



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF KAIZEN IMPLEMENTATION
PRACTICES AND CHALLENGES IN THE CASE OF TIKUR
ABBAY SHOE SHARE COMPANY

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
REQUIREMENTS FOR DEGREE OF MASTER IN BUSINESS
ADMINISTRATION

By: **EDEN MEKONNEN**

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Jan, 2017

Addis Ababa

ABSTRACT

The purpose of the study was to assess Practices and Challenges of Kaizen Implementation at Tikur Abbay Shoe Share Company. In addition the objectives were to assess the gaps between the designed and applied kaizen, to point out the major challenges encountered during kaizen implementation and to suggest practical recommendations which can help to have effective implementation of kaizen. To address the objectives, descriptive research design was used, primary and secondary data and also a mixed research methods (i. e. an approach of both quantitative and qualitative data collection methods) were used to collect data from employees, management, supervisor and kaizen officer. The data gathered through questionnaire were analyzed using frequency and percentage value of the respondents. Data obtained through interview were qualitatively narrated. kaizen implementation in TASSCo were brought some changes in minimizing work flows and in reducing time conception but there had been challenges which emanated from various sources, like gaps in knowledge of executives, trainers and employees; their negative attitude towards the kaizen implementation; their lack of knowledge and skills; gaps in available infrastructures and material resources; and gaps in the capacity and capabilities of the management body. The study disclosed that there were inadequate training on the concept and application of kaizen. This has an effect on the overall activities of kaizen sustainability and standardization. Finally, the study concluded that, respondents focused only on 5s implementation of kaizen in the company. These were obstacles to relate theory with practical application of kaizen at work place. Thus, to reduce the knowledge and skill gap of the implementers on pillars of kaizen, training on kaizen is suggested as an important force of smooth kaizen implementation.

Key Words: Challenges, Kaizen,

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ACRONYM

TASSCo	Tikur Abbay Shoe Share Company
EKI	Ethiopia Kaizen Institute
JICA	Japanese International and Cooperation Agency
JIT	Just in time
KAB	Know about Business
CI	Continuous Improvement
PDCA	Plan-Do-Check-Act
QCC	Quality Control Cycle
R&R	Reward and Recognitions
SPSS	Statistical Package for the Social Sciences
TPM	Total Production Management
TQC	Total Quality Control
5S	Five (Sort, Set in Order, Shine, Standardize, and Sustain)
MUDA	Japanese word meaning waste

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CHAPTER ONE

INTRODUCTION

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 (Masaaki Imai, 2000). The introduction of kaizen traces back to post WWII. The Toyota production stem 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, 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 kaizen are not limited to manufacturing rather it can be applied in different sectors of economy that require continuous improvement in their activities. 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 (Anthony, 2005)

Different countries in the world which have applied Kaizen Management techniques have various types of practice and encountered multi-dimensional challenges. Japan employed Lean Management and all the concepts which the term carries (such as Just-In-Time, Kaizen, [Sort, Set in order, Shine, Standardize, and Sustain-5S], and others) (Karn P., 2009). Germany also practices the suggestion system of Kaizen (Hultgren, 2008). In Canada, there is an application of Continuous Improvement (CI) of Kaizen philosophy which consists of “improvement initiatives that increase successes and reduce failures” (Bhuiyan and Baghel, 2005). The application of Kaizen Costing as a tool of efficiency in production cost at PT. Coca Cola Bottling Company in Indonesia has been practiced (Utari, 2011). In the same light, Becker and Snow (1997) found out that the United States of America has used the Deming Management Method or the Total Quality Management (TQM) of the Kaizen Techniques. In Ethiopia, there are the practices of both Western and Japanese Management techniques, like Business Process Re engineering (BPR), benchmarking, Balanced Score Card (BSC) and Kaizen (Berihu, 2009).

The introduction and development of kaizen begins with training, education, motivation of personnel and other necessary changes in the workforce management system, in regard to this

trainer's commitment is a key point for the success of a kaizen implementation. Kaizen has been implemented across different industries and manufacturing sectors successfully in Ethiopia, as a result significant achievements have been attained through the implementation of the Kaizen concept (Ethiopian Kaizen Institute, 2012).

Kaizen is a continuous improvement involving employees in all level of the organization; it is one of the strategies for excellence in production and considered necessary in today's competitive environment. Kaizen institute to carry out broad based activities of ongoing quality and productivity improvement expansion of competitive industries and also to show how management and workers can change their mindset together to improve their productivity. Kaizen is based on making little changes on a regular basis: always improving productivity, safety and effectiveness while reducing waste. Thus simplicity and cost effectiveness are the major reasons why kaizen is well appreciated globally. There are large numbers of related and often overlapping components that belong to the kaizen toolkit such as 5S, 7 wastage/muda/reduction principle, safety rules, Total Quality Control (TQC), Just-In-Time (JIT). Among these, 5s (Sort, Set in order, Shine, Standardize, and Sustain) is generally considered to be the most basic step for improving quality and productivity.

Although improvements under kaizen are small and incremental, the kaizen process brings about dramatic results overtime (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.

The concept of continuous improvement of quality and productivity is ideal in the absence of strain work, fair salary, proper social condition of employees, organization wide group activity based on Kaizen mindset and self disciplined employees (Juran, 1994). In spite of these and other challenges, many organizations are becoming beneficiary by implementing Kaizen management technique.

Tikur Abbay Shoe Share Company was established in 1948, it's located west of the central side of Addis Ababa (capital of Ethiopia), heralded a strategy of conquest founded on the overall mastery of the complex structures of the wear industry; manufacture, trading and distribution of different types of civilian foot wear. This exemplary achievement is constructed on value of perseverance and awareness of customer requirement. Tikur Abbay Shoe Share Company which is backed by half a century of rich experience, is Ethiopia's big est shoe factory engaged in the

production of military and civilian durable leather footwear all made from genuine leather utilizing a vulcanization process. Apart from the production of shoes, TASSCO is engaged in the production of multipurpose glue both for its own use and for the market.

1.2 Statement of the problem

Kaizen is a management philosophy having its own systems, methods, procedures and problem solving tools. It is a continuous improvement by all levels of management and workers at any place, any time with the objectives of improving work place organization, environment in order to increase productivity, improve quality, reduce cost, increase profit with the ultimate objective of satisfying customers.

The major core values of Kaizen are:-

- Process-oriented way of thinking
- Continuous improvement
- Improvement by all levels of management and workers always
- Participatory
- Quantitative approach to define problems, generating solution and confirming results

On the other hand there are also serious challenges and problems facing Tikur Abbay Shoe S.C in the implementation of the kaizen program, TASSCO had implemented kaizen program since 2013, but the company couldn't progress to the next phase (Phase II). There are a number of problems presented by the kaizen officer while conducting the preliminary assessment some of the problems that leads to improper implementation of kaizen on TASSCO are lack of management commitment which means top management does not follow the detailed progress of the project, in related to this there is also poor resource allocation, material and financial constraint and the executives' and the implementers' poor capacity to apply the proper policy and strategy in context sensitive approach. Knowledge gap is the third reason for improper implementation most of employees don't have a required academic excellence to grasp the kaizen philosophy.

Hence, this study was majorly conducted with initiation of identifying and assessing the challenges during kaizen implementation and also with intention to investigate the actual practice of the company and to forward the recommendation to align it with acceptable standards.

1.3 Research Questions

1. How is kaizen philosophy (management technique) been implemented?
2. What are the challenges encountered during kaizen program implementation?
3. What are the perception & attitude of employees in kaizen program implementation?
4. What are the measures taken to overcome the challenges faced in kaizen implementation?

1.4 Objectives

1.4.1 General objective of the study

The overall objective of the study was to assess the practice and challenge of kaizen implementation in Tikur Abbay Shoe Share Company.

1.4.2 Specific objective of the study

- To assess the practice of kaizen implementation
- To identify challenges encountered during kaizen program implementation
- To determine employees attitude& perception on kaizen program implementation
- To examine measures taken to overcome the challenges faced in kaizen implementation in Tikur Abbay Shoe S.C.

1.5 Scope of the Study

To deal with the subject in a fairly deeper length and for the convenience purpose, this study were focus on one case company Tikur Abbay Shoe Share Company, for the reason that, its achievements and full implementation of Kaizen management philosophy and only look into the phases implemented by the case company. In this research, Kaizen implementation process, challenges, constraints and employee attitude towards kaizen were assessed.

1.6 Significance of the Study

Other related research has not been conducted on practice and challenges of Kaizen implementation in Tikur Abbay Shoe S.C. Thus, the study has significant importance to understand kaizen practice, and its obstacles to sustain the system in TASSCO as well as to Ethiopia Kaizen Institute.

Specifically, the findings of the study have the following contributions:

- The empirical evidence will help to fill an information gap among managers, kaizen officer and employees.
- The empirical evidence will provide a rich description of the modern Kaizen Training Strategy at TASSCO by clarifying challenges associated with its implementation to all interested institutions.
- Knowledge about those factors which may influence on the actual process of implementing the Kaizen Training at TASSCO would generally encourage the stakeholders to take appropriate measures in order to maintain the quality of the Kaizen Training.
- Point out the major achievements of kaizen implementation and transfer the good willing of its practical application to the other organizations.

Moreover, the study result will bring certain outcomes that would be an input for the future researches in this area and it could also be an addition to the existing literature.

1.7 Organization of the Study

The study was organized in five Chapters:

Chapter one provides a brief background to the study, statement of the problem, research question, objectives, significance and scope of the study. The second chapter reviewed theoretical framework within which the research were conducted, as well as the theories associated with current practical application of kaizen. Chapter three describes the research design and methodology, target population and sampling, data collection instruments and methods of data analysis. Chapter four presents the research findings and analysis are presented and the discussion of the findings that emerged from the study was highlighted. Similarly, chapter five provides an outline of conclusions and makes recommendations based on these findings. Finally, the references materials and sample questions were attached at the end of this paper.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. The Evolution of Kaizen

The concept of Kaizen and its activities have been developed and spread in Japan and later to the rest of the world in four different phases. The first phase was the assimilation of Western techniques particularly the American management techniques by Japan's in the early postwar periods. In the 1950's, the world market perceived Japan products as low price and low quality driven by a sense of urgency for industrial catch-up. Subsequently, Japan learned American style quality management and adapted this to the Japanese context, supported by the Union of Japanese Scientists and Engineers (JUSE) and Japan Productivity Center (JPC). Companies in Japan developed their own system of Kaizen and laid a foundation for the establishment of Japanese production management system. As a result, kaizen was originally a foreign technique which was adopted and adjusted to become a Japanese technique (GRIPS, 2009; Desta, 2011; Karn, undated).

The second phase was characterized by the diffusion of the concept in the 1970s (during the oil crises era) throughout Japanese companies, including small and medium sized companies and resulted in the formation of various Quality Control Circles (QCCs). The third phase was the regional spreading of kaizen beginning in the mid 1980s, which coincided with the globalization of Japanese business activities. The shift of Japanese companies to the East Asia helped the Japanese firms to duplicate the quality management system abroad. Furthermore, The Japanese companies assisted their regional partners to learn kaizen philosophy and practices through Japanese standard procedures for procurement and supplies (GRIPS, 2009; Karn, undated).

The fourth (Current) era, which is now beginning since 2001, has been witnessed growing interest in developing regions in East Asia, Latin America, and Africa. The initiative promotes not only Kaizen but also trade, investment and economic integration in the developing region (Karn, undated).

Imai discussed his thought in the context of manufacturing industries. The application of Kaizen management philosophy has immediate tangible outcome and long term competitiveness in the social and technical aspects of manufacturing and service organizations. The Ethiopian government considering Kaizen short and long term advantages particularly in the manufacturing sector established at Federal level, KAIZEN Institute to carry out broad based activities of ongoing quality and productivity improvement and expansion of competitive industries.

Kaizen has three phases Phase I (1st Simple Tools & Systems) Operation analysis, 3MUs, 5S PDCA, Visual management, Phase II (2nd Less Complex Tools & Systems) SOP,TPM,7QC Tools, Basic IEs (4Ps) Time study, Motion study, Operation analysis, Process analysis Phase

III(3rd Complex Tools & Systems) TQM, 7 new management tools, IEs, VSM, Other advanced tools & systems.

2.2. Kaizen Definition and Concept

According to (Imai,1986) who introduced kaizen to the international audience with his book, *Kaizen: The Key to Japan's Competitive Success*, kaizen is an umbrella concept, means improvement, an ongoing improvement involving everyone, top management, managers, and workers.

Imai (1997) further explained the concept of Kaizen as it is not just a management technique but a philosophy which instructs how a human should conduct his or her own life. Kaizen focuses on the way people approach work. It shows management and workers can change their mindset together to improve their productivity. The Kaizen philosophy assumes that our way of life be it our working life, social life, or our home life should focus on constant improvement efforts.

The Kaizen concept was originally developed in Toyota Corporation and extends among other Japanese manufacturers as they gained fame in the international market for high quality products in the 1980s. Since other Japanese companies also improved their performance, Kaizen has been viewed as a key element in Japanese management and has been presented as one of the sources of the competitiveness of Japanese manufacturers (Imai, 1986).

Imai (1997) argue that, usually Japanese managers spent 50 percent of their time in improving and developing activities, and it is believed that people are the “engine” of continuous improvement and are base of whole improvement, consists of managers or engineers and common workers all together.

Darius (2011) further explained the concept of KAIZEN as a compound word involving two concepts: Kai (change) and Zen (Good, go to better), loosely translated as “change to the better “or continuous improvement’. Kaizen is a way of thinking and it extend also in to personal life as a “life philosophy” tomorrow must be better than today.

According to Imai (1986), Kaizen is an umbrella concept covering most of those “uniquely Japanese “ practices “ like customer orientation ,TQC (total quality control) robotics, QC circles, suggestion system, automation, discipline in the workplace , TPM (total productive maintenance), Kamban, quality improvement, zero defects, small-group activities, cooperative labor management relations, productivity improvement and new-product development” these principles and tools significantly helped Japanese companies to develop process oriented way of thinking that assures continues improvement involving people at all levels. Imai reduced the principle and tools to one word under the umbrella: KAIZEN.

2.3. The Objectives of Kaizen

The benefits of kaizen include increasing number of private enterprises and implement quality and productivity improvement. The success of the kaizen implementation also established to disseminate kaizen to private enterprise in sustainable manner (EKI and JICA, 2013). Kaizen aims for improvements in productivity, effectiveness, safety, and waste reduction. Those who follow the approach often find a whole lot more in return: less waste – inventory is used more efficiently as are employee skills; People are more satisfied – they have a direct impact on the way things are done; Improved commitment – team members have more of a stake (a share or interest in business) in their job and are more inclined to commit to doing a good job; Improved retention – satisfied and engaged people are more likely to stay; Improved competitiveness – increases in efficiency tend to contribute to lower costs and higher quality products; Improved consumer satisfaction – coming from higher quality products with fewer faults; Improved problem solving – looking at processes from a solutions perspective allows employees to solve problems continuously; Improved teams – working together to solve problems helps build and strengthen existing teams (ibid).

2.4 Kaizen and Management

Kaizen management has two functions: Maintenance and Improvement. Maintenance activities are directed towards maintaining existing technological, managerial, and operating standards while improvement refers to improving existing standards (Imai, 1986).

2.4.1 Role of Top Management

Top management is responsible for establishing Kaizen as the overriding corporate strategy and communicating this commitment to all levels through policy deployment of the organization and allocating the resources necessary for Kaizen to work and build systems procedures, and structure conducive to Kaizen.

2.4.2 Role of Middle Management

Responsible for implementing the Kaizen policies established by top management; establishing, maintaining and improving work standards; ensuring employees receive the training necessary to understand and implement Kaizen and employees learn how to use problem solving and improvement.

2.4.3 Role of Supervisors

Responsible for applying the Kaizen approach in their functional roles; engage in Kaizen through the suggestion system and small group activities, practice discipline in the workshop, engage in continues self development to become better problem solvers, improving communication at the work place; maintaining morale and providing coaching for teamwork activities.

2.4.4 Role of Employees

Responsible for participating in Kaizen through teamwork activities, making Kaizen suggestions, engaging in continuous self-improvement activities, continually enhancing job skills through education and training and continually broadening job skills through cross-functional training

2.5 The Concept of Levels of Kaizen

Imai (1986) described three levels and or pillars of KAIZEN: as

1. Management-Oriented Kaizen
2. Group- Oriented Kaizen and
3. Individual -Oriented Kaizen

2.5.1 Management Oriented Kaizen

Management oriented Kaizen concentrates on the most important logistic and strategic issues and provides the momentum to keep up progress and moral. Since Kaizen is everybody's job, Japanese managers generally believes that a manager should spent at least 50 percent of his time on improvement (p. 82).Innovation Maintenance Kaizen

2.5.2 Group Oriented Kaizen

Kaizen in group work, as a permanent approach is represented by Quality Control (QC) circles and other small group activities to solve problems. The approach also calls for the full Plan-Do-Check-Act (PDCA) cycle and demands team members not only identifying problems areas but also identify the causes , analyze them, implement and test new countermeasures , and establish new standards and procedures. The group oriented Kaizen enhances group moral and allows everybody to master the art of solving immediate problem from their own workshop.

2.5.3 Individual Oriented Kaizen

Individual oriented kaizen is manifested in the form of suggestions. The suggestion system is a vehicle for caring out individual oriented Kaizen. It is often regarded as a morale booster and it does not always ask for immediate payback on each suggestion. Management attention and responsiveness are crucial if workers are to become "thinking workers" looking for improved ways to do their job continually.

2.6 Principles of Kaizen

Kaizen principles are a comprehensive way of approaching the continual improvement of manufacturing processes. Each principle has a significant impact upon improvement of quality and productivity.

Kaizen uses 5 main principles:

➤ **Processes must evolve by gradual improvement rather than radical changes**

In practice, Kaizen can be implemented by improving every aspect of a process in a step by step approach, while gradually developing employee skills through training education and increased involvement resulting in quality improvement. With quality improvement, employees meet together to discuss the current operations of the company. They decide what things can be changed that will improve the quality of the company and of the products.

➤ **Human resources are the most important company asset**

Kaizen must be practiced in tandem with "Respect for People" not resulting in outcomes such as layoffs. Kaizen has become successful with many manufacturing companies because the employees are involved. They feel that their opinion is important and this boosts the employee morale. Keeping the employees happy will cause them to be more productive and satisfied with their jobs.

➤ **Teamwork**

One of the biggest principles of the kaizen approach is the ability to work in teams. Each department is considered a team and they will be responsible for making small changes that impact the organization. All employees from top manager to front line workers should share common values, business objectives, and information. And, should fulfill their respective role properly, enhancing their capabilities through exercising autonomy and creativity. The teams will then report to their manager. The manager takes this information to management and the entire process of kaizen is evaluated.

➤ **Discipline**

In order for kaizen to be effective, discipline is necessary. Management as well as workers needs to believe in the Kaizen idea and strive toward obtaining the small goals in order to reach overall success. A strong commitment to discipline and to the kaizen method will prove success for a company.

➤ **Continuous improvement**

Improvement must be based on statistical or quantitative evaluation of process performance. The small improvements will lead to bigger improvements throughout the entire company. This is

why kaizen is called a "continuous process improvement" system or a "continual improvement method." Even with the changes, there are still small things employees can do to change the way they work. There are simple things you can do to help your employees work faster and become more efficient. All employees should have firm belief that the work place must nurture a desire for continuous improvement. Kaizen demands product or service quality is improved and is monitored on a continuous basis.

2.7 Concept of Gemba Kaizen

In Japanese gemba means real place, where the products or services are formed. Gemba provides the product or services that satisfy the customer and management by setting strategy and deploying policy to achieve that goal in gemba. Gemba improvement uses bottom up and top down approach and it becomes the source for achieving commonsense, low cost improvements (Imai, 1997).

Dysko (2011) also defines gemba as the real place in business where things are developed or where services are provided and abnormalities happen.

Imai (1997) also introduced the concept of the house of gemba where major activities are taking place on a daily basis for resource management-namely maintenance (maintaining the standard and the status quo) and Kaizen (relates to improving standards). The house of gemba shows, a bird's eye view of activities taking place in gemba.

Imai also asserted that, daily management of resources requires standards, and the standards are the basis for daily gemba kaizen improvement. According to him, standardization in gemba means the translation of technological and engineering requirements specified by engineers in to workers day to day operational standards "translating process does not require technology or sophistication".

Kaizen application can improve quality, reduce cost and meet customer's delivery requirements without any significant investment or introduction of new technology. The three major Kaizen activities such as muda (waste) elimination, 5S (good housekeeping) and standardization are crucial in building efficient organization. He also recommended these three Kaizen activities are the three pillars of Kaizen and they are the basic activities for Kaizen implementation in manufacturing or service industries. They are easy to understand and implement and do not require sophisticated knowledge or technology. "Anybody-any manager, supervisor, or any employee-can readily introduce these commonsense" (p. 20).

Dysko (2011) also argues, one of the competitive "weapons" for Japanese companies is the involvement of their human potential in the maintenance of implemented changes in gemba Kaizen.

2.8 The Concept of Suggestion System

The suggestion system is an extension of individual oriented Kaizen .The concept of suggestion system was brought to Japan, after the post war years by Deming and Juran and through various Japanese executives who visited USA. The American style suggestion system gave way to the Japanese suggestion system. The Japanese system stressed the moral boosting benefits of positive employee participation and evolved into individual and group suggestions in the course of time (including QC circles, voluntary groups, zero defects groups and other group based activities). While the American style stressed economic benefits and provided financial benefits (p.113).

Imai (1997, p. 10) further narrated the core benefit of suggestion system is a moral boosting benefit of positive employee participation and developing Kaizen minded and self disciplined employees. He also associated the Japanese style suggestion system as one of the key differences with the Western approach, which emphasis on the economic benefit and financial incentives of the system.

Lillrank and Kano (1989) also explained the suggestion system as a bottom up channel through which the improvement ideas and proposals are presented to management.

Imai (1986) listed the following purpose of suggestion systems in the Japanese context:

- Improves one's own work,
- Saving in energy, material and other resources
- Improvements in the working environment
- Improvements in machine and process
- Improvements in tool and jigs
- Improvements in office work
- Improvements in product quality
- Ideas for new products
- Customer service and customer relations and others.

2.9 Ethiopian Experience of Kaizen

The Government of Ethiopia implemented Organizational performance and effectiveness before implementing Kaizen called BPR, shortly after the introduction of a nationwide Business Process Re engineering (BPR). According to Debela (2009), since 1994, the government of Ethiopia has embarked on reforming its civil service organizations with the

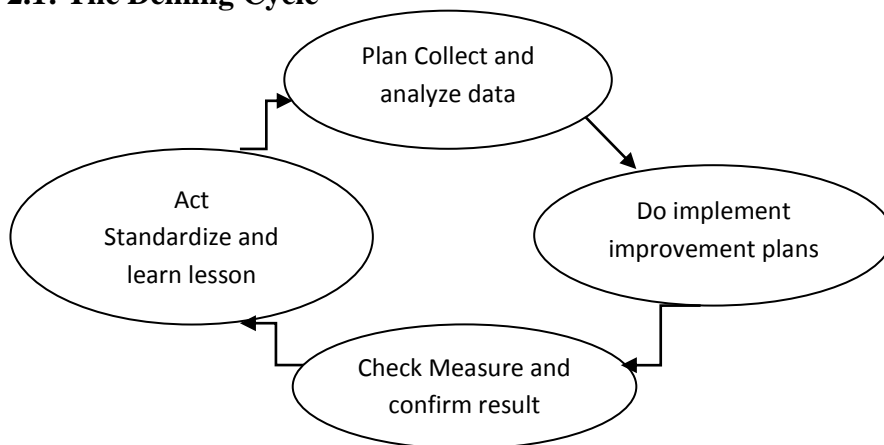
objective of improving the public sector service delivery system. It was applied in Government bureaus, an idea introduced to bring radical changes among state institutions but, in the process, virtually stalled them for months and now widely deemed to be a failure. The Ethiopian government started advocating the idea of kaizen—a Japanese management philosophy—among private and state owned companies; the idea was first brought to the attention of Ethiopia’s late PM Meles Zenawi in 2008 (Negussie, 2009).

In this instant the government of Ethiopia inspired by the practicality of the Kaizen policy and strategy adopt the exemplary approach. In 2008, the Government of Ethiopia as a result requested the Japanese Government to help Ethiopia established the Japanese management technique, known as kaizen. Before implementing and fully institutionalizing the kaizen unit on a large scale, the then Ethiopian Ministry of Industry and Trade (MOIT) reviewed about 63 companies in 2009 that were located within 100-kms of Addis Ababa to ascertain their quality and productivity status from October 2009 to June 2011. After a preliminary diagnosis of the 63 companies only 30 companies (i.e., 10 from Metal; 6 from Agro processing; 6 from Chemicals; 4 from Leather and; 4 from Textiles) were chosen to serve as pilot projects. Pilot companies from this, ten, five and three companies have been awarded good, best and excellent status respectively by Ethiopian kaizen unit (EKI report document, 2012).

2.10 The Concept of PDCA Cycle

The origin of Plan-Do-Check-Act (PDCA) cycle or Deming cycle can be traced back to the Shewart (well-known statistician) thought in the 1920s. He introduced the concept of PDCA. Deming the Total Quality Management (TQM) guru modified the Shewart cycle as: Plan, Do, Study and Act. The Deming cycle is a continuous quality improvement model consisting of a logical sequence of four repetitive steps for Continuous Improvement (CI) and learning. The PDCA cycle is also known as Deming Cycle, the Deming wheel of CI (Watson, 1986).

Figure 2.1: The Deming Cycle



Source: Moen and Norman (2009)

This concept of the Deming wheel was recast by Japanese managers and called it the PDCA wheel. Thus, PDCA cycle is a system to ensure the continuation of Kaizen principles, the cycle is essential to make the diagnosis, plan, and train, implement, evaluate and then standardize the process (Imai 1986; Desta, 2009).

Plan- Establishing a target and a strategy for improvement.

Do- Implementation of the plan. Making or working on the product.

Check- Confirms weather the customer is satisfied.

Act - standardizing the improved procedure so that it can be continued and the compliant will not return. The PDCA cycle ensures sustainability of improved actions

2.11 The Relationships between Kaizen Implementation and Reward & Recognition

By making kaizen as standardize ways of life in the organization always considering the worker because they are an actor to implement it and continuing the sustainability of the system. Thus rewarding and recognizing the employees for their accomplishing task is essential.

Organizational culture has several essential components i.e. organizational values, leadership, and the reward and recognition structure of the organization (Knouse, 1996).The reward system reflects the organizational philosophy, democratic and innovative or autocratic and bureaucratic. Promotion and rewards reinforces employee commitment to organizational values and to the organizational culture. Reward and recognition have various functions and can be valuable tool at organizations on their road for total quality management. It shows the individuals or the teams that they are on the right track toward continuous improvement. Recognition as feedback can come from supervisors, other teams, internal customers in the organization, or external customers in the marketplace, Kaizen philosophy processes demand empowered employees, team players and cross functional activities.

Reward and recognition can motivate those individuals and groups to continue their active participation in the organization. It will also create a positive environment for various teams to compete against each other and these give a 'win-win' situation between the organization and employees (Yukl, 2010).

Generally R&R has a positive relation between quality production and employees satisfaction in the organization if it do so properly. To do this activity must be aware of each employee during the preparation of organizational R&R planning system hence they are an implementers. If it is done in an improper way, then R&R may create mistrust between the employees and the organizational leadership and management. This also has its own effect both to the employees and the organization vice-versa. Inconstant to that reward and recognition stimulates additional effort in employees if done consciously.

2.12 The Role of Employees in the Process of Kaizen Implementation

Everybody in the factory has its own role and responsibility. There are two ways to approach kaizen. Ultimately improvement is being designed and implemented by everyone, every day, everywhere in an organization. This transformation requires both leadership development and a disciplined problem-solving and improvement process. Kaizen *events*, highly structured improvement activities that are an effective shaping tool, are a second way to shift culture and begin reaping the significant benefits from achieving both high levels of employee engagement and rapid results.

In both cases, employees have ample opportunities to **connect** with organization purpose, a specific problem or opportunity, and each other. They use their **creative** potential in highly fulfilling ways. And they are given the level of **control** that all human beings need and deserve. In a word: they become deeply ENGAGED. The people who do the work are the experts, not leaders nor consultants. Employees engage in conditions for engagement to occur for creating a proper kaizen culture on the way to achieve this.

2.13 Pillars of kaizen

According to Imai (1986), kaizen management philosophies and practices, the three pillars of kaizen are summarized as follows: 1) housekeeping, 2) waste elimination & 3) standardization and as he stated as, the management and employees must work together to fulfill the requirements for each category. To be ensured success on activities on those three pillars three factors have also to be taken account. Those are: Visual management, the role of the supervisor, and the importance of training and creating a learning organization.

2.13.1 Housekeeping / 5s

As Schonberger (1996), housekeeping is a process of managing the work place, known as “Gemba” in Japanese, for improvement purposes. Other writer also indicates that Imai (1997) introduced the word “Gemba”, which means “real place”, where value is added to the products or services before passing them to next process where they are formed. So the idea of “the right things to the right place” is the requirement of Gemba in the learning department of the colleges after finishing the training sessions.

For proper housekeeping a valuable tool or methodology is used. The term “Five S” is derived from the first letters of Japanese words referred to five practices leading to a clean and manageable work area: seiri, seiton ,seiso ,seiketsu and shitsuke . The English words equivalents of the 5S’s are sorting, Set in order, Shine, Standardization and sustain (Imai, 1986).

Other writer like Foss (2004), 5s is a philosophy and checklist for good housekeeping to achieve greater order, efficiency and discipline in the workplace. Thus applying 5s in the learning department are important for the trainees, trainers and the college’s community to use time,

energy and material effectively. Additionally the training system will be facilitated in smooth and attractive way.

As stated in the manual of TASSCo, technology transfer and industry extension core process in 2013, the principles of 5s are: elimination of waste, everybody is involved, co-operative effort, attack root cause and human being is not perfect. Based on this idea when the company implements 5s it has the following basic objectives:

- Productivity improvement by saving time, space etc
- Improved working conditions and Increased floor space
- Reduced lead times and cycle times
- Established operating procedures
- Improved housekeeping by simple means
- Improved working team performance, customer satisfaction & morale of the employees.
- Enhanced cross-shift communication i.e., Improved access to information
- Enhanced levels of communication. Thus 5s are the simplest activities in the learning environment as daily practice it in orderly fashion but the benefits is more than that of the activities which takes time, effort and financial cost.

Imai (1986) advised that 5S implementation means applying the following activities in the workshop: Sorting, Set in order, Shine, Standardization and sustain.

Sorting: - it is a process that involves selecting what you need to complete the job and removing everything else from your work area. It focuses on removing all unnecessary items from the workplace. Thus applying it workplaces will increase and increase financial income by sold the unwanted material.

Set in order:-Straightening specifically customizes your workstation and surrounding area to meet your work area needs. Arrange remaining items so they are easy to select, use, and return to their proper location. Hence it helps to use time and material effectively and efficiently in proper ways. It focuses on efficient storage and location methods. In simplest terms “a place for everything and everything in its place”.

Shine: - Its Emphasis is on the removal of dust, dirt, and grime. It focuses on cleaning up the place now that all the disorder and trash has been removed. Obviously one benefit of this step is to make the workplace cleaner and brighter where everyone will enjoy working.

Standardize: - Standardizing creates a work area free of checklists; if appropriate standards are put in place it will be easier to maintain and continue improving. By implementing this we make sure that the first three steps are maintained.

Sustain: - Sustaining is the end result of how well we have performed the previous four S's. In the Sustainment stage, think of ways to eliminate effort in maintaining an area. It is by far the most difficult where you need to make it habit to properly maintain the new processes.

Benefits of applying 5s in any organization, to the employees advised by Imai (1997) are:

Creates cleanliness, sanitary, pleasant, and safe working environments; it refresh work place “Gemba” and greatly improves employee morale and motivation; it eliminates various kinds of waste by minimizing the need to search for tools, making the operators' jobs easier, reducing physically exhausting work, and freeing up space; it creates a sense of belonging and love for the place of work for the employees. It needs everyone to maintain 5S guidelines. To maintain DISCIPLINE, we need to practice and repeat until it becomes a way of life. Discipline means making a steady habit of properly maintaining correct procedure. Time and effort involved in establishing proper arrangement and orderliness will be in hopeless if we do not have discipline to maintain it. If we do not do 5S, we can't do any other work efficiently. They are features which are common to all places and are the indicators of how well an organization is functioning.

Thus kaizen involves setting standards and then continually improving those standards. To support the higher standards kaizen also involves providing the training, materials and supervision that is needed for employees to achieve the higher standards and maintain their ability to meet those standards on an on-going basis.

2.13.2 Waste (Muda) Elimination

AsBerk. J & Berk,S (1993) citation, Muda in Japanese means “waste”. The resources at each process, people and machines either add value or do not add value and therefore, any non-value adding activity is classified as Muda in Japan. Work is a series of value adding activities, from raw materials, ending to a final product. Muda is any non value added task.

Wastes are one means of productivity loss mechanism. So, to increase the production quality and quantity must apply wastes reduction methods in the working area. As Cantor (1997) stated that, the main seven types of waste in the working area especially in manufacturing plants are: - overproduction, excess inventory, waiting, transporting, defect-making, unnecessary motion, and excess processing. But for the administrative office Muda are:-Passing on work that contains errors, Signature approvals, bureaucratic, walking or routing documents, copies files, a lot of papers and excess documentation. As a result try to eliminate those wastes to increase their profits like save time, money and capitals (land, labor and human power).

Imai classified Ohno's seven muda (waste) in gemba and categories as:

1. Muda of overproduction
2. Muda of inventory

3. Muda of repair/rejects
4. Muda of motion
5. Muda of processing
6. Muda of waiting
7. Muda of transport.

2.13.2.1 Muda of Overproduction.

Muda of overproduction is a function of the mentality of the line supervisor to be on a safe side, due to uncertainties of machine filer, rejects and absentees. It results in raw material conception before they are needed, wasteful input of utilities and manpower, additions of machinery, increase in interest burdens, additional space to store, excess inventory, added transportation and administrative costs. Imai, perceived overproduction as a crime.

2.13.2.2Muda of Inventory

Products kept in the inventory do not add any value to the organization rather they occupy warehouse space, and demanding additional facilities such as warehouses and forklift. When market test or need changes product quality get worse and may even become obsolete over night. Items in the inventory gather dust (no value added), and their quality depreciate. When an inventory level is high, nobody gets series enough to deal with problems like quality, absenteeism and machine downtime and provides little room for Kaizen. Lower inventory level however, helps to identify areas of problems and forces to deal with problems as they arise. He also asserted, when the inventory level goes down and reaches the one piece flow line, it makes Kaizen a mandatory daily activity.

2.13.2.3 Muda of Repair or Rejects (defects).

Rejects interrupt production and require expensive rework. In today's mass production environment a malfunctioning, high speed automated machine can spew out a large number of defective products before the problem is detected. Imai, further discussed, too much paperwork and many design changes will also results in a muda of reworks.

2.13.2.4Muda of Motion

Motion of persons not directly related to adding value is unproductive. Hence, workers should avoid walking and carrying non-value added activities, for the reason that it is not only difficult but also it represents muda. The Ethiopian Kaizen manual also refers Muda of motion as any transport or transference of materials, parts, finished goods, from one place to another for any case.

2.13.2.5 Muda of Processing.

At every step in which a work piece or a piece of information is worked on, value is added and sent to the next process. Imai refers here is muda of processing is modifying such a work piece or piece of information. He also mentioned inadequate technology or design and failure to synchronize process leads to muda in processing.

2.13.2.6 Muda of Waiting.

Muda of waiting occurs when the hands of the operator are ideal due to line imbalances, lack of parts or machine down time, monitoring the machine when the machine is performing value added job. The Ethiopian Kaizen manual refers muda of waiting occurs due to both ideal human and machine factors.

2.13.2.7 Muda of Transportation

Though, transportation in the work place is an essential part of operations, moving materials or products adds no value(P. 80) stressed elimination of this muda will improve workplace operation.

2.13.3 Standardization

According to Kilian (1992) standards are set by management, but they must be able to change when the environment changes. Companies can achieve dramatic improvement as reviewing the standards periodically, collecting and analyzing data on defects, and encouraging teams to conduct problem-solving activities. Once the standards are in place and are being followed then if there are deviations, the workers know that there is a problem. Then employees will review the standards and either corrects the deviation or advice management on changing and improving the standard. It is a never-ending process and is better explained and presented by the PDCA cycle (plan-do-check-act), known as Demming cycle (Kilian, 1992).

2.14 Establishment of EKI

Since late 2008, the GRIPS Development Forum has been engaged in industrial policy dialogue with the Ethiopian government, in collaboration with the Japan International Cooperation Agency (JICA). Compilation was prompted by strong interest shown by Prime Minister Meles Zenawi in Japanese development experiences and his request for the Japanese Government to introduce kaizen in Ethiopian firms, modeled on JICA's kaizen assistance in Tunisia.

As EKI yearly booklet (2012) indicates that, on May 2008, at the Fourth Tokyo International Conference for African Development (TICAD IV) also known as the Yokohama Action Plan, Japan promised to cooperate in the reinvigoration of Africa's economic growth. Given that Ethiopia's manufacturing sector was only about 5% of the country's GDP, it showed no hesitation and jumped to take advantage of the Japanese offer help Ethiopia across its industries.

Japan's offer proposed techniques that could accelerate and improve the quality and productivity of Ethiopia's manufacturing enterprises. After Japan showed its willingness to help with Ethiopia's industrial development, it gave a seminar in collaboration with the Ethiopian Ministry of Trade for about 300 attendees in Addis Ababa on November 26, 2009. As a result, through the Ethiopian Ministry of Industry, the Japanese International Cooperation Agency (JICA) was mandated to become involved in setting up kaizen Institute in Ethiopia and then selecting and training the pilot project companies.

The Kaizen project in Ethiopia consisted of three phases. The first phase (planning & preparation) which started in August, 2009, reviewed the quality and productivity of 63 companies. After preliminary diagnosis of these factories, 30 companies were selected based the following criteria:

- Proximity to Addis Ababa, within 100km distance,
- Contributions to exports and /or imports,
- Scale of capital, and
- Number of employees.

Then, the employees of the pilot companies were sent to Japan, Egypt and Tunisia to get practical training and learn from the kaizen workers in these countries. In October 2009-2010, by the end of the first phase of the project, from the thirty pilot companies, only 6, 4, and 8 companies were finally chosen by Ethiopia's Kaizen Institute for having high possibility, good possibility, and some possibility respectively to become kaizen model companies (Ethiopian Ministry of Trade, 2011).

The second phase (Implementation phase) i.e., Implementing housekeeping or 5S in the sampled companies and Phase three (Presentation, celebration, dissemination and follow up).

2.15 The Roles of Ethiopian Kaizen Institute

According to Ethiopian Kaizen institution (EKI, 2011) established in 2011 by council of Ministers regulation No. 256/2011. The objectives of institution to carry out broad based activities of on -going quality and productivity improvement and thereby enhance the expansion of competitive industries. The institute shall have the roles, power and responsibility:

- 1) Formulate strategy and plan that assist in the dissemination of the KAIZEN concept and tools and implement same upon approval;
- 2) Create country wide quality and productivity movement that could enable to effectively implement government policies and strategies;

- 3) Prepare, and distribute Kaizen training and consultancy manuals customized to micro, small, medium and large enterprises and follow up their applications; etc (EKI, 2011)

2.16 Implementation of Kaizen

As articulated by Anh. P (2011), the success of kaizen overseas transferability and implementation of the kaizen practices in Ethiopia depend on the degree of compatibility between the Japanese company's kaizen culture and the host country's national culture. Given this conceptual framework, the introduction of kaizen as a management tool and success in the transfer of technology to improve and enhance productivity and managerial capability in higher institution needs to be seen in the establishment of several building blocks in addition to conceptual issues related to:

- The fit between kaizen culture and the organizational culture of the practices;
- Changes in the mindset of colleges workers so they will adhere to the kaizen work ethics;
- Workers' training and discipline so that workers follow standard operating procedures;
- The existence of a hungry mentality so colleges workers will do work which is above and beyond their responsibility; and The empowerment and involvement of workers in decision-making to cooperatively identify problems, generate solutions, implement them and then follow up to evaluate quality and productivity.

Thus, implementation of kaizen in manufacturing companies needs to be fully committed to boosting the morale of their workers to develop members' capabilities, to achieve self actualization, and to work cooperatively. These commitments are vital to the process for improving the quality of the training output. Additionally, Asayehgn (2011) stated that in the journal of "the Transferability of the Japanese Kaizen Management Techniques" the transferability of the ideas of kaizen management techniques without contextual understanding of our organization is very difficult.

2.17 Kaizen/TQM versus BPR

An integral part of a total quality approach is the Japanese concept of Kaizen, Business process Re Engineering (BPR) and Total Quality Management (TQM) both are organizational performances and effectiveness it has also a debate between the two. Some commentators appear to suggest that TQM has been taken over by BPR although others argue that it can be seen as complementary to and/or a forerunner for BPR (Mullins, 2010).

Table 2.1: Kaizen versus BPR

FEATURE	KAIZEN/TQM	BPR
Management, culture and innovation the Applicability globally	It's Focused on demands timeliness (JIT) Kaizen are consistent to innovation all workers, skill, motivation, and Kaizen is applicable across different Cultural settings. This is so because the most important defining factors for Kaizen are workers' skills, motivation, and top management commitment .Kaizen helps enterprise become several times as competitive as they are now	BPR is focused on expensive technology or Innovation hence has almost nothing to do with cultural differences. The management system of applying innovation is concerned only on top management than workers
Appropriate development and learning environment	Suitable for developing countries whose MSEs perform along traditional lines and works well for slow-growth it is costly match. It support lifelong learning adaptability flexibility the organizational response also paradigm shift. Focused on lifelong employment	BPR is better suited for developed nation, fast changing. Economies that can invest in new technologies and innovations. Since it is time bounded no longer emphasis for learning but it assign the worker after full implementation Right person at the right place
Pace of change	Incremental gain may often take a number of years to complete. Focused on minor, slows and incremental improvement	Re-engineering as opposed and no-room for incremental change. It is abrupt once and for all large step. Radical design of business process to achieve breakthrough results.
measurement and Stability	It is easy to assess the overall success or failure of the enterprise. Changes are Highly stable, predictable and keep going over time sustain the business	Difficult to measure and the overall success of the enterprise Changes are spontaneous and less predictable, failed change program

Investment orientation	Kaizen directly works on workers and managers and makes them several times as competent as they are no	BPR focuses customer satisfaction alone such as cost, quality, service and speed.
Bureaucratic system business system	It is fully decentralized (bottom up) management system non-judgmental, non-blaming .both friendly for customers and employees ,supports Collectivism business environment like Toyota car	Centralized It is exposed to Downsize and stand for restructuring layoffs happens during implementation it is exposed to personal attack and revenge, it is the supports individualism business environment like Hammer car
Cost	Without or less costly i.e. with current resources Kaizen can be implemented even start with zero initial	Fundamental rethinking and radical design of business process to achieve dramatic improvements. Requires huge investment Outlays.
Everyday application	It focused on prevention not cure. Kaizen is practiced every time. This continuous application nature of Kaizen helps solve whenever flaws arise in the process	It focused on cure not prevention. BPR can't be used on every day basis. Hence, it Can't be used whenever flaws are detected in the process

Source: Faculty of Financial Accounting Management Craiova (Amended by the researcher 2010/2014)

Indeed, all organizational performance and effectiveness have its own strength and weakness but the researcher paying attention on KAIZEN/TQM. Certainly the originators of TQM did it in the Japan with Deming but properly applied in their almost entire Japanese industry. It can be concluding that the main differences between Kaizen and BPR as follows. MacDonald and Dale (1999) indicated firstly, large step changes (BPR) are riskier, more complex and more expensive than continuous improvement (Kaizen). This implies that Kaizen may be preferable for developing countries for certainty, cost and simplicity reasons. Secondly, BPR places more emphasis on equipment and technology rather than people; Kaizen is the opposite. Given that developing countries are relatively technology scarce and labor abundant though workers in developing countries may not be highly skilled, their comparative advantage appears to lie in implementing Kaizen. Thirdly, re-engineering tends to concentrate on one process at a time

using a project planning methodology, whereas Kaizen takes a more holistic view of the organization, building improvement in to all aspects of business operation.

As observed in the above table Kaizen may preferable for developing countries for certainty, cost and simplicity reasons. BPR places more emphasis on equipment and technology rather than people; Kaizen is the opposite one.

2.18 Kaizen Outcomes

Through there is shortage of literatures on the concept of Kaizen in general and in Kaizen outcomes in particular, practitioners have been developing the concept of technical and social system outcomes of Kaizen after Imai's 1986 publication. Cudney (2009) also suggested that, lean transformation (focuses on eliminating and preventing waste and improving flows) requires continuous change in the technical system, the behavioral system, and management system.

2.18.1 Technical System Outcome

According to Imai (1986) implementation of Kaizen leads to improved quality and greater productivity in the short term. He also narrated, manager may see from the short term Kaizen performance productivity increase by 30 percent, 50 percent, and even 100 percent and more, all without major capital investment.

According to Kosandal and Farris (2006), the technical system outcome, targeted during Kaizen implementation includes:

- Productivity
- Floor space,
- Lead time,
- Set-up time
- Part travel time
- Percent on time delivery
- Work- in – process (WIP)
- Throughput and product design.

They also suggested the magnitude of improvement on the technical system outcome ranges from 25 percent – 100 percent of improvement, which is also similar with Imai's conclusion.

2.18.2 Social System Outcome

Kaizen is a humanistic approach, it is based on the belief that every human being can contribute to improving his workplace, were he spends one-third of his life (Imai, 1986). He further explained the importance of Kaizen strategy for social outcome, stating Kaizen strategy helps to overcome primitive (...who love the status quo...) state of business communities, institutions and societies all over the nation.

According to Kosandal and Farris (2006) the social system outcome aligned with Kaizen continuous improvement such as:

Employee knowledge, skill and attitude, according to (Kosandal and Farris, 2004) these three dimensions (knowledge, skill and attitude) describe employee characteristics that are required to adequately perform desired tasks. According to them, Knowledge refers the body of necessary information, Skill refers to psychomotor capability and Attitude describe desire to perform a given activity.

Farris (2006) further summarized and listed social outcomes achieved through kaizen implementation include:-

- Enthusiasm for Kaizen activity participation
- Support for the kaizen activity program
- Creation of a belief that change is possible
- Increased employee attitude toward work
- Increased employee empowerment
- Improved employee attitude towards work
- Increased cross-functional cooperation, due to the cross functional nature of the team
- Support for creating a learning organization
- Support for lean manufacturing
- Development of a culture that supports long-term improvement
- Creation of a “hands on” “do-it-now” sense of urgency for change and improvement
- Employee pride in accomplishment made

Farris, also further stressed the importance of employee commitment, training and skill development for sustainability.

2.19 Review of kaizen in Research Framework

The philosophy of Kaizen has kindled considerable interest among researchers because it increases Performance and productivity of the company and helps to produce high - quality products and services with minimum efforts. Several authors have discussed the concept of Kaizen and many researchers have performed case studies to cover wide range of benefits like increased productivity, improved quality, reduced cost, improved safety and faster deliveries, etc.

According to Imai (1986), Kaizen is a continuous improvement process involving everyone, managers and workers alike. Broadly defined, Kaizen is a strategy to include concepts, systems and tools within the bigger picture of leadership involving and people culture, all driven by the customer. Kaizen strategy counts mostly on human efforts to improve a result

which requires process improvement. Imai introduced a process-oriented approach; referred to as the —plan-do-check-act (PDCA) cycle is used for process improvement. —Plan refers to setting a target for improvement whereby —Do is implementing the plan. —Check is the control for effective performance of the plan. On the other hand, Act refers to standardizing the new (improved) process and setting targets for a new improvement cycle.

Teian (1992) describes that Kaizen is more than just a means of improvement because it represents 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.

Hammer et al. (1993) explain that Kaizen generates process-oriented thinking since processes must be improved before better results are obtained. Improvement can be divided into continuous improvement and innovation. Kaizen signifies small improvements that have been made in the status quo as a result of ongoing efforts. On the other hand innovation involves a step—improvements in the status quo as a result of large investments in a new technology and equipment's or a continuous improvement using Kaizen concept.

Deming (1995) highlights that organizations are evolved at a greater rate than at any time in recorded history. Since organizations are dynamic entities and since they reside in an ever changing environment, most of them are in a constant state of flux. This highly competitive and constantly changing environment offers significant managerial opportunities as well as challenges. To effectively address this situation, many managers have embraced the management philosophy of Kaizen.

Newitt (1996) has given a new insight into the old thinking. The author has suggested the key factors to determine the business process management requirements. The author also has stated that Kaizen philosophy in the business process management will liberate the thinking of both management and employees at all levels and will provide the climate in which creativity and value addition can flourish.

Doolen et al. (2003) describe the variables that are used to measure the impact of Kaizen activities on human resource. These variables include attitude toward Kaizen events, skills gained from event participation, understanding the need for Kaizen, impact of these events on employee, impact of these events on the work area, and the overall impression of the relative successfulness of these events.

2.20 Research Gap

After Kaizen implementation in Tikur Abbay Shoe S.C studies should have been done to ensure its effectiveness in bringing the intended changes in performance. But to the contrary no study has done to follow and see the changes brought by the implementation. Of course the previous study done by different experts and the European Union on five pillars assessment shows there were too many bureaucratic with many non-value adding processes before kaizen

implementation(Ernst & young report ,April 28 ,2010)).However, after the implementation of kaizen remarkable achievements have been made on reducing the long working process and improving the quality of services provided, which has resulted in a significant impact on the efficiency and effectiveness of the organization. Even though there were changes but still the implementation were not as intended ,and This study was intended to fill this gap and to show the current status of Kaizen implementation at TASSCo.

2.21 Conceptual Framework

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

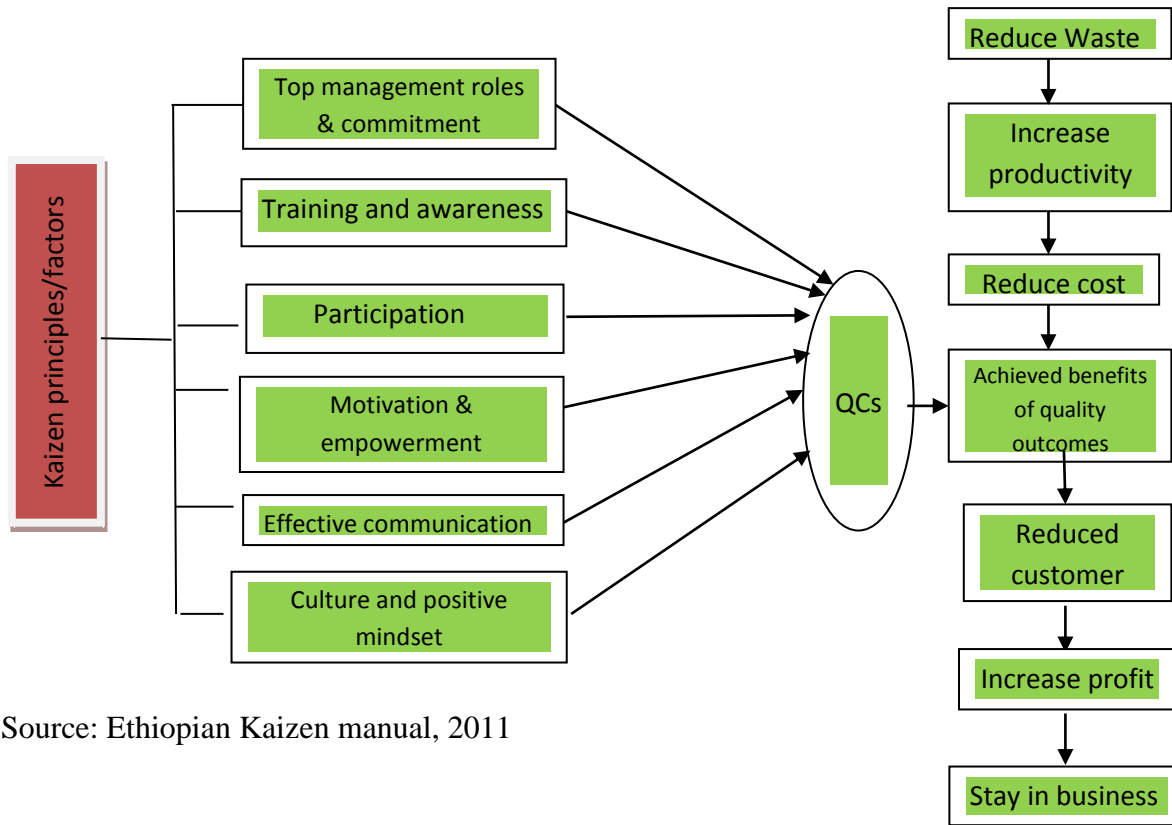
Communicating the change strategy and corporate culture to customers, employees and stakeholders followed by top management understanding and commitment is the primary activity towards kaizen implementation. Companies need to identify their size to adopt an approach either deployment of companywide approach or selecting a model workplace.

The training program 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).

Employee empowerment and participation consists of contribution of employees in administration and decision making associated to policies, objectives and strategies of the organization. Employee's 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. 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. 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 control program.

Figure 2.2: Conceptual Framework



Source: Ethiopian Kaizen manual, 2011

The above figure is adopted from Ethiopian Kaizen manual, 2011 used 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.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the research design used to conduct this study. Variables used in the study are defined in this chapter so that readers can understand those terms used in the research. The research design, methods, approaches and techniques are also explained in brief. The population used in conducting the study was also being described. Sources of data, data analysis and interpretation and data presentation tools are explained in the chapter. Lastly limitations faced during conducting the study are presented to show problems encountered during the study in terms of data collection tools and sample units in African Union Commission.

3.2 Research Design

In an attempt to get adequate and relevant information about the subject matter a combination of qualitative and quantitative data collection methods was used. Since this research focuses on assessment of kaizen implementation practices and challenge, descriptive research design was used.

Kothari, C. R (2004) explains that to describe the characteristics of a particular Phenomena, descriptive research is preferable. It is concerned with specific predictions, with narration of facts and characteristics concerning individual, group or situation. According to Louis Cohen et al. (2007) descriptive research is concerned with: conditions or relationships that exist, practices that prevail, beliefs, points of views, or attitudes that are held, processes that are going on, effects that are being felt, or trends that are developing. Geoffrey Marczyk et al.(2005) added that by gathering data on a large group of people, descriptive research enable the researcher to describe the average member, or the average performance of a member, of the particular group being studied.

Mixed approach (both Quantitative and qualitative) has been employed to answer the basic research questions. Mixed-method of research allows exploring relationships between variables in depth (Fraenkel & Norman, 1932). The researcher is guided by this particular method because of how the topic lends itself to being a phenomenon of study in addition to having a varied method of analysis for reliability. A mixed investigational design is used in an effort to describe the current practices of kaizen implementation in depth as well (Fraenkel & Norman, 1932). This particular method not only provides statistical data through the use of survey but allows the researcher to obtain a more in-depth look into how to implement Kaizen currently.

3.3 Population for the Study

The organization has 61 teams (KELIBU) members registered at the beginning, out of these, 48 teams have been adjourned after few months of group formation but the remaining 13 teams were completed the first phase (foundation stage) of kaizen and recognized for their success by the organization. These recognized KELIBU (13) teams were from different sections of the 3 separate factory units (unit I, II & III).

The research followed a sampling process to select participants of the survey so as to fairly generalize the study of sample characteristics to the population (Trochim, 2006).

Thus, census survey was used. Therefore, the population for this study was 13 team leaders and under each leader there are 5 group members, thus making the size of the total population 78 employees. Managers, kaizen officer and supervisors were also involved in the interview as a way of triangulating the data obtained from the employees.

3.4 Data gathering method

Primary and secondary data sources were used for this research work, the researcher has been gathered questionnaires and interview for the primary data. Researchers tend to gather this type of data when, what they want cannot be found from outside sources (Ayalew Shibeshi, 1999). The questionnaires were distributed to employees and the interview were conducted from management, supervisor and kaizen officer. To collect primary data the researcher were distributed both structured and likert scale questions. In addition Secondary sources such as, company records, study findings, previous reports, working papers, and online references were also consulted.

3.4.1 Questionnaire

Questionnaire was developed on the basis of basic questions of the study, review of literature, and theories of kaizen as management toolkits. The questionnaires were closed-ended and open-ended; respondents have direct involvement of kaizen practical application in the factory. The questionnaires help to collect data from large number of respondents in different location. Further, the questionnaires can be detailed and help to cover many subjects or issues can be easily and quickly analyzed once the field data gathering work is completed. A rating is a measured judgment of some sort. While open-ended questionnaires were used for respondents to explain their feeling and understanding freely as much as possible based on the question rises.

3.4.2 Interview

In order to triangulate the data obtained through questionnaire, a structured interview was conducted with management and supervisors. For this, interview guides (a written list of open items) were prepared by the researcher and present to face to face interaction. This method was

selected because it provides uniform information, which ensures the comparability of the data (Kumar, 1999).

3.5 Methods of data analysis and presentation

Both qualitative and quantitative data analysis techniques were used in the study for the understanding of the complete picture of the implementation of the kaizen in TASSCo. With respect to this, (Kumar,1999) stated that employing multiple data collection instruments help the researcher to combine, strengthen and amend some of inadequacies of the data. For quantitative analysis, SPSS (Scientific Package for Social Science) were used, and also for qualitative analysis descriptive statistics such as frequency and percentage, were used to analyze the data obtained from questionnaire and interview.

Accordingly, questionnaires were used as the main data gathering instruments whereas structure interview and document analysis were used to enrich the data obtained through questionnaire.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter deals with the presentation, analysis and interpretation of the data collected through questionnaire, interview and document analysis from TASSCo employees, management staffs, and supervisor and from kaizen officer in order to get the relevant information about the practice, successes and challenges of kaizen implementation. It consists of two parts. The first part presents personal information of sample population and part two deals with the presentation and analysis of the study.

78 questionnaires were distributed for employees and interview for supervisor, manager, kaizen unit. Out of 78 questionnaires distributed to the respondents, only 8 questionnaires were not returned.

The researcher calculated the reliability of the research as follows

$$\text{RELIABILITY} = \frac{K}{K - 1} \left[\frac{Q}{P} \right] \sigma^2$$

WHERE K= total number of questionnaires distributed to employees

Q=questionnaires failed for analysis

P=questionnaires pass to analysis

σ =Standard deviations

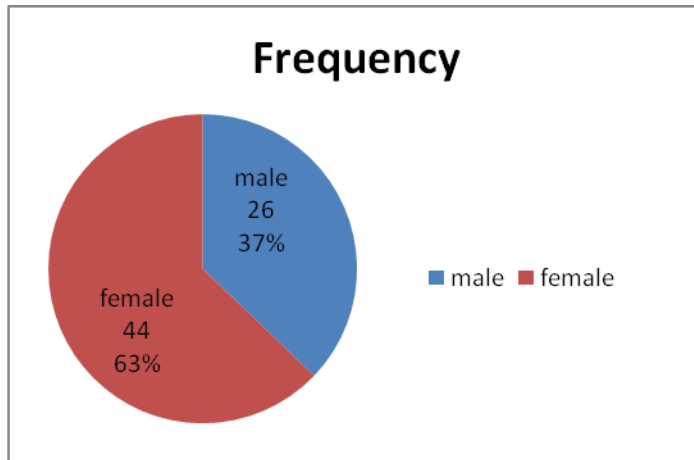
Reliability should be $0 \leq \alpha \leq 1$ if reliability of the researcher is between $0.5 \leq \alpha \leq 1$ it is really reliable.

Given, Q=8 P=70 $\sigma = 0.6$

So the reliability of this study is =0.76 which is above the usual cut point, 0.7. This indicated that the data collected are consistent and appropriate for analysis.

4.2 Demographic data of Respondents

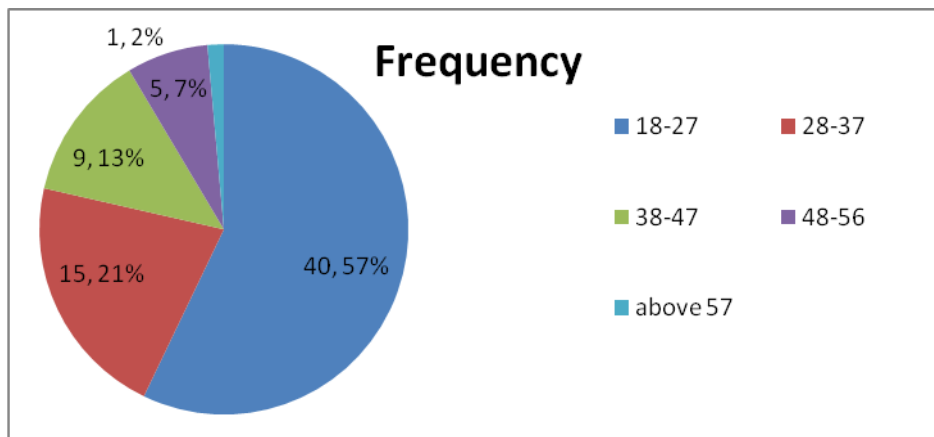
Figure 4.1 Distribution of respondents by sex



Source: Own survey data, 2016

As indicated in the figure 4.1 44(63%) of respondents are female and 26(37%) of the respondents are male. This shows that majority of the respondents in the study area were female as compared to male respondents.

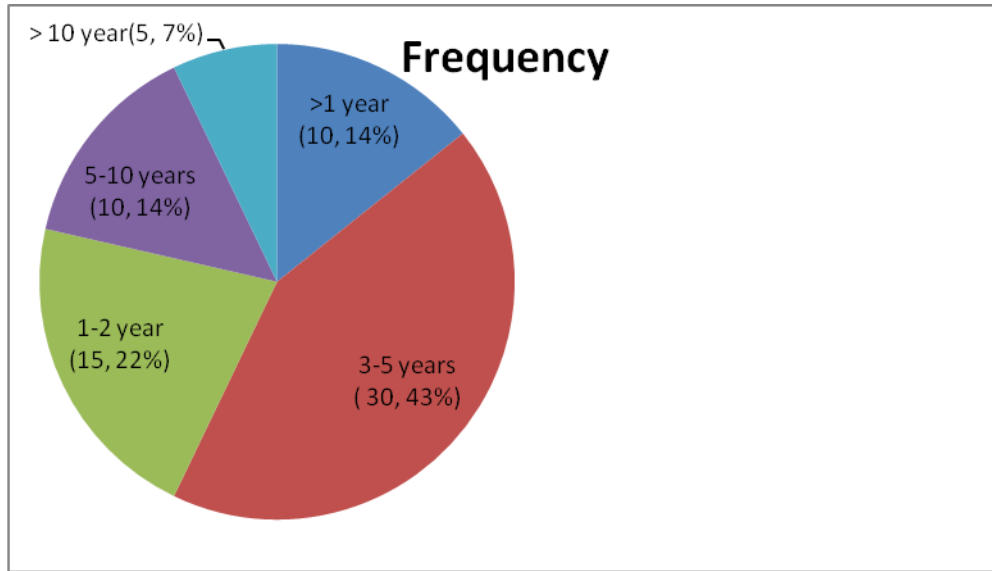
Figure 4.2 Distribution of Respondent by age



Source: Own survey data, 2016

As revealed in the figure 4.2 above out of the total respondents, 40(57%) of them are in the age range of 18 to 27, 15(21%) of respondents are in the age range of 28-37, 9(13%) of respondents are in the age range of 38-47, 5(7%) of respondents are in the age range of 48-56 and the remaining 1(2%) are in the age range of over 57 years. This outcome indicates that almost half of the respondents are categorized under the productive age group.

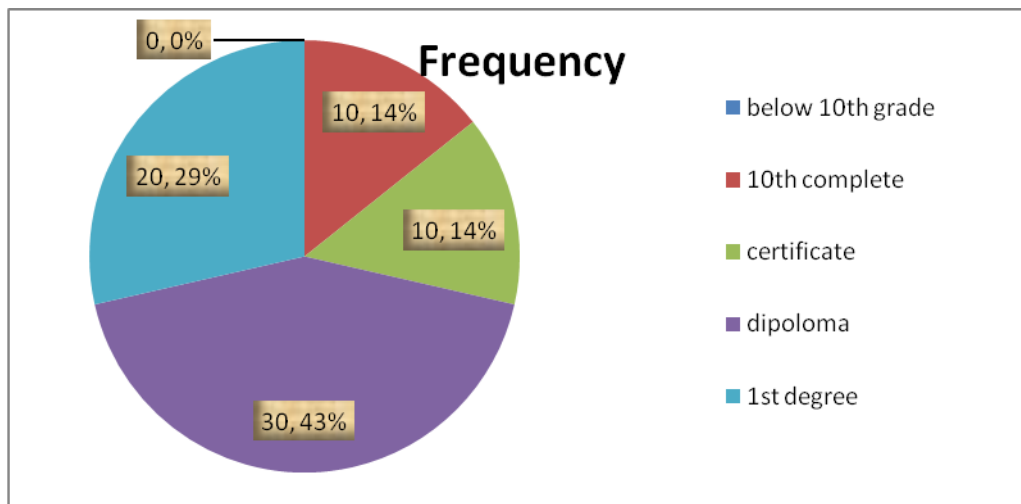
Figure 4.3 Distributions of Respondents by Years of Experience.



Source: Own survey data, 2016

As revealed in the Table 4.1 above out of the total respondents, 10(14%) of respondent have less than one year experience, 30(43%) respondents have 3-5 years' experience, 15(22%) ,10(14%) and 5(7%) are 1-2 years,5-10 years and have above 10 years experiences respectively. Company employee's large percentage has 3-5 years and minimum percentage has above 10 years' experience.

Figure 4.4 Educational background



Source: Own survey data, 2016

Education is one of the key variables that may influence the behavior and efficiency as well as effectiveness of an individual. It is also the key factor in uplifting an individual as well as the society, because it improves the skills, potential, creativity and innovation power of a person

As indicated on the diagram shown above 30(43%) of the employee has diploma in the same item 20(29%) of the respondents ‘were found to have a 1st degree and the remaining 10(14%), 10(14%) is 10th complete and certificate respectively. There is no below grade 10th. Overall the chart indicates most of the company employees are professional workers.

4.3 Practice of kaizen program implementation

Tables 4.1 Employees’ spirit at workplace

Item	Response	Not Really	Only Sometimes motivated	Reasonably Motivated	Well Motivated	Well Motivated with spirit
Do you think you and your colleagues are in good spirit in working in the workplace	Frequency	0	5	5	35	25
	Percentage	0	7	7	50	36

Source: survey data

As discussed in the literature review, team work is one of the elements of Kaizen which brings works together and solve problems together (Genobz, 2010).

With regard to respondents, out of the total respondents 35 (50 percent) and 25 (36percent) of respondents responded that well motivated with spirit and well motivated respectively. Summing up the two 60 percent of the respondents positively well motivated working with colleagues. About 5(7%) of the respondents said that they are reasonably motivated and other respondents 5(7%) replied they are motivated only sometimes.

Concerning the spirit of working in the work place, as shown in Table 4.1 most of respondents are motivated enough to implement the change program of the company.

Table 4.2 Employee training program

Item	Not really	Not quite enough	Reasonable training program	Good training program	Very good training program
Do you think your company has a consecutive employee training program on kaizen?	Frequency	40	20	5	5
	Percentage	57	29	7	7

Source: own survey data, 2016

Table 4.2 shows that 40(57%) of respondents said that the training program delivered to them is not quite enough, 20(29%) of respondents were responded the training program is reasonable. On the other hand 5(7%), 5(7%) respond good and very good respectively.

Employees continuous training and skill development has been the critical factors for generating and sustaining. In view of this, without systematic continuous training and skill development program implementing and sustaining the program might be a challenging issue. Kaizen (Imai 1986; Farris 2006).

Generally table 4.2 shows that there were not quite enough training in Tassco and this result implies that the company do not attach great importance to training and the level of trainer's skill and knowledge is likely to be low and also a lag in the implementation of the kaizen management system and inconsistency in the usage of ratios of the kaizen tools and techniques during the implementation period. It is to be noted that it would be difficult to implement a change program that employees are not well aware of.

Table 4.3 Employee involvements in kaizen programs

Item	Not really	Very good	Good	Fair	Poor	Very poor
To what extent the worker involvement in Kaizen programs in your workplace can be explained?	Frequency	0	10	25	30	5
	Percentage	0	14	36	43	7

Source: Own survey data, 2016

Table 4.3 shows that 30 respondents perceive that level of employee involvement in kaizen program implementation is poor and while 25 respondents level of their involvement in kaizen program is fair. Therefore, from this one can understand that the company has not attempted to involve its employees in the implementation of the kaizen program.

As indicated in the reviews of related literature, 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. 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. As trainers' commitment is a key point for the success of a Kaizen implementation, the level of trainer satisfaction and their commitment to the company need to be evaluated prior to the introduction of Kaizen.

The student researcher asked the management and the kaizen officer on the interview about employees' involvement on kaizen implementation and they responded that employees involvement in implementing 5s and muda eliminating is through focusing on removing all unnecessary items from the workplace, arrange remaining items to easily select, use, and return to their proper location, cleaning up the place disorder and removing the trash and also put in place to make it easier for continues improving and finally initiate employees to think of ways about eliminate effort in maintaining an area, this is how the management describe the involvement of employee in kaizen program.

Therefore, the above findings indicate that, the management body and the kaizen officer were agreed as changing the mindset of the company worker and as increasing the involvement of workers in decision-making. However, significant numbers of respondents were expressing their opinion us disagreed on the ideas of involvement of workers in kaizen implementation. This may

indicate that the main problem was made by superior's person to make handicapped the authorized experts/trainers rather than appreciates what have been done.

Table 4.4 Difficulty of kaizen in practice

Item	Response	Very easy	Easy	Neither easy nor difficult	difficult	Very difficult
How was the implementation of Kaizen practices including reporting the results?	Frequency	0	15	5	40	10
	Percentage	0	21	7	57	14

Source: Own survey data, 2016

It can be affirmed from the respondents opinion that, significant amount (40 percent) of respondents perceived Kaizen implementation and reporting results were difficult.

Implementation of kaizen in manufacturing companies needs to be fully committed to boosting the morale of their workers to develop members' capabilities, to achieve self actualization, and to work cooperatively, these commitments are vital to the process for improving the quality of the training output. Asayehgn Desta (2011)

The investigator asked the manager about the difficulty of kaizen implementation in the company. The manager replied that kaizen is well adapted by most of the employees of TASSCo. However, at the beginning of the implementation it was not easy task to get the full consent of employees to practice kaizen. Most of the workers considered kaizen as addition burden for them in addition to this while the model teams engage in doing the 5 Ss, while mopping their working area, some other staffs come up with a dirty shoe & working around on the cleaned area. The success of kaizen implementation is through gradual which mean time taker. TASSCo has not succeeded at all that means more of less good but on going.

The kaizen officer were also replies that, at the beginning, it was difficult to change the tradition and penetrate the deeply-rooted hierarchical structures in addition to this managers' misconception about continuous improvement was also another problem that hinders the application of kaizen but the culture of the company has been gradually changing from the existing before. Implementation of kaizen more of less brings fair intervention of culture in social life, communication and ownership spirit in company.

Therefore, from the above statement, it can be concluded that implementation of kaizen were difficult for the majority of the respondent. This shows that, there are gaps in the communication

of managers and employees. It could also imply that there were conceptual misunderstanding between middle level managers and workers. Above all, to eliminate the gap the company has to work on program planning, qualified human resources, communication, and training and development issues.

4.4 Perception of employees on Kaizen program implementation and related challenges

Table 4.5 Employees’ opinion and suggestions on implementation

No.	Items	Types of respondents	
		Employees	
1	Do you think the employees' opinions and suggestions are given due consideration your company?	Frequency	Percent
	Not all. Supervisor and manager don't care about employees' Opinions.	10	14%
	Maybe in special cases, supervisor listens to front-line workers' pinions.	20	29%
	Sometimes Supervisor and manager listen to their subordinates' Opinions.	25	36%
	Supervisors and managers in many cases listen to opinions of employees.	5	7%
	Supervisor and mangers always listen to opinions of employees from some employees.	10	14%
	Supervisor and managers always listen to opinions of employees from all levels and they are responsive.	0	0%
	Total	70	100%

Source: own survey data, 2016

With regard to respondents the above table shows that 25 (36 %) of respondents respond supervisors and manager sometimes listen to subordinates, 20(29 %) of respondents replies supervisor and managers may be in special case listen to front line workers. 10 (14 percent) of respondents respond that supervisor and managers do not care about employees. 10(14 percent) of respondents respond, supervisors and managers always listen to opinions of employees from some employees. Summing up the above four variables (36%, 29%, 14%, 14%and 10%) is about 89 percent of respondents have pessimistic impression on the Kaizen suggestion system. On the other hand 5 (7 percent) of respondents respond supervisors and managers in many cases listen to opinions of employees.

According to Imai (1997) suggestion system is a core Kaizen principle. Furthermore, as explained in the literature review, the impact of Kaizen in gemba is the initiation of the

suggestion system, also it permits employees to communicate operational level issues in a two way and enhance workers morale.

Therefore, from the above explanation, it can be concluded that, there are weak practices of the suggestion system in the organization. It also implies that, there are gaps in conceptualizing the system, both from team leaders and management point of view.

Table 4.6: Knowledge of continuous improvement

Item	Response	Yes	No
Do you think you and your colleagues have adequate knowledge of continuous improvement?	Frequency	30	40
	Percentage	43	57

Source: own survey data, 2016

With regard to respondents' perception on their knowledge regarding continuous improvement, 30(43%) respondents confirmed adequate knowledge of continuous improvement the rest 40(57%) respondents do not.

According to (Imai, 1986), Kaizen is about organizational culture change; it is about changing the status quo (the mind set). In this regard, overcoming the traditional hierarchical work trend needs long way to go.

With regard to kaizen officer opinion the attitude of employee in newly emerged culture is not much familiar. The culture of working together, participating in peer problems and participating in kaizen process is moderate. However the perceived new cultures are more of less complicated. There is traditional culture and new perceived culture in the company.

This implies that, there are still conceptual gaps on the knowledge of continuous improvement and have the impression of the traditional hierarchical work trends and these trends are still challenges for change. The situation could also have implications on quality of products and services and it has also depressing effect on the generating and sustaining improvements.

Table 4.7 Level of satisfaction on implementing of kaizen

Item	Response	Strongly satisfied	satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Strongly dissatisfied
As an employee what is your level of satisfaction because of implementing kaizen?	Frequency	4	10	20	33	3
	Percentage	6	14	29	47	4

Source: Own survey data, 2016

Figure 4.6 shows that 33(47%) respondents are dissatisfied because of implementation of kaizen programs while 20(29%), 10(14%), 4(6%), 3(4%) are responded neither satisfied nor dissatisfied, satisfied, strongly satisfied and strongly dissatisfied respectively.

The kaizen units describe many challenges; the first and foremost problem is a problem of acceptance of the program. Secondly, translating the ideas into practice and internalizing Kaizen in companywide level remains a very complex task. The Respondent has confirmed that there was a gap between the designed and the experienced Kaizen in such a way that the designed was to shorten the long work flow process, proper documentation and to bring effective and efficient delivery services to customers. The management of TASSCo is committed enough to successfully implement kaizen by taking seriously the importance of the training which was attended by production workers & the management of the company but whenever they requested financial support for the implementation of kaizen they do not facilitate according to their need

Beside this, the result shows that most of company employees are dissatisfied with implementation of the kaizen program.

Table 4.8 Perception on being part of kaizen activity

Item	Response	Yes	No
Do you like being part of Kaizen activity in your work station?	Frequency	12	58
	Percentage	17	83

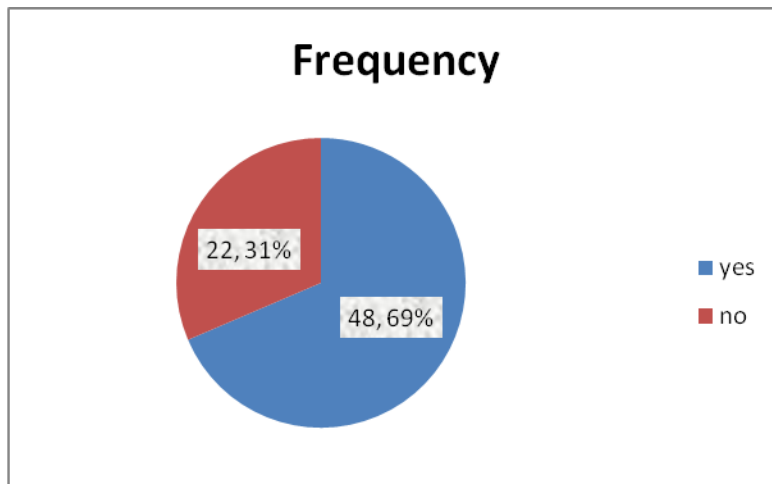
Source: own survey data

Table 4.7 shows that 58(83%) of respondents didn't like being part of kaizen activity in their work station while 12(17%) respondents like being in part of kaizen activity.

According to Asayehgn D., (2013), kaizen has to be deeply ingrained in the minds of both workers and managers. It involves process-oriented thinking; is people-centered; is directed at people's efforts based on a teamwork approach; involves a change of attitude; shows commitment to improvement; involves the entire workforce; and assumes that every worker has an interest in improvement running across functional responsibilities.

Therefore from the above statements it can be concluded that most of respondent do not like being part of kaizen activity.

Figure 4.5 Involvements of employees in problem identification & improvement of the production process



Source: own survey data, 2016

Figure 4.6 indicate that 48(69%) respondents involved in problem identification & production process of company while the rest 22(31%) of respondents did not involve. This shows that

company's employee involve in identification & improvement of the production process of the company.

Table 4.9 Management feedback to employees

Item	Response	Highly encouraging	Encouraging	neutral	discouraging	Highly discouraging
The feedback you get from the management of TASSCo while you identify problem & come up with solutions is	Frequency	0	8	12	30	20
	Percentage	0	11	17	43	29

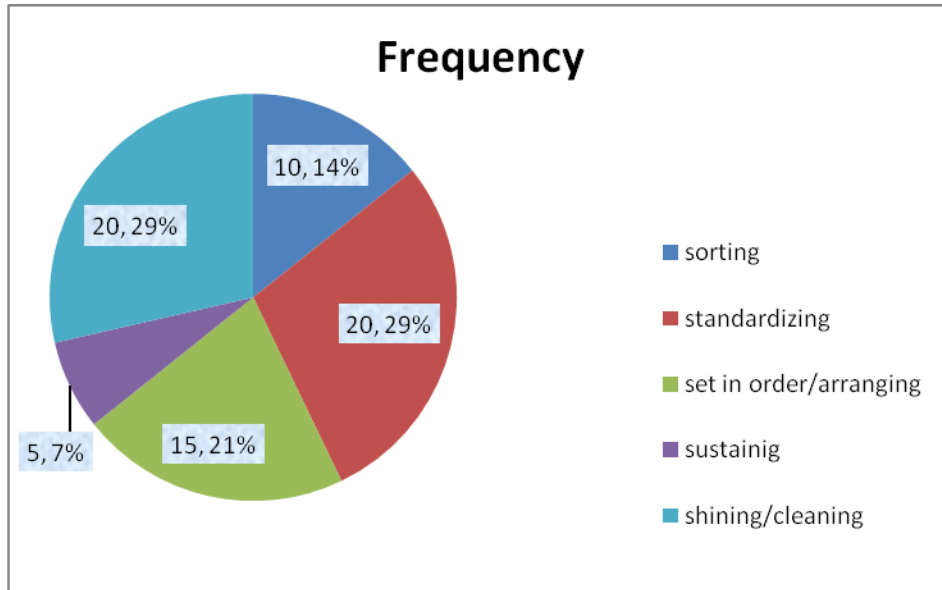
Source: Own survey data, 2016

Table 4.8 implies that 30(43%) of respondents replied that management feedback to employees while identifying problems & solution is discouraging, 20(29%) of respondent responded that it's highly discouraging 12(17%) of respondent replies neutral and the rest 8(11%) responses that management feedback is encouraging.

Doolen et al. (2003) believes that workers are the most important asset of a company, and that the bottom up participatory process involves management taking the initiative to clarify problems and come up with solutions, motivating and empowering employees to have the information and skills needed to make decisions on a wide range of issues concerning to their own working environment.

Besides this, employees response on table 4.8 is in line with the result under discussion. Therefore, from the above statement it can be inferred that, when employees come up with a new idea and solution they don't get encouraging response from management.

Figure 4.6 Basic kaizen practiced area of employees



Source: Own survey data, 2016

Figure 4.7 tells us that 20(29%) respondents said they practiced basic kaizen standardizing and shining /cleaning while 15(21%), 10(14%), 5(7%) are responded they practiced set in order/arranging, sorting and sustaining respectively. From the figure, one can see that most respondent participated in standardizing and arranging which the basic kaizen practice in work area.

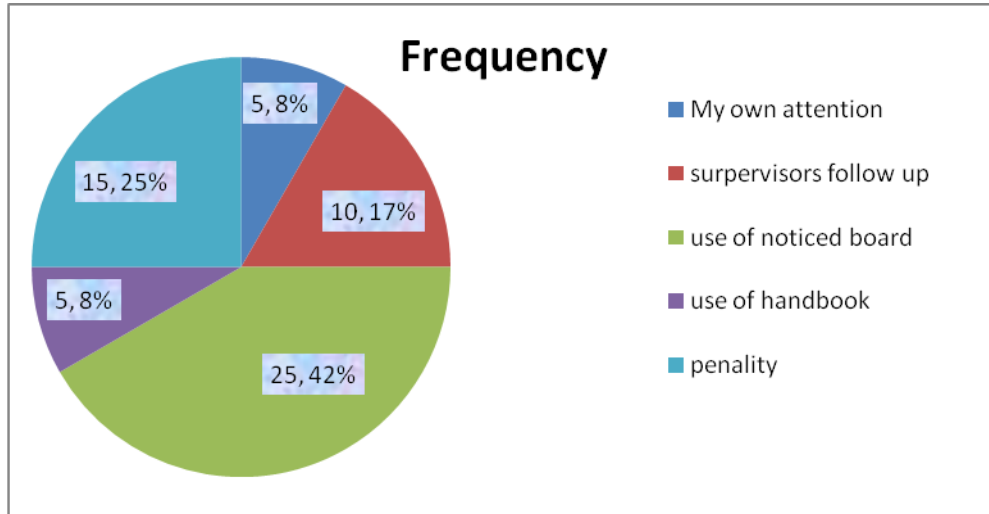
Table 4.10 Mechanism that helps to practice kaizen

Item	Response	Yes	No
Is there any mechanism that helps you always to remember practicing kaizen?	Frequency	45	25
	Percentage	64	36

Source: own survey data, 2016

Table 4.8 shows that 45(64%) of respondents said there is a mechanism that helps to practice kaizen while 25(36%) respondents said there is no mechanism in the company that helps to remember practicing kaizen . Generally the above figure shows that there is a mechanism to always remember practicing kaizen in the company.

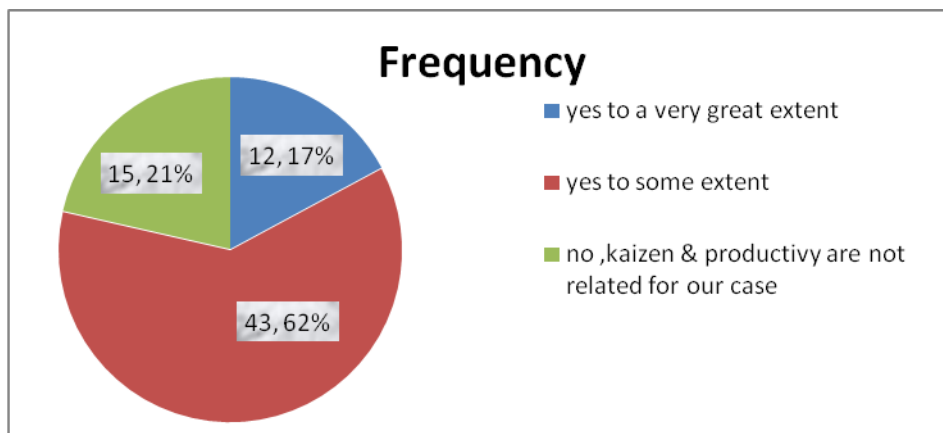
Figure 4.7 Mechanism that helps to remember practicing kaizen



Source: Own survey data, 2016

Chart 3.2.13 indicates that 25(25%) respondents said they use remind or sometimes obligates them to practice through noticed board, while 15(25%), 10(17%), 5(7%) 5(7%) are responded penalty, supervisors follows up and my own attention and use of handbook. Overall chart shows that employees use to remind or obligates to practice through use of noticed board.

Figure 4.9 kaizen improvement of productivity



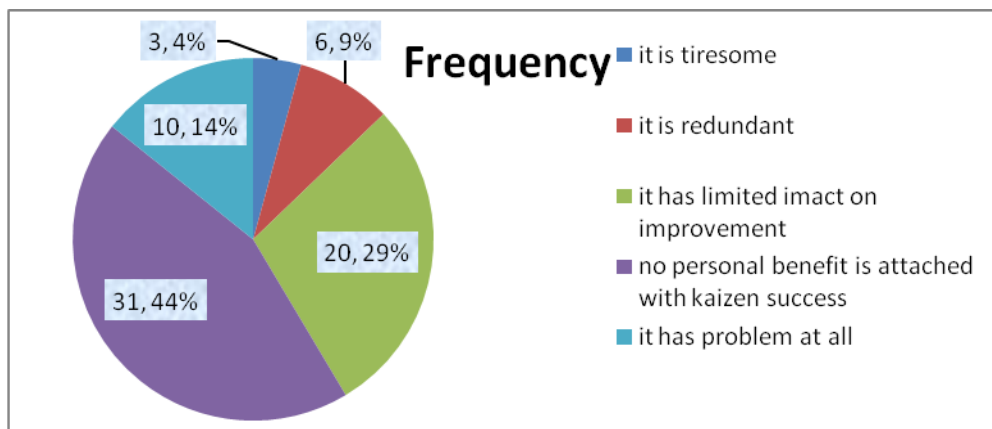
Source: own survey data, 2016

Figure 4.9 shows that 43(62%) of respondents said kaizen improve productivity to some extent while 15(21%), are believe that kaizen and productivity are not related and the rest 12(17%) believe that kaizen has a very great extent to improvement of productivity.

Being process-oriented, kaizen activities are based on the assumption that a company's overall competitiveness will improve in the long run if individual variations are reduced. Therefore, before structuring the entire company to kaizen quality/productivity improvement practices, it needs to refine its methodology by brain storming, that is, gathering a group of employees who will contribute spontaneously to list ideas to find a creative solution for a specific problem. Alex Faickney Osborn (1953) proposed that teams could double their creative output with brainstorming which works by focusing on a problem, and then coming up with as many solutions as possible and by pushing the ideas as far as possible.

We can conclude that employees believe that kaizen contributes to productivity to some extent. Kaizen has improved employees' sense of ownership, involvement & responsibility and reduction in wastage.

Figure 4.10 Employee opinions on problem with kaizen practice



Source: Own survey data, 2016

According to respondent's responses 31(44%) of respondents were expressing their opinion that practicing kaizen has no personal benefit attached with kaizen success while 20(29%), 10(14%), 6(9%) respondents are rising their opinion that kaizen practice has limited impact on improvement, has no problem at all, it is redundant and it is tiresome respectively. Generally most of the respondents suggest that kaizen practice has no attachment with personal benefit.

Table 4.11 Rating agreement or disagreement

Item 1	There are an established system for training and education in the organization.		
		Frequency	Percent
	Strongly Disagree	15	21
	Disagree	38	54
	Neutral	10	14
	Agree	7	10
	Strongly agree	0	0
Item 2	Lack of proper incentives are challenges for Kaizen		
		Frequency	Percent
	Strongly Disagree	-	-
	Disagree	-	-
	Neutral	-	-
	Agree	42	60
	Strongly agree	28	40
Item 3	Top management commitment, visionary leadership and support are weak		
		Frequency	Percent
	Strongly Disagree	6	9
	Disagree	9	12
	Neutral	10	14
	Agree	31	45
	Strongly agree	14	20
Item 4	Lack coordination, communication and integration within departments		
		Frequency	Percent
	Strongly Disagree	5	7
	Disagree	10	14
	Neutral	5	8
	Agree	34	48
	Strongly agree	16	23

Item 5	I am willing to put efforts beyond that is normally expected in order to help this organization to be successful	Frequency	Percent
	Strongly Disagree	-	-
	Disagree	-	-
	Neutral	-	-
	Agree	47	67
	Strongly agree	23	33
Item 6	The kaizen technique increased employees/ them members' interests (voluntarily) in the work area.	Frequency	Percent
	Strongly Disagree	16	23
	Disagree	30	42
	Neutral	18	26
	Agree	4	6
	Strongly agree	2	3

Source: Own survey data

Item 1: Out of the total respondents respond 38 (54%) and 15(21%) of respondents respond disagree and strongly disagree on an establishment of for training and education in organization while About 7(10%) respondents agreed on the establishment of training and the rest 10(14%) respondents were remained neutral. This implies that the companies do not attach great importance to training.

Item 2: Reward and recognition can motivate those individuals and groups to continue their active participation in the organization. It will also create a positive environment for various teams to compete against each other and these give a 'win-win' situation between the organization and employees (Yukl, 2010). Item 2 shows that out of total respondent 42(60%) of respondents agreed that there is lack of proper incentives for kaizen implementations while the rest 28(40%) respondents strongly agreed on the issue. This indicates that there is shortage of proper incentives in the company.

Item 3: The third issue respondents asked were regarding, management commitment, visionary leadership and support are weak and out of total respondent 31(44%) of respondents are agreed while others 14(20%), 10(14%), 9(12%), 6(8%) are strongly agreed, disagree, neutral and strongly disagree respectively. This indicates that top management commitment, visionary leadership and support are weak in the company.

Item 4: Based on the data stated on item four, 38 (48 percent) and 16(23%) of respondents responded agree and strongly agree respectively. About 10(14%) and 5(7%) respondents respond disagree and strongly disagree respectively. The rest 8% were found to be neutral. This indicates that Lack of coordination and communication within departments is the reason to hinder for proper implementation of kaizen.

Item 5: shows 47(67%) respondents are agreed willing to put effort beyond expected in order to help organization to be successful while the rest 23(33%) respondents are strongly agreed. Generally employees are willing to put effort beyond expected to help organizational successful.

Item 6: shows that 30(42%) respondents disagreed that kaizen techniques increased employees teams members interest in the work area while 18(25%), 16(23%), 4(6%), 2(3%) respondents are neutral, strongly disagree, agree and strongly agree. Overall this result shows employees interest does not increase with kaizen techniques.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDATION

5.1 Summary of Major Findings

The purpose of this study was to assess the practice and challenges of kaizen implementation in Tikur Abbay Shoe S.C. Depending on the result the following major findings were obtained from the result of data analysis.

- The demographic backgrounds of the sample respondents are presented in four parameters to understand the customer profiles i.e., gender, age, educational status and work experience. Based on the data presented above a total of 37% & 63% respondents were male and female respectively With regards to age of respondents, 57% of respondents were in the age range of 18-27. With regards to their educational status, 43%, 29%, 14%, &4% of the respondents are diploma holders, degree holder, 10th complete and certificate respectively. Most of the respondents have 3-5 years of work experience.
- About 30(43%) of respondents responded that involvements of employee in kaizen program is poor, 25(36%) replies of Therefore, from this one can understand that the company has not attempted to involve its employees in the implementation of the kaizen program.
- Significant amount 57(40%) of respondents perceived that Kaizen implementation and reporting results were difficult. It implies that there were conceptual misunderstanding between managers and workers.
- 57% of respondents confirmed that training programs that are given in the company is not enough and this result implies that the company do not attach great importance to training and also a lag in the implementation of the kaizen management system and inconsistency in the kaizen tools and techniques
- 25(36%) of respondents replies Supervisor and manager Sometimes listen to their subordinates' Opinions. 20(29 %) of respondents replies supervisor and managers may be in special case listen to front line workers, this indicate that, there are weak practices of the suggestion system in the organization
- Regarding the finding on the items of knowledge on continuous improvement, 40 (57%) of the participants in the study considered their knowledge on continuous improvement is not adequate
- 48(69%) of respondent participate in problem identification but as majority respondent 30(43%) replies, feedback that gets from management is discouraging

- From total respondent 45(64%) of respondents agreed that there is a mechanism which helps to practice kaizen and respondents were asked how they remember practicing kaizen in there working area and majority of respondent replies that they remember practicing kaizen through noticed board
- With regard to this, respondents were asked their opinion, about the problem with kaizen practice and 44% of them replies that practicing kaizen has no personal benefit attached with kaizen success

5.2 Conclusions

The purpose of this study was to investigate the practice and challenges of kaizen implementation in Tikur Abbay Shoe S.C. An attempt was made to identify major obstacles to kaizen implementation and measures to be taken by employee, managers, supervisors and kaizen officer in order to promote kaizen system of application. The objective of this study paper was to assess Kaizen program implementation practice and challenges and to explore the impact of Kaizen program implementation on employees' attitude towards work trend. Hence, based on findings investigator was finding out the problems through distribute questionnaires for employee and interview for managers, supervisors and kaizen officer.

Lastly, based on the findings, the following conclusions were made:

Kaizen is a tool which can help the organization to improve their efficiency and effectiveness to achieve their intended goal. It plays an important role in increasing customers' satisfaction and quality of services by reducing time consumption and operational costs. It also helps to eliminate unnecessary and bureaucratic chains in an organization and helps in creating good working conditions, new working systems and new way of thinking to reform public and private organizations. As a result, it has been studied, designed and implemented in TASSCo since 2013. Kaizen was intended to bring about continuous changes in organizational structure, in eliminating long bureaucratic chains, in time consumption and in reduction of unnecessary work flow process, proper documentation and bring about effective and efficient delivery services to partners. This study revealed that there are considerable changes in organizational structure and in reducing long chains of work flows, however in terms of ownership, and employee attitude and misconception about kaizen is still a big gap in the company.

The main causes for failure to bring a change are: lack of technical knowledge and skill by staff members, lack of resources including budget deficit and lack of awareness among top management. In addition to this, lack of commitment; lack of preparation of professional team; lack of training; and not clearly defined roles of the participants and kaizen consultants are some of the problems.

In trying to assess the factors that hinder the implementation of kaizen in the company the study that reflected most of the factors were:

Trainers accept the concept of kaizen but there were a problem to implement in to practice, clarity of supervision contents and be committed to give feedback were other problem. Thus the skilled supervisors could not supervise the implementation of kaizen by preparing cleared measuring criteria of supervision. Based on these ideas, the assigned supervisor could not prepared feedback on the requested of the trainer's availability.

Kaizen was designed in TASSCo with all its human resource needs, equipment needs and budget needs. If Kaizen is to bring continuous improvement these resources should be provided fully in the office. Generally, the gap between the designed and implemented Kaizen have affected its implementation as designed and caused failure in bringing continuous improvement.

Kaizen in TASSCo is facing many challenges which cannot be solved immediately in one night but if the kaizen unit focused the training of the staff and follow up on continuous improvement in terms of the effectiveness and efficiency toward strengthening the unit and properly implementation of the first basic principles like the 5S, seven west removal method and other tools would have been contributed towards proper implementation of the Philosophy.

The challenges encountered from the implementation of kaizen could be generally categorized under the following topics: challenges from gaps in knowledge of trainers and employees; negative attitude of trainers and employees towards the kaizen strategy; skills of trainers and employees; gaps in infrastructure and materials resources; and limited capacity and capabilities of the management body in the company. The considerable majority of the implementers believe that there are shortage of training and knowledge of proper use of the technologies. There is also no proper training for trainers. However, this difference is not likely to be due to chance occurrence.

Thus the policy option that could emerge from this study is that before launching the kaizen strategy for improvement, firms need to take the time to review their performance and determine their strengths and weaknesses. In short, TASSCo need to assess carefully whether or not: 1) there is a synergistic relationship between the Japanese kaizen quality initiatives and the business environment of the firms, 2) they can modify and appropriately design the kaizen management system to suit the diversity of practical circumstances and conditions of the pilot firms, and adapt it to fit the companies' working cultures, 3) the workers of the firms are disciplined and motivated enough to go beyond formal job requirements and effectively participate in process improvement, 4) the firms' employees are ready to utilize the kaizen process and correct problems at the source, and 5) the companies are ready to improve their products and services on a continuing basis to meet customer's demand.

In addition to hiring experienced executives and furnishing incentives to employees, the employees of the enterprises need to be given intensive training so that they become committed to the kaizen standards that will enable their companies to optimize operations, save cost, improve profits, and enhance customer satisfaction (See Desta, 2012).

5.3 Recommendations

The researcher investigated the problem in kaizen implementation practices and challenge in Tikur Abbay Shoes Share Company through different mechanism. However, the practical challenges demonstrated by the study should get attention and be resolved. Indeed, based on the findings and challenges witnessed by the respondents as well as researcher personal observation, the following recommendations are suggested.

- ❖ The suggestion system is one of the core principles of Kaizen. The system helps both management and workers to communicate two way communications and has also motivational values for employees. Beside this, the system serves as an information channel for the continuous improvement process. Hence, missing this process will have serious impacts on the implementation process as well as sustainability. Therefore, managers/supervisors should give at most attention and consideration for the suggestion system as well as the way workers opinions and suggestions are managed.
- ❖ With all the challenges identified by the respondents, it seems difficult to obtain the right person who has the required knowledge and skill on the kaizen's concept and practical application respectively. As an option for addressing the gaps in implementation, basic training on concept of kaizen, ways of application and method of supervision should be given for supervisor's working currently because establishing training and development system within the organization is crucial not only for the implementation of the program but also for the sustainability of the program.
- ❖ The concept of kaizen are constituted by 5s concept. Therefore, the researcher recommend for proper follow up and implementation of the 5s concept and implement the subsequent phases of the kaizen program. Kaizen philosophy is a continuous learning process which promotes learning culture. Kaizen is all about organizational culture change through continuous training and development. Hence, establishing training and development system within the organization is crucial not only for the implementation of the program but also for the sustainability of the program. Therefore, the organization should set up company own training and development wing with necessary materials and provide both on job and off job trainings continually to enhance and develop the awareness of performers.
- ❖ TASSCo should revise business plan work on quality, reduce price of production, as well as customers satisfaction, should increase staff motivation, increase contribution of staff's idea sharing and decision making, and should work on the safety, and the sustainability of the package.

- ❖ Create a culture of continuous improvement by developing formal structure of project management that recognize mistake.
- ❖ Establish kaizen award and having kaizen promotion and sensitization activities across all offices.
- ❖ Kaizen unit and company management should provide sufficient, continues training to employee and supervisors. Improve on employee attitudes and misconceptions about kaizen
- ❖ To ensure success on activities on those three pillars, three factors should be taken into account. Those are: visual management, the role of the supervisor, and the importance of training and creating a learning organization. As the background information of respondents indicate, kaizen implementation focuses only 5s implementation. To alleviate this misunderstanding, training programs on pillars and implementation of kaizen should be arranged by TASSCo in collaboration with Ethiopian kaizen institute to their employees.
- ❖ Moreover the other issues raised by the respondents were the shortage of necessary materials. Without the necessary input materials expecting workers to deliver results are illogical; hence management should provide the necessary materials on time with the relevant amount.
- ❖ Systematical management which means all channel communication, technical area, managers and supervisors should have coordination in management, implementing and evaluation of kaizen programs.
- ❖ Kaizen implementers should be assessed objectively by the skilled supervisors, Sustainable, monitoring and evaluation and feedback system, the communication system should be improved and thereby technology transfer enhanced.

Finally, since event follow up procedures do not guarantee the sustainability of outcomes, a full length of survey of Kaizen team members and the establishment of control mechanisms to observe sustainable development is crucial. Therefore, to document and monitor the availability of continuous improvement at TASSCo, a time series study is helpful.

Appendix

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Appendix I

St. Mary's University

School of Graduate Studies

General MBA

Dear respondents, I am a postgraduate student of the above mentioned institution and currently undertaking a research on “KAIZEN IMPLEMENTATION PRACTICES AND CHALLENGES” taking Tikur Abbay Shoe Share Company as a case study. Your factory is one of the few companies chosen for the research. Your participation in the study is completely voluntary.

The purpose of the questionnaire is to obtain information, based on your personal view, on how Kaizen implementation impact your performances and the challenges encountered upon implementation.

The quality of the result of this research is based on the accuracy of the information you provided. The research work is for academic purpose only. Thus, the research will assure the information provide is going to be reported and communicated in collective data only with no personally identifiable. Any information obtained in connection with this study will remain strictly confidential nothing will be tied back to any individual names.

In order for your responses to be useful, all responses to the items contained in this questionnaire must accurately reflect your true opinions. Please take a few minutes to provide your honest opinion about each statement. Your honest opinion is very valuable to the success of this study.

Note

- ❖ You are not required to write your name.
- ❖ Put in the box provided a Tick symbol.
- ❖ Question related to your opinion please write shortly and precisely on the space provided.
- ❖ Your response will be confidential and it will be used only for research purpose.

The questionnaires are employee and managerial type, framed into four parts: part one deals with overall profile of the respondents, part two focuses on general Kaizen implementation issues, part three gives emphasis to the challenges encountered in implementing Kaizen. Finally, part four tried to shed light on achievements (the managerial type questionnaires have special emphasis on the social and technical system outcomes gained

Questionnaire for Employees

Part I. Demographic Information

1. Gender: Male Female
2. Age: 18-27 48-56
28-37 above 57
38-47
3. Your work experience in the organization:
- Less than 1 year 5 –10 year
1-2 year above 10 year
2-5 year

5. Educational background

- A. Below 10th grade D. Diploma
B.10th complete E .1st degree and above
C. Certificate

Part II. Please put a tick mark (✓) in the boxes that best describe your answer.

1. Do you think you and your colleagues are in good spirit in working in the workplace?
- i. Not really iv. Well motivated
ii. Only sometimes motivated V. Well motivated and in high spirit
iii. Reasonably motivated
2. Do you think your company has a consecutive employee training program on kaizen?
- i. Not really. iv. Good training program.
ii. Not quite enough. V. Very good training program
iii. Reasonable training program
3. To what extent the worker involvement in Kaizen programs in your workplace can be explained?
- i. Very good iii. Fair V. Very poor
ii. Good iv. Poor

4. How was the implementation of Kaizen practices including reporting the results?

- i. Very easy
- ii. easy
- iii. Neither easy nor difficult
- iv. Very difficult
- v. Difficult

5. Do you think the employees' opinions and suggestions are given due consideration in your company?

- i. Not at all. Supervisors and managers don't care employees' opinions
- ii. Maybe in special cases, supervisors listen to front-line workers' opinions.
- iii. Sometimes Supervisors and managers listen to their subordinates' opinions.
- iv. Supervisors and managers in many cases listen to opinions of employees.
- v. Supervisors and managers always listen to opinions of employees from some employees.
- vi. Supervisors and managers always listen to opinions of employees from all levels and they are responsive.

6. What type of Kaizen tools/ techniques/practices have you applied on your workplace?

7. Do you think you and your colleagues have adequate knowledge of continuous improvement?

- i. Yes
- ii. No

8. If your answer for question number six (6) is "No" please specify the reason.

9. As an employee what is your level of satisfaction because of implementing kaizen?

- i. Strongly Satisfied
- ii. Satisfied
- iii. Neither Satisfied nor Dissatisfied
- iv. Dissatisfied
- v. Strongly Dissatisfied

10. Do you like being part of Kaizen activity in your work station?

- i. Yes
- ii. No

11. If your answer for question number ten (10) is “No” please specify the Reason.

12. Are you involved in problem identification & improvement of the production process of TASSCO?

- i. Yes
- ii. No

13. If your answer is “Yes” for question number 13, how do you involve in problem identification & improvement of the production process of TASSCo?

14. The feedback you get from the management of TASSCo while you identify problem & come up with solutions is

- i. Highly encouraging
- ii. Encouraging
- iii. Neutral
- iv. Discouraging
- v. Highly Discouraging

15. In order to have standard working place which of the basic kaizen practices you practiced?
(If you have more than one answers you could select the corresponding box)

- i. Sorting
- ii. Standardizing
- iii. Set in order / Arranging.
- iv. Sustaining
- v. Shining / Cleaning

16. Is there any mechanism that helps you always to remember practicing kaizen?

- i. Yes
- ii. No

17. If your answer is “Yes” for question number 17, the thing that reminds or sometimes obliges you to practice kaizen is

- i. My own attention
- ii. Supervisors follow up
- iii. Use of noticed board
- iv. Use of handbook
- v. Penalty

18. Do you believe kaizen has improved your productivity?

- i. Yes to a very great extent
- iii. Yes to some extent
- ii. Yes to a great extent
- iv. No, kaizen & productivity are not
related for our case

19. If your answer is “Yes” for question number 19 how do you think kaizen has improved your productivity?

20. On your opinion what is the problem with kaizen practice

- i. It is tiresome
- ii. It is redundant
- iii. It has limited impact on improvement
- iv. No personal benefit is attached with kaizen success
- v. It has no problem at all

Part III. Please rate your agreement or disagreement with the statements below.

Complete your ratings by circling the appropriate number.

Statements	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
There is an established system for training and education in the organization.	1	2	3	4	5
Lack of proper incentives are challenges for Kaizen implementation	1	2	3	4	5
Top management commitment, visionary leadership and support are weak	1	2	3	4	5
Lack of coordination, communication and integration within departments hinder Kaizen implementation	1	2	3	4	5
I am willing to put efforts beyond that is normally expected in order					

to help this organization to be successful	1	2	3	4	5
The kaizen technique increased employees/team members interest (voluntarily) in the work area.	1	2	3	4	5

Appendix II

St. Mary's University

School of Graduate Studies

General MBA

Interview (Management)

This interview is designed to be made with the managers of TASSCo in light of assessing the company's kaizen implementation practice and the challenges encountered while implementing it. The questions that will be raised during the interview are;

1. How do you describe the implementation of kaizen in your company?
2. How did the management of TASSCo facilitate kaizen implementation? For instance in creating and communication the vision of TASSCo to engage in kaizen? Its effort in the PDCA cycle? Provision of training? And benefit package in relation to the improvements made by kaizen implementation
3. To what extent does kaizen theory related with practical at work place?
4. What are the attempts made by the management of TASSCo to establish and sustain the culture of kaizen in the organization? For instance in creating continuous improvement infrastructure through the kaizen team?
5. How are employees of TASSCo involved in kaizen implementation? For instance in implementing 5S and muda elimination?
6. What are the improvements achieved after implementing the kaizen process at TASSCo? For instance on working area and production time improvements
7. How do you express the success of kaizen implementation in your company?

8. What are the challenges encountered so far in implementing kaizen at TASSCo?
9. What measures to be taken to alleviate the implementation of kaizen in your company?
10. Which pitfalls and difficulties are still influencing your operation today?

Appendix III

St. Mary's University

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General MBA

Interview guiding questions for Supervisors

Interview Questions for Tikur Abbay Shoe Share Company on the overall KAIZEN program implementation process and outcomes attained so far.

1. How was Kaizen management philosophy implemented in the factory?
2. What is your role in Kaizen implementation at TASSCo?
3. Is there any working area improvement resulting from kaizen implementation?
4. How do you compare the length of the production time before and after kaizen implementation at TASSCo?
5. Is there any employee's motivational change towards their job as a result of kaizen implementation?
6. How do you evaluate the understanding of the staffs of TASSCo on quality after kaizen implementation?

7. Are there coordination, communication and integration of Kaizen implementation within stakeholders? If so, how do you see its extent?
8. How was Kaizen event organized and conducted in the factory?
9. Did the factory provided trainings and education on Kaizen implementation to performers so far and how frequently was Kaizen event has been conducted?

Appendix IV

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General MBA

Interview Guiding Questions for Tikur Abbay Shoe S.C Kaizen officer

1. How effective was the corporation in implementing Kaizen management philosophy in tikur abbay shoe s.c?
2. How was the process/steps of Kaizen program implementation taking place particularly in Tikur Abbay Shoe S.C ?
3. How do you see the contributions of Kaizen program implementation over the traditional management system? If so, how do you see its contribution?
4. Is the corporation effective in coordination, monitoring and evaluation of Kaizen intervention?
 - a. If yes, what are the outcomes registered and gaps identified so far?
5. How do you evaluate the outcome of Kaizen program implementation in the factory?
 - a. If so, what are the outcomes registered so far?

6. Is the corporation effective in Kaizen intervention and altering the attitude of employees towards the new work culture?

a. If yes. What are the perceived new work cultures due to Kaizen intervention?

7. What are the achievements gained to date as a result of Kaizen implementation in the factory?

8. What types of measurable achievements are realized gained?

9. What types of non-measurable achievements are realized?

10. What are the challenges of the Kaizen program implementation in the factory?

11. How do you see the utilization of Kaizen events in the factory increasing, decreasing or staying the same over the years?

12. What mechanisms do you have in place to sustain Kaizen outcomes?