand to the rest of companies in the country. Some of those pilot companies that attain great success are Kadisco Chemicals industry, Maru metal industry.

Besides to the multi-vendor financing project Ethio telecom started to implement kaizen as a quality improvement mechanism to excel its service provisioning capacity than it was before. As for implementing kaizen overall the company, Ethio telecom introduced quality circles both at corporate level and regional level and also integrating deployment of 5S as a primary activity towards its quality improvement strategy (unpublished Ethio telecom newsletter no 1, 2012).

There are 9 cross-cutting quality circles at corporate level established with specific objectives examples mobile quality circle- objective of maintaining the quality of mobile network, minimizing the call drop rate and others. On the other hand, there are eight regional cross cutting quality circles, which are established based on the geographic location of the regions and they expected to solve problems on that specific region. For example north region cross-cutting quality circle, north east region cross cutting quality circle and others. The primary reason for establishing these quality circles is to address issues that are transversal and critical by their nature as well as customer experienced problems (unpublished Ethio telecom newsletter no 1, 2012).

The quality circles established in Ethio telecom also have other dimensions other than cross-functional basis i.e. standard quality circle that deal with the daily operational works of employee and improve the way they do their daily tasks as well as resolving problems encountered. Quality and Process division centrally manages all the established quality circles and projects related with quality issues). In their establishment, standard quality circles, were supposed to be led by

either a manager or supervisor and these leaders weekly report achievements and constraints to their officers (facilitators) in their weekly meeting and the facilitators were expected to send a report those constraints which are beyond their capacity to the respective CxOs.

Thus, the purpose of this study is to assess the level of kaizen practices and challenges the company is facing in achieving its objectives from kaizen implementation. Based on the assessments, the researcher forwarded possible recommendations that will contribute for the proper implementation of kaizen.

1.2 Background of the company

Telecommunication service was firstly introduced in Ethiopia by Emperor Menelik II in 1894 when the construction of the telephone line from Harar to the capital city, Addis Ababa, was commenced. Then the interurban network was continued to expand satisfactorily in all other directions from the capital (company profile magazine, 2013).

After the independence from Italian occupation, the re-established ministry of Post, Telegraph and Telephone (PT&T) took over the running of telephone, telegraph and radio communications. It is therefore, rehabilitated the network of the whole country. Then after, the company went through different sort of organizational establishments during the imperial and Dergue regime.

Since its establishment, telecommunication services in Ethiopia have ever been state-owned. The Ethiopian Telecommunications relatively enjoyed a certain degree of autonomy from 1953 up to 1974.

After the downfall of the military regime in May 1991, the telecommunication sector was restructured and two separate entities namely; the Ethiopian Telecommunications Authority (ETA) and Ethiopian Telecommunications Corporation (ETC) were established by Proclamation No. 49/1996 on November 1996.

At a continuation of 2005/06-2009/10 five year plan and after concentrating its effort on education, health and agriculture, the Ethiopian government has decided to focus on the improvement of telecommunication service, considering them as a key lever in the development of Ethiopia, Ethio telecom is born, on Monday 29th November 2010. From this ambition of

supporting the steady growth of our country, within the Growth Transportation Plan (GTP), with ambitious objectives for 2015 (company Profile magazine, 2013).

Fixed line next generation network (FL-NGN), third generation network (3G) of mobile service based on wide band code division multiple access (WCDMA) , the launching of new financial system/ERP based on the latest technology- Oracle Finance and online billing system are some of the major milestones that are achieved in the telecom sector.

Following the official launch of the program "together towards quality program" on July 10th, 2012 by the then CEO of the company Bruno Duthoit, ethio telecom started the implementation of kaizen philosophy using quality circles as a tool to improve quality of service and solve customer experienced problems (unpublished Ethio telecom newsletter no 1, 2012). According to the interview made with Q&P officers, the company tried to implement business process reengineering integrating with balanced score card some 8 years before to improve quality of service but failed at its first stage of implementation due to reasons mainly associated with recurrent organizational restructuring.

1.3 Operational Definitions of Key Terms

- **Kaizen:** Kaizen is a Japanese word that has become common in many western companies. The word indicates a process of continuous improvement of the standard way of work (Masaki Imai, 2000).

- **Quality circles:** (Imai, 2000) states a quality circle is "a small group of people doing similar work who meet voluntarily and regularly, usually under the leadership of their supervisors, they identify and discuss their work problems".

- **5S:** The 5S is the acronym of five Japanese words which stands for seiri (organization), seiton (neatness), seiso (cleanliness), seiketsu (standardization) and shitsuke (discipline) (Katsuki.et.al, 2008).

- **Waste:** a wide range of non-value adding activities

- **Empowerment:** environment in which people have the ability, the confidence, and the commitment to take the responsibility and ownership

- **Cross cutting quality circle**: are temporary and will be closed when they achieve their planned actions fully or new QCs may be created when needed. their main goal is to address transversal/ critical issues communicate with standard quality circles & support in solving transversal problems

- **Standard quality circle:** are permanent will become more mature & developed from time to time their main goal is to implement the 5S and address day to day problems related to their domain and improve their way they do their tasks

1.4 statement of the problem

In an increasingly globalized economy, information technology is one of the key determinants of competitiveness and growth of firms and countries. Companies can maintain their service quality using different approaches including deployment of huge capital investment. Quality of service can also be achieved through adopting different quality methodologies like: Total Quality Management, SIX sigma, kaizen, lean system and a combination of these and others.

Many studies over time have concluded that access to telecom has a fairly strong impact on growth and economic development, as well as poverty reduction. Many in the 'ICT for development' movement highlight the benefits that telecommunication, the Internet and other information and communication technologies (broadly put, ICTs) can bring to the table in the fight against poverty (Harsha.et.al, 2008). A recent study of transaction costs incurred by farmers in the Matale district in Sri Lanka demonstrated that by replacing half of the trips made by the farmer to obtain information with telephone calls, the cost of information (the largest component of a farmer's transaction costs) could be reduced by one third; however, the proportion of total costs that would be reduced is in the region of three percent (Harsha.et.al, 2008). Having effective and competent telecom infrastructure has a far reaching consequence on the overall growth of a country.

Kaizen is a philosophy that inspires the whole company with the instinct for improvement. The culture of seeking continuous improvement and involve everyone from the most senior manager to the most junior employee. Kaizen is a system that involves every employee - from upper

management to the cleaning crew. Everyone is encouraged to come up with small improvement suggestions on a regular basis (Imran et.at, 2011).

There are six supportive dimensions, which should be present to complement and support the primary dimensions of Kaizen as stated by Suarez.et.al, (2008). These dimensions include: training, commitment from top management participation of all members of the company, appropriate motivational schemes communication and cultural aspect in the company with regard to positive mind set of employees.

Ethio Telecom which is the sole telecom service provider in Ethiopia has implemented Kaizen (continuous improvement) as service quality philosophy to bring about satisfactory level of quality in all its services. Though the system was deployed two years before using methodology of quality circle, it can't realize the objective of the company.

With a preliminary assessment, interview, on service quality for randomly selected 30 enterprise customers at Ethio telecom shop, all sample population responded that the service quality is getting worse than ever before. In addition from a preliminary questionnaire distributed to employees working in all 13 divisions including zonal offices and shops in Addis Ababa showed the standard quality circles are not effective enough in bringing the change desired. The service quality deterioration is explicitly manifested by customer dissatisfaction especially those corporate customer whom they took the lion's share in revenue contribution of the company. Besides to connecting every part of the country through information communication technology, the company has a mission of building reputable brand for its customer both in domestic and international arena by delivering quality service (company Profile magazine, 2013).

Furthermore, a command post supervision which is accountable for ministry of information and technology (MCIT) in its unpublished annual report (2013) stated that the standard quality circles established in Ethio telecom are not effective in bringing about the change which the company envisioned. From the unpublished report of yearly GTP evaluative Training 2013, which the company held two times so far that discusses on issues related to the telecom sub-sector, make clear that kaizen is not being practical as it is planned in general and that the established standard quality circles are not brining the change which the company aspired in particular.

Due to the aforementioned reasons, this research is conducted to identify the challenges and constraints why the company can't bring the expected outcome from deploying kaizen at corporate offices i.e. Addis Ababa.

1.5 Basic research questions

To assess the degree of practices and challenges of kaizen implementation as quality management system in Ethio telecom, the study was guided by the following basic research questions:

> ➢ What is the level of training on kaizen in Ethio telecom?
> ➢ What are the level of top management commitment in the implementation as well as sustaining of kaizen as corporate culture?
> ➢ How do the communication practices look like; with regard to reporting templates and communication barriers that quality circles face?
> ➢ How are employees motivated towards implementing and sustaining kaizen in relation with corporate culture as well as positive mindset?
> ➢ How is the level of employee involvement and participation in the implementation of kaizen?
> ➢ What possible strategies Ethio telecom should put in place to facilitate the effective implementation of kaizen as quality management system?

1.6 Objectives of the study

This study consists of general and some specific objectives to be achieved at the end.

1.6.1 General objective

> ➢ The major objective of this study is to assess the practices and challenges of kaizen implementation in Ethio telecom.

1.6.2 Specific objectives

➢ To determine the level of kaizen training in Ethio telecom.

➢ To determine management of Ethio telecom is committed on the implementation and sustain of kaizen as corporate culture

➢ To find out whether communication barrier exists between staffs and the management in the implementation and sustaining of kaizen practices

➢ To identify the extent to which employees/quality circles are motivated empowered and existence conducive culture that support kaizen implementation

➢ To identify whether existence companywide participation in the implementation of kaizen practices i.e. 5s deployment, waste elimination, problem solving

➢ To forward possible recommendations based on the study

1.7 Significance of the study

Though the implementation of kaizen in Ethiopia doesn't have a remarkable background, there are progresses and changes observed in areas where it is applied as a management philosophy. So this study is:

➢ Helpful in identifying the most important challenges and presenting possible solutions in deploying as well as sustaining kaizen culture in Ethio telecom. Hence, the company will be beneficiary in way of fine tune the implementation of kaizen philosophy, identify its problems and constraints in the implementation of kaizen and sustain the culture of kaizen which in turn materialize its short term and long term objectives from the results of the study.

➢ Besides other organizations in the country can take this study as a springboard to customize for their own scenario and improve their service delivery efficiency by keeping quality of the service on the improvement wheel since service quality is the overriding issue of many companies.

➢ Furthermore, the research could be used as a cornerstone for those concerned bodies that have interest to study on the area. Results of the study may be important inputs for further research to be done on the area.

1.8 Scope of the study

The study is only limited to kaizen practices at the workplace of corporate standard quality circles because the cross cutting quality circles are deployed and are making some progresses and it is the standard quality circle that is expected to bring about the overall change/continuous improvement that is expected to be instilled in the company which actually failed to be practical as identified through the preliminary questionnaires distributed to some selected employees. The study area emphasized on: level of awareness and training on kaizen methodologies, top management commitment to the kaizen culture, companywide participation, motivation and empowerment aspects, communication as well as corporate culture and positive mindset.

1.9 Organization of the study

The study is presented in five chapters. The first chapter is the introduction part; it introduces background of the study, problem discussion, basic research questions, research objectives, definition of terms & purpose of the study. The second chapter is a review of related literature and it focuses on significant factors that are related to the study area. Chapter three provides information about the methods used in this study to provide a solution for the research questions posed earlier in this study. The methodology illustrates how necessary data is collected and the usage of the gathered data to answer the research questions. The fourth chapter discusses data analysis and interpretation. The fifth and final chapter gives conclusion and relevant recommendations based on the findings of the study. At the end references and appendixes are presented.

1.10 Ethical Consideration

The study is conducted to identify the challenges and practices of kaizen in Ethio telecom and used data collection tool of interview questions for higher officials. Respondents were informed that their responses are only for academic purpose and will be treated utmost confidentially. Anonymity of their identity and confidentiality of their response is also written on the questionnaire paper.

CHAPTER TWO

2. LITRATURE REVIEW

2.1 Theoretical Literature

2.1.1 Kaizen overview

This section went through critical review of relevant theories, which need to be reflected to build a substantial theoretical framework for the study. This chapter focuses on fundamentals of kaizen and factors that need to be in to consideration while implementing it in organizations.

In Japanese, kaizen means continuous improvement. The word implies improvement that involves everyone- both managers and workers- and entails relatively little expense (Masaki Imai, 2000). Imran.et.al 2011 further explained kaizen as Japanese quality approach which is deeply ingrained in the minds of both managers and workers that they often do not even realize that they are thinking Kaizen.

Although improvements under kaizen are small and incremental, the kaizen process brings about dramatic results over time (Masaki Imai, 2000). The kaizen concept explains why companies cannot remain static for long in japan. Imai compare kaizen philosophy with the western counterparts in one of his books "Gemba Kaizen: a competitive, low cost approach to management": western management, meanwhile, worships innovation: major changes in the wake of technological breakthroughs: the least management concepts or production techniques. Innovation is dramatic, a real attention getter. Kaizen, on the other hand, is often not dramatic and subtle. But innovation is one-shot, and its results are often problematic, while the kaizen process, based on common sense and low cost approach, assures incremental progress that pays off in the long run. Kaizen is also a low risk approach. Managers can always go back to the old way without incurring large costs.

Kaizen is a problem solving process. In order for a problem to be correctly understood and solve, the problem must be recognized and the relevant data gathered and analyzed. Trying to solve a problem without hard data is akin to restoring a hunches and feeling- not a very scientific or objective approach (Anthony.et.al 2005).

According to Imai, the ultimate goal of kaizen deals with improvement with regard to quality, cost, and delivery (QCD). Quality refers not only to the quality of finished products or services, but also to the quality of processes that go into those products or services. Cost refers to the overall cost designing, producing, selling, and servicing the product or service. Delivery means delivering the requested volume in time. When the three conditions defined by the term, QCS are met and customers are satisfied. Traditionally, the organizational effort for quality involved separated delegation units or persons in line or staff capacity or a combination. More recently with increasing recognition of the interdependence of quality and productivity and the widespread responsibility for these efforts ("quality is everybody's job"), the entire organization is redirected with quality and productivity view (Oakland, 2007).

For implementing kaizen philosophy effectively in an organization three things must be fulfilled namely: better understanding of the kaizen philosophy, top management commitment and positive mindset (*loosely translated from Amharic book* of "kaizen" by Getahun, 2014). Imran.et.al 2011 also suggest that one of the keys to kaizen success is the close focus that this method brings to the process and the employees within the kaizen team need to be trained in Kaizen logic.Vineet.et.al, 2011 further added: employee empowerment, self- discipline and motivation and recognition are fundamental pillars of kaizen.

Two elements that construct kaizen: improvement/ change for the better and ongoing continuity. Lacking one of those elements would not be considered kaizen (Vineet.et.al, 2011).

Transplanting kaizen in the organization, it can be realized that transplanting these natural concepts of kaizen into organization and management is not an easy (Vineet.et.al, 2011). It is very natural that people will response some kind of change in their work place, where they become unsatisfied with their present conditions. They intend to make improvements starting from their own work place. Some of the improvements can be carried out directly. Perhaps the boss want even notices them. However when approval is required several kinds of responses from the boss could have taken place. A good response is the boss encouraging their subordinates to carry out their ideas. The boss then appreciates or gives recognitions. That is what we expect when we proposed something. The positive response given by the boss will then

developed trust with the subordinates and stimulate other improvements. This will create the momentum for continuing improvement

Kaizen fosters process-oriented thinking, since process must be improved for results to improve (Masaki Imai, 2000). Failure to achieve planned results indicates a failure in process. Management must identify and correct such process-based errors. Kaizen focuses on human effort- an orientation that contrasts sharply with the result-based thinking in the west kaizen strategies: the plan-do-check-act (PDCA) cycle; the standardize–do-check-act (SDCA) cycle, quality, cost, delivery (QCD); the total quality management (TQM); Just-in-time; and total productivity maintenance (TPM). Kaizen strategies have failed in many companies simply because they ignored process. The most crucial element in the kaizen process is commitment and involvement of top management. It must be demonstrated immediately and consistently to assure success in the kaizen process.

The basic Plan-Do-Study-Act (PDSA) cycle was first developed by Shewhart and then by Deming (Naidu, 2006). The four steps in the cycle are exactly as stated. First, plan carefully what is to be done. Next, carryout the plan (do it). Third, study the results. Did the plan work as intended or were the results different finally, act on the results by identifying what worked as planned and what didn't. Using the knowledge learned, develop an improved plan and repeat the cycle. The PDCA cycle is a simple adaptation of the more elaborate problem solving method.

2.1.2 Dimensions of kaizen

2.1.2.1 Training and awareness

Presenting quality training throughout an institution, forms part of the total quality improvement process that is to be implemented by management. It is the leading edge of the total process as it provides communication and direction for everyone at the institution. Moreover, it is responsive to the quality strategy that states, "Quality is everyone's responsibility". Therefore, most appropriately, it is the expanding role of the quality function (Asiya.et.al, 2012).

Training and education provide the necessary skills and knowledge – the ability to make it happen. It is an investment that needs to be made. According to Philip 2010, worker satisfaction, motivation and ability to act as a constructive part in the process of continuous improvement

depend largely on education and training. In the past quality training was limited to the quality control or quality assurance people who worked daily in the staff or line quality function.

In kaizen environment everyone is required to gain additional capabilities to improve the process. Hence, a comprehensive training programme is necessary and must be institutionalized within the entire organization. Training in respect of the kaizen philosophy, guiding principles and tools and techniques is never ending (Asiya.et.al, 2012). Personal and team interaction skills must be refined continually. It should start with specific training for management. Once management has the skills to lead the kaizen process, the rest of the institution should be trained to ensure a systematic, integrated, consistent institution-wide effort (Philip 2010). Specific job skills training must be provided and constantly updated to reflect the improved process.

2.1.2.2 Top Management commitment and roles

Everyone is responsible for quality, especially senior management and the CEO; however, only the later can provide the leadership systems to achieve results (Jens.et.al, 2007). Kaizen implementation begins with senior management and, most important the CEO's commitment (Dale.e.al, 2004). Delegation and rhetoric are not sufficient- involvement is required.

By way of introduction, top management must put forth very careful and very clear policy statement. It must then establish an implementation schedule and demonstrate leadership by practicing kaizen procedure within its own ranks (Masaki Imai, 2000). Improving quality will be hampered if poor communication impedes the flow of information to and from employees.

Senior management commitment should be obsessional, not lip service. It is possible to detect real commitment; it shows on the shop floor, in the offices, in the hospital ward – at the point of operation. Management should be dedicated to the regular improvement of quality, not simply a one-step improvement to an acceptable plateau (Anthony.et.al 2005).

Naidu.et.al, 2006 also explained the function of management in the implementation of kaizen in such a way that, management has two major functions: maintenance and improvement. Maintenance refers to activities directed towards maintaining current technological, managerial, and operating standards and upholding such standards through training and discipline. Under its maintenance function, management performs its assigned tasks so that everybody can follow

standards operating procedures. Improvement, meanwhile, refers to activities directed toward elevating current standards.

2.1.2.3 Companywide participation and kaizen

Employee involvement is one approach to improving quality and productivity. Its use is credited for contributing to the success enjoyed by the Japanese in the world market place. Employee involvement is not replacement for management nor is it the final word in quality improvement. It is a means to better meet organization's goals for quality and productivity at all levels of an organization (Dale et.al, 2004).

Suggestion system is designed to provide the individual with the opportunity to be involved by contributing to the organizations. Most of the ideas for continuous improvements will come from the team approach: They must make it easy employees to suggest improvements, review them promptly and implement them (Masaki Imai, 2000).

Kaizen needs a supportive culture or sentiment within the company to be able to thrive. If the values of this philosophy cannot be installed into the hearts and minds of a company's employees, the chances of long-term success are slim. Also, the values of kaizen have to match the actions of its employees, and especially its management. As the kaizen philosophy is essentially based on the values of openness, trust, exchange, and a "supportive corporate culture", the introduction of a new system in conjunction with an old repressive frame of mind will eventually backfire.

2.1.2.4 Motivation and Empowerment

Knowledge of motivation helps companies to understand the utilization of employee involvement to achieve process improvement (Naidu.et.al, 2006). Motivated employees are willing to exert a particular level of effort for a certain amount of time toward a particular goal. Besides recognition is a form of employee motivation in which the organization publically acknowledges the positive contributions an individual or team has made to the success of the organization (Dale et.al, 2004). A motivated employee is responsive of the definite goals and objectives he/she must achieve, therefore he/she directs its efforts in that direction. Naidu.et.al, 2006 reported that motivation formulates an organization more successful because provoked

employees are constantly looking for improved practices to do a work, so it is essential for organizations to persuade motivation of their employees (Jens.et.al, 2007).

People like to be recognized, either as a team or individually. A person's feeling of achievement, value to the organization, knowing the organization cares, and having peer recognition maybe more important than any reward (Jens.et.al, 2007).

Oakland explains employee empowerment as an environment in which people have the ability, the confidence, and the commitment to take the responsibility and ownership to improve the process and initiate the necessary steps to satisfy customer requirements within well-defined boundaries in order to achieve organizational values and goals.

Empowerment should not be confused with delegation or job enrichment. Delegation refers to distributing and entrusting work to others and job enrichment focuses on expanding the content of individual job (Robbins and Coulter, 2012). Dale et.al, states three conditions are necessary for empowered environment, everyone must understand the need for change, the system needs to change to the new paradigm and the organization must enable its employee.

Some employees' empowerment strategies have been identified in some management literature which will enhanced and promote empowerment in an organization. Thaddeus.et.al, 2008 stated that, one good strategy that enhanced the feelings of empowerment in employees is express confidence in them as well as establishing a realistic high performance for them. They also suggested another empowerment strategy by creating opportunity for employees to participate in decision making and giving them the autonomy to form bureaucratic constraints.

2.1.2.5 Communication

Everyone needs to be trained in quality awareness and problem solving. It is important to communicate kaizen to the entire organization. Communication is important throughout the implementation stage. Communication is important to create kaizen awareness, interest, desire, and action (Masaki Imai, 2000).

All organizations communicate with their employees in one or another. Communication delivers the organization's value, expectations, and directions; provide information about corporate developments; and allow feedback from all levels (Dale.et.al, 2004).

Communication is one of the most important supportive dimensions to be considered when implementing kaizen in an institution From the principles of kaizen it becomes clear that communication is one of the key success factors in the quality improvement process (Oakland 2007).

According to Slobodan.et.al, 2011, in order to implement kaizen effectively, there must be people-orientated communication in an institution, which provides a friendly atmosphere in which everyone communicates quickly. Effective communication helps to break down the traditional institutional hierarchy. It also encourages communication of both good and bad news, so that any type of news can travel from one end of the institution to the other, and through all levels.

2.1.2.6 Corporate Culture and positive mindset

Culture is a primary determinant of the institutional environment. Before embarking on a quality revolution, an institution must determine whether its culture offers an environment that is conducive to total quality. If not, the culture must be changed. Institutional culture is a key means to communicate the goals of the institution and the appropriate behavior in attaining those goals (Irani.et.al, 2004).

Culture in any business may be defined then as the beliefs that pervade the organization about how business should be conducted, and how employees should behave and should be treated. Any organization needs a vision framework that includes its guiding philosophy, core values and beliefs and a purpose. These should be combined into a mission, which provides a vivid description of what things will be like when it has been achieved (Oakland, 2007).

Creating a quality culture within an organization is increasingly recognized as one of the primary conditions for the successful implementation of kaizen. It requires uncovering current underlying culture and examining the appropriateness of the objectives in order to adopt kaizen. To close the

gap between the old and the required new culture one must also explore the new quality improvement process for achieving customer satisfaction (Jens.et.al, 2007).

Culture is the product of complex influences from both internal and external environments. Culture is therefore not easily adaptable in the short term – a fact that top management should bear in mind during strategy analysis and choices. It is therefore essential for top management to analyses the institutional culture and to identify those factors that have the biggest influence on the culture of an institution, so that, just as in the case of strategy, culture can be developed in the right direction in course of time. It requires much insight, time, resources and the right attitude by top management (Yousaf, 2010).

2.1.3 Foundation of Kaizen

Properly applied, kaizen can improve quality, reduce cost considerably and meets customer's delivery requirements without significant investment or introduction of new technology (Masaki Imai, 2000). Three major kaizen activities- standardization, the five S's which cover the house keeping tasks and the elimination of muda (waste) contribute to the successful QCD. Standardization, muda elimination and the five S's are easy to understand and implement and do not require sophisticated knowledge or technology.

It was understood during the Project that a modality of conducting kaizen activities at selected workplace is being found to be operational and effective. Kaizen activities were designed to be conducted first in two (2) model workplaces chosen by each company and then expanded into company-wide activities. At the beginning, it is observed that some executives and managerial staff of the companies oftentimes had a skeptical attitude, or a sense of reservation, against any forms of new managerial system including kaizen. This mind-set barrier can significantly hinder the introduction of kaizen. Thus, the setting up of a limited number of model areas or pilot areas within a company mitigates this negative psychology and is designed to build on the initial success at the model workplaces (Ethiopian kaizen manual, 2011).

2.1.3.1 Standardization

Every time problems or irregularities arise, the manager must investigate, identify the root cause, and revise the existing standards or implement new ones to prevent reoccurrences Standardize-

do-check-act (SDCA). Standards become an integral part of gemba kaizen and provide the basis for daily improvement. With current standards in place and workers doing their jobs according to those standards with no abnormalities, the process is under control. The next step is to adjust the status quo and raise standards to a higher level. This entails the plan-do-check-act (PDCA) cycle (Masaki Imai, 2000). In both cycles, the final stage of the cycle, act refers to standardizing and stabilizing the job. Thus standardization becomes an inseparable part of everybody's' job.

According to Imai, there are two types of standards in gemba kaizen. The first one, managerial standards, which are necessary for managing employees for administrative purpose and which include administrative rules, personnel guidelines and policies, job descriptions, rules for preparing expense accounts, etc. The other is called operational standards, which have to do with the way people do a job to realize QCD. While managerial standards relate to the internal purpose of managing employees, operational standards relate to the external demand to achieve QCD to satisfy customers.

Standards do have many key features. Some of the features as identified by Doolen.et.al are: they represent the best, easiest, and safest way to do a job, offer the best way to preserve know-how and expertise, provide a way to measure performance, show the relationship between causes and effects, provide a basis for both maintenance and improvement, provide objectives and training goals and also they provide a basis for audit or diagnosis.

2.1.3.2 House Keeping - 5S's

The five steps of housekeeping as identified by Imai are; Seiri (sort), Seiton (straighten), Seiso (shine), Seikestu (standardize) and Shistuke (sustain). In business Kaizen encompasses many of the components of Japanese businesses that have been seen as a part of their success. Quality circles, automation, suggestion systems, just-in-time delivery, Kanban (notice board, as a form of integrated control of part supplies) and five S's are all included within the Kaizen system of running a business (Slobodan.et.al, 2011).

Properly applied, kaizen can improve quality, reduce cost considerably and meet customers' delivery requirements without any significant investment or introduction of new technology.

The five S's System is one of several popular and simple-to-follow management tools, designed to improve workplace efficiency through facility organization. An offshoot of management methods, developed during the American "Industrial Revolution," the system is a descendent of manufacturing philosophies used in Japan's post-WWII reconstruction. In both cases, these early forms of the 5S System were developed to help managers and work area personnel systematically achieve total organization and standardization in the workplace.

A '5S' driven workplace enhances productivity and competitiveness and fosters a productivity culture through a continual process of identifying, reducing and eliminating MUDA (Japanese for Waste) (Philip, 2010). The five S's stand for five Japanese words that constitute housekeeping. Today, practicing the five S's has become almost a must for any company engaged in any sector (Masaki Imai, 2000). One can determine the caliber of a company in five minutes by visiting the plant and taking a good look at what goes on there, especially in regard to muda (waste) elimination and the five S's.

A lack of the five S's in gemba (real place) indicates inefficiency; muda, inefficient self-discipline, low morale, poor quality, high cost, and inability to meet delivery time (Masaki Imai, 2000). The physical environment determines ones behavior. On the other hand, a similar behavioral pattern among group of people defines culture. Thus, there is a strong link between culture and physical environment. Extrapolating, one can also find a strong link between the physical environment at the workplace and productivity (Philip, 2010).

Facilities throughout the world are transforming to Lean and other popularly used techniques for improving facility efficiencies by implementing 5S first. The result is helping these facilities identify inefficiencies before taking-on the more complex and universally applied systems, such as lean. In fact, many 5S steps overlap elements of these other systems. Having 5S already in place lays the groundwork for a much easier and a more successful Lean Manufacturing implementation.

According to Imai, implementing a 5S program in a service industry should not only improve the visible environment (the actual office environment, which includes storage areas, desks and filing cabinets, kitchens etc.), but also the invisible environment. Imai further identifies some of the wastes associated with service sector includes: work put on hold, reworks and incomplete

information, incomplete work or waiting for additional information, unable to be processed further and also aging orders.

2.1.3.3 Waste elimination

Muda means waste in Japanese; however, the implication of the word include anything or activity that doesn't add value (Masaki Imai, 2000). All activities that are not directly transforming the product into the form desired by the user can be considered as waste. The three terms Mura (unevenness in work), Muda (all activities that consume resources without creating value for the customer.), and Muri (hard to do) are often used together (called the three Ms) that collectively describe wasteful practices to be eliminated.

Felix, 2012 redefined as the seven deadly wastes which are identified by Taiichi Ohno With respect to Toyota production system (TPS) namely: overproduction, waiting, motion, over processing, inventory, transportation, and defects/errors.

Imai stated that Muda elimination and good housekeeping often go hand in hand. Facilities where muda has been eliminated are orderly and show a high level of the five S's. Good housekeeping indicates good employee morale and self-discipline. Any company can achieve a high level of self however, is a very challenging job.

Analogous to wastes in a manufacturing environment, there are also wastes in service environments. One of the major challenges in service organizations is developing the ability to recognize service waste. The seven types of wastes can be translated to a service context (Felix, 2012).

According to Masaki Imai, of all kaizen activities, muda elimination is the easiest to start, as it is not too difficult to identify muda once one has acquired such skill. Muda elimination usually refers to stopping something that we have been doing up until now, and therefore cost little to implement. For this reasons management should take the initiative in starting kaizen with muda elimination wherever it exists- in gemba, in administration and /or in area of service provisioning.

E-waste generally refers to various forms of old electrical and electronic equipment (EEE) that no longer have any value to their owners. An important question is whether the nature of the relationship between e-waste and the ICT sector creates a special role for national regulators of the ICT industry. At present, aspects of waste (including e-waste) tend to fall in purview of environmental law or as the responsibility of local and municipal authorities.

Any effective e-waste management ecosystem must address the local context at the core of its design. There is a need to balance the push for access to ICTs with the practicality of harnessing the resultant e-waste in a manner that is sustainable for the long term. Other critical aspects of developing a roadmap for e-waste management include identifying stakeholders; compliance; enforcement; and awareness and capacity-building (ITU, 2012).

2.1.4 Quality Control Circle/Quality Circles

2.1.4.1 Concepts of QCC

According to Okada, 2004 QCC is a small group of frontline operators who continually control and improve the quality of their work, products and services; they operate autonomously and utilize quality control concepts, tools and techniques. A quality control circle is a small group of persons within an organization who meet regularly to discuss operation and production problems. Their objective is to pinpoint specific problems, devise possible methods for solving these problems, analyze the implications of these methods, and recommend solutions (Bertrand and prabhakar, 2002). An alternative name for quality control circle is quality circle (Anthony.et.al, 2005). Designed to address not only quality issues, but also such issues as cost, safety, and productivity, quality circles may be regarded as group-oriented kaizen activities (Masaki Imai, 2000).

The installation of a QC Circle is normally carried out after taking several preparatory steps. The QCC concept is commonly introduced where a company-wide quality program such as kaizen has been already carried out, becoming one of the components of such a framework. There are largely two patterns of adoption of the QCC concept in a company: (1) introducing it as a part of company-wide quality management activity (2) introducing it prior to the deployment of a company-wide quality control program. The procedures of the installation vary, depending on which of the two patterns applies (Okada, 2004).

As Imai stated, the formation of groups is the beginning of any quality control circle program. In some companies the formations is structured. Each group invites the participation of persons' closest to its operation. Each organizational unit has its own group and the structure of the groups parallels the structure of the organization itself. Such formally organized efforts sometimes called participative management.

QCs are based on the precepts that persons closets to the problems have the clearest understanding of the problem and that all persons are capable of creative thinking. The principal difficulties in starting a QC program involve the difference of members to express themselves and the lack of training in problem solving techniques. Initially, any QC circle program needs assistance from an outsider "expert," usually called facilitator (Bertrand and prabhakar, 2002).

According to Okada, 2004 the Circle is normally composed of three to ten volunteers who come from the same workshop and are under the same supervisor. Keeping the group small enables the members to participate actively in Circle activities. During meetings for instance, each member has a chance to contribute ideas; whereas, if the group is more than ten, it may happen that a member is not able to contribute an idea because of lack of time, for the Circle usually meets for an hour at most. If the group is small, the chances are high that members are able to foster better interpersonal relations and develop cohesiveness. Each member is able to define his role and responsibilities better, making him feel more secure in his job relations and see his importance to the group; thus, his self-esteem is developed. If the Circle has less than three members, it is usually more difficult to get things done, whereas if it has more than ten, the group becomes unwieldy.

2.1.4.2 QCC tools

Okada, 2004 stated that QC Circles need a well-defined process for collecting facts and data that help them to understand situations in real time and develop countermeasures (implemented through the following PDCA management cycle or the QC Story) to address problems and prevent them from recurring. QC tools and QCC techniques, weapons to help QC Circles make decisions that allow them to properly follow the QC Story, are not only powerful but also imperative.

The seven QC tools (stratification, Pareto diagram, cause and effect diagrams, graphs, check sheet, histograms, scattered diagram and sometimes control charts) are used to collect, summarize, and analyze data (quantitative and qualitative), whereas basic techniques such as brainstorming, the why-why approach and affinity diagrams and used to assist members to think creatively (Masaki Imai, 2000).

In order for the groups to qualify as 'quality circles' they 'must' use a suitable quality control technique (method or tool) in their work. The cause-and-effect diagram and the Pareto diagram are examples of two relatively simple quality techniques the use of which does not require any special theoretical education in contrast to the quality technique of 'sample plans'. This is one reason why these two quality techniques are regarded as extremely effective in quality circle work. This is why these techniques are regarded as the most important in Japan (Jens.et.al, 2007).

2.1.4.3 Benefits, Success Elements and Challenges of QCC

Okada, 2004 indicates that quality circles are an important source of job interest; they provide a sense of participation and enhance the ability to work with others. He believes that quality circles increase productivity, enhance motivation and improve quality. According to Jens.et.al, 2007 organizations adopting quality circles can benefit in several ways. Some gains may be tangible while others may be intangible, but ultimately quality circles will lead to improved performance.

However QCs are now widely seen as being largely a failure, although many did deliver some improvements in business performance. As a tool to effect change in employee attitude and organizational culture QCs were found wanting. At best it seems that they could produce in the short-term improvements in attitude and behavior but this quickly waned after their novelty effect wore off (Bertrand and prabhakar, 2002).

Circles can cease when there is no nurturing environment to support them. Different companies have different ways of keeping their Circles enthused, depending on their corporate culture. According to Okada some of the factors for successful activities of QCC as: management recognition schemes, maintenance of active QC meetings, provision of supplemental training, provision of an active supplemental training and provision of active role for middle management.

Training is a process whereby people acquire capabilities to aid in the achievement of organizational goals (Okada, 2004). The facilitators of QCC are able to identify the training needs of leaders and members when attending meetings. These needs must be prioritized and addressed accordingly by the QC Circle Office.

The failure of QCs has been attributed to many factors. Some of the most commonly are poor integration with existing structures, hostile middle managers, their voluntary nature and limited scope, and the problem of maintain them in a period of organizational restructuring and associated redundancies (Imai,2000).

According to Bertrand and prabhakar 2002, QCs were found to have many technical problems in separation of the identification of a solution from its implementation, their slowness in delivering results, their tendency run out of things to do, poorly developed support structures and members 'inadequate training and development to support the tasks required of them. As well as these operational problems, it was often the case that circle members had to endure less than supportive managerial environment. Middle managers and supervisors, who felt threatened by successful circle activities, reacted at best with indifference and skepticism and at worst with outright hostility, sometimes denying circles with time and resources to carry out their activities. Similarly, the problems posed by quality circles being "bolted-on the main frameworks of organizational structures, the so called organizational dualism" (Jens.et.al, 2007) posed serious problems for circle survival. Not least there were the problems of complexity resulting in confused reporting structures and authority level.

2.1.5 From Continuous Improvement to Innovation

Many researchers contrast continuous improvement with innovation, continuous improvement with discontinuous innovation, incremental innovation with discontinuous innovation, and exploitation with exploration (Masaki Imai, 2000). Some of the benefits of continuous improvement as mentioned by Gobesh.et.al, 2009 are mobilizes large numbers of employees on behalf of organizational improvement in contrast to large-scale innovation efforts that often involve only selected experts, small wins in large systems can occur in parallel as well as serially, resulting in the aggregate, in large numbers of change efforts leading in turn to a magnification of results and by being anchored in current practices, small wins encourage

learning that is rooted in daily work routines—exactly the kind of learning that is most likely to be transformed into effective practice—that is, to be retained and institutionalized.

Masaaki Imai argued that continuous improvement worked best in a slow-growth economy, and innovation was more suited to a fast-growth economy (Masaki Imai, 2000). Yet, Japan was growing quite rapidly in the 1960s and 1970s, benefiting greatly at the same time from its continuous improvement activities. An alternative but more convincing explanation is that conventional continuous improvement works best when firms are playing catch-up; therefore, they know pretty much the direction they need to go by observing those ahead of them. Thus, continuous improvement fit large Japanese manufacturing firms, which, for most of the post-World War II period, were playing catch-up. When firms are operating on the frontiers of technological knowledge, however, more discontinuous innovation is required.

The speed at which firms develop and roll out new products has become an increasingly critical competitive issue. Consider that the product life cycles in the personal computer industry were approximately one year in the middle 1980s; by 1997, these were reduced to approximately three months (Pekka and Harri, 2012). Shorter product cycles mean that firms have less time to recoup their investments and be first to market with the right product, and quality confers major competitive advantage. Indeed, in the new economy, some go as far as to argue that in this world of increasing returns, those products and firms that get ahead, advance further over time as a result of a series of positive feedback loops. This is a world of winner-takes-all markets.

Improvement can be classified as either kaizen or innovation. Kaizen signifies small improvements as a result of ongoing efforts. Innovation involves a drastic improvement as a result of large investment of resources in new technology or equipment (Masaki Imai, 2000). The features of kaizen are perhaps most apparent when compared to those of radical innovation. Innovation can be either incremental or radical where the former encourages the status quo and the latter fundamentally change patterns of consistency. From a knowledge perspective, both types of innovation create knowledge; however, they differ in their "degree of novel technological content and hence the degree of new knowledge, embedded in the innovation".

2.1.6 The practice of kaizen in Ethiopian Context

Ethiopia has managed to join the ranks of the fastest economies in the world since the last couple of years because of sound economic policy and strategy that was put in place by the incumbent government. Though the economic growth Ethiopia has registered in the last seven years straight is mainly attributed to the development of agriculture, it is the combination of industry and service, agriculture included, that helped the country to achieve fastest economic growth (GTP plan and its success, 2011).

Human resources development has also played a significant role in the economic development of the nation. By taking into account the importance of human resources development in attainment of economic progress, the government has spent a huge amount of resources of on building and expansion of education institutions ever since the country embarks up on the free economic system.

The background of kaizen in Ethiopia trace back to the agreement between Ethiopia and Japan in 2009 for the pilot project of 30 manufacturing industries with technical assistance from JICA (Japan International Cooperation Agency). After the effectiveness of the pilot project on those selected manufacturing industries, for further transfer and implementation of the philosophy Kaizen Institute of Ethiopia (EKI) is established by regulation issued by council of ministers proclamation number 256/2004 Ethiopian Calendar (Kaizen, 2013).

Being the hub for kaizen philosophy and methodologies and ensuring kaizen a predominant working culture in the country by 2015 is the vision of EKI. Preparation of strategies that can enable to inculcate and upon endorsement to the extent of implementation, training module preparation based on the need from small and micro enterprises, as well as control their execution, consultation and training for higher institutions regarding kaizen philosophy are some of the roles and responsibilities given for EKI (Kaizen, 2013).

2.2 Empirical Literature

2.2.1 Implementation of kaizen in service sector

The objective of the following section is to analyze relevant empirical findings in the research of kaizen Management in service industries. Firstly, the essential question is addressed whether

kaizen principles and theoretical concepts are even appropriate to be transferred and applied to the service sector. Subsequently, an encompassing literature review about kaizen is carried out and based on those characteristics of kaizen in service sector.

It is very tedious to define quality. The confusion of the definition is pronounced in the service sector, so it becomes more difficult & orthodoxical to moderate the definition of quality according to service sector and to develop a new term "Service Quality" (James & Mona, 2008). The characteristics that tend to differentiate services from goods — intangibility, inseparability of production and consumption, heterogeneity and perishability. The problem is further accelerated by necessary reliance on customer perception, with the introduction of subjective and intangible elements. Thus, the measurement of service quality often remains a challenge. Defining the term, "service quality", is something like beauty in the eyes of the beholder; in other words, it is person-dependent and has different meanings for different people (James & Mona, 2008).

According to James & Mona, 2008 the most popular measure of service quality is called SERVQUAL. It is measured by a customer questionnaire based on five perceptual measures of service: tangibles, reliability, assurance, responsiveness and empathy. SERVQUAL uses a questionnaire consisting 22 items (or questions) that in aggregate measures the above dimensions.

Modern methods of quality control were developed and matured in manufacturing industries. These involve the processing and fabrication of materials into finished durable and nondurable goods.... Service, however, is a relatively distinct non-manufacturing activity. Work is performed for someone else.

As service products are perishable, they cannot be stockpiled and must be produced 'on demand'. The result is that the process for delivering a service may be highly complex involving the co-ordination of primary and support systems in what is usually a very time sensitive relationship with the customer. This is in contrast to manufacturing organizations where although time may be an important aspect in the delivery of the goods it is rarely regarded as a feature of the goods which will affect its quality (James & Mona, 2008).

Peter K, 2013 suggest for the implementation of continuous improvement in service sectors in such a way that: Formulate the service quality strategy, Analyze service process and define quality measures, Establish process control system investigate the process to identify improvement opportunity and improve process quality.

In India both the public and top private sectors like Infosys, Tata, Wipro and others are using total quality system in their organization successfully. A preliminary step in continuous improvement implementation is to assess the organization's current reality. Relevant preconditions have to do with the organization's history, its current needs, precipitating events leading to continuous improvement, and the existing employee quality of working (James & Mona, 2008). If the current reality does not include important preconditions, continuous improvement implementation should be delayed until the organization is in a state in which continuous improvement is likely to succeed. If an organization has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, continuous improvement will be easier to implement. If an organization has been historically reactive and has no skill at improving its operating systems, there will be both employee skepticism and a lack of skilled change agents. If this condition prevails, a comprehensive program of management and leadership development may be instituted. According to Peter K 2013 a management audit is a good assessment tool to identify current levels of organizational functioning and areas in need of change. An organization should be basically healthy before beginning continuous improvement. If it has significant problems such as a very unstable funding base, weak administrative systems, lack of managerial skill, or poor employee morale, continuous improvement would not be appropriate.

2.2.2 Continuous Improvement & Organizational Development (The case of telecom services sector of Pakistan)

Due to accelerated technological development in global telecommunication market, large number of changes and transformations has occurred in world economy.
However sudden growth in contributor and sponsor base in Pakistan has caused network blockage or congestion and service quality problems. Large numbers of new subscribers are trying to compete especially in rural areas due to decrease in the cost of handsets. In growing telecom markets of Pakistan, if mobile companies want to get profit and get competitive edge

they have to avoid just competing on price, they will have to adopt superior quality services and innovative feature. Mostly, telecommunication organizations in Pakistan just concentrate on marketing strategies and spend large amount of money on advertisement and marketing tools. Marketing strategies are useful but most important and sustainable factor for growth and profitability is practicing and managing quality programmes. Continuous improvement results in innovation and cost reduction thus leading to profitability in the long run According to Faiza and Shehla, 2011.

The study undertook Quality outcomes/benefits of organizations as dependent variable and top management commitment, strategic quality planning process, quality information and analysis, employee empowerment, customer focuses and satisfaction, public responsibilities and benchmarking as independent variable.

Continuous improvement practices have positive effects on benefits of organizations or organizational development. Benchmarking and strategic quality planning are the conclusive and crucial factors in determining the success of organizational development. Findings revealed that it is not necessary for all the continuous improvement elements to be contributed equally in the quality outcomes or benefits of organizations. For example, the correlation shows that the roles and commitments of top leadership have very strong positive and significant association with employee empowerment. The size of the coefficients suggests that the top management leadership role has a stronger association with employee empowerment than top management commitment or involvement in resource allocation.

2.3. Conceptual Framework

The section discusses the empirical findings evaluated in the previous section. Based on that the requirements for designing a model for the kaizen implementation are developed and ultimately, a framework for a general model is formulated.

Communicating the change strategy and corporate culture to customers, employees and stakeholders followed by top management understanding and commitment is the primary activity towards kaizen implementation. Companies need to identify their size to adopt an approach

either deployment of companywide approach or selecting a model workplace. Kaizen is based on collaboration of top management, middle managers and front-line employees and proactive and spontaneous participation of employees, and, it is critically important that the top management supports employees' participation, ensures appropriate delegation of authority, and provides employee training programmes.

The training programme of an institution has become a growing responsibility of the quality function. Presenting quality training throughout an institution, forms part of the total quality improvement process that is to be implemented by management. It is the leading edge of the total process as it provides communication and direction for everyone at the institution (Phillip, 2010).

According to Imai, kaizen goes far beyond the philosophy and practices of quality control and quality assurance. It is a strategy that is concerned with changing the fundamental beliefs, values and cultures of the organization, harnessing the enthusiasm of, and participation by everyone towards an overall idea of "right first time".

Employee empowerment and participation consists of contribution of employees in administration and decision making associated to policies, objectives and strategies of the organization. Employees' perceptive of the goals, standards and political principles of their firms were positively and significantly related to employee motivation and gratification towards work. Empowerment results in motivating employees that leads to constant expansion and organizational growth.

Communication is important in institutions moving towards a kaizen philosophy because of the change involved. Oakland (2007) clearly states that the strategy, changes and culture that are established within an institution as a result of the kaizen philosophy, should be communicated clearly and directly from top management to all employees and customers.

As there is a close relationship between the culture and strategy of an institution, changes in strategy require supportive changes in institutional culture and systems. Although there is no correct culture for an institution, it is still important that bigger and more fundamental areas of ethics and social responsibility are built into the culture of the institution. Culture is also

important to the individual employee as the institution forms the social value system in which the individual pursues the achievement of his or her personal objectives.

When employees participate in such activities as housekeeping, muda elimination, and review of standards, they immediately begin to see the many benefits brought about by this kaizen and they are first to welcome such changes. Through such a process, their behaviors as well as attitudes begin to change.

In acclaiming the importance ok kaizen Imai stated that, contemporary managers often try to apply sophisticated tools and technologies to deal with problems that can be solved with a commonsense, low cost approach. They need to unlearn the habit of trying ever-more sophisticated technologies to solve everyday problem.

Introducing quality control circle in such a way that either: as a part of company-wide quality management activity or introducing it prior to the deployment of a company-wide quality control program.
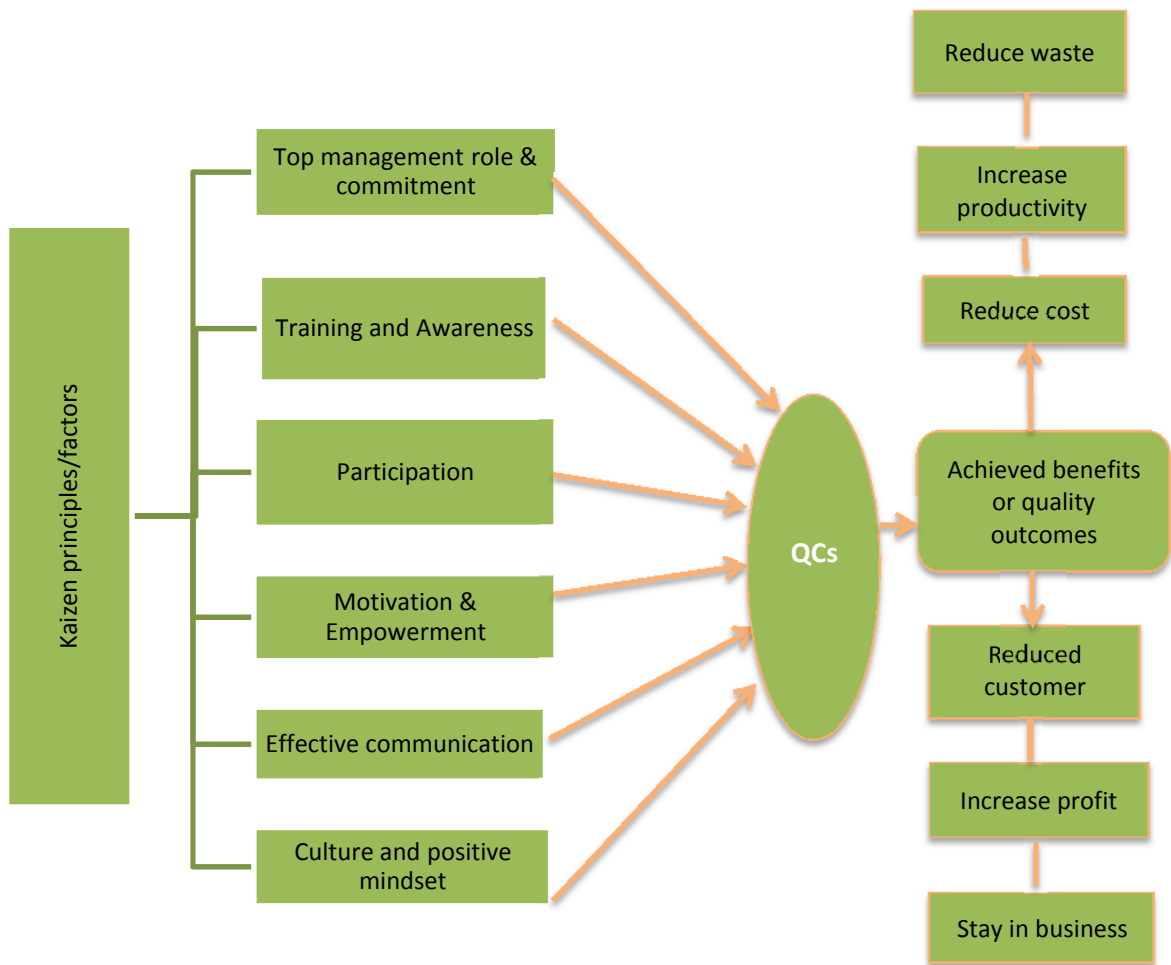
Source: Ethiopian Kaizen manual, 2011

Figure 2.1: Factors for effective implementation of kaizen

The above figure is adopted from Ethiopian kaizen manual, 2011 tried to map the factors that are contributing for continuous improvement. It shows the relation between the factors and benefits obtained after the implementation of continuous improvement. Based on the above figure and the literature discussed throughout the chapter, a summarized diagram of kaizen from its introduction through sustaining it as company culture is depicted below. With organizational effectiveness in terms of customer satisfaction enhancement of employee productivity as well as staying competent in the business which are cyclically exist for indefinite period of time.
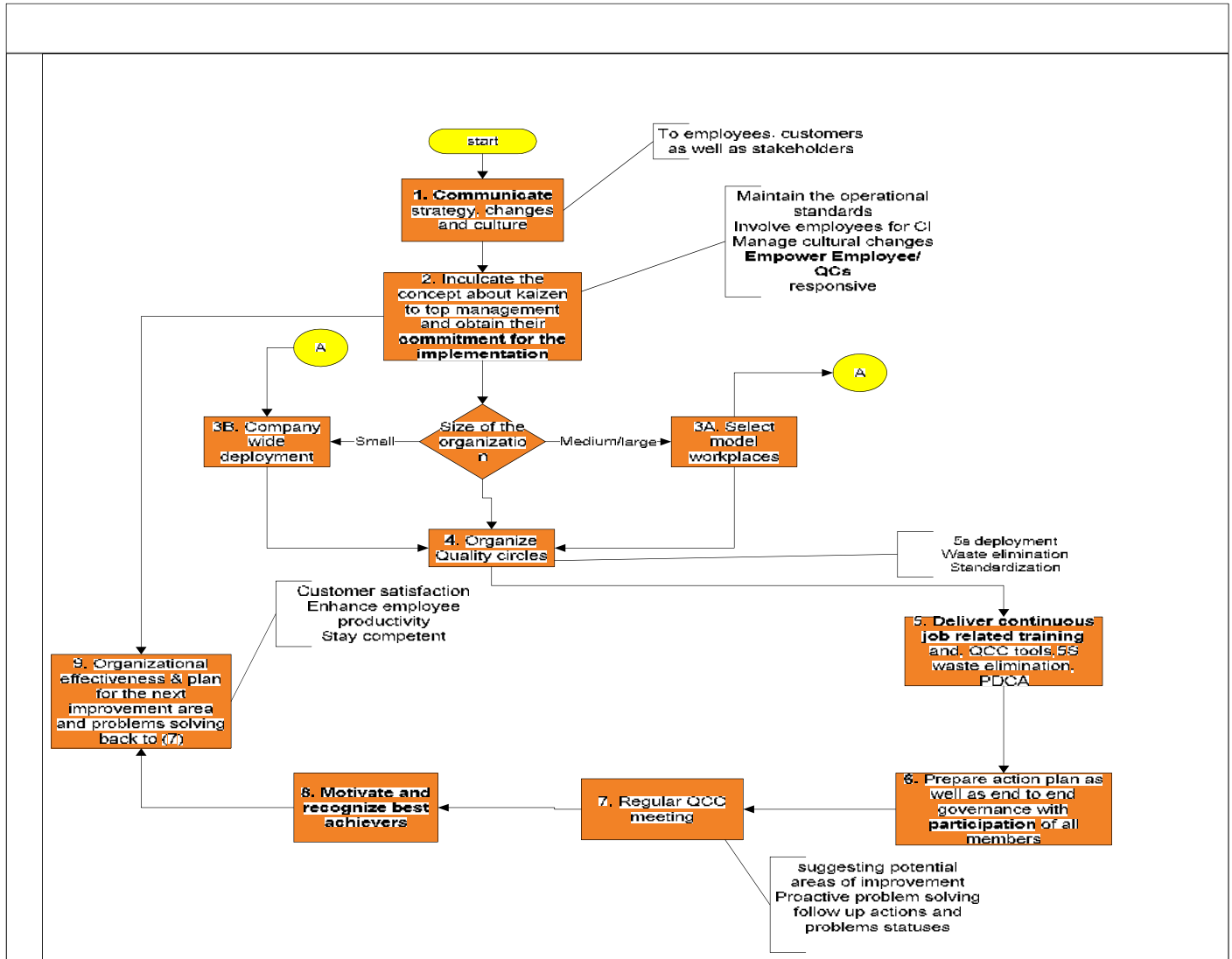
Source: developed by the researcher based on kaizen manual, 2011

Figure 2: kaizen study framework

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

This chapter explains the research methodologies that include research type, research design, sample and sampling techniques, source and tools/instruments of data collection, procedures of data collection, and methods of data analysis.

3.1. Research design

A research design provides a framework for the collection and analysis of data. Considering the stated research questions, the researcher has determined the suitable research design. According to R. Kothari, (2004), a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

3.2. Research approach

This research paper uses the mixed approach that comprises both the quantitative and qualitative approach to research works. The quantitative approach is deployed in terms of quantifying primary data, in the form of descriptive analysis of tabulations. The qualitative approach is deployed to interpret and analyze data attempting to uncover the deeper meaning and significance of respondents' reflection.

3.3 Data and variables

The researcher assessed those variables listed below while conducting the study. These are:

➢ Top management commitment in the implementation and sustaining kaizen culture within the company.

➢ Understanding of the kaizen principles and the methods as well as continuous training on the implementation.

➢ Companywide participation in implementing kaizen with regard to establishment of Quality Control Circles (QCCs).

- ➢ Effective communication channels in all direction.
- ➢ Existence of proper way of motivating employees and empowerment of quality control circles
- ➢ Corporate culture and positive mindset.

The variables mentioned above can't be scaled or measured. They are identified using triangulation and the study employed qualitative method. Descriptive research design is used to get the real scenario of the company. Descriptive survey method enables to obtain the current status and helps to draw a valid general conclusion from the facts discovered.

3.4 Source of Data

Both primary and secondary sources of data were employed to answer the basic research questions. Q&P officers, focus group discussion with managers of network and enterprise and employees were involved as valid primary sources of information.

Regarding data, which include level of awareness about kaizen, degree of top management commitment to the implementation of kaizen and extent of empowerment of quality circles, wastes and participation of all company members were identified by asking concerned officials and employees and taking photographs where appropriate. Data types including official establishment of kaizen, reporting template, company targets, improvement figures and others were found from annual report, from command post supervision, monthly company profile, intranet flash info.

Prior research papers, books of kaizen, research methodology, and statistics were analyzed. Articles in Ethiopian kaizen institute and Ethio telecom, web sources and other important sites were also part of secondary sources of information used while conducting this paper.

3.6 Methods of determining Sampling size

In principle, accurate information about a given population could be obtained only from census study. However due to time and financial constraints, in many cases, a complete coverage of population is not possible; thus sampling is one of the methods, which allows the researcher to

study relatively small number of units representing the whole population (Yogesh, 2006). Due to the fact that, all the aforementioned variables are applicable to all zonal and corporate offices, the researcher took Network division, Enterprise division and East Addis Ababa zone (representing from the 6 zones) which comprise a total 840 out of the total 5860 permanent employees at corporate offices. These divisions are selected for the reason that network plays the dominant role and backbone of service quality of a telecom service, Enterprise is major source of the company's revenue and EAAZ is one zone that is identified as most vulnerable to risk as per the risk assessment of the company (Ethio telecom company profile, 2013). Besides to this the variables identified to investigate the study can apply in all divisions.

3.7 Sampling technique

From these divisions which consists a total of 840 employees working in the study area questionnaires were distributed to for 270 randomly selected employees. The researcher used simple random sampling to select the respondents by getting all the active list of employees from human resource division and also employed lottery method to select the individual respondents.

In determining the sample size the researcher employed sample size determination formula which was used by Glen D. (http://www.webcitation.org/66kKEIC0b as of 01/03/14).

$$n = \frac{}{( )^2}$$ Where n= sample size

                                                          N= Total Population

$$n = \frac{}{(.)^2} = 270$$ e= level of precision

3.6 Instrument for the study

The researcher conducted interview with higher officials in the study area i.e. quality and process officers with three of them out of the four officers and held focus group discussion with network and enterprise managers a total of 4 managers and distributed a questionnaires to staffs to collect

the primary data. The questionnaires comprise of a dichotomous, a structured question with written question , a multiple choices questions, and 5 point Likert scale questions (ranging from 1 strongly disagrees to 5 strongly agree). Observation of visual working place also be made the extent to which 5s is practiced and observe the types of waste. To get secondary data, the researcher referred and cross checked recent books and journals on kaizen, published and unpublished Ethio telecom bulletin and reports.

3.7 Data collection procedure

The interview questions were mailed for the interviewees a week before the actual day of the interview so that they will be prepared on the selected questions.

Based on this a questionnaire was designed for standard quality circle members. The first draft questionnaires designed for them had 34 items

Before the fieldwork has been conducted all items of the questionnaires were tested for completeness, clarity and consistency. The test considered a sample of 30 respondents. Based on the input gained from this preliminary survey, ambiguous words and statements were made clear and easily understandable, unseen spelling errors were corrected, redundant and inconsistent question items were identified and illuminated from the final questionnaires distributed. The final questionnaire that was designed has 30 items.

A total of 270 questionnaires were distributed to respondents and only 264 were returned. Of this figure, six of them were discarded due to incomplete responses and only 258 (95 from Network division, 89 from EZZA and 74 from Enterprise division) were used for final analysis.

3.8 Validity and Reliability

In dealing with validity issue, the researcher established a logical link to justify each question in relation to the objective of the study. Consulting researcher/advisor, ask concerned stake holders like Ethiopian kaizen institute as well as questionnaires were reviewed as pilot test before full scale launching to gather the information were some of the activities in dealing with reliability

and validity issues and the research was conducted utmost ethical manner in keeping the confidentiality of the respondents.

In dealing with reliability test, Cronbach's alapha coefficient was made on the 30 items. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rules of thumb: "$\geq$ .9 – Excellent, $\geq$ .8 – Good, $\geq$ .7 – Acceptable, $\geq$ .6 – Questionable, $\geq$ .5 – Poor, and $\leq$ .5 – Unacceptable".

Alpha if item deleted represents the scale's Cronbach's alpha reliability coefficient for internal consistency if the individual item is removed from the scale. This means it shows how alpha would change if that one question was not on the test. Low "alpha if item deleted" means a question is good because deleting that question would lower the overall alpha. Questions with high "alpha if deleted" tend to have low inter-item correlations George and Mallery (2003)

Based on the Cronbach's alpha result of the study it is found that 0.855, 0.97, 0.915, 0.956, 0.756 and 0.924 for the variables training and awareness, top management and awareness, companywide participation, motivation and empowerment, communication as well as corporate culture and positive mindset respectively. And this shows that the items under study do have acceptable and above internal consistency.

3.9 Data analysis and interpretation

In analyzing the data gathered both the quantitative and qualitative methods were applied. Data collected through questionnaires was analyzed and presented using analytical tools like; bar charts, percentages and ratio followed by clear descriptions in a way that made the report more understandable.

3.10 Treatment of illegible responses

Incomplete questionnaires with missing or skipped pages, responses that indicate the respondent did not understand or follow the instructions and responses that show little variance were treated as illegible for the final analysis and were discarded.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

The chapter presents, the data gathered from higher officials, managers from focused group interview and standard quality circle members using questionnaires, interview and document analysis. These data are categorized into two sections: the part treats the characteristics (demographic character) of respondents and the second part deals with the analysis of the data obtained from different sources supported with discussion important issues. With regard to questionnaires 270 copies of questions were distributed. Among distributed questionnaires 258(95.5%) were analysed. But 12(4.5%) were not discarded. Thus, the data from filled returned questionnaires were organized, tabulated, transcribed and analysed using SPSS program to get findings.

4.1 Demographic Characteristics of the Respondents

Table 4.1: Gender composition age group and educational background of respondents

Sex	Frequency	Percentage
Male	165	64
Female	93	36
Total	258	100

Work experience	Frequency	Percentage
< 3 Years	8	3
3-5 Years	28	11
5-10 Years	109	42
>10 Years	113	44
Total	258	100

Educational background	Frequency	Percentage
Grade 12 & below	19	7
12 + 2 & diploma	45	17
BA/Bsc	172	67
MA/MBA/Msc	22	9
Total	258	100

Source: The researcher's survey result (2014)

As the main source of information, the respondents of this study were Ethio telecom's higher officers and employees. The characteristics of the respondents were summarized in the above table.

As shown in the above table, majority of respondents are male which comprises 64% of the sample respondents. The table also shows the work experience of the sample population. Overall, 44% of the respondents have a work experience more than 10 years. Most of the respondents from both divisions and EAAZ have a work experience above 5 years which can help the researcher obtain utmost accurate information with the change/improvement obtained from kaizen in comparison with other tools implemented in the company. As mentioned by the officers from Q&P in the interview, the company underwent other quality philosophies like BPR (business process reengineering) some eight years before.

The above table also shows the educational distribution of the respondents. As shown in the table, majority of them from all sample divisions and zone do have first degree and above. This implies that they can understand and fill the questionnaires without assistance and can better explain about the practices and challenges of kaizen practices.

4.2 Results and Discussion

4.2.1 Awareness creation, Training and Implementation of Kaizen

Training and Awareness

#	Statement	SD	D	N	A	SA
5	There is continuous training program with regard to kaizen methodology as well as job specific training that can improve my productivity.	29%	43%	9%	12%	7%
4	The training delivered enable me understand kaizen methodology and effectively apply to improve my working standards.	29%	50%	10%	8%	3%
3	Training has been delivered on the methodologies of kaizen implementation (QCs, 5s, waste elimination, problem solving).	6%	8%	15%	63%	8%
2	The company formally announced the launching of kaizen philosophy to all employees.	7%	8%	11%	50%	24%
1	I know my company's vision, mission statement , core values strategic goals and objectives.	4%	11%	12%	48%	25%

Source: The researcher's survey result (2014)

Figure 4.1: percentage of respondents on kaizen training and awareness level

This section is aimed at assessing the extent to which staffs are aware about the implementation of kaizen and degree of training delivered both for job specific enhancement and training on kaizen implementation. As it can be show from the chart (figure-4.1), 75% of the respondents know their company's vision, mission, core values strategic goals and objectives though it's in different level. This implies employees know where the company is and where it is striving to proceed. More than 74% of the respondents are aware about the company has implemented kaizen as a quality improvement system. It is also coined from the Q&P officers of Ethio

telecom that, the company publicizes to its employees the implementation of kaizen and operationalization of quality circles through the company's internal communication kit- flash info regular quality newsletter release.

According to Phillip (2010), the message of quality improvement has to be communicated to three distinct audiences: employees, customers and stakeholders. To build anticipation and enthusiasm, employees must be energized to transform to a kaizen environment. Employees cannot be expected to be productive and effective if they do not receive accurate and relevant information. Though it is not at its sufficient level, Ethio telecom communicated the launching of kaizen practices to its employees.

But the level of training is not enough for staffs to fully engage in practicing kaizen principles in their work place. 79% of the respondents are not satisfied with the training level given by the company with regard to kaizen implementation. Besides to this, only 19% of the respondents agreed that there is continuous training program on kaizen as well has job related training which most of them are from enterprise division for the reason associated with, the division has its own on the job training section focused group interview.

Training delivers greater benefits, according to Cooney.et.al (2012), if management focuses upon the strategic effectiveness of that training rather than simply upon its ability to enhance employee task effectiveness. Employee training is of greater value to the firm in developing human capital if its affect is mediated by the quality management system. If firm specific skills are developed, it doesn't only improve the skills of individual employees but also enhance the effectiveness of the quality management system. Due to insufficient level of training both in kaizen implementation and work related training, staffs can't be able to deliver what is required in terms of bringing continuous quality improvement in their area of duty.

According to the interview with Q&P officers, before official implementation of kaizen, Ethio telecom established a team of 7 individuals from quality and process division with external consultant from France telecom who dealt with the overall management of the quality approach working with all the 13 divisions. With this circumstance the quality council start its activity by revising the list of employees under each division, organize them under quality circles by assigning leaders and facilitators with their own specific roles and responsibilities. Leaders are

either supervisors or managers according to the specific division's structure and facilitators are either managers or officers. The 7 individuals who team up to form a project like- quality council obtain training from Ethiopia kaizen institute (EKI) for 5 days on basic concepts of kaizen, methodologies of kaizen, 5s, waste elimination and problem solving. The quality council delivers one day awareness training for standard quality circle leaders and facilitators on the fundamentals of kaizen methodology both for corporate and regions. In turn the leaders and facilitator offer one day training for members of SQC under their supervision. But other than experience sharing with some international companies on kaizen principles and applicability there is no formal and organized training as responded from the Q&P officers.

The establishments of quality circles in Ethio telecom do have two dimensions. The first one is cross cutting quality circle that deals with issue that are critical and transversal by their nature which are established both at corporate and region level. There are 9 corporate cross cutting quality circles and 8 regional cross cutting quality circles which are established on regional basis with their own specific objectives. On the other hand there are 441 at corporate and 289 at regional standard quality circles. The establishment of those cross cutting quality circles is temporarily and will be disband when they finalize their purpose but due to the chronic nature of the problems they still exist though they are able to close some action plans.

Right after imparting the training, the quality council in cooperation with risk management and business continuity department conduct a risk assessment to identify the vulnerability level of employees', types of waste and the company's equipment to a risk . This was part of 5s deployment and waste elimination.

According to Naidu top management commitment and knowledge about kaizen, choosing pilot area to study i.e. model work place, institutionalization of quality circle and introduction of 5S are preliminary activities which was somewhat practiced in Ethio telecom with regard to deployment of 5s and institutionalizing of QCs.

Deming's thirteenth principle also emphasizes that within an institution a programme of training and self-improvement should be established; the reason being that all employees should continuously acquire new knowledge and skills that will actively contribute to developing continuous improvement and problem-solving processes (Oakland 2007).

4.2.2 Top Management role and Commitment

Top management role & commitment

		SD	D	N	A	SA
4	Top management is responsive in providing feedback for escalated issues raised in Standard Quality Circles meeting.	46%	29%	6%	11%	8%
3	The company management is committed by providing me with the necessary tools, adequate working space and appropriate…	28%	39%	9%	17%	7%
2	Top management (respective CxOs) own and strive for the implementation of kaizen.	29%	53%	8%	7%	3%
1	The management is committed to the implementation of kaizen methodology in the company by creating a culture of continuous…	28%	54%	8%	6%	4%

Source: The researcher's survey result (2014)

Figure 4.2: Percentage of respondents on top management's commitment to kaizen implementation

This section identifies the role and commitment of management in the implementation of continuous improvement and sustaining kaizen philosophy as corporate culture. From the interview with Q&P officers, the management is showing its commitment to the effective implementation of kaizen within the company through involving in the implementation of kaizen and encouraging employees in identifying areas of improvement around their workplace. Besides there is monthly meeting of respective CxOs chaired by the CEO to discuss on challenges and prospects and overall performance of the company as well as the issues related to kaizen implementation and discuss on escalated issues and give directions.

Furthermore T/CEO of Ethio telecom expressed his commitment for the implementation of continuous improvement of quality making personal visit of offices and workplaces stated on the

interview made with Q&P officers. Attend on events discussing with problems of service quality with enterprise customers, partners as well as some public wing meetings.

On the other hand more than 80% (Figure-4.2) of the respondents do not agree with the level of commitment of management to the implementation of kaizen and sustain it as corporate culture. This is manifested by inefficiency of top management in provision of necessary tools, adequate working place (67%) and delay in response for escalated issues (75%) as shown in the chart above. Esam.et.al, 2012 top management leadership is the degree of which top management sets up kaizen objectives and strategies, provides and allocates necessary resources, contributes in quality improvement efforts, and assesses kaizen implementation and performance. From the discussion, the level of management commitment to ingrain kaizen among employees is not sufficient and this resulted in externalizing kaizen to quality and process division and considers quality as one's division specific duty.

According to Yousaf, 2010 management commitment must be driven by a strong desire to improve the quality all business of a company. Top management must not only give a lead to the rest of the company but also ensure that the necessary decisions and actions are taken. Only top management has the motivation and the power to effect changes. In promoting organizational commitment, top management commitment will be helpful. In a global market the success of organization will depend on the abilities of quality leader or According to Faiza and Shehla, 2011, managers in terms of teamwork, knowledge, skills and problem solving.

Yousaf, 2010, the reason for gaining the commitment of top management to implement the kaizen programme is that management has the responsibility to help employees through all the different stages of kaizen. Leadership is the heart and soul of change. Change will not occur without leadership.

Senior management commitment is required for any initiative to be successful. The management of Ethio telecom lacks commitment owning kaizen and striving to the change being in progress. Besides to that issues that have been escalated are not being responded as per their time frame. Instead of providing resolutions for problems, higher officials obsessed with throwing back them to the quality circle members. The management is not willing to accept and implement

suggestions. Leaders lack a spirit of entrepreneurship, endless patience, continuous communication, encouragement.

4.2.3 Employee motivation and empowerment

Motivation and Empowerment

#	Statement	SD	D	N	A	SA
5	Implementation of kaizen in ethio telecom increased my productivity and motivation towards my work	27%	36%	9%	19%	8%
4	I am involving in decision making that affect my work	29%	51%	11%	7%	3%
3	Standard quality circles are empowered in resolving problems and adopting suggestions provided.	34%	52%	6%	7%	1%
2	There exists proper and fair way of motivating employees for their achievement in terms practicing kaizen implementation.	31%	48%	9%	9%	3%
1	I generally like to schedule my own work and to make job-related decisions with a minimum of supervision.	35%	38%	9%	14%	5%

Source: The researcher's survey result (2014)

Figure 4.3: Percentage of respondents on employee motivation & empowerment

This section briefly assessed one pillar of kaizen i.e. employee motivation and empowerment in bringing about continues improvement. As Imai stated staff motivation and recognition is one pillar of kaizen that can affect the overall organizational effectiveness. Motivational schemes for achievements made are not showing good figures. In the above figure depicted (Figure-4.3), 63% of respondents stated implementation of kaizen doesn't bring the initiation for better achievements as well as motivation towards improving quality of service. The existence of fair and proper way of motivating employees is not acceptable by more than 75% of the respondents. From the interview, though incentive plan is not implemented in the standard quality circles, it has already begun to be implemented on the cross cutting quality circles and there is a plan to cascade to the SQCs in the near future. And it can be inferred that, though, kaizen has been

implemented some two years before in the company, Ethio telecom doesn't have proper way of motivational and recognition plan staffs for their contribution and this can be considered as a source for the inconsistency of proactive manner of employees towards continuous improvement mindset.

With regard to empowerment, 73% of the respondents are stated that the existing working procedure in the company doesn't allow them to schedule their own work make job related decisions. This implies that for each and every situation they are expected to consult to their supervisors and which in turn took elapsed time which have an adverse impact on customer satisfaction as well as improving quality of service with the sense of continuous improvement and sense of urgency. In relation to empowering individuals/QCs to make decision on their work related issues or implementations of suggestion for improving quality of service is less than 20% as shown below.

According to Oakland (2007), successful organizations increase commitment by empowering and involving more and more of their employees in formulating plans that shape the business vision. As more people understand the business and where it is planned to go, the more they become involved in and committed to developing the organization's goals and objectives. 73% of the respondents stated, they don't have discretion in setting goals and schedule their daily works. Fred, 2011 stated that most effective performance seems to result when goals are specific and challenging, when they are used to evaluate performance and linked to feedback on results, and create commitment and acceptance.

4.2.4 Company-wide participation and standard quality circles

Company wide participation

#	Statement	SD	D	N	A	SA
7	Standard quality circle meetings are held with the sense of identifying better opportunities for improvement and problem resolution.	19%	29%	11%	24%	17%
6	The management (QC leader) encourages individuals to forward improvement ideas.	19%	26%	8%	31%	16%
5	Standard quality circle meeting are conducted regularly	18%	29%	9%	33%	11%
4	Employee suggestions and recommendations are appreciated and implemented by management	30%	37%	9%	15%	9%
3	I am involving in identifying causes of problem and providing solution for the problems.	20%	30%	8%	28%	14%
2	I am involving in identification of improvement areas	24%	31%	9%	21%	15%
1	participation of all individuals from CEO to staffs	26%	36%	10%	19%	9%

Source: The researcher's survey result (2014)

Figure 4.4: Percentage of respondents on companywide participation

Here the participation of all members of the company together with standard quality circles towards implementation of kaizen in the company is assessed. Respondents are provided with seven statements to assess the participation, implementation of suggestions as well as the objectives of standard quality circles meeting in delivering improvement ideas. As it can be shown in the chart (Figure-4.4), more than 60% of the respondents don't agree that all members of the company are involving in the practice of kaizen large number of them substantiate their answer in that most of their issues raised were escalated but don't get any responses from top management. Beside level of integration among standard quality circles as well as with cross

48

cutting quality circle is insignificant. This results among quality circles to develop a culture of report orientation rather than result focused on quality circles meetings and which in turn brought insignificant progress due to unresponsiveness of top managements for issues raised.

As mentioned by Okada 2004, Meetings constitute one of the crucial aspects of QC Circle activity, which, itself, involves a group of people in the same workshop who share common interests and objectives. 44% of the respondents conduct their meetings on a regular basis however, as it is depicted above, most of them are not in search of improvement areas or identifying causes of problems. Network division is relatively better than the others with regard to statements (2, 3 and 7) in dealing with improvement areas and identifying causes of the problem. The problem here is the management is reluctant in implementing those suggestions for improving quality of service.

According to Jeffrey.et.al, 2011 a study conducted on Toyota car manufacturer with regard to employees' suggestions, out of the total 75,000 suggestions in 2009, more than 97% were implemented. This shows employees are fully engaged in the continuous improvement encouraged by the management action inculcating their suggestions and implementing. In the case of the Ethio telecom, although most of the respondents (51%) agree that their SQC leaders encourage them to forward improvement ideas, the management is not appreciating and implementing those ideas as shown in the diagram below. It can be inferred that employees don't forward improvement and problem resolution ideas due to the fact that the management wont practices them and consider the meeting of quality circles as wasting their time.

4.2.5 Communication

Assessing communication level

#	Statement	SD	D	N	A	SA
5	The reporting template are clear to understand and don't create confusions.	43%	37%	10%	8%	2%
4	There exist formal templates at all levels for reporting achievement and challenges in standard quality circles.	15%	16%	7%	43%	19%
3	There exists clear way of communication both upward (from SQC members to management - escalated issues) and downward (from…	56%	39%	5%		
2	Action plan integration exists among standard quality circles within/without divisions so that action will be closed according to their schedule.	34%	37%	8%	18%	3%
1	The system encourages employees to communicate the management regarding working barriers they face in attaining their…	36%	39%	7%	10%	8%

Source: The researcher's survey result (2014)

Figure 4.5: Percentage of respondents' on communication flow

Understanding the contribution of communication among members of the company in the overall implementation of kaizen is the objective of this section. The research found out that the existing system is not as such at clear to facilitate communication for the reasons like taller span of control in the QCs which can be associated with absence of empowerment, interdependence among divisions. From figure-4.5, 75% of the respondents agree that they are not comfortable with the existing system of communication. As shown in the above figure, 95% of the respondents stated that the communication channel is limited to top down with no upward and diagonal communication. It is only limited to escalating issues but with no status update or valuable response from the management. One of the most powerful ways to create interest in kaizen is to communicate success stories to employees. Management of Ethio telecom is lagging

50

behind in sharing success stories of the company like financial information by teaching employees to understand and play the "great game of business". In addition to this, the company didn't bring organizations in telecom sector as bench marking for comparing their performance and achievement of Ethio telecom in the implementation of kaizen. This implies one of the pillar for effectively practicing kaizen in organizations, communication, is lost and results in lack of trust and commitment on sustaining it as a culture.

Regarding integration and communication of action plans, some 70% of the respondents are not agreeing the existence of proper communication of action plans integration among divisions and related departments. Most quality gurus emphasize that quality problems most often are the result of poor horizontal or lateral relationships within the organization. That is, different functions do not properly relate to each other and different employees do not properly relate to each other. One of the most obvious manifestations of kaizen is quality circles. Often they work on problems of lateral coordination and, at times, of course, make suggestions about how to improve managerial systems, work method, and work procedure.

As pointed out by Oakland 2007, Two-way communication is regarded as both a core management competency and as a key management responsibility. From the focused group interview, they are not practicing integration of action plans with other concerned standard quality circles. For example, enterprise division plans to sale X amount of broadband internet at somewhere in Addis Ababa and if the division (specific SQC form that division) failed to cross check the action plan of network, it cannot achieve its objective of selling that X amount of broadband internet. This implies each department/division is working as an independent entity which negatively affects the performance of the company at large.

As shown on figure 4.2, 62% of the respondents agreed that the existence of reporting templates but a majority of them (80%) said they are not clear with some items of the templates. Interview with quality officer also shows there is a problem with regard to templates. From this it can be concluded that quality circles can't report their achievements and challenges as it has to be presented portraying the activities done.

According to Maria.et.al 2007 in order to implement kaizen effectively, there must be people-orientated communication in an institution, which provides a friendly atmosphere in which everyone communicates quickly. Effective communication helps to break down the traditional institutional hierarchy. It also encourages communication of both good and bad news, so that any type of news can travel from one end of the institution to the other, and through all levels.

4.2.6 Corporate Culture and Positive Mindset

Assessment of corporate culture
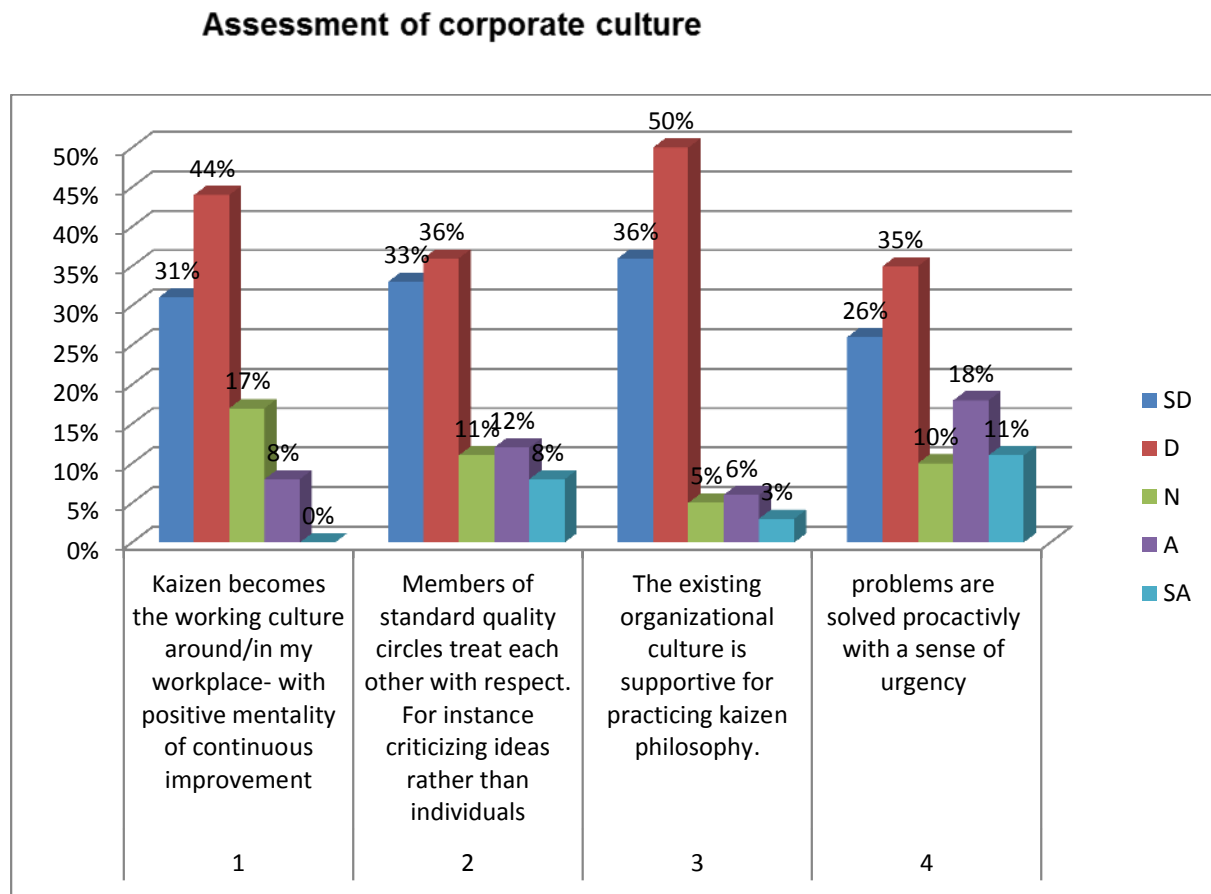
Source: The researcher's survey result (2014)

Figure 4.6: Percentage of respondents' on corporate culture and positive mindset

In assessing the level of employees' attitudes towards internalizing and accepting kaizen as corporate culture, 86% of the respondents answered unfavorable organizational culture prohibits effective implementation of kaizen. This is also backed by the response from Q&P officers that

employees are not committed in full participation of kaizen somewhat due to the post lay off survivals syndrome which was happened at the transformation period. The culture of solving problem doesn't have a nature of proactive and sense of urgency as it is shown from the chart below 61% (Figure-4.6) of the respondents are reactive and waiting for directions from their supervisors in dealing with problems occurred.

Organizations have different working environments, work attitudes and leadership styles, which influence the implementation of the kaizen approach (Phillip, 2010). Culture is a primary determinant of the institutional environment. Before embarking on a quality revolution, an institution must determine whether its culture offers an environment that is conducive to continuous improvement. If not, the culture must be changed. Institutional culture is a key means to communicate the goals of the institution and the appropriate behavior in attaining those goals.

In contrast to the above point of creating favorable culture for practicing, Ethio telecom is mainly characterized by lack of initiative and commitment among employees and the management to own the quality circle as their own duty and strive for continuous improvement. Rather than providing suggestion for improvement members focus on reasoning. Taking kaizen as additional burden rather than quality improvement system adversely impact the practices of kaizen.

Rather than engaging in continuous improvement of service quality, most (71%) of the respondents are working on meeting the target set by the company. To achieve the GTP target set for telecom sub-sector, to enhance the existing network quality, as well as building sustainable network infrastructure, Ethio telecom signed a multi-vendor financing project with the two Chinese companies i.e. ZTE and Huawei for $1.6 billion. Equally important the company implemented kaizen as a quality improvement method on 2012 though it is not fully achieved all of the objectives that are expected to attain. As it is reiterated by the officials that the researcher conduct an interview with: besides to meeting the target set by the government on the GTP Ethio telecom is moving ahead with promising progress as shown in the table below.

S/N	Description of targets	2009/2010 G.C.	Current Status	2014/15 G.C.
1	Number of fixed line telephone subscribers (min)	1	< 800,000	3.05
2	Number of mobile telephone subscribers(min)	6.52	> 30	40
3	Mobile telephone coverage (%)	8.7	37.5	45
4	Number of internet service subscribers(min)	0.187	> 1.8	3.69
5	Rural telecom access within 5 Km radius of service (%)	62.14	> 79	100
7	Global link capacity	3.255	Update not found	20

Source: GTP, 2011

Table 4.2- Target set for Ethio Telecom at the end of the GTP

As it can be shown from the above table, Ethio telecom is going somewhat at a tolerable level to meet the plan for GTP with the exception of fixed line. The company needs to work on identifying the root cause for the inefficient performance of fixed line and take preventive maintenance to remove problems that block it from meeting the established targets.

4.2.7 Practices of 5Ss

Assessment five S's practice
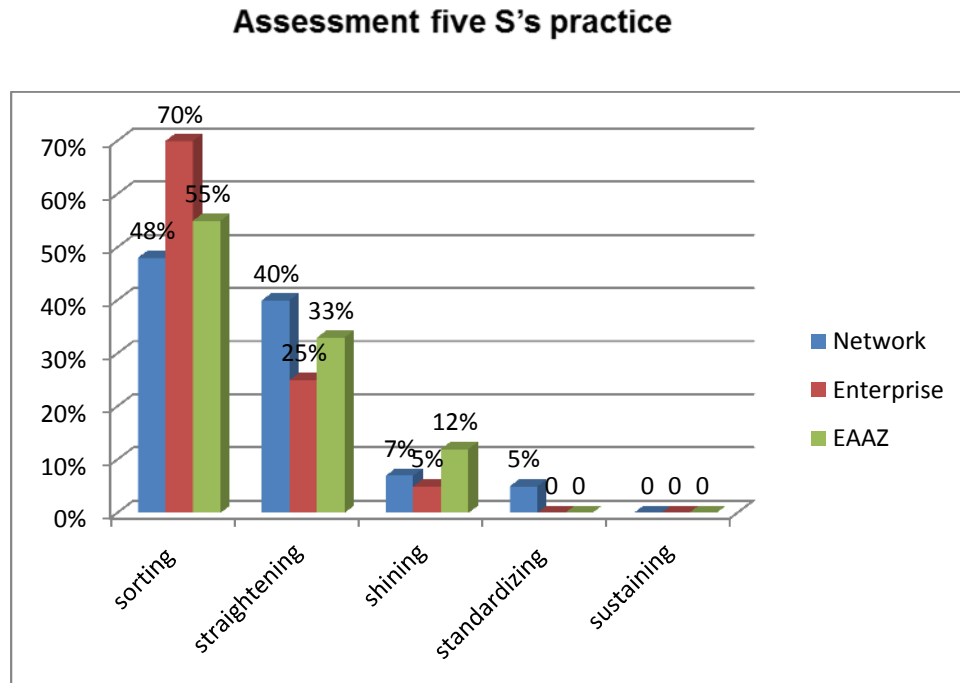
Source: The researcher's survey result (2014)

Figure 4.7: Percentage of respondents' degree of five S's deployment

The aim of this section is to identify the degree to which 5S (sorting, straightening, shining, standardizing and sustaining) practices, since these are the foundations of kaizen. As shown in the chart (figure- 4.7) sorting is the predominant activity done in the company. Though there is a little effort (5%) is made towards standardizing work place in network division, the practice is very marginal globally. This shows that the company is not bringing visible changes on practicing the five S's that have great role in the elimination of wastes enhancement of work place safety as well as motivations of employees from their work place.

As Imai stated out of the many benefits of 5s safety and elimination of waste by making work place visible. A photograph taken in one of the study area (EAAZ) discloses that 5s is not well practiced in the company at large. It can be concluded the practice of 5s limited to sorting the items around workplaces.

55

Levels of waste

Photo 1- Imageries showing some of the waste areas in the company

Interview with concerned mangers specifies that these are copper cables (left hand side) purchased for NGN project and has some defects with regard to their functionality and there is a project proposal on the way for using for other purposes or how to either discard them. The picture on the right hand is a petroleum silo used for generators in case of blackout and it has surrounded with different cables which might ignite fire in any circumstances.

4.2.8 Improvements observed

Though the implementation of kaizen is not as such a long time phenomenon in the country in general and in Ethio telecom in particular, improvement are observed in many facets. Some of the identified reasons for poor quality of service with officers of Q&P are attributed to recurrent optical fiber cuts, poor prior network installation commercial power loss from Ethiopian Electric Utility (EEU) and many projects underway in Addis and regions adversely impact the quality of service Ethio telecom is currently providing. These problems will be fundamentally addressed in creating public awareness as well as discussing with concerned stakeholders. Besides, the launching of the multi-vendor project is expected to bring fundamental change. But in the long run provision of reliable quality of service is dependable through implementation of continuous improvement- kaizen implementation the company obtained benefits with regard to internet fixed line and mobile service on selected KPIs.

Copper line rehabilitation- as shown in the pictures below (before the rehabilitation on the left side and after rehabilitation on the right side) the established standard quality circle can maintain and rehabilitate the copper line. Rehabilitating the copper line is beneficial in preventing call drops and cross talking, Closing /replacing of terminal box covers ,re-arrangement and tensioning of drop wire connection, rearranging displaced over head installations on MSAGs. Manager from fixed access network (FAN) explaind that, so far 134 faulty numbers per week are rehabiltated and states the pace is accepatable and better than the plan. And refering the customer experince, the manager stated the number of complaint and TTs are reduced on those areas where rehabilitation is made.

The images on the left side shows a pole and MSAG that were taken before the rehabilitation was done. And it was characterized by high level of cross voice talks, call drops and tension wiring. But following the rehabilitation, all these problems were removed and the picture shown on the right hand side represents a pole and MSAG box after rehabilitation.

Before Rehabilitation

After Rehabilitation

Before Rehabilitation   After Rehabilitation

Photo 2- Imageries showing improvement before and after five S's

Improvement in Enterprise Division

Though most of the activities of a telecom service are dependable on the quality of the network, Enterprise division which was institutionalized as an independent entity solely dedicated to serve corporate customers through providing special offers and packages together with concluding SLAs with some institutions is generating large sum of revenue stated in focus group interview made.

After official launching of kaizen and establishments of quality circles, the division is showing continuous improvement in its customer service as well as yearly revenue. Survey success rate Number of Survey Orders responded as positive over total Number of Survey Orders generated by the business (Separate Calculation for Voice and Data Services) is improving week after week by making staffs giving training on system based application but subject to network problems.

In facilitating customer service in shops, the division identified the gap in resolving for problems with regard to EVDO and fixed wireless configuration and established technical support as first hand remedy in relieving the complaints from customers. But most of the problems are from network side.

With regard to revenue, the division attains 1.9 billion birr within the last 9 months which exceeds the plan by 24% through identifying prospect markets and facilitate the service delivery rate besides to other existing products & services. The figure only refers to the amount from

selling of products and service and it is showing progress during the last five years sales performance of the division

Telecom Fraud & Revenue Leakage

Telecommunication Fraud is the intentional and successful employment of any deception, cunning, collusion, artifice, used to circumvent, cheat, or deceive another person, whereby that person acts upon it to the loss of his property and to his legal injury. However, there does seem to be a general consensus that telecom fraud, as the term is generally applied, involves the theft of services or deliberate abuse of voice and data networks. Revenue leakage is characterized by the loss of revenues resulting from operational or technical loopholes where the resulting losses are sometimes recoverable and generally detected through audits or similar procedures (Florian.et.al, 2011).

In interview held with Q&P officers, after the implementation of kaizen Ethio telecom is capable in managing to save a leakage more than 100 ml birr in monetary terms by using proactive methods of detecting fraudsters and terminating SIM cards. In relation to this, one cause of revenue leakage and fraud was unable to have CAF (customer acquisition form) an agreement form that bind between the service provider (Ethio telecom) and customers which clearly specifies the terms and conditions on service provisioning. More than 4 ml CAF has been uploaded to the system in relation to mitigate the severity of revenue leakage.

4.2.9 Major Challenges and Roadblocks on the Implementation of Kaizen

From the questionnaires collected, respondents put the major problems they are facing in practicing kaizen and sustaining it as corporate culture. Besides, some points also raised by the management as well like motivational issues. Some of these problems include:

> ➢ Divisions do have different working situations and organizational structure of some divisions have the interdependency and also characteristics of recurrent field work like sourcing and facility, others like customer service are working in three shifts and no time is allotted for their SQC meeting which is only 1 hour for their recess time during their working hours. The quality circle meeting doesn't take into account real situation at ground. This makes standard quality circles in effective.

- Problem of knowledge gap in the working environment especially technical area. Though technology is upgrading frequently, skill enhancement trainings are not delivered for employees in a planned way. Besides to only one day training has been delivered by the company on kaizen tools which makes it even worse.

- Quality circle meeting are not held regularly even some standard quality circles don't conduct their meeting. This is mainly occurred due to loose monitoring and control from top management. In addition to these redundancies in evaluation and with some instances meeting create a negative perception among employees in considering kaizen as additional burden rather than service quality tool.

- Absence of proper and fair motivational scheme for practicing kaizen and corrective measures for deviation from the culture let employees ignorant towards instilling the culture of continuous improvement. Besides to these there are no as such inspiring things that remind employees to practice continuous improvement in their daily tasks. This led employees to consider kaizen as additional burden rather than quality improvement.

- Quality circles are not empowered to make on decisions and this creates a room for escalation of issue for top management. Issues that can even be addressed at section level will stay long time without solutions and make quality of service degrade.

- Issues that are escalated to top management are rolling for more than a year without solution and this is one reason that frustrates quality circles not to enroll on their duty actively. This in turn created a culture of report oriented meeting.

- Lack of action plan integration and diagonal communication among quality circles. For instance when a sales department plans to sell 100 ADSL next year, it doesn't take in to account the capacity and the plan of network division and fail to achieve the established goals.

- There are different types of waste in the company which are not value adding as well as making ineffective service provisioning. Bureaucratic system and high level of formalization associated with attitude of employees are some contributing factors for the accumulation of waste. Divisions are not working in an integrated manner, for example in the implementation of five Ss' network division collect all scrap material spares outdated modem and any other non-value adding devices but concerned division like sourcing and facility is not taking them to their appropriate place which creates frustration and

ignorance among employees that in turn led them to slid back to their hold habits. The other dimension is that, aging orders or trouble tickets is one type of waste in service sectors which is also one feature in Ethio telecom. Due to externalizing in ownership of those TTs customers' orders will elapse for more than 3 and four months which were supposed to be resolved within a week.

CHAPTER FIVE

5. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The chapter presents, the major findings of the study provide coherent conclusion and forward possible recommendations

5.1 Summary of Major Findings

The major findings are organized according to the basic questions: training and awareness on kaizen implementation, top management role and commitment, companywide participation, motivation and empowerment, communication and corporate culture with regard to positive mindset.

➢ Though majority of the respondents agreed that they obtain one day training on basics of kaizen, more than 70 % of them don't agree that the level of training doesn't enable them to practically implement and improve their working standards. Training and education provide the necessary skills and knowledge – the ability to make it happen. It is an investment that needs to be made. Ethio telecom starts to implement kaizen without delivering the necessary and sufficient level of training and that contributed to the ineffectiveness of kaizen practices.

➢ Some 85% of the respondents do not agree with the level of top management's commitment in instilling the quality Philosophy Company wide and sustaining it as corporate culture. Management commitment is manifested by empowering individuals/QCs to make job related decision, provide them with the necessary resources, train them, motivate them, and communicate updated information as well as providing them with on time solution for escalated issues. Maria.et.al 2007 points out that some kaizen programs have failed in the implementation due to negligence and reluctance of top management to delegate power and responsibility to subordinates. Lack of top management commitment in maintaining kaizen as corporate culture is also one feature observed in Ethio telecom.

➢ 73% of the respondents do not have the autonomy to plan, schedule and control their work and make work related decision. In addition 79% of the respondents are dissatisfied

with the existing motivational schemes in Ethio telecom. Absence of fair and equitable reward for suggestions as well as accreditation together with high subjective evaluation contributed for the dissatisfaction of employees to internalize and own kaizen management philosophy.

➢ More than 60% of the respondents stated that companywide participation is not practiced in Ethio telecom. Due to late responses from top management, failure to implements positive suggestion, irregular meetings of standard quality circles a culture firefighting and report oriented approach has been developed.

➢ More than 90% of the respondents do not agree the existing communication system in Ethio telecom is supportive for continuous improvement. The success with which kaizen is established in an institution largely depends on the success achieved with communication within the institution. Communication system in Ethio telecom doesn't encourage employees to strive for continuous improvement. Communication problem occur mainly due to limited responsiveness from top management, and unclear reporting template.

➢ 75% of the respondents stated that kaizen is not working culture around their workplace. Employees are building an attitude of reactive approach to problems rather than solving in a proactive manner. Organizational culture can have a positive effect on competitive advantage, increased productivity and a firm's performance. Culture of quality in Ethio telecom is not built with regard to building and enhancing trust, motivation, and serious employee empowerment through genuine participation, job security, and equitable compensation; team work of various structures; training and development; measurement of quality through process as well as outcomes. Top management of Ethio telecom didn't relieve the employees from the downsizing syndrome that was occurred in the company some 4 years before which in turn has an adverse impact on creating positive mindset to practice the kaizen philosophy.

5.1 Conclusions

The study was conducted to assess the practices and challenges of kaizen implementation as management system in the case of Ethio telecom. It considered six major variables and identified their level of practices and major challenges encountered throughout their implementation.

Therefore, preparing to the finding deduced from the study, the following conclusions were drawn,

➢ Majority of the respondents were male in that most of them have working experience above 5 years having an academic status of BA/B.Sc. degree. From their working experiences and academic status, it can be concluded that, respondents can tell what sort of improvement did Ethio telecom obtained through the implementation of kaizen.

➢ The first and foremost issue in any management philosophy is inculcating the vision, mission, core values as well as strategic goals among employees which show good status in Ethio telecom. Though Ethio telecom started the implementation of kaizen after delivering training for employees, it is not sufficient level and on continuous basis which contributes for ineffectiveness of the system.

➢ The degree of top management commitment is not at its desired level. Kaizen is a management approach that brings about quality awareness in all organizational processes. For kaizen to be effected in its entirety, it is imperative that the top management should be committed to empower the employees by delegating sufficient authority for them to make both individual and collective decision.. Albeit top management commitment is a vital pillar for practicing and sustaining the culture of kaizen, the management of Ethio telecom doesn't give due concern for the proper implementation and its sustainability. The findings of this research as well as the one reported in literature supports the idea that the management of the organization has a major role to play in terms of ensuring a culture which permits every member of the organization to be involved and contribute to quality improvement, as the involvement of employees in detecting and monitoring the quality performance requires a decentralized organizational structure. This structure permits for innovation as it permits everybody in an organization to seek solution to a particular quality problem.

➢ Companywide participation is one critical factor in the implementation of new management philosophy like kaizen. It can be concluded from the study, employees are considering kaizen as additional burden thrown by the management rather than service quality improvement system for the reasons mainly attributed to minimal involvement from the CEO himself, ignoring suggestions generated in SQC meetings.

- Effective communication contributes to quick and effective execution of tasks while it also improves decision-making and teamwork. Inefficiency communication system in terms of: delay response from management, one directional communication (top-down), unclear reporting templates are contributing negatively for the ineffective practices of kaizen. Inefficient communication system in Ethio telecom resulted in poor practices of kaizen which hinders clear flow of information upward, downward as well as lateral. These effects in a bureaucratic nature of administration in the company rather than continuous improvement.

- When organizations are thinking of implementing empowerment programs, it is very imperative that the management should develop and communicate definitions clearly. If definitions are not clearly stated employees may develop their definitions and it may bring about some inevitable ambiguity within the organization. Standard quality circles in Ethio telecom are not empowered to make job related decision and this brought delay on actions to be taken and dissatisfaction both on internal and external customers. In addition motivational aspect is not also well practiced in accordance with kaizen principles with regard to both intrinsic and extrinsic factors that in turn negatively affect the initiation as well as sustainability of kaizen philosophy among employees.

- It has also been shown in this study that kaizen requires a turnaround in corporate culture as compared to the old transitional form of management in which the top managers' gives order and the employees simply obey them. In a full kaizen program the organizational chart is more flattened and there is a shared responsibility between managers and employees and this will eventually resolve quality problems faster and easier because everyone will be responsible for their activity. In Ethio telecom quality culture is not instilled and internalized by employees and quality is considered as if the task of quality and process division. To this end employees take kaizen implementation as additional burden and failed to own it as service quality enhancement which causes

5.2 Recommendations

The lessons, implications and suggestions based on the findings of the study are summarized as follow:

❖ Fundamental requirement is a sound quality policy, supported by plans and facilities to implement it. Management of Ethio telecom must take responsibility for preparing, reviewing and monitoring the policy, plus take part in regular improvements of it and ensure it is understood at all levels of the organization.

❖ Train and develop both managers and employees - Managers must understand the processes they manage as well as the basic concept of systems optimization. Employee training should focus on the integration and appropriate use of statistical tools and problem solving. In addition the training on kaizen should be on a continuous basis including work specific training to enhance employees' capability and caliber.

❖ Effective leadership starts with the development of a mission statement, followed by a strategy, which is translated into action plans down through the organization. These, combined with a Kaizen approach, should result in a quality organization, with satisfied customers and good business results. These can be done through:

➢ Ethio telecom needs first to revisit its mission statements in a manner of quality with respect to continuous improvement

➢ Leaders of Ethio telecom personal involvement, owning kaizen and acting as role models for a culture of total quality.

➢ Developing clear and effective strategies and supporting plans for achieving the mission and objectives. Leaders need to work on maintain current standard and strive to improve those standards by coordinating quality circles and working with together with them.

➢ Besides to continuous improvement, the company needs to foresee other quality approaches which can be practical together with kaizen. Since Ethio telecom's vision is being a world class telecom operator by 2020, it needs to support its research and design department with respect to meeting its established objectives and fulfilling customer expectation.

> ➢ Reviewing and improving the management system of Ethio telecom in which creating an environment where employees build trust on the management by being responsive for their concerns maintain the participation of all employees through implementing those constructive suggestions.

> ➢ Management of Ethio Telecom should communicate, motivate and support employees and encourage effectively their participation. Establishing a platform for the proper integration among quality circles and eliminating those barriers that inhibit the motivation and productivity of employees in practicing continuous improvement like additional evaluation and meeting, unfair motivational schemes.

❖ The company needs to develop effective motivational schemes that energize employees to persistently participate for taking part in continuous improvement. Give appropriate recognition for employees that show outstanding achievement, provide improvement suggestions as well as articulate variable pay based on performance.

❖ Employees cannot be expected to be productive and effective if they do not receive accurate and relevant information. Communication has a direct influence on the productivity and performance of employees. Effective communication increases employees' level of trust and improves problem solving capacity. Communication is essential for the entire empowerment concept. Creating opportunities for participation whilst considering the needs of employees are conducive to effective communication. Revisiting the organizational structure of the Ethio telecom to reduce the tallest chain of command for effective communication as well as re organize the establishment of some standard quality circles in alignment with the specific divisions working condition will improve responsiveness as well as effectiveness. In addition, the company needs to have clear reporting templates that show achievements. Furthermore, Ethio telecom needs to create platform to integrate action plans and communication among established standard quality circles at corporate level with region as well as with cross cutting quality circles in such a way that doesn't linger problems and facilitate team working with the sense of organizational commitment and synergetic mentality among them.

❖ Management of Ethio telecom needs to assure that the system is geared towards a situation in which all members of the company are involved in the continuous improvement by which everyone participate with a mentality of quality as his/her own

job not the task of a specific division. Employees and management should recognize and needs to have a mindset, that each employee is involved in running the business.

❖ The very first thing management of Ethio telecom need to work on is understand the existing culture and using the knowledge to successfully map the steps needed to accomplish a successful change. Adaptations in the culture of an institution take a long time and require special attention from top management who has to accommodate it as part of strategic management. Cultural change commences with diagnosing the prevailing culture of the institution and adapting this culture to current or proposed strategy. As there is a close relationship between the culture and strategy of an institution, changes in strategy require supportive changes in institutional culture and systems. Besides, the company needs to decentralize the quality management system to all division/regions/zones to closely follow up their progress. Sitting in office and collecting report weekly/monthly doesn't add value at all. Quality audit need to be deployed in a holistic manner.

❖ The company needs to work closely with institutions like Ethiopian kaizen Institute till it is capable to manage the effective implementation of the system. Besides to that Ethio telecom needs to inculcate the success story of other telecom sectors that has implemented continuous improvement as quality management and take them as benchmark and customize their best practices according to the existing scenario of the company.

❖ In eliminating the waste, Ethio telecom first needs to identify the different source of wastes in the company both from the visible and the invisible working environment that limits its efficiency. Though it was a good progress in assessing the risk areas in the company, it is very much lagging behind in developing risk mitigation plan. For doing this, it should first deploy the five S's across the company by offering proper training on each step and develop an end to end plan on items and material that needs to be discarded. Everyone, from upper management to the janitor should have 5S as a part of their individual job performance goals. Include an evaluation of 5S performance as a part of each annual employee review. Without this level of commitment to 5S, it will become secondary in importance and will slowly become ignored and ineffective. And

standardizing work practices around workplace is also so that everyone can be able to know where he/she stands and where to proceed.

❖ This study is a general exploration of the practices and challenges of kaizen implementation in Ethio telecom. Further researches that focus at analyzing all the aforementioned factors of kaizen and their correlation on service quality as well as employee productivity are recommendable.

References

➢ Anthony J. Berry Jane Broadbent and David Otley (2005), *Management Control Theories Issues and Performance*, Palgrave Macmillan, USA.

➢ Asiya Gul, Syed Aamir Saeed Jafery,Javed Rafiq (2012), *Improving employees performance through continuous improvement*, International journal of Economicas and Management Science Vol. 1 No. 8, pp19-24.

➢ Bertrand L. Hansen and Prabhakar M. Ghare (2002), *Quality Control and Application*, prentice-hall New Delhi, India.

➢ Dale H. Besterfield, Carol Besterfield-Michana, Glen H. Besterfield and Mary Besterfield-Sacre (2004), *Total Quality Management*, Pearson education New Delih, India.

➢ Esam M.A. Mustafa & Abdul Talib Bon (2012), *Role of Employee Empowerment in Organization Performance*, international journal of social science and management, Vol. 2 No.6, pp19-24.

➢ Faiza Sajjad and Shehla Amjad (2011) - *Assessment of Total Quality Management Practices and Organizational Development (The case of Telecom Services Sector of Pakistan),* Mediterranean Journal of Social Sciences Vol.2, No.2.

➢ Felix Damrath (2012), *Increasing competitiveness of service companies: developing conceptual models for implementing Lean Management in service companies*, Politecnico di Milano, Italy.

➢ Florian Grone (Dr.) & Roman Fredrick (Dr.) (2011), *Leaner and Keener Telecom Operators Eliminating waste boost the bottom line, Booz & Company,* Marketing Science Institute, Cambridge.

➢ Fred C. Lunenburg (2011), *Goal-Setting Theory of Motivation, International journal of management, business, and administration* Vol.15, No.1, Sam Houston State University.

➢ Getahun Tadesse (2014),"�ል*ፃን",* Messele Multimidia and Printing Works, Addis Ababa, Ethiopia.

➢ George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. Boston.

- Gobesh Adnan, Peter T. Ward, Mohan & David (2009), *Dynamic capabilities through continuous improvement infrastructure,* Journal of Operations Management Vol.3 No.27, 444–461

- Harsha de Silva, Ayesha Zainudeen & Dimuthu Ratnadiwakara (2008), *Perceived economic benefits of telecom access at the Bottom of the Pyramid in emerging Asia*, LIRNEASIA, Japan

- Imran Ahmad Khan (2011), *Kaizen: The Japanese Strategy for Continuous Improvement, VSRD-IJBMR*, Vol. 1 No.3, 2011, 177-184

- ITU (2012), *Trends in Telecommunication reform*, USA

- James A. Fitzsmmons & Mona J. Fitzsmmons (2008), *Service management*, McGraw-Hill Irwin, New York.

- Jeffery K. Liker and David Meier (2006), *The Toyota way Field book- A practical guide for implementing for Toyota's 4Ps*, McGraw Hill, New york.

- Jens J.Dahlgaard, Kai Kristensen, Gopal K.Kanji (2007), *Fundamentals of Total Quality Management: Process analysis and Improvement*, Taylor & Francis Publisher, Great Britain

- John S. Oakland (2007), *Total Quality Management text with cases*, Butterworth-Heinemann publications, Great Britain

- Kaname Okada, (2004), *Handbook for TQM and QCC volume II: A guide for facilitator and circle leaders*, Japan

- Katsuki Aoki, (2008). *Transferring Japanese kaizen activities to overseas plants in China*, Vol. 28 No. 6, pp. 518-539

- Manuel F. Suárez-Barraza and Tony Lingham (2008), *Kaizen within Kaizen Teams: Continuous and Process Improvements in a Spanish municipality*, Luden University, Spain

- Maria Fiocco & Tina Fleming (2007), *Developing communication skills: a continuous improvement approach*, Curtin International College, Australia

- Masaaki Imai, (2000), *Gemba kaizen, A Commonsense, Low-Cost Approach to Management*, McGraw- Hill, New york.

- Nadem Yousaf, (2010), *Top management commitment for TQM- a process model*, Lahore, Pakistan

➢ Naidu,Babu and Rajendra (2006),*Total Quality Management*, New Age International Publishers, New Delih, India

➢ Pekka Tervonen1 and Harri Haapasalo (2012), *Continuous Improvement Proposal Process and Operating Model*, Journal of Organizational Management Studies, Vol. 1 No.3,59-83

➢ Peter K (2013), *Service process kaizen: adopting process stabilization methods to control service work flow and to improve customer service*, USA.

➢ Phillip Marksberry (2010), *Management directed kaizen: Toyota's J shuken process for management development,* Journal of Manufacturing Technology Management Vol. 21 No. 6, pp. 670-686

➢ Richard Conney, Mile Terziovski & Danny Samson (2012), *Employee training, quality management and the perforamcne of Australian and New Zealand Manufacturers*, Faculty of Business and Economics, Monash University, Melbourne Australia

➢ Slobodan Prošić (2011), *Kaizen Management Philosophy, International Symposium Engineering Management and Competitiveness*, Zrenjanin, Serbia

➢ Stephen P. Robbins and Mary Coulter (2012), *Management*, Prentice Hall, USA

➢ Thaddeus Litie Njie, Linus Teku Fon and Gbolahan Awomudu(2008), *Top management commitment and employee empowerment in the implementation of continuous improvement*, University college of Boras, Sweden.

➢ Vineet Kr (2011), *An Overview of Kaizen Concept*, VSRD-MAP, Vol. 1 No.3 pp.120-125

➢ Yogesh Kumar Singh (2006), *Fundamentals of Research Methodology and Statistics*, New Age International Publishers, New Delhi, India

➢ Z. Irani. and A. Beskese (2004), *Total quality management and corporate culture : constructs of organizational excellence*, Istanbul institute of quality, Turkey

➢ Ethiopian kaizen manual (2011), 1st edition, Ministry of trade, Addis Ababa, Ethiopia

➢ Ethio Telecom Company profile magazine, (2013)

➢ GTP plan and its success, (2011)

➢ Unpublished Ethio telecom annual performance report (2012 & 2013)

➢ Unpublished Ethio telecom newsletter no 1 (2012)

➢ Yearly Company magazine of Ethiopian Kaizen Institute (2013), Kaizen, Rehobot Printers, Addis Ababa, Ethiopia

➤ http://www.webcitation.org/66kKEIC0b_as_of_01/03/14 (accessed as in 03, January, 2014)

APPENDIX

St. Mary's University

School of Graduate Studies

Pilot Questionnaire to be filled by employees of Ethio telecom

Dear respondents,

I am post graduate student at St. Mary's University. The purpose of this questionnaire is to enable me to carry out a research for partial fulfillment of the requirements for Masters of Business Administration (MBA). The research focus on Ethio telecom with the title of *"practices and challenges of implementing kaizen: the case of Ethio telecom"*. The information shall be used as a preliminary assessment on kaizen practices in Ethio telecom. Therefore, your genuine, honest, and prompt response is a valuable input for the quality and successful completion of the project. Hence, to gather information, I kindly request your assistance in responding the question listed below. This information will be used only for academic purpose and your responses will be treated confidentially. If you have any question(s), please call at +251-911-510070.

Thank you in Advance

Amanuel Teklu

1. Have you ever been communicated about the implementation of kaizen in Ethio telecom?

   Yes □   No □

2. Do you participate in quality circle meetings in bringing quality improvement?
   Yes □   No □
3. Do you regularly participate in quality circle meeting?
   Yes □   No □
4. The quality circle meeting is effective in resolving problems and suggesting best ways doing your jobs.
   - ➢ Strongly agree □
   - ➢ Agree □
   - ➢ Somewhat agree □
   - ➢ Disagree □
   - ➢ Strongly disagree □
5. The management support in every aspect of improving quality of work.
   - ➢ Strongly agree □
   - ➢ Agree □
   - ➢ Somewhat agree □
   - ➢ Disagree □
   - ➢ Strongly disagree □
6. There is positive organizational culture that can adopt a continuous improvement mindset.
   - ➢ Strongly agree □
   - ➢ Agree □
   - ➢ Somewhat agree □
   - ➢ Disagree □
   - ➢ Strongly disagree □
7. Do you think the practice of kaizen is well understood by the employees and become corporate culture?
   Yes □   No □
8. What challenges did you face in the implementation of kaizen?
   ………………………………………………………………………………………………………
   ………………………………………………………………………………………………………
   ………………………………………………………………………………………………………
   …………

Appendix- B

St. Mary's University

School of Graduate Studies

__Questionnaire to be filled by employees of Ethio telecom__

Dear respondents,

I am post graduate student at St. Mary's University. The purpose of this questionnaire is to enable me to carry out a research for partial fulfillment of the requirements for Masters of Business Administration (MBA). The research focuses on Ethio telecom with the title of *"practices and challenges of implementing kaizen: the case of Ethio telecom".* The information shall be used as a primary data in my case research. Therefore, your genuine, honest, and prompt response is a valuable input for the quality and successful completion of the project. Hence, to gather information, I kindly request your assistance in responding the question listed below. This information will be used only for academic purpose and your responses will be treated confidentially. If you have any question(s), please call at +251-911-510070.

Thank you in Advance

Amanuel Teklu

Section 1- Demographic Data (both for standard quality circle members and leaders)

N.B- you don't need to write your name

1. Sex   Male [   ]   Female [   ]
2. Qualification: mark ("√") on the options provided

Grade	Tick	Grade	Tick	Grade	Tick
Grade 12 & below		BA/BSc		PhD	
12+2 and Diploma		MBA/MA/MSc		Others	

3. Work experience in the company: mark ("√") on the options provided

Service year	tick	Service year	tick	Service year	tick	Service year	tick
Below 3 years		3 to 5 years		6 to 10 years		Above 10 years	

4. Division/Zone _____
5. Location: mark ("√") on the options provided

Section two -Survey Questionnaires on the "practices and challenges of kaizen"

Listed below are a series of statements that may represent how employees describe the implementation of kaizen and its success and challenges. Please indicate the degree of agreement or disagreement with each statement with respect to your own feelings about the practices of kaizen and its challenges in Ethio telecom. Kindly put (√) under one option you think best suits you or shows your level of agreement with each one of them and using the scale given below:

1- **Strongly Disagree**   2- **Disagree**   **3-Neither Agree Nor Disagree**
4- **Agree**   5- **Strongly Agree**

S/No	Items on the practices and challenges of kaizen	Scales				
		1	2	3	4	5
1.Training and awareness						
1	I know my company's vision, mission statement, core values strategic goals and objectives.					
2	The company formally announced the launching of kaizen philosophy to all employees.					
3	Training has been delivered on the methodologies of kaizen implementation (QCs, 5s, waste elimination, problem solving).					
4	The training delivered enable me understand kaizen methodology and effectively apply to improve my working standards.					
5	There is continuous training program with regard to kaizen methodology as well as job specific training that can improve my productivity.					
2.Top management role and commitment						

6	The management is committed to the implementation of kaizen methodology in the company by creating a culture of continuous improvement of quality.					
7	Top management (respective CxOs) own and strive for the implementation of kaizen					
8	The company management is committed by providing me with the necessary tools, adequate working space and appropriate equipment to perform my duties effectively					
9	Top management is responsive in providing feedback for escalated issues raised in Standard Quality Circles meeting.					
3. Employee Motivation and Empowerment						
10	I generally like to schedule my own work and to make job-related decisions with a minimum of supervision.					
11	There exists proper and fair way of motivating employees for their achievement in terms practicing kaizen implementation.					
12	Standard quality circles are empowered in resolving problems and adopting suggestions provided.					
13	I am involving in decision making that affect my work.					
14	Implementation of kaizen in Ethio telecom increased my productivity and motivation towards my work.					
4.Companywide participation and Standard Quality Circles						
15	Every individual starting from the staff to the extent of top management including the CEO involved in the implementation of kaizen in terms of continuous improvement, problem solving					

	5s, waste elimination.					
16	I am involving in identifying improvement areas in my workplace					
17	I am involving in identifying causes of problem and providing solution for the problems.					
18	Employee suggestions and recommendations are appreciated and implemented by management					
19	Standard quality circle meeting are conducted regularly					
20	The management (QC leader) encourages individuals to forward improvement ideas.					
21	Standard quality circle meetings are held with the sense of identifying better opportunities for improvement and problem resolution.					
5.Communication						
22	The system encourages employees to communicate the management regarding working barriers they face in attaining their improvement goals.					
23	Action plan integration exists among standard quality circles within/without divisions so that action will be closed according to their schedule.					
24	There exists clear way of communication both upward (from SQC members to management -escalated issues) and downward (from management to SQC members updates on escalated issues).					
25	There exist formal templates at all levels for reporting achievement and challenges in standard quality circles.					

26	The reporting template are clear to understand and don't create confusions.					

6.Corporate Culture & Positive Mindset

27	Kaizen becomes the working culture around/in my workplace-with positive mentality of continuous improvement					
28	Members of standard quality circles treat each other with respect. For instance criticizing ideas rather than individuals.					
29	The existing organizational culture is supportive for practicing kaizen philosophy.					
30	Problems are solved proactively with the sense of urgency.					

Practices of 5s

		Sorting	Straightening	Shining	Standardizing	Sustaining
31	In order to have standard working place, which of the basic kaizen practices you are doing?(if you have more than one answer you can tick (√)corresponding)					

_N.B_

➤ Sorting- *identify what is necessary from unnecessary*
➤ Straightening-*organize necessary items for easy access*
➤ Shining-*clean the area improve the appearance*
➤ Shining-*clean the area improve the appearance*
➤ Sustaining-*requires everyone to make a commitment to continually use the 5S's*

Section three – written answers (please make your response readable and If you want to write more than the space provided you can use the attached paper on the next page quoting the question numbers.)

1. What type of waste is there around your working place?
    ➢ Inventory- any work- in-process that is in excess of what is required to produce for the customer: in service e.g. pending requests, queues □
    ➢ Waiting- any delay occur when one activity ends and the next activity begins □
    ➢ Defects- any aspect of a service that doesn't conform to customer needs □
    ➢ Others…………………………….

2. In what way do you involve with regard to eliminating those wastes?
    ……………………………………………………………………………………………
    …………………………………………………………………………………………..

3. What sort of things reminds you to remember kaizen?
    ➢ Organizational culture
    ➢ Supervisor's follow up
    ➢ Use of notice board/ monthly flash info
    ➢ Penalty
    ➢ Others……………………………………………………………………

4. What sort of improvements do you observe around your workplace or the company at large?
    ……………………………………………………………………………………………
    ……………………………………………………………………………………………

5. Can you mention problems that you face in relation of implementing and sustaining kaizen around your workplace in particular and at Ethio telecom in general? Problems in relation to

    Top management commitment
    ➢ ……………………………………………………………………………………
    ……………………………………………………………………………………

    Knowledge and training
    ➢ ……………………………………………………………………………………
    ……………………………………………………………………………………

Communication/reporting template

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Motivation and recognition

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Standard quality circles and 5s

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Problem solving

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Continuous improvement

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Others

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

6. Do you have any suggestion to overcome the problems you have mentioned above or with regard to improving the implementation of kaizen?

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

> …………………………………………………………………………………………………

Space provided for additional explanation for the open ended questions above:

………………………………………………………………………………………

………………………………………………………………………………………

Appendix- C

St. Mary's University

School of Graduate Studies

<u>Interview for Quality& Process Officers</u>

Dear respondents,

I am post graduate student at St. Mary's University. The purpose of this interview is to enable me to carry out a research for partial fulfillment of the requirements for Masters of Business Administration (MBA). The research focus on Ethio telecom with the title of *"practices and challenges of implementing kaizen: the case of Ethio telecom"*. The information shall be used as a primary data in my case research. Therefore, your genuine and honest response is a valuable input for the quality and successful completion of the project. Hence, to gather information, I kindly request your assistance in responding the question listed below. This information will be used only for academic purpose and your responses will be treated confidentially.

1. When did Ethio telecom start the implementation of kaizen philosophy?
2. Are there driving forces that urge Ethio telecom to implement kaizen?
3. What were the major activities done before implementing kaizen at Ethio telecom?
4. How the company did communicated employees on the implementation of kaizen?
5. What was employees' reaction to the implementation of kaizen?
6. What attempts did management of Ethio telecom made with regard to creating positive mindset among employees to internalize kaizen philosophy?
7. Did employees take training on kaizen and its implementation?
8. Did the company ever go through other quality improvement systems before implementing kaizen?
9. How many quality circles are established in the company i.e. both corporate and region? In what way do you manage these quality circles? For instance their progress, constraints they face in practicing kaizen.
10. How the management of Ethio telecom did demonstrate its commitment to the establishment and persistence of kaizen culture? For instance implementation and sustain the practices of kaizen mindset, 5s, muda (waste) elimination, accept suggestion from employees on improvement and implement those suggestions that are viable and standardization of best practices as well as removing communication barriers
11. Do all working units/sections/departments/divisions/ have established operational standards so that their progress can be measured in the continuous improvement scope?
12. To what extent does the existing system/culture allows every employee to involve in the improvement of quality and productivity? For instance empowerment of established quality circle, existence of fair motivation scheme and recognition for their achievements.
13. What are the improvements achieved after implementing kaizen process at Ethio telecom? For instance working area and service quality improvement in terms of reliability, tangibility, empathy, responsiveness and assurance as well as monetary values.
14. Does the implementation of kaizen in Ethio telecom result in organizational success in terms of achieving its vision, mission as well as prime purpose of kaizen implementation?
15. What challenges do the company encountered in implementing kaizen and sustain as corporate culture?

16. Do you work with Ethiopia kaizen institute or any other national/international organizations that work on kaizen to assist the company achieve its objectives?
17. What suggestion do you provide for effective implementation of kaizen?

<div align="right">Thank you!</div>

Appendix- D

St. Mary's University

School of Graduate Studies

Interview for Enterprise and Network managers

Dear respondents,

I am post graduate student at St. Mary's University. The purpose of this focused group interview is to enable me to carry out a research for partial fulfillment of the requirements for Masters of Business Administration (MBA). The research focus on Ethio telecom with the title of *"practices and challenges of implementing kaizen: the case of Ethio telecom".* The information shall be used as a primary data in my case research. Therefore, your genuine and honest response is a valuable input for the quality and successful completion of the project. Hence, to gather information, I kindly request your assistance in responding the question listed below. This information will be used only for academic purpose and your responses will be treated confidentially.

1. What improvements do you get after the implementation of kaizen?
2. What are the major key performance indicators (KPI) regarding service improvement in telecom service?
3. Many customers of Ethio telecom are not satisfied with the current quality of service like slow speed of internet, network unavailability and delay in service provisioning. Do you think the implementation of kaizen will resolve these problems? Are there any improvements in these areas so far after the implementation of kaizen? What plan do you have to resolve such problems fundamentally?
4. What major challenges did you face in the implementation of kaizen?
5. What do you recommend to overcome these predicaments that you have mentioned?

Thank You!

Endorsement

This thesis has been submitted to St. Mary's University, school of graduate studies for the examination with my approval as a university advisor.

_____   _____

Advisor   Signature July, 2014

St Mary's University, Addis Ababa