

Assessment on the Implementation of Kaizen and its Challenges:  
The Case of African Union Commission

By  
Getu Assefa

A Thesis Submitted to the School of Graduate Studies of Addis Ababa  
University in Partial Fulfillment of the Requirement for the Degree of Masters in  
Executive Masters of Business Administration (EMBA)

Advisor  
Mohammed Seid (PhD)

Addis Ababa University  
Addis Ababa, Ethiopia

January 2016

**Addis Ababa University**  
**School of Graduate Studies**

This is to certify that the thesis prepared by Getu Assefa entitled: “*Assessment on the implementation of Kaizen and its Challenges: The Case of African Union Commission*” and submitted in partial fulfillment of the requirements for the Degree of Master of Arts in (*Executive Masters of Business Administration*) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

*Signed by the Examining committee:*

*Internal Examiner:* \_\_\_\_\_ *Signature* \_\_\_\_\_ *Date* \_\_\_\_\_

*External Examiner:* \_\_\_\_\_ *Signature* \_\_\_\_\_ *Date* \_\_\_\_\_

*Advisor:* Mohammed Seid (PHD), *Signature* \_\_\_\_\_ *Date* \_\_\_\_\_

---

*Chair of the Department or Graduate Coordinator*

## **Acknowledgments**

This research would not have been successful without the invaluable support, understanding, assistance and guidance from workmates, colleagues and family members.

I sincerely thank all those individuals whose encouragement and support made the completion of this study a reality and success. I may not be able to name all, but I feel obliged to name a few people whose contribution was enormous in this journey.

First my special thanks go to my supervisor Mohammed Seid (PHD), for his guidance, critique and continued encouragement during the entire period of the study.

Secondly, my special thanks go to my family for their understanding, sacrifices and encouragement in the periods that I was unavailable for them during the entire study period. Especially to my wife Etsegenet Meseret, my daughter Abigel and Nahom and my brother Birhanu Assefa.

Thanks all

## Table of Contents

Acknowledgement.....	I
Table of content.....	II
List of Tables.....	IV
List of Figures.....	V
Acronyms.....	VI
Abstract.....	VII
CHAPTER ONE .....	<u>1</u>
INTRODUCTION.....	<u>1</u>
1.1. Background of the study.....	<u>1</u>
1.2. Statement of the problem .....	<u>4</u>
1.3. Objectives of the study.....	<u>5</u>
1.3.1. General objective of the study .....	<u>5</u>
1.3.2. Specific objective of the study.....	<u>5</u>
1.4. Research Question.....	<u>6</u>
1.5. Significance of the study.....	<u>6</u>
1.6. Scope of the study .....	<u>7</u>
1.7. Organization of the paper.....	<u>7</u>
CHAPTER TWO .....	<u>8</u>
REVIEW OF RELATED LITERATURE .....	<u>8</u>
2.1. Introduction.....	<u>8</u>
2.2. Definition of kaizen.....	<u>8</u>
2.3. Concept of Kaizen .....	<u>11</u>
2.3.1. The concept of productivity.....	<u>11</u>
2.3.2. The concept of Just-In-Time .....	<u>13</u>
2.3.3. The quality control circle (QCC).....	<u>14</u>
2.3.4.Total productive maintenance (TPM).....	<u>15</u>
2.3.5. Total quality control (TQC) .....	<u>15</u>
2.3.6. Zero defence (ZD) .....	<u>17</u>
2.3.7.Total quality management (TQM) .....	<u>17</u>
2.4. Review of Kaizen in Research Framework.....	<u>18</u>
2.5.Research Gap.....	<u>20</u>
2.6. Conclusion.....	<u>21</u>
CHAPTER THREE .....	<u>22</u>
RESEARCH METHODOLOGY .....	<u>22</u>
3.1. Operational Definition of variables .....	<u>22</u>

3.2. Research Design.....	<a href="#">23</a>
3.3. Sources and Tools of Data collection.....	<a href="#">24</a>
3.4. Sampling Method and size.....	<a href="#">25</a>
3.5. Method of Analysis .....	<a href="#">26</a>
3.6. Validity and Reliability .....	<a href="#">27</a>
3.7. Ethical Conditions .....	<a href="#">27</a>
CHAPTER FOUR .....	<a href="#">28</a>
DATA PRESENTATION AND ANALYSIS .....	<a href="#">28</a>
4.1. Response rate .....	<a href="#">28</a>
4.2. Socio-Demographic characteristics of respondents .....	<a href="#">29</a>
4.3. Data discription on changes brought by kaizen.....	<a href="#">31</a>
4.3.1. Changes on financial managemant .....	<a href="#">33</a>
4.3.2. Changes in documentation after implementation of kaizen .....	<a href="#">34</a>
4.3.3. Changes in peace and security department.....	<a href="#">34</a>
4.4. Data discription on problems hindering the application of kaizen in AUC.....	<a href="#">34</a>
4.5. Data description about Gabs between designed and applied kaizen in AUC.....	<a href="#">37</a>
4.6. Status of customer satisfaction in AUC .....	<a href="#">41</a>
4.7. Major challenges facing kaizen implementation in AUC.....	<a href="#">44</a>
CHAPTER FIVE .....	<a href="#">47</a>
CONCLUSION AND RECOMMENDATION .....	<a href="#">47</a>
5.1. Conclusion.....	<a href="#">47</a>
5.2. Recommendation .....	<a href="#">48</a>

List of Tables	page
Table 1. Operational Definition of Variables-----	22
Table 2. Stratification of Departments -----	26
Table 3. Gender Distribution of Respondents-----	29
Table 4. Age Distribution of Respondents-----	30
Table 5. Level of Customers' Satisfaction in AUC-----	41
Table 6. Respondents Data distribution on workflow and quality of work-----	44

## List of Figures

Fig 1. Questionnaire Response Rate -----	29
Fig 2. Educational background of respondents-----	30
Fig 3. Changes brought by kaizen -----	31
Fig 4. Degree of changes brought by kaizen-----	32
Fig 5. Schematic presentation of financial process-----	33
Fig 6. Problems hindering the application of kaizen-----	35
Fig 7. Percentage distribution of respondents-----	36
Fig 8. Percentage distribution of kaizen implementation-----	38
Fig 9. Percentage distribution of respondents on their beliefs about working culture-	40
Fig 10. Percentage Distribution of respondents on their preference-----	41
Fig 11. Percentage distribution of respondents on service given-----	43

## Acronyms

AU	African Union
OAU	Organization of African Unity
AUC	African Union Commission
PRC	Permanent Representative
TICADIV	Tokyo International Conference for Africa
JPC	Japan Product Center
JUEI	Union of Japan Scientist and Engineering
GRIPS	Japan Production Management System
JIT	Just in Time
QCC	Quality Control Circle
TPM	Total Production Management
ZD	Zero Defect
TQC	Total Quality Control
TQM	Total quality Management
MUDA	Japanese word meaning waste



## Abstract

KAIZEN, a Japanese business management concept that calls “for continuous improvement” that promotes quality and productivity improvement as well as human resource development. It was implemented to improve organization efficiency by standardizing working procedure and eliminating wasteful activities through the collective effort of its managers and staff of the organization. Kaizen was selected and implemented in African Union Commission as working systems in order to improve service delivery and standardizing the working procedure by eliminating wasteful activities and reducing the long work flow. The purpose of this study was to examine current status, effectiveness and challenges of kaizen in African Union Commission. In addition the objectives were to assess the major changes brought by kaizen implementation, to study the gaps between the designed and applied kaizen, to analyze customer satisfaction, to point out the major challenges encountered during kaizen implementation and to suggest practical recommendations which can help effective implementation of kaizen. To achieve the above mentioned objectives descriptive research design was selected and used to gather primary and secondary data. The population for this study was 500 staff members and 30 customers of the office. All staff members purposely used as samples and 30 customers were selected by using simple random sampling. Primary data were collected from sample unit by using survey questionnaire, in-depth interviews and non-participatory observation techniques and secondary data were collected from different documents. Kaizen has brought some changes in minimizing work flows, in reducing time consumption and in increasing efficiency of the organization. The changes are not continuous changes. This study also revealed gaps in time consumption, gaps in human and material resources and customer satisfaction between the design and implemented kaizen as a result of lack of technical competency of the staff, lack of ownership and attitude problem assuming that kaizen is not possible to implement in the services or public organization. So if kaizen intended to bring about radical changes continuous training and follow up should be given more attention for the success of its implementation in public institution.

## CHAPTER ONE

### INTRODUCTION

On top of providing some background information on the effectiveness of Kaizen in AUC, this chapter presents description of the statement of problem, objectives, significance, scope and limitation of the study, the structure of the study and methodologies utilized are also dealt briefly.

#### *1.1. Background of the study*

The African Union (AU) is an inter-governmental organization that represents the 54 African countries. The Heads of State and Government of the continent established the AU in 2002 to replace its antecedent body called the Organization of African Unity (OAU), which was launched in 1963. The new institution was attached with the key objectives such as accelerating the process of integration and development in the continent as well as to foster Africa's economic role worldwide.

**The vision of the AU is that of “An integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in global arena.”**

The AU is composed of ten organs and its supreme policy organ is the Assembly, composed of the Heads of State and Government. The next level policy organs are the Executive Council, composed of Ministers of Foreign Affairs and the Permanent Representatives' Council (PRC). The African Union Commission (AUC) is the key organ which serves as the secretariat of the Union entrusted with executive functions. It plays the key role of formulation and implementation of strategy as well as responsible for the management of the Union's day-to-day functions and operations. The top leadership of the AUC is composed of the Chairperson, the Deputy Chairperson and eight Commissioners responsible for various portfolios. The Commission is accountable to the Policy Organs. The functions and operations of the Commission are guided by its values (AU in a Nutshell, 2013):

- i). Respect for diversity and team work;
- ii). Think Africa above all;
- iii). Transparency and accountability;
- iv). Integrity and impartiality;

- v). Efficiency and professionalism; and
- vi). Information and knowledge sharing.

In order to fulfill its mission, the AUC develops goals and strategies through the Directorate for Strategic Policy Planning, Monitoring and Evaluation and Resource Mobilization (SPPMERM). The African Union Commission has committed itself since 2009 in a program of continuous improvement of its spaces and work procedures by using a Japanese tool called Kaizen. It has shown its very significant impact on all the organization by applying its effective and simple method. The mandate of kaizen is to help the staff build a sustainable continual improvement. The importance emerges not only from the organizational performance improvement but also from its influence on personal qualification, where the process and efforts are all directed towards better results. Broadly, kaizen is a Japanese word for “good change”; it has been applied in healthcare, psychotherapy, life-coaching, government, banking, and other industries. Kaizen also applies to activities that continually improve all functions and involve all employees from the CEO to the operational. Imai (1997) described Kaizen as “the process of continuous improvement in any arena of life, personal, social, home, or work.”

In our Continent Africa, the system kaizen and its methodology were introduced in 1985 by the kaizen Institute of Africa (IndiZEN, 2015). By now, kaizen assistance is one of the standard menu items of Japanese industrial support in developing countries. While such assistance initially focused on East Asia where Japan had active business partnerships, it has now been implemented widely in other regions including South Asia, Latin America and Eastern Europe (GRIPS Development Forum, 2009). However, as far as Sub-Saharan Africa is concerned, knowledge sharing and implementation of kaizen has been rather limited except in a few notable cases. There are a lot of unexploited benefits of selective and well calibrated application of kaizen from which African countries can draw upon to improve their production and service units (Foster, 2010).

There is also a need for Japan to more actively propagate the idea of kaizen in Africa as an additional menu item for organizational development strategies. This is partly because of increased interest among African countries in the growth agenda. In addition, this is

important because of the plans announced by the Japanese government at the Fourth Tokyo International Conference for African Development (TICADIV) at Yokohama in May 2008 to promote trade and investment in Africa (AUC, 2013).

–Since October 2009, the African Union Commission has been practicing kaizen activities. The “departmental business plan 2013 – 2016” of the bureau of the deputy chairperson designated the kaizen approach a way to achieve one of the priority areas of the AUC’s strategic plan 2014-2017”. –In order to further improve the quality of AUC’s services provided to its member states and stakeholders, the AUC requested the government of Japan to support the application of kaizen approach through the organization”. –It was aimed to establish kaizen culture within AUC through the strengthening of the capacity of, “kaizen unit” responsible for promoting continuous implementation of kaizen activities”. In the year 2009, it was proposed to establish the kaizen unit (AUC, 2013).

According to Irane Z and Sharp JM (1997), there has been a growing awareness of the need for information on kaizen system and its strategies at local, regional and national scale for economic and social planning purpose. And it also aimed that kaizen is useful for the improvement of organizational performance and individual qualification.

Therefore, it is now widely recognized that personal issues, environmental changes, and shaping the organization to meet emerging changes by using systems like kaizen, are central to the development process. Hence, it should be given due consideration to this things, while formulating development strategies. The relationship between kaizen system and the relative personal qualification in whichever work environment are central to any understanding of organizational change. Such knowledge permits a rational design of organizational policies as well as the formulation of strategic plans that could maximize effectiveness and efficiency (Reid RA, 2006). However, from the observation and practice, because of the bureaucratic and traditional way of doing things, the implementation of the kaizen philosophy in the Commission was not as designed. As a result of this, the quality of service provided to the organs and stakeholders were not improved.

## ***1.2. Statement of the problem***

Kaizen is being implemented in AUC since 2009 to achieve one of the priority areas of the AUC's strategic plan 2014-2017 **“In order to further improve the quality of AUC's services provided to its member states and stakeholders”**, however; practically the implementation doesn't bring changes. The Kaizen unit given the responsibility for continuous improvement was not effective in terms of reducing long work process; improve customer satisfaction and quality of work. **This weakness trigger questions to explore, assess and understand the cause and challenges the AUC faced in the implementation of kaizen.**

Based on the preliminary observations of the researcher the changes brought were not as intended. Kaizen constitute the most significant part in an organization for continuous improvement as a long-term, lasting and preplanned change. The optimal management of activities of kaizen is a primary objective for organizations that applying the system (T Karkoszka J. Honorowicz, 2009). As a matter of fact, kaizen has important implications for both effective and efficient performance of an organization; therefore it is widely acknowledged that an optimal implementation of activities of kaizen and its management policy allows companies to achieve higher performance.

Kaizen is a Japanese business philosophy and approach, meaning **“continuous improvement”** that promotes quality and productivity improvement as well as human resource development. It is implemented to improve an organization's efficiency by standardizing working procedures and eliminating wasteful activities through the collective efforts of its managers and staff (AUC, 2013). Kaizen is a universally accepted value and is practiced throughout the world including Asia and currently Africa as well (Weldemariam, 2010).

Establishing an effective and efficient management system of kaizen enables organizations to achieve long run and short run objectives. Its proper implementation and effective monitoring affects the success of an organization. In general terms, activities of kaizen system and its management policies should be aimed at improving the performance of an organization through effective implementation. In a nutshell, the problem could be stated as,

how can implementation of kaizen system be a decisive factor to improve organizational performance (Asayehgn D, 2013).

The secondary problems are also very important because they help to clarify the main question, that is to say, they are the bridge through which we can answer the main problem. In this study the sub problems were:

- a. Testing the existing management system and determination of its impact on the achievement of organizational goals
- b. The need for organizational commitment
- c. Quality problems and challenges that faced by the organization
- d. Knowledge and skill actually possessed by the people within the organization and
- e. About productivity improvement as well as human resource development

### ***1.3. Objectives of the study***

#### **1.3.1. General objective of the study**

The objectives of this study were to obtain answers to the questions and solutions to the problems stated in the above section. The primary objective of the study is to assess the effectiveness of kaizen and its challenges

#### **1.3.2. Specific objective of the study**

The Specific objectives of the study are:

##### **Research Objectives**

- ✓ To assess the organization police enables to meet its objectives.
- ✓ To determine whether implementation of kaizen system brought changes
- ✓ To assess the gaps between the designed Kaizen and experienced Kaizen
- ✓ To demonstrate evaluate and discussed to what extent kaizen has improved the performance of AUC
- ✓ To point out the major challenges hindering the application of kaizen

#### ***1.4. Research Question***

Taking the objectives listed above into consideration, the study used the following research questions

1. Dose the police is well practiced to meet the organization objectives?
2. Dose the implementation of Kaizen system Brought Changes?
3. What were the gaps between the designed Kaizen' and experienced Kaizen'?
4. To what extent has kaizen improved the performance of AUC?
5. What were the major challenges encountered in application of kaizen?

#### ***1.5. Significance of the study***

The need for the growth of countries by increasing personal qualification, productivity, and human resource development is mainly attributed to requirement of selected strategic systems like kaizen. As shown above, this situation has many challenges to achieve effectively. So, this calls for the study on kaizen in organizations that implement and start to use the methodology of the system with a view of grasping the issues involved through suitable time bound strategies. Hopefully, the findings of this study expected to contribute to the following points.

- a) The study may activate and initiate the attention of the concerned authorities in particular and the society in general about the impacts of kaizen on service quality, productivity and human resource development.
- b) It may help to overcome the challenges to improve performance at the organizational level, by introducing integrated development programs and balanced growth strategies between all its organs of the Union.
- c) It may also help to identify that kaizen approach can be used as a way to achieve one of the priority areas of an organization to strengthen its capacity.

- d) The study is also expected to throw some light toward suitable policy to redirect individuals from wastefulness of time and resource to potentially productive by increasing efficiency and effectiveness.
- e) Furthermore, the finding of this study uses as a base reference for future detailed investigations or studies in the related areas of the topic, the researchers in fulfilling their degrees and upgrading their research skill, companies and individuals in broadening their knowledge in the area, and other users to benefit from this study. The study also serves as springboard to investigate uncovered areas and to use it as a secondary data in due course of further research.

### ***1.6. Scope of the study***

The study focused on assessing impact of kaizen on the performance of organization AUC and its management practice for effectiveness. Thus, it did not cover other categories of organization unit and other kinds of businesses. The researcher was used a non probabilistic sampling technique that is judgmental. The target populations for this research purpose were individual workers in AUC especially, respondents that will have the knowledge about kaizen approach and its practice.

### ***1.7. Organization of the paper***

The study was organized in five chapters. The first chapter presented information about the introductory part including background, statement of the problem, objectives of the study and research questions, significance and scope of the study. The second chapter reviewed the theoretical and empirical related literature for the study. The third chapter focused on methodology of the study. The fourth chapter presented about data description and analysis which is gathered from the survey. Finally, the fifth chapter summarizes all chapters and gives conclusions and recommendations.



## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### ***2. 1. Introduction***

The ultimate objective of any organization today is to increase performance and productivity through system simplification, organizational potential and incremental improvements by using modern techniques like Kaizen. Most organizations are currently encountering a necessity to respond to rapidly changing customer needs, desires and tastes. For organizations to increase their performance, quality and productivity, continuous improvement of organizational system processes has become necessary. Efficiency, effectiveness and continuously increasing standards of customer satisfaction have proven to be the endless driver of organizations performance improvement. Kaizen refers to continuous improvement in performance, cost and quality. Kaizen strives to empower the workers, increase worker satisfaction, facilitates a sense of accomplishment, thereby creating a pride of work. Currently kaizen applied in different Companies in the world including African Union Commission, even though the level of implementation differs from organization to organization. In general kaizen is applied management philosophy, in a variety of industries in the world.

#### ***2. 2. Definition of kaizen***

Kaizen has emerged in the US as a methodology leading to dramatic increase in productivity by manufacturing companies. The foundation of Kaizen was laid in Japan after the Second World War, when the country was attempting to rebuild factories and rethink many systems. In the 1950s driven by a sense of urgency for industrial catch-up, Japan learned American style quality management from Drs. W.E. Deming and J.M. Juran, and adopted this to the Japanese context. A national movement for quality and productivity improvement emerged, supported by the Union of Japanese Scientists and Engineers (JUSE), established in 1946, and the Japan Productivity Center (JPC) established in 1955. Many companies developed their own systems of kaizen, including the globally known TPS developed by the Toyota Motor Corporation. These efforts laid a solid foundation for establishing the so-called Japanese Production Management System (GRIPS Development Forum, 2009).

Japanese company implemented a techniques focusing on employee involvement and empowerment through team work approach, interactive communication and on improving job design. They demonstrated greater commitment to the philosophy of continuous improvement than western company did. For such philosophy the Japanese used the term Kaizen and this one of the main reasons to say Japan is the foundation for Kaizen.

Kaizen is the practice of continuous improvement. Kaizen was originally introduced to the West by Masaaki Imai in his book Kaizen: The Key to Japan's Competitive Success in 1986. Today Kaizen is recognized worldwide as an important pillar of an organization's long-term competitive strategy. Kaizen is continuous improvement that is based on certain guiding principles:

- Good processes bring good results
- Go see for yourself to grasp the current situation
- Speak with data, manage by facts
- Take action to contain and correct root causes of problems
- Work as a team
- Kaizen is everybody's business
- And much more!

One of the most notable features of kaizen is that big results come from many small changes accumulated over time. However this has been misunderstood to mean that kaizen equals small changes. In fact, kaizen means everyone involved in making improvements.

The definition of Kaizen by Imai (1986, 3) is “ongoing improvement involving everyone, including both managers and workers.” The Kaizen philosophy assumes that our way of life- be it our working life, our social life- deserves to be constantly improved. Kaizen is a critical tool supporting companies and organizations in their ongoing improvement activities identified through Value Stream Mapping, defined by Lareau (2003), as a structured process mapping technique that focuses on locating and assessing hands-on work-time (cycle-time) and waiting (lead) time. It is a focused approach that brings critical resources together and empowers participants to not only find the root cause and determine solutions but most

importantly to implement the change. Time and effort is spent on the shop floor or wherever the value stream problem exists.

Kaizen is a daily activity whose purpose goes beyond improvement. It is also a process that when done correctly humanizes the workplace, eliminates hard work (both mental and physical), teaches people how to do rapid experiments using the scientific method, and how to learn to see and eliminate waste in business processes(Robin Ford).

Kaizen events improve company's end to end process through the introduction of flow and pull to improve lead time, process flexibility and customer responsiveness. Kaizen events move companies away from traditional lengthy projects where valuable resources spend more time in meeting rooms and completing updates than in making change happen.

Kaizen communicates everyone in the organization from top management, to managers then to supervisors, and to workers. In Japan, the concept of Kaizen is so deeply engrained in the minds of both managers and workers that they often do not even realize they are thinking Kaizen as a customer-driven strategy for improvement .This philosophy assumes according to Imai that \_'our way of life – be it our working life, our social life or our home life.

According to kaizen (which means continuous improvement in Japanese) philosophy, improvement in public sector can be driven by focusing on the **4p's**: certified Kaizen practitioner Africa Union (2009, 1.1)

**1stP-** Improving internal work /office processes and the way they are managed through elimination of wasteful components (any non –value adding activity or any obstacle to the smooth flow of an activity/process).

**2ndP-** Improving the physical environment where these processes happen or are delivered through application of the 5s tool (physical workplace improvement)

**3rdP-** involving people (staff) at the work place and empowering them to do the above 2ps

**4thP-** policies drive process, at times these can be the obstruction to process changes .the 4th p focuses on leveraging a high power committee to review polices such as to support process improvements.

Committed and judicious application of this kaizen concept will result in enhanced morale among the staff and also result in improved processes and physical work environment

### ***2.3. Concepts of Kaizen***

Imai, 1986; Lillrank and Kano, 1989 classify the concept of kaizen in to four categories. These are:-

- The kaizen objective category – The concept of productivity
- The kaizen result category – Just-In-Time(JIT)
- The kaizen main function category - The Quality Control Circle(QCC)
- The kaizen extension category – The concept of Total Productive Maintenance(TPM)
  - The concept of Zero Defects (ZD)
  - The concept of Total Quality Control (TQC)
  - The concept of Total Quality Management (TQM)

#### **2.3.1 The concept of productivity**

Based on Tangen(2002), in approximately 2 decades, the governmental agencies and industrial sectors have blended the concept of productivity into the concepts of performance, efficiency, and effectiveness. The Tangen (2002)'s research shows that many people who claim to be discussing productivity are actually looking at the more general issue of performance. While productivity is a fairly specific concept related to the ratio between output and input, performance is a term which includes almost any objective of competition and manufacturing excellence such as cost, flexibility, speed, dependability and quality.

the kaizen methods are internationally acknowledge as a methods of continuous improvement through small steps ,the small improvement applied to key process will generate multiplication of the company profit(Oprean, C., Titu, M., 2008). Kaizen, the Japan philosophy of management improved productivities, efficiency, quality ,improving in the work process ,team work and motivation of workers developed.

Based on the definition analysis of both the concepts of Kaizen and the productivity, Kaizen is similar to the idea of productivity improvement, especially when considering the

incremental productivity that comes from efficiency of resources utilization. With Tangen (2002)'s idea, high productivity could be tracked from the good efficiency and the good effectiveness of production line. The good efficiency could be closely connected to the proper Kaizen activity. Therefore, the productivity could be obviously connected to the concept of Kaizen.

### **Gemba Kaizen –Basic Concepts:**

**Gemba:** *‘Real Place’*. In other words it is the workplace from where processes are executed, it is the place from where we work. It is where the public comes to receive services from you / your Department!

**Kaizen:** Means *‘Continual Improvement’* (in Japanese). It is a spirit supported by actions that drives Improvements through team work at the **Gemba**. Kaizen focuses on ways to identify, reduce and eliminate wasteful activities (Muda) at our workplace / work processes.

Sensei *Masaki Imai* is the founder of the Kaizen Institute and he presented this powerful concept of **Kaizen** to the world about two decades ago.

**Kaizen Process:** according to certified Kaizen practitioner Africa Union training material (2009, 1.1)

1. Start wherever you are today (the state you are in today is called the current standard)
2. Make improvements –improve current standards / situation
3. Once improved, standardize the improvement
4. The improved standard becomes your new current standard. Improve it **further!**

Repeat the above cycle...that equals

**Kaizen** -continual improvement!

### **Kaizen is improvements without new investments**

Kaizen means continual improvements achieved through:

Systematic elimination of Wasteful Activities or **Muda**

Waste = Non Value Adding Activities (also known as obstruction to the flow of value adding activities in a process) *e.g. Waiting, Rework, Waste of space other resources, etc;*

## Typical 8 Types of Wasteful Activities

- 1) **Transportation** –filing of documents//movement of files.
- 2) **Motion** -location of printer/photocopier, catalogues, cabinets
- 3) **Waiting** –for mail, signatures, prints / drawings etc.
- 4) **Process** –over processing (signatures), duplication
- 5) **Quality defects** –incorrect data entered, errors
- 6) **Overproduction** –doing more than wanted, requirement
  1. Before time and unnecessary work
- 7) **Inventory** –excess paper stocks, catalogues
- 8) **Unused creativity** (Untapped Human Potential)

### Other types of service or process related waste (Muda):

- **Errors** -in service transaction, defects, outputs
- **Delay** -on the part of service provider, queues, late response.
- **Duplication** -re-entering data, copy information.
- **Unnecessary movement** -queue several times, no one window
- **Unclear communication** -need to ask more than once.
- **Incorrect inventory** -out of stock, substitution, more than needed.
- **Opportunity lost** -to win new service recipients, losing existing service recipients, ignoring service receivers.
- **Concept Of Through Put Time (TPT)**
  - The single best measure of any process is TPT
  - It is time from start to completion of a process.
  - When obstruction is more –TPT becomes long.
  - Basic Concept –Remove obstruction and reduce TPT.
  - Note: Poor Quality increases TPT (due to rework or redoing)

### 2.3.2 The concept of Just-In-Time

The term Just-In-Time (JIT) represents a broad philosophy and includes a number of techniques that tends to improve organizational performance and productivity under certain condition. JIT has elements of philosophy as well as various practice elements. While the JIT

philosophy is applicable to any type of organization, JIT is more appropriately thought of as a philosophy because even though it includes a variety of techniques it is much more than a collection of management practice (Porter, M., 1998).

According to Shingo (1981: 98), the concept of Just- In- Time should be translated into Japanese word “timely or well- timed”. The partial term of “In- Time” has not much meaning but the partial term of “Just” processes significance. For the scholar’s opinion, even if “Just” is added to “Timely” or “Well timed”, it does not mean “Precisely or exactly timed”, so it must be expressed as “Just- On- Time”, which is “exactly at the appointed time”. Later, according to Imai (1986: 88), the concept of “Just- In- Time” means that the exact number of required units is brought to each successive stage of production at the appropriate time. According to Ishikawa and Lu (1985), the concept of Just- In- Time also needs to continuously require and construct the Quality Control improvement in an organization. It needs Continuous Improvement or Kaizen in the area of product quality to assure the successful implementation of the Just- In- Time’s main system

### **2.3.3 The quality Control Circle (QCC)**

To involve employees in productivity and efficiency improvement activities, a team based environment must be developed in which they can participate actively in improving their process, product, or service performance. One such employee participation program is quality control circle (QCC). QC-circle activities are usually directed towards improvements in the workplace. They focus on such areas as cost, safety and productivity. QCCs are small groups engaged in quality improvement activities in the same workplace. As a part of company-wide quality improvement, QCC aims to foster self- and mutual education by helping all members participate in the continuous improvement of their products and services (Sayoko Uosu, 2006).

According to the Union of Japanese Scientists and Engineers (JUSE), A QC Circle is a small group consisting of first- line employees who continually control and improve the quality of their network, products, and services. Lillrank and Kano (1989: 11) provided a definition of Quality Control Circle (QCC) by discussing the term “Quality Control” and “Circle” separately. The “Quality Control” refers to the content of the quality activity, that is, what the

circles are doing. QCCs are part of a larger, company- and nationwide movement for quality improvement. The term “Circle” refers to the social form of the phenomenon, what kind of organization it is and how it relates to the company in which it operates. QCCs are part of a broader phenomenon called Small Group Activity.

Based on the definition analysis and history of both the concepts of Kaizen and the quality control circle, Imai (1986) popularized the Japanese term Kaizen to describe “Continuous Improvement”. Lillrank and Kano (1989, 1995) took Imai’s Continuous Improvement concept and develop QC circles as an organizational vehicle for Kaizen.

#### **2.3.4 Total Productive Maintenance (TPM)**

According to Imai (1986), Total Productive Maintenance aims at maximizing equipment effectiveness throughout the entire life of the equipment. TPM involves everyone in all departments and at all levels; it motivates people for plant maintenance through small- group and voluntary activities, and involves such basic elements as developing a maintenance system, education in basic housekeeping, problem- solving skills, and activities to achieve zero breakdowns. Top management must design a system that recognizes and rewards everyone’s ability and responsibility for TPM.

Basing on the conceptual analysis of the both concepts of TPM and Kaizen, both concepts focus on the issue of improvement. However, TPM could be seen as a more specific version of Kaizen since it works specifically on the area of maintenance

#### **2.3.5 Total Quality Control (TQC)**

Total quality control (TQC) means organized Kaizen activities involving everyone in a company –managers and workers – in a totally systemic and integrated effort toward improving performance at every level. It is to lead to increased **customer satisfaction** through satisfying such corporate cross-functional goals as quality, cost, scheduling, manpower development, and new product development. In Japan, TQC activities are not limited to quality control only. Elaborate system strategies have been also developed with the view of improving managerial performance at all levels.

At the heart of quality movement, there are two simple aims, they are:



- ✓ Make things right the first time and every time.
- ✓ Work for continual improvement

From kaizen concept point of view TQC activities are not limited to quality control only. Elaborate system of kaizen strategies has been developed as management tools within the TQC approach. In kaizen TQC is a movement aimed at improvement of managerial performance at all levels.

According to Lillrank and Kano (1989: 36), Total Quality Control (TQC) is a general term for a management orientation that sees quality, defined as customer satisfaction, as its leading principle and applies systematic efforts and scientific methods to this end. The concept of quality has expanded from a narrow specialization within production engineering to become a general management concept. Quality is made the leading principle for all echelons and all functions within a company. The core belief is that customer satisfaction will in the long run benefit the company and result in good overall performance and profit. It may be said that a TQC manager is more worried about the number of customer complaints than about the company stock price or return of assets. The term “Total” implies that (a) quality is the central principle for all echelons of a company, vertically from the CEO to the shop floor, and horizontally for all functions, such as manufacturing, planning, sales, and general affairs; and (b) all aspects of quality must be included. This means the quality of products, production processes, delivery, customer services, internal procedures, product planning, and so on. In this sense, quality in Japan has much the same meaning that “excellence” has in the English-speaking business world.

TQC builds a corporate culture of quality and continues improvement with main objective of quality of products and services. Further TQC being a management method and a management revolution implies that not only the workers but also the management have to change and work hard for quality improvement and keep the bottom-up flow in motion. According to the Japan industrial standards, implementing quality control effectively necessitates the cooperation of all people in the company. Quality control carried out in this manner is called company-wide quality control or total quality control (TQC) that brings a company a half-way towards producing quality products and services.

### **2.3.6 Zero Defects (ZD)**

Zero Defects (ZD) means a product that will perform satisfactorily in the field with no failures. Basically, a defect is a departure capable of causing a failure in the field. Thus, “zero defects” means zero failures during operation in the field but not necessarily zero imperfections, blemishes or nonconformities. The existence of nonconformities and no defects implies zero failures, even though some characteristics may be out of specification. A process being capable of zero defects is also one with specifications that are compatible with performance, reliability, and manufacturability (Calvin, 1983).

In recent years much consideration has been given to implementing and managing a program to reach zero defects. However little attention has been directed at the statistical techniques necessary to assure that a process or product stays at zero defects. Several well-known statistical techniques are available as aids in getting to zero defects: process capability studies, analysis of variance, design of experiments, optimization techniques, etc. However, to monitor and/or assure process and product conformance to specifications at levels approaching zero defects requires a re-evaluation of statistical techniques such as control charts and acceptable sampling plans. Some techniques are inadequate at zero defects and require modification or new approaches (Karn, P., 2009).

Generally speaking, the “Zero Defects” has shared the idea with the Kaizen concept to reduce numbers of defective products. The Zero Defects’ idea involves on the process adjustment. In short, we could see the Zero Defects as another developed version of Kaizen to deal with the problems during production.

### **2.3.7 Total Quality Management (TQM)**

Total quality management sometimes known as total quality control and that is a management tool for improving total performance. With total quality management (TQM) quality is not the product but process. To institute the process, corporate trainers must bring

about a cultural transformation wherein all employees shed their individualism for a unified set of corporate values. TQM is an integrated management philosophy and set of practices that emphasizes continuous improvement, meeting customers' requirements, reducing rework, long-range thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem-solving, constant measurement of results, and closer relationships with suppliers (Ross, 1993; Powell, 1995).

Powell (1995) also added that the TQM needs to be able to have zero-defects mentality. It should be able to spot the defects as they occur, rather than through inspection and rework. Its adherents claim that managers can implement TQM in any organization-manufacturing, service, nonprofit, or government. TQM generates improved products and services, reduced costs, more satisfied customers and employees, and improved bottom line financial performance (Walton, 1986; Powell, 1995).

When comparing Kaizen and TQM philosophy, Kaizen could be seen as fundamental concept of TQM. The implementation of TQM could deliver the better results, when the companies stress the basic of Kaizen in the first place. Therefore, we can treat Kaizen as the important first step of TQM.

#### ***2.4. 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 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.

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.

The Kaizen management originates in the best Japanese management practices and is dedicated to the improvement of productivity, efficiency, quality and, in general, of business excellence. The Kaizen methods are internationally acknowledged as methods of continuous improvement, through small steps, of the economical results of companies. The small improvements applied to key processes will generate the major multiplication of the company's profit while constituting a secure way to obtain the clients' loyalty/fidelity (Oprean, C., Titu, M., 2008).

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. It believes that workers are the most important asset of a company, and that the "bottom up" participatory process involves front line workers 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 their own working environment.

## ***2. 5. Research Gap***

After Kaizen implementation in African Union Commission 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 the African Union Commission.

## ***2. 6. Study Framework***

Based on the review of the literature, the study framework about the Japanese management system, kaizen, is developed. The interrelationship also established among factors deemed to be integral to the dynamics of answering the research question. Since the kaizen journey begins with —housekeeping, management must display a level of orderliness and clarity before kaizen is introduced. Then employees must take a SWOT analysis in order to have a clear understanding of the root causes of their company’s problems in order to become aware of the process, to foster positive attitudes and to promote teamwork. In addition the employees of a company that is planning to be engaged in a kaizen strategy need to be given training to expose them to the specific tools and techniques of lean process improvement. This will help them to effectively sustain event-based changes as well as generate future improvements. Finally, the team of a group needs to use the following three pillars of kaizen activities: a) waste elimination or elimination of non-value added materials,

b) Standardization of the workplace environment, and

c) Evaluating the end results of the kaizen activities in order to implement even greater operational efficiency (cost-effect) and effectiveness (refers to the extent to which customers requirements are met)

## ***2. 7. Conclusion***

This chapter can help readers to understand the concept of Kaizen and the benefits of using it as a tool for organizational reform. The chapter also explained how to best practice Kaizen to achieve its intended goals and objectives. The differences between designed Kaizen and applied Kaizen were discussed in brief with the factors that may lead Kaizen to success or failure. As customer satisfaction, improving efficiency and effectiveness is the core issue in kaizen it is described in the chapter including challenges that may face organizations to best implement kaizen. After having a good understanding about the main concepts in the study the next question will be how to conduct the research. So that the next chapter describes how the research was conducted explaining the research design, approach and methods used during the study. It also explains the population, samples and other related issues which were very important in conducting the study.

## CHAPTER THREE

### RESEARCH METHODOLOGY

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, sampling frame and sample units used in conducting the study were 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.

#### *3.1. Operational Definition of Variables*

Table 1: Operational Definition of Variables

N/O	Operational variables	Definition of Variables in this study
1	Major changes	In this study major changes refer to organizational and structural changes which are brought as a result of Kaizen Implementation in AUC.
2	Kaizen implementation	Refers to practicing Kaizen in AUC to improve the efficiency and effectiveness of the office and to minimize cost and time consumption in the office
3	Gaps	In this study the term gaps refers to the differences between the design of Kaizen for and the actually applied Kaizen in AUC.
4	Designed Kaizen	In this study the term refers to the design of kaizen prepared by experts based on literatures and previous researches. That

		is intended to be applicable in AUC after studies have been studied to improve the efficiency and effectiveness of the office.
5	Applied Kaizen	In this study refers to the practical/actual kaizen practiced or implemented in the office with reference to the design.
6	Customer	Customers in this study are partners RECS and other stakeholders who visited AUC to get different services from the office
7	Satisfaction	In this study the term refers to satisfaction of the above mentioned customers from the services rendered by the office and which is measured in terms of degree by using The words like satisfied, very satisfied and not satisfied.
8	Challenges	In this study challenges are problems facing AUC to implement the design of Kaizen as it is to bring radical Changes.

### ***3.2. Research Design***

A research design is a conceptual structure that shows how all the major parts of the research project come together. According to Kothari (1985) it constitutes the blueprint for the collection, measurement and analysis of data. The appropriate approach selected for this research is a mix of quantitative and qualitative study since the purpose is mainly exploratory and analytical. The quantitative aspect of the research refers the generation of descriptive statistical analysis from the use of ‘\_large-scale’ survey to be carried out from responses of participants using methods of questionnaires and structured interviews (Dawson, 2002). This research is also qualitative because it is an attitude or opinion research designed to find out how people feel or think about the effectiveness of Kaizen in AUC (Kothari, 2004).

Since the research is conducted to obtain information from a range of employees of the AUC, the survey study design is used. As one of the non experimental designs, the survey study is applied to obtain information from cross-sectional participants, from whom causal inferences



are drawn, although with very different degrees of certainty (Marczyk et al, 2005). In this study, the type of research is descriptive. The rationale for selecting this type of research is that, the study expected to have no control on the variables; rather it describes the characteristic of AUC's practices on its management system.

### ***3.3. Sources and Tools of Data Collection***

Data are facts, attitudes, opinion, behavior, motivation and the like collected from respondents or participants of a survey as well as published information related to the research (Brown, 2006). The data necessary for this research were mainly collected through primary data using the aforesaid questionnaires and in-depth interviews as well as secondary data sources were used to corroborate the data gathered through the first two methods.

**Primary Data:** are those data which are collected for the first time and thus happen to be original in character (Kothari, 2004).

**Questionnaire:** The questionnaires were designed in a self-administered format to enable the respondents fill the answers by their own (Dawson, 2002). In this study, semi structured interviewers questionnaires are used to develop solicit ideas related to the research objective from respondents. A pre-test using the questionnaire was conducted.

**In-depth interview:** An interview schedule with a list of open-ended questions was prepared to corroborate the evidence obtained from the questionnaires and obtain further information. The advantages of this approach include, it enables getting more detailed information, provides flexibility to restructure the questions, and non-response is generally low (Neville, 2007). It also helps to focus on the research area and allows a standard way of approaching all the interviewees (Dawson, 2002). The open-ended questions also offer participants more flexibility to raise issues they think appropriate with sufficient details.

Five key staff members were selected for the in-depth interview considering their responsibilities and participation in the kaizen unit. The number could not be increased due to the difficulty to arrange a suitable time during working hours. The interview was conducted face-to-face, notes were taken to record the responses and the details were summarized after the interview. In addition to this, the researcher uses observations to

conduct information about the possible effect of an intervention, Kaizen, on AUC's organizational performance.

**Secondary Data:** Secondary data refers published and unpublished available data that are already collected and analyzed by someone else (Kothari, 2004). In this regard, this research underwent a thorough review of important organizational documents to gather additional data from secondary sources to evaluate the efficiency and effectiveness of kaizen. In this study the secondary data was obtained from secondary/other sources, such as efficiency and effectiveness related reports of work activities, kaizen approach used for achievement by the AUC's in previous years, published papers/journals, management reports, and other related records.

### ***3.4. Sampling Method and Size***

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). During the period of this research, the AUC has about 1,150 employees located mainly at the headquarters and partly at 15 different regional offices. Given the subject of this research, the magnitude of the population is considered high and it exhibits high variability in terms of staff roles and responsibilities. Therefore, an appropriate sampling method was adopted because the research should be manageable, conducted in less cost, and foster greater accuracy in information collection and processing (Brown, 2006). In this regard, the research focus was made to the professional, category staff of about 500 and 30, Customers were selected as they are directly or indirectly vital for the study purpose.

According to Brown (2006), the right sample needs to be taken to ensure the credibility of the findings of the research and mitigate the risk of threatening the whole effort of the research. This research hence gave substantial consideration to ensure the sample represents the population so as to come up with plausible conclusions from the sample outcome. Since the focus of this research is limited to staff and some selected customers that has direct or indirect relationship to the subject study, a mix of stratified random and judgmental sampling techniques were more appropriate and quota sampling technique for customers.

The selected sampling method helps to stratify participants by department, hierarchy in decision making, roles and responsibilities as well as facilitate to choose a random and

judgmental sample from each group (Dawson, 2002). The stratified sampling technique helped to segregate the population into departments and the judgmental method was applied to proportionally determine the sample from each department based on relationship to the subject under study. The individual sample from each department was then selected on random basis.

The advantage of this technique is that it provides the opportunity to select disproportionate stratified sample and increase the sample size to a given group more related to the research subject with the aim of ensuring meaningful data (ibid). This method is, however, prone to subjective bias compared to simple random sampling where each unit of the population has an equal chance of being selected. Therefore, due care was given to minimize sampling error and ensure the clusters represent all relevant departments.

Considering the total 500 professional category staff who has direct or indirect relationship to the subject of study, a sample of 125 respondents was selected stratified to each department or regional office.

**Table 2:- Stratification of Departments**

<b>No</b>	<b>Department (Name of Strata's )</b>	<b>No of Selected Respondents</b>
<b>1</b>	<b>Administrative/finance/Audit/ Advisory</b>	<b>44</b>
<b>2</b>	<b>PSD/Program/Project management and support</b>	<b>32</b>
<b>3</b>	<b>Medical and conference directorate</b>	<b>24</b>
<b>4</b>	<b>Other disciplines</b>	<b>25</b>

### ***3.5. Method of Analysis***

The analysis method for this paper was done by assessing the current quality intervention method (kaizen) implemented in the organization; along with its management. Subsequently, the potential weaknesses were identified and specific recommendations based on kaizen management and its controlling standards would have been generated. There are two main

types of data that was utilized for data-collection of the thesis; the Quantitative and Qualitative data.

Quantitative data to be collected from surveys of individual enterprises was entered into computer for analysis. Statistical Package for Social Science (SPSS) version 20 software was used for the purpose of analysis. Descriptive statistics like averages, percentages and ratios are presented through graphs, tables, charts and the like.

In addition to this, in-depth interviews would have been used as a supportive data for analysis. The researcher lists only the comments and opinions that would have been found from in-depth interviews. Finally these lists of qualitative information's that were collected through in-depth interview were analyzed and interpreted through description and narratives. Inferences also draw about the possible effect of an intervention to systematically describe existing situations, events, behaviors and artifacts.

### ***3.6. Validity and Reliability***

The interview guide and the questionnaire were constructed to obtain a complete coverage of the topic, with a strong attention on the general and specific objectives in order to ensure content validity. Content validity involves the degree to which the study is measuring what it is supposed to measure. More simply, it focuses on the accuracy of the measurement (John, 2007). To increase validity, the interview questions and questionnaire are framed in a very clear and concise manner to make sure each question measures each variable at a time.

Reliability estimates the consistency of the measurement or more simply, the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects (John, hafiz, Robert & David, 2007). The aim when discussing reliability is to lessen the errors and biases in the study. The researcher attempted to avoid any partiality in the research by maintaining a high level of consistency during the interview.

### ***3.7. Ethical Conditions***

In order to complete a research successfully cooperation from participants is found essential. As a result the respondents need to be treated with respect and honesty (Catherine, 2002). The respondents are informed about the objectives and aim of the study and they were

recruited voluntarily. The identities of the respondents were anonymous to ensure that what participants have said cannot be traced back to them when the final report is produced. Moreover the information gathered from the survey was confidential which means that information supplied in confidence was disclosed directly to third parties.

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

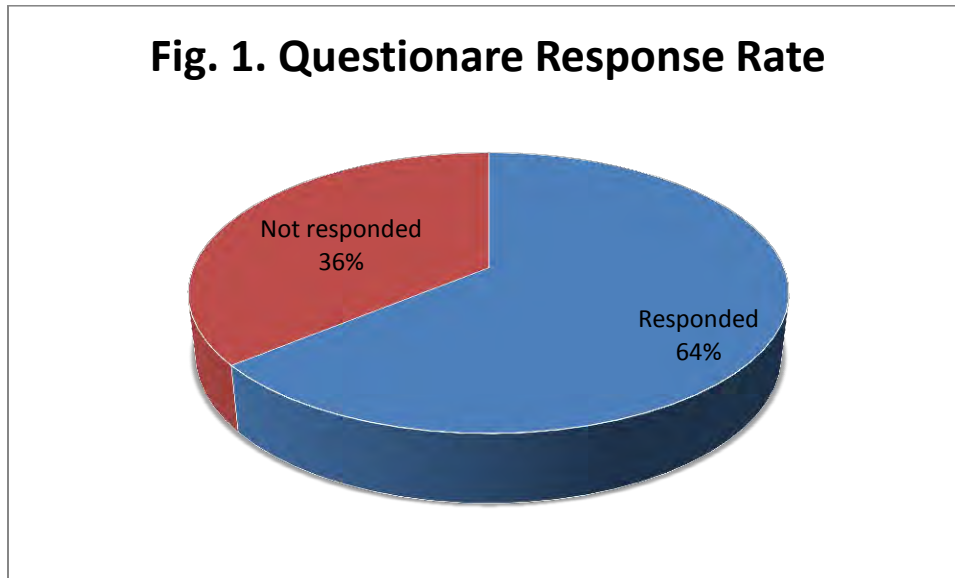
This chapter deals with data description and analysis collected from primary and secondary sources. As indicated in the methodology part, data collected through survey and in-depth interviews were used for data description and analysis in the following section. It also provides empirical findings and statistical analysis. The statistical analysis is mainly conducted based on the responses received from some parts of closed ended questionnaire. Further analysis is made using the open-ended question on the questionnaire as well as the data obtained from in-depth interviews.

Attempts had been made to analyze, how Kaizen will be effective in changing the performance of an organization. Data gathered through survey, in-depth interviews and from secondary sources were mainly used for analysis. On the basis of the data gathered, the major changes brought by kaizen in AUC, the gaps between the designed kaizen and applied kaizen, the status of customer satisfaction and the major challenges facing Kaizen implementation in AUC has been analyzed and discussed below.

#### ***4.1. Response Rate***

The survey questionnaire primarily targeted 125 employees of the AUC who have direct or indirect relationship with the subject matter of the study. The questionnaire was sent by e-mail via the office outlook and auto reminder was used to flag recipients on intervals. A telephone follow up was also used for selected employees to obtain responses. A total of 80 respondents answered almost all of the questions which represent a 64 percent response rate. According to Neville (2007) a response rate of 30% or greater for externally sent questionnaires is generally regarded as reasonable. Therefore, the researcher believes that,

the result of this survey can lead to draw meaningful conclusion and convincingly meet the research objectives.



Source: Survey data, 2015

#### ***4.2. Socio-Demographic Characteristics of Respondents***

This section presents the description of personal background of the sample respondents. It provides data on gender distribution, age structure, and educational background.

**Table.3. Gender Distribution of Respondents**

<b>Sex</b>	<b>No of Respondents</b>	<b>Percent</b>
Male	54	67.5%
Female	26	32.5%
<b>Total</b>	<b>80</b>	<b>100%</b>

Source: Survey data, 2015

As shown in the table above, of the sample respondents, 67.5 percent of the respondents are male. On the other hand 32.5 percent of respondents were found to be female. This shows that majority of the respondents in the study area were male as compared to female respondents. In comparison to males, the participation of females is lesser in the

organization, so there is a need to increase the participation of females in the organization.

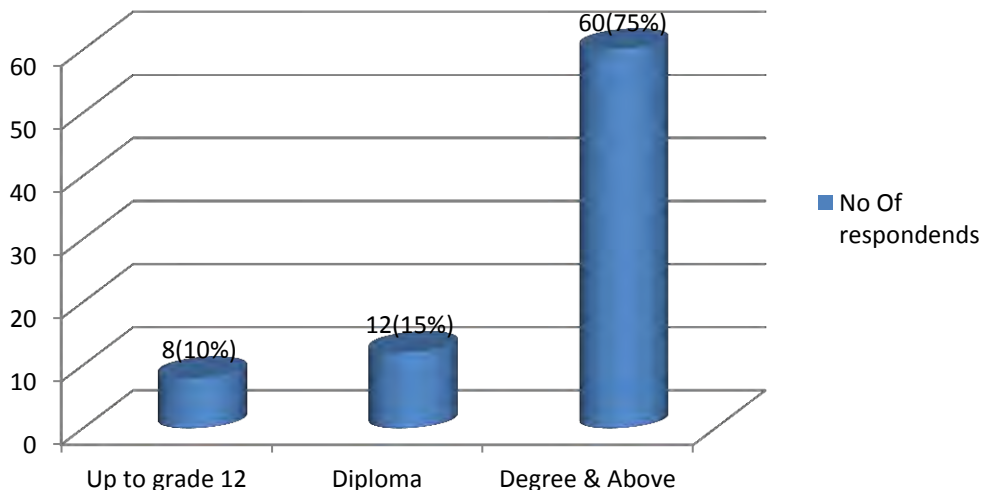
**Table.4. Age Distribution of Respondents**

Age Range	No of Respondents	Percent
18-25	8	10%
26-35	18	22.5%
36-45	37	46.3%
Above 45	17	21.3%
<b>Total</b>	<b>80</b>	<b>100%</b>

Source: Survey data, 2015

As revealed in the table 4.2 above, out of the total respondents, 8(10%) of them are in the age range of 18 to 25 years, 18(22.5%) of respondents are in the age range of 25 to 35 years, 37(46.3%) of respondents are in the age range of 35 to 45 and the remaining 17(21.3%) of respondents are in the age range of over 45 years. This outcome indicates that almost half of the respondents are categorized under the productive age group. Hence, majority of the staff in AUC are in the productive age group, it creates big opportunity for the designed program to brought changes.

**Fig . 2 Educational Background of respondents**



Source: Survey data, 2015

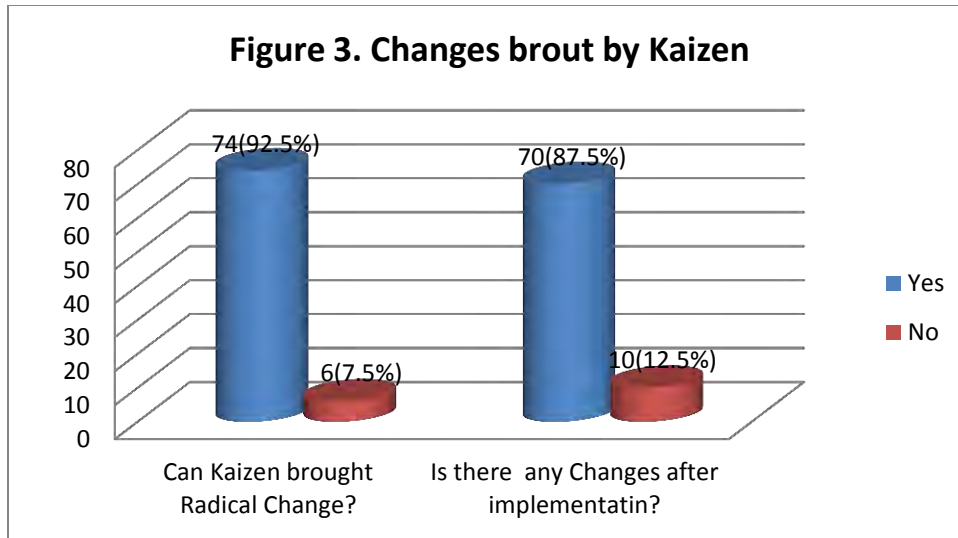
Education is one of the key variables that may influence the behavior and efficiency as well as effectiveness of an individual. It is also the key factor in uplifting an individual as well as the society, because it improves the skills, potential, creativity and innovation power of a person

As indicated on the diagram shown above only 8 (10 percent) of respondents are grade 12 and below. In the same item 15percents of the respondents‘ were found to have certificate or diploma from college or university. And finally the remaining 75 percent of the respondents were found to have college or university degree and above. This shows that majority the staff of AUC have better level of education. Only 10 percent of the respondents are below grade 12. This has implication on the acceptance, implementation, and effectiveness of kaizen in the organization. The more they are educated the better the change is brought about.

#### ***4.3. Data description on changes brought by Kaizen***

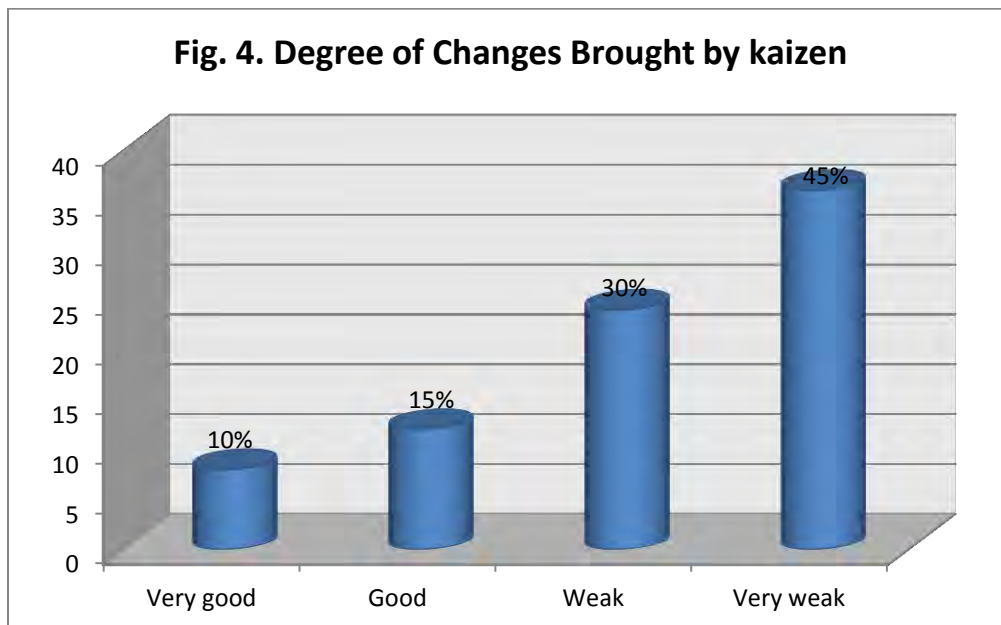
Kaizen has brought some changes in minimizing long bureaucratic chains to accomplish a job. As indicated on the diagram below 92.5 percent of the respondents believe that kaizen can brought an ongoing improvement by involving everyone in the organization. But almost all of these respondents point out that, kaizen brought a radical change if it is implemented as the designed one. Only the remaining 7.5 percent of them indicates that kaizen can‘t bring radical changes.





Source: Survey data, 2015

In addition to this, out of the total respondents, 87.5 percent of them state that they have seen some changes in the office after implementation of kaizen. A further question was set to understand the degree of change brought by kaizen in AUC. As indicated in fig 4.4 below around 45 percent of the respondents stated that the change brought by kaizen in AUC is very weak. In the same item, 30 percent of the respondents revealed that the change brought by kaizen is weak, whereas the remaining 15 percent and 10 percent of them indicates that the change brought by kaizen is good and very good respectively. To generalize this, even if there are changes it is not comparable.



Source: Survey data, 2015

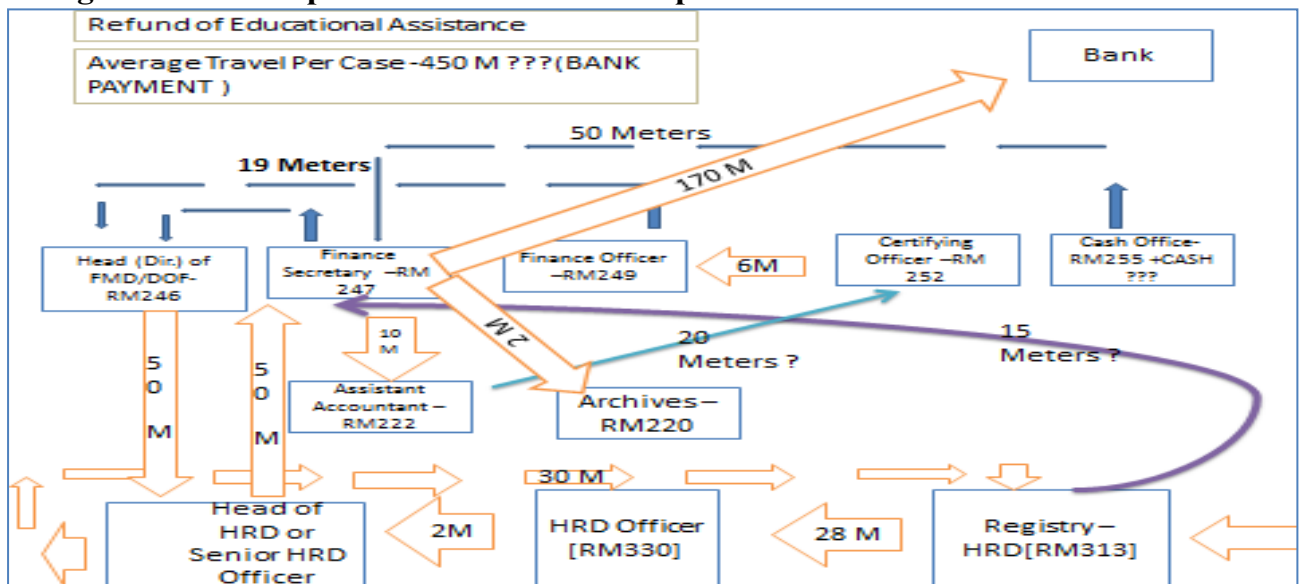
Similarly, respondents in ‘in-depth interview’ were asked to restate the changes that brought after implementation of kaizen in AUC. And they state that Kaizen has brought some changes in minimizing long bureaucratic chains to accomplish a job. Almost all of the officials during in-depth interviews revealed that before Kaizen implementation, the organizational structure wasn’t organized in a manner that: - Approval and Payment process can be done shortly and timely, financial and narrative report to the partners was submitted on time, Meeting held as per the schedule, timely feedback to the regional and liaison offices, timely deployment of troop to the mission area. In general according to the respondents, after implementation of kaizen, changes have seen in the above mentioned activities. These changes are:-

- ✓ Approval and payment process improved by 20%,
- ✓ The communication gap between directorate and Commission also improved 40%
- ✓ Feedback to the regional and liaison offices improved by 75%

#### 4.3.1. Changes on Financial Management

As indicated on the survey, 85% of the respondent agreed that, Financial management unit is one of the units which brought changes after implementation of Kaizen. According to the respondents, before kaizen implementation, there was a long working process. As per the respondents and the Kaizen unit reports to settle education allowance, there was too much movement as shown in the figure below, they traveled about 450M to finalize the whole process.

**Fig. 5. Schematic presentation of financial process**



After the implementation, the distance travelled to settle education allowance was reduced by half. One of the waste or non-value adding activities in Kaizen is Muda of transportation. However, by implementing kaizen, it was possible to remove the Muda of transportation. This is what the researcher learnt from the group discussion and interview with, Head of financial management.

#### ***4.3.2. Changes in Documentation after implementation of kaizen***

As per the respondents, proper filling of the document in the department of HR and medical department reduced the time by 20% and document searching time by 10%. From in-depth interviews, the researcher observed that, before the implementation of Kaizen, there was no proper documentation. As a result, there were many quires from the suppliers, regional offices, and the partners. After the implementation of the 5s within few department especially the directorate of medical and the Human resource departments have brought radical changes in terms of documentation.

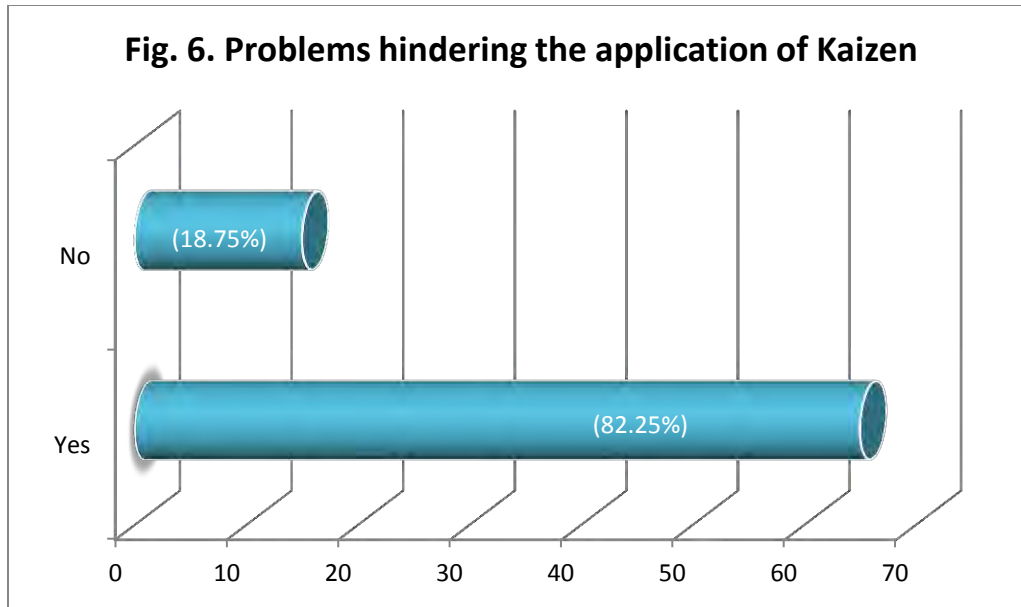
The result of the discussion with the two department directors, showed that the performance of the departments in terms of time and cost saving increased by 50% after implementation

#### ***4.3.3. Changes in Peace and Security Department***

According to the respondent of the head of division, there was a just a little much change in the department, only the registry unit had tried to keep the file properly and made some improvement in the situation room. The researcher learnt from the discussion that the main problem was lack of proper training, and sufficient information regarding to the new management philosophy called Kaizen. As a result, the working culture of the department has not changed as planned and expected.

#### ***4.4. Data description on problems hindering the application of kaizen in AUC***

Kaizen focuses on sustained, continuous improvements in targeted activities and process of an organization. If there are problems that hinder the application of kaizen, these sustained continuous improvement goes in to inquiry. Question was also set to test if there are some problems hindering the application of kaizen in AUC. The objective is to understand the extent to which these problems obstruct the activities of kaizen in the organization.



Source: Survey data, 2015

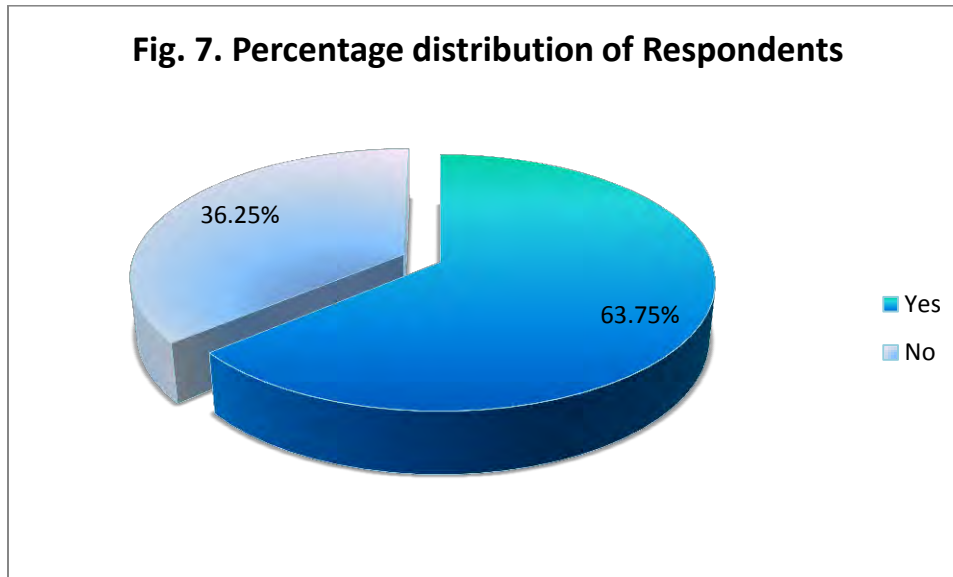
As shown on fig 4.5 above, of the sample respondents, 82.25 percent of them believe that there are some problems that hold back the effectiveness of kaizen application in AUC. On the other hand, the remaining 18.75 percent of them indicate that there are no problems hindering the activities of kaizen.

Similarly, respondents were asked to explain some of the problems that hinder the application of kaizen. Almost all of the respondents stated that, at the beginning, it was difficult to change the tradition and penetrate the deeply-rooted hierarchical structure. Managers' misconception about continuous improvement is also another problem that hinders the application of kaizen.

Result from in-depth interview also indicates that, 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. In addition to this, lack of commitment; lack of preparation of professional team; lack of training; and not clearly defined roles of the participants, process owners, team leaders and kaizen consultants are some of the problems stated by the officials.

Further question was also set to know the thinking of respondents about whether the above mentioned problems would be solved or not. As revealed in fig 4.7 below, 63.75 percent of

the respondents believe that the above mention problems which hinder the application of kaizen be solved. Whereas the remaining 36.25 percent of them specify that it is difficult to solve the problems.



Source: Survey data, 2015

Result from in-depth interviews also revealed that even if it is difficult to penetrate the deeply rooted hierarchical structure, there is still an opportunity to solve the problems. Respondents also indicate that, since kaizen seeks to use existing equipment and human resources in a “more efficient and less wasteful” way, there is a chance for change. According to the officials, it needs commitment of the management and staff to generate internal capability of AUC and preparing professional teams. The following points are stated from both in-depth interviews and survey respondents. They point out to solve these problems:-

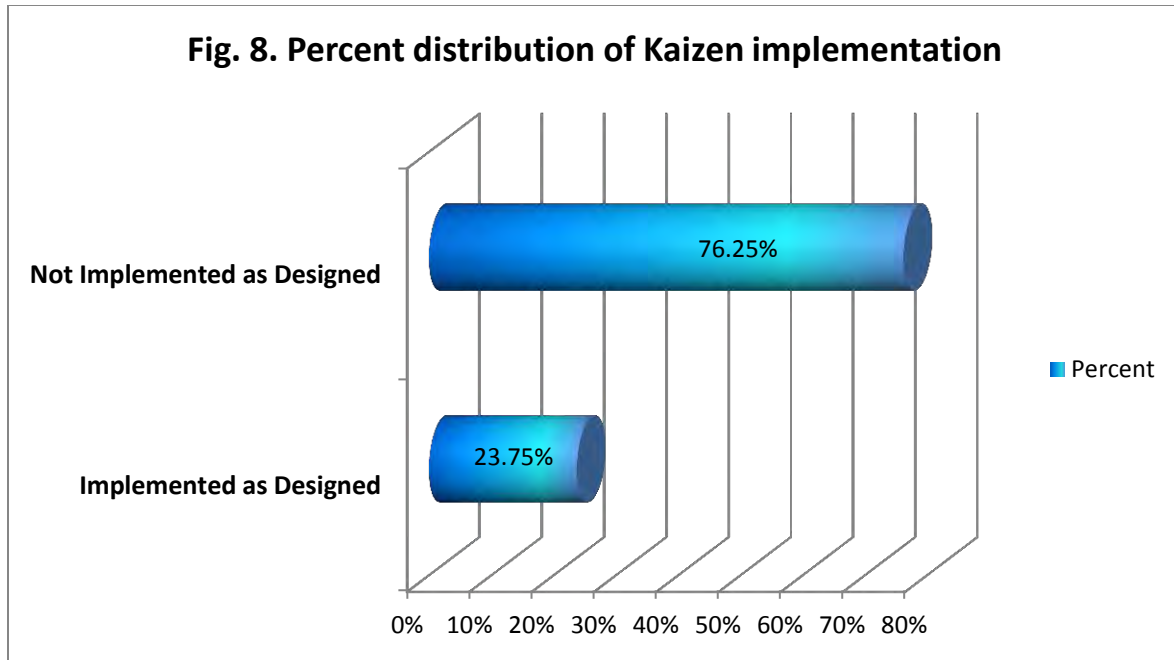
- ✓ There is a need to change the traditional culture of the staff and creating acceptance the techniques of kaizen by penetrating the hierarchical structure of the organization.
- ✓ Preparing professional team to facilitate training, follow up and evaluation of performance of the staff.
- ✓ Setting objectives concerning continuous improvement and the necessary measures to achieve them.
- ✓ A need to educate and instruct each employee in order to be able to use the techniques of continuous improvement.

- ✓ A need to give recognition for results obtained by organizational staff concerning continuous improvement.
- ✓ A need to promote and give awards by increasing salaries for hardworking staffs and improve the working environment.
- ✓ Creating better communication and good relationship between staff members and the management team. Additionally there is a need give regular performance feedback.

#### ***4.5. Data description about Gaps between Designed and Applied Kaizen in AUC***

Kaizen is a culture of improvement. In AUC kaizen was designed as a methodology which promotes the sustainable continuous improvement as a daily way of life for every member of the organization. It was planned to provide the structure to channel the opportunities for improvement detected by any staff of AUC and convert them into realized changes that have a positive impact on the way the staff perform and perceive their work. The question is that –is kaizen be experienced as designed?”

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 partners and organ of the Commission. However on the contrary, the report from different stakeholders showed that the change brought after implementation of kaizen is not rational.



Source: Survey data, 2015

As shown on the figure above, 76.25percent of the respondents believe that kaizen was not implemented as designed. The remaining 23.75percent of them indicates that it goes as the i as designed one. In their opinion, survey respondents stated why the gap between the designed and experienced kaizen in AUC happened. Some of the stated reasons are:-

- The kaizen unit established for implementation was not active there was no proper structured in place and shortage of staff.
- Lack of ownership, this was one of the major point for proper implementation of the program, however as per the respondent, this was not happened as a result, it affects negatively the implementation of the program .
- Limited knowledge of kaizen and its effectiveness by the members of the staff
- Different views, attitudes and misconception about kaizen. Most of the staff members believe that kaizen philosophy is no applicable in service giving organizations like AUC.

Respondents from in-depth interviews also indicated that there was a big gap between the designed and experienced kaizen. They supposed that the idea is to nurture all the staff as much as it is to praise and encourage participation in kaizen activities because successful

implementation requires the participation of all employees. Officials from in-depth interviews also indicate some other addition reasons why the gap be happened. These are:-

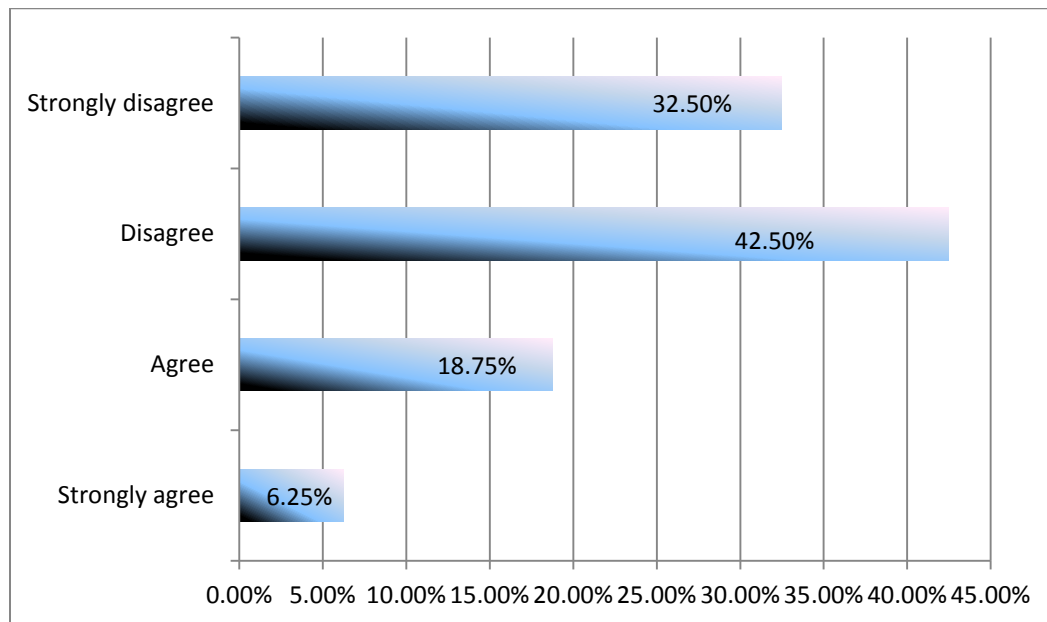
- The nature of the organization also affect the implementation, it means that most of the time the staff members has been travelling to different part of the continent to attend meeting workshop.
- There was no Proper study conducted before the implementation of the program.
- Employee attitudes and misconceptions about kaizen
- The support from the top management was not as intended
- No equal understanding and support between the top management

In general, this indicates that the successful implementation of *kaizen* is dependent on how well the organization is able to manage competences concerning employee attitudes, misconceptions and ensuring sufficient participation by workers in *kaizen* activities and proper study conducted before implementation.

Furthermore, the belief of respondents was also tested by setting questions whether they believe that the working culture of the office has been changed or not. As shown on figure 4.9 below, 75 percent of the respondents disagree or strongly disagree that the working culture of the office has changed. On the contrary, the remaining 25 percent of them indicated that there is a change in the working culture of the office. This implies that, the working culture of AUC still has not changed as designed. It needs strong commitment of the management, the staff and other external organs of the organization.



**Figure .9. Percentage distribution of respondents on their beliefs about working Culture**



Source: Survey data, 2015

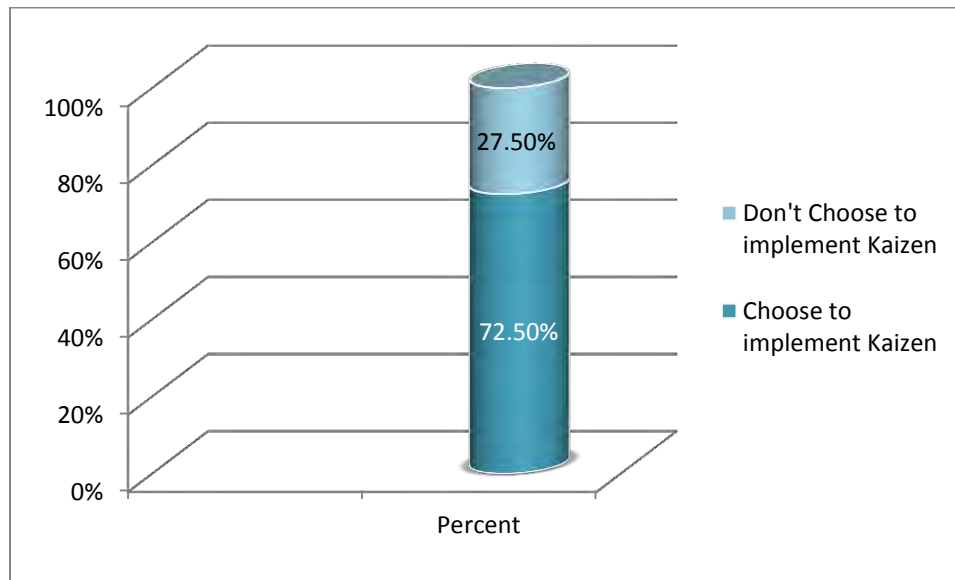
Regarding the working culture of the office, information composed from in-depth interviews revealed that it has not still changed as expected. The outcomes also indicated that almost half of the staff served for relatively long period of time and mostly resist changes. However, the mix with the new staff does not fully discourage to bring and enforce change.

Another important factor from the interview suggests that there are no sufficient champions to bring change. The attempt of top level management to enforce change was not successful due to political influence and resistance to change. Furthermore, top management does not have authority to take key decisions that enforce cultural change due to the political nature of the organization as the decision should pass through lengthy process to the Policy Organs.

Considering the importance of the organization culture in line with the survey and interview result, its weakness is apparent to affect implementation of kaizen.

Supplementary questions also set to know the preference of respondents if they are given the chance to choose implementing kaizen or not. As shown in fig 4.10 below out of the total respondents 72.5 percent of choose to implement kaizen. On the other hand the remaining 27.5 percent of them choose not to implement kaizen.

**Figure. 10. Percentage distribution of respondents on their preference**



Source: Survey data, 2015

To generalize, the result indicates that even if the working culture of the office is not changed as expected, the preference of respondents towards the choice of implementation of kaizen is positive.

#### ***4.6. Status of Customer Satisfaction in AUC***

Kaizen is intended to maximize customer satisfaction in public institutions as well as in private sector. As it was discussed in the literature review, the main objective of Kaizen is to change working culture of an organization in order to maximize customer satisfaction in addition to reducing time consumption and resource costs to the organization. Among the staff members in AUC, 25 % of them believe that the working culture of the office has changed to some extent and also customers' satisfaction. Moreover, all the respondents believed that, after Kaizen implementation there was a change in the delivering better services to the customers.

*Table. 5. Level of Customers' Satisfaction in AUC*

No	Question	Options	Percentage %	Total
1	Are you satisfied with the services given by AUC	Very Satisfied	4%	44%
		Satisfied	40%	
		Not satisfied	45%	56%
		I didn't get the service I want	11%	

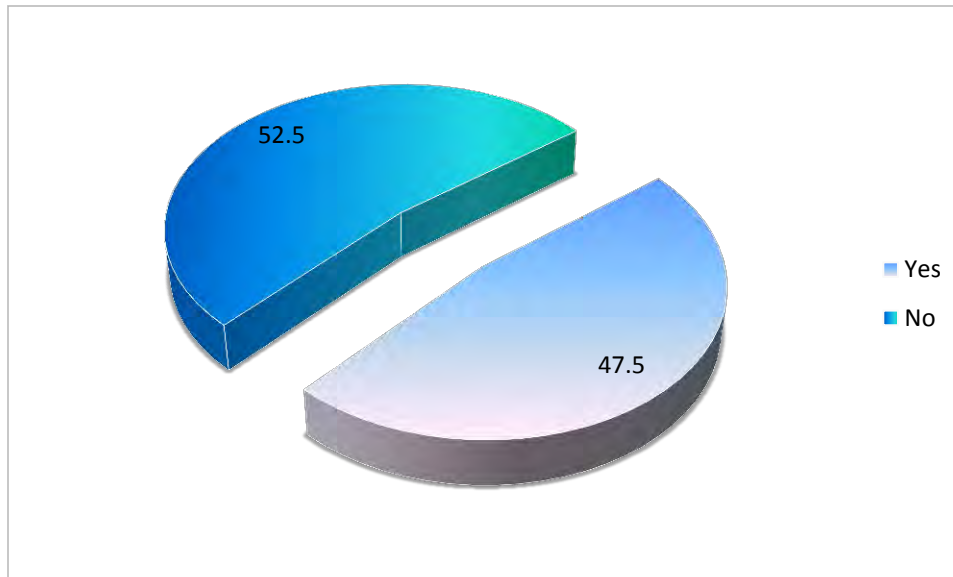
Source: Survey data, 2015

Among the sample customers, 4% of them responded that they are very satisfied with the services rendered in AUC. They stated that the service in the office is not time consuming, they were treated well by the staff members and they have observed reduction in process steps in the office. 40% of the customers also indicated that they are satisfied stating the above reasons. On the other hand 45% of the customers stated that they are not satisfied by the services given to them by the office. In addition to that, 11% of the customers said that they didn't get the service they want from the office.”

Generally speaking 56% of the customers are not satisfied by different services given by the Commission. Among the reasons stated by these customers for their dissatisfaction are: they have observed no major changes in the office, the service is still taking long time, getting the documentation and decision takes a long time.

On the other hand, staff respondents were asked whether the service given after implementation of kaizen is customer centered or not. As shown in the figure 4.11 below, 52.5 percent of them indicated that the service given is not customer centered. They believe that the service given to customers before and after implementation of kaizen is almost the same. But the remaining 47.5 percent of them stated that the service given to customers after implementation of kaizen better.

**Figure. 11. Percentage distribution of respondents on service given**



Source: Survey data, 2015

Overall, the data collected from both the customers and staff respondents similarly revealed that, the service given to customers did not show change as expected. A little more than half of them indicated that application of kaizen in AUC is weak to satisfy the need of customers of the organization.

Another follow up questions were also set to check the change on the work flow and quality of work after implementation of kaizen. As shown in table 4.4 below, 54 percent of the respondents indicated that the work flow of the office did not show any reduction after implementation of kaizen. On the contrary, the remaining 46 percent of them reflected that implementation of kaizen reduces the workflow of the office.

On the same table, the figures revealed that 58 percent of the respondents believe that the quality of work and space consumption was improved after implementation of kaizen. On the contrary, 42 percent of them stated that the quality of work and space consumption did not improve after implementation of kaizen.

Moreover, 39 percent of respondents also supposed the quality of service given by AUC after implementation of kaizen shows an improvement. In contradiction to this 61 percent of them

confirmed the implementation of kaizen did not improve the quality of service provided by AUC.

**Table. 6. Respondents data distribution on work flow and quality of work**

<b>Question forwarded</b>		<b>Percentage distribution</b>
<b>1. Do you think that the work flow reduced after implementation of kaizen?</b>	Yes	46%
	No	54%
<b>2. Do you believe that quality of work and space consumption improved after implementation of kaizen?</b>	Yes	58%
	No	42%
<b>3. Do you believe that implementation of kaizen improves the quality of service provided by AUC?</b>	Yes	39%
	No	61%

#### **4.7. Major Challenges facing kaizen Implementation in AUC**

The open-ended questions on the questionnaire allowed respondents to state other factors they think affected the implementation of kaizen in AUC. According to the respondents and result of the interview revealed that 85% of them raised the following issues as a challenge in implementing Kaizen in the African Union Commission:-

- Lack of prioritization of programs and trying to do many things at the same time, accordingly this affected the implantation.
- No clear focus on achieving results, rather on outputs like conferences, Commissioned  
 Studies, training activities without making link with long term outcomes,
- Training is one of the tools to properly implement Kaizen; however the finding reveled that there were No proper training was given to the staff.

- No ownership and continues improvement
- High employee turnover and transfer from one place to the other
- No transparence on the company chosen for kaizen implementation
- Spending most of valuable time in preparation of summits and not to implementing Decisions,
- No support of the top and middle level management
- Staff de-motivation, segregations of staff into continuing, regular, project and short-term and lack of equal punitive actions for all categories,
- ineffective communication system

This researcher believes that the points mentioned above undoubtedly have a direct or indirect impact on the proper implementation of Kaizen in the Commission. The greatest challenge to implementation of kaizen was employee attitude and misconceptions about kaizen. This was followed by insufficient participation by workers, ineffective training, Organization structure, ineffective kaizen performance measures, ineffective communication systems and others

On the basis of performance improvement, a question was set to understand to what extent kaizen had improved the performance of AUC in terms of providing service. From both the survey and in-depth interviews the researcher learnt that the performance of the organization in terms of providing services was less than 45% ,these was because of less motivation of workers for improvement and limited acceptance of change in the organization.

In addition to this, the other question is, to what extent the leadership does and top management was committed and supports the implementation of kaizen? From in-depth interviews, the researcher has learnt that the involvement of the top management is not as expected because of the political commitment they had. There were too many travels to attend different meetings and workshops in the continent. As a result, the follow-up in the implementation is not satisfactory.

According to the literature review, the involvement of top management in the implementation of kaizen is crucial to brought continuous improvement to the organization. However, the involvement the top management was not as intended as per the respondents.

In terms of leadership performance, the stress level at work is not manageable and there is no arrangement of work flexibility.

Furthermore, this study also stated to what extent the organization encourages and promotes continuous improvement. Outcomes from in-depth interviews indicated that, as a principle, the organization encourage the philosophy of continuous improvement and the kaizen unit was send message about kaizen weekly –quotes”, kaizen effectiveness ,different tools that helps to achieve and its importance to the organization as well as to the personal development .

## **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

The primary and secondary data gathered for this study were presented and analyzed in the previous chapter so that conclusions will be drawn by the researcher. This chapter presents the conclusions drawn from data analysis and practical recommendations which can help African Union Commission and other public institutions to best implement Kaizen.

#### ***5.1. Conclusions***

Kaizen is a tool which can help especially international 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 African Union Commission since 2009. Kaizen was intended to bring about radical changes in organizational structure, in eliminating long bureaucratic chains, in time consumption and to shorten the long work flow process, proper documentation and to bring effective and efficient delivery services to partners and organ of the Commission. But 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 Commission.

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. Even most customers don't have any idea about Kaizen and didn't observe any changes in the office. So Kaizen has failed to bring about radical changes in all aspects in African Union Commission as intended on the design.



Kaizen was designed in African Union Commission 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. Customer satisfaction was intended to be improved because of higher quality services after implementation in AUC. But this study revealed that customer satisfaction is not as intended and even if it is not maximized to considerable extent, majority of the customers aren't satisfied with the services given by the organization and even some didn't get the services they want from the office. The main reasons for dissatisfaction was: there was no proper information about the process, taking too long time to process one activities, lack of proper planning before implementation, lack of proper training to the staff, having too many MUDAs.

Few departments are satisfied with elimination of long bureaucratic chain, good treatment by the staff and shorter time consuming jobs relatively than the previous working system.

Kaizen in AUC 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.

## ***5.2. Recommendation***

Kaizen can be a remedy to reform bureaucratic public institutions characterized by hierarchical system with many non-value adding works, positions and staffs, lack of transparency and accountability, corruption, lack of leadership capacity and not output based. But before implementation it should be studied thoroughly by taking in to consideration the availability of human and material resources in order to achieve its goal. In addition, the researcher recommends the following points for proper implementation of kaizen

Kaizen is one of the best management philosophies, in terms of bringing continuous improvement in the manufacturing as well as in the service giving organization, it can be also, a remedy to reform bureaucratic public institutions, characterized by hierarchical system, with many non-value adding works, positions and staffs, lack of transparency and accountability, corruption, lack of leadership capacity and not output based.

However, before the implementation of kaizen, it should be studied thoroughly by taking in to consideration, the availability of human and material resources in order to achieve its goal. In addition the researcher recommends the following points for proper implementation of kaizen

- One of the major challenges pointed out from the respondents was limited Knowledge of Kaizen and lack of teamwork and motivation of workers so to overcome the challenges it is highly recommend to develop team work and motivation of the workers.
- Long work flow process definitely affects the performance of the organization and its effectiveness hence improving on the implementation of the waste removal activities would have been reduced the long work flow process, it is recommend that for proper implementation of the seven MUDA removal process.
- The concept of kaizen are constituted by 5s concept so the researcher recommend for proper flow up and implementation of the 5s concept.
- Human resource development through training
- 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 the regional and liaison offices.
- The commitment of the top management is vital for proper implementation of new philosophy which is Kaizen hence highly committed top management is required.
- Improve on employee attitudes and misconceptions about kaizen

- The African Union staff members have different back ground, culture and skill so the bringing them together as a team will assist for a better implementation of the philosophy.

In general, Kaizen management is providing a tool to adapt to the global competition by eliminating waste in the process of production, changing corporative culture and encouraging cross-functional links between top down and bottom up management.

### **Suggestions for further research**

This study focused on *kaizen* implementation in African Union Commission which is a service giving public organization. However, *kaizen* is applicable more in the manufacturing firms than the service giving firms. The researcher further proposes that a study be carried out to establish the relationships between *Kaizen* implementation and operations performance.

## Reference

- Asayehgn D., (2013), *Why self-proclaimed kaizen management is becoming very fashionable in Ethiopia? An observation. International journal of research in business. Vol. 2, Issue 11 (pp. 08-10).*
- AUC 2013, *the project on Capacity Building for Kaizen Generalization on AUC on 19th September 2013.*
- Brown, R. B. (2006). *Doing Your Dissertation in Business and Management:- The Reality of Researching and Writing. London: Sage Publications.*
- Calvin, (1983). “Quality Control Techniques for Zero Defects”, *IEEE transactions on components, Hybrids, and Manufacturing Technology, Vol. CHMT- 6, No. 3, September*
- Dawson, C. (2002) *Practical Research Methods: A User-Friendly guide to Mastering Research. London: How To Books Ltd.*
- Deniels R C (1995), “Performance Measurement at Sharp and Driving Continuous Improvement on the Shop Floor”, *Engineering Management Journal, Vol. 5, No. 5, pp. 211-214.*
- Doolen T L, June W Q, Akan V, Eileen M and Jennifer F (2003), “Development of an Assessment Approach for Kaizen Events”, *Proceedings of the 2003 Industrial Engineering and Research Conference, CD-ROM.*
- FOSTER, S. T., *Managing Quality: An Integrated Approach. Upper Saddle River, New Jersey , 2010,*
- GRIPS Development Forum (2009), *Introducing Kaizen in Africa*
- Hammer M, Champy J and Tathan R L (1993), *Reengineering the Corporation: A Manifesto for Business Revolution, Harper Collins, New York.*
- [http://www.au.int/en/sites/default/files/\(KAIZEN\)%20PRESS%20RELEASE%20MM\\_19-9-2013.pdf](http://www.au.int/en/sites/default/files/(KAIZEN)%20PRESS%20RELEASE%20MM_19-9-2013.pdf), *the project on Capacity Building for Kaizen Generalization on AUC on 19th September 2013.*
- <http://www.socialresearchmethods.net/kb/>
- Imai M (1986), *Kaizen: The Key to Japan’s Competitive Success, McGraw Hill, New York, USA.*
- IndiZEN (2015), *6<sup>th</sup> National Convention on operational Excellence, included with an overwhelming response*
- Irane Z and Sharp J M (1997), “Integrating Continuous Improvement and Innovation into a Corporate Culture: A Case Study”, *Technovation, Vol. 17, No. 4, pp. 225-226.*

- Ishikawa K., and Lu D. J. (1985). *What is total quality control? The Japanese way*, Prentice-Hall Inc, Englewood Cliffs, N.J.
- Karn, P., (2009). *Kaizen development in Thailand's industries: A comparative study between Japan and Thailand*. Graduate school of Asia and Pacific studies, Waseda University.
- Kothari, C. (1990). *Research Methodology: Methods and Techniques*. 2nd Edition, Wishwa, Parakashan, New Delhi.
- Kothari, C. R. (2004) *Research Methodology: Methods and Techniques*. 2<sup>nd</sup> Edition. New Delhi: New Age International Publishers.
- Lareau, W. (2003, July). *Office Kaizen: Transforming office operations into a strategic competitive advantage*. Quality Press, Milwaukee, WI.
- Lillrank, P., Kano N. 1989. *Continuous Improvement: Quality Control Circles in Japanese Industry*. Center for Japanese Studies, The University of Michigan
- Marczyk, G., DeMatteo, D., & Festinger, D. (2005) *Essentials of research Design and Methodology*. New Jersey: John Wiley & Sons, Inc.
- Ministry of Industry, The Federal Democratic Republic of Ethiopia (June 2011). *The Study on Quality and Productivity Improvement (Kaizen) in the Federal Democratic Republic of Ethiopia*.
- Neville, C. (2007) *Introduction to Research and Research Methods*. Effective Learning Service: University of Bradford School of Management.
- Newitt D J H (1996), "Beyond BPR and TQM—Managing the Processes: Is Kaizen Enough?", *Proceedings of Industrial Engineering*, pp. 1-5, Institution of Electric Engineers, London, UK.
- Oprean, C., Titu, M. (2008), *Productivity improvement concept: Management quality improvement in organization*.
- Porter, (1998) *Competitive Advantage: Creating and sustaining superior performance*, The free press.
- Powell, T.C. 1995. "Total Quality Management as Competitive Advantage: A review and empirical study", *Strategic Management Journal*, Vol. 16, 15- 37
- Reid R A (2006), "Productivity and Quality Improvement: An Implementation Framework", *International Journal of Productivity and Quality Management*, Vol. 1, Nos. 1/2, pp. 26-36.
- Robin Ford, (2006) *A Study of Using the Principles of Lean, Kaizen, and Six Sigma at the Ocala Police Department to Improve Customer Service to the Community*
- Ross J. 1993. *Total Quality Management: Text, TQM as Competitive Advantage 35 Cases and Readings*, St. Lucie Press, Delray Beach, FL.

- Sayoko Uosu, (2006). Quality control circle in Burkina Faso: Lessons learned and implications for other developing countries.*
- Shingo S. 1981. Study of TOYOTA Production System from Industrial Engineering Viewpoint, Japan management Association, Shinsei Printing*
- T. Karkoszka, J. honorowicz (2009), Kaizen philosophy a manner of continuous improvement of processes and products.*
- Tangen, S. 2002. "Understanding the concept of productivity", The Royal Institute of Technology, Stockholm Sweden, The 7th Asia Pacific Industrial Engineering and Management Systems Conference (APIEM 2002), Taipei*
- Teian K (1992), Guiding Continuous Improvement through Employee Suggestions, Productivity Press, Portland, US.*
- Titu, M.; (2007) Strategic management: Management quality in modern industrial organizations. University of LusianBlaga.*
- Trochim, W. M. (2006)The Research Methods Knowledge Base. 2nd Edition. Available at*
- Walton M. 1986. The Deming Management Method, Pedigree, New York. Journals and Interview Scripts*
- Weldemariam, (2010). Ethiopia applying the Japanese management philosophy that promises big rewards through continuous incremental change: "kaizen".*
- Wikipedia.(2015). Kaizen Retrieved January 28, 2015, from <http://en.wikipedia.org/wiki/Kaizen>*

# Appendix A

## Survey Questionnaire on Kaizen Implementation in AUC

### 1.1 Questionnaire for AUC Staff

#### Objective

The objective of this questionnaire is to gather information from employees of AUC about the changes, challenges and gaps in the office in implementing Kaizen.

#### PART I- General Information

##### 1. Age

- a) 18-25       b) 26-35       c) 36-45       d) Above 45

##### 2. Sex

- a) Male       b) Female

##### 3. Educational level

- a) Up to grade 12       b) Certificate       c) Diploma       d) degree

#### PART II Technical questions

##### 4. Do you think you have enough knowledge about Kaizen?

- a) Yes I have good knowledge       b) I have a little knowledge   
c) I don't have any knowledge

##### 5. Do you think Kaizen has brought about radical change?

- a) Yes it can bring       b) No I don't think so

##### 6. If your answer is " yes" for question number 6, what are the radical changes?

---

---

---

##### 7. If your answer is " no" for question number 6, Why? Explain

---

---

8. Do you observe some changes in your office after Kaizen implementation?

- a) Yes I observed some changes       b) There are no changes in the office

9. If you observe some changes in the office, explain some changes please

---

---

---

10. Do you think there are some problems hindering the application of Kaizen in AUC?

- a) Yes there are some problems       b) No problems faced

11. If your answer for question number 10 is "yes" please explain some of them

---

---

12. Do think the above mentioned problems can be solved?

- a) Yes they can be solved       b) No they can't be solved

13. If your answer for question number 12 is "yes" how can they be solved? Please explain

---

---

14. Kaizen is implemented as designed. Do you agree?

- a) Yes I agree       b) No I don't

15. Please explain your answer in question number 15?

---

---

16. Do you believe that the working culture of your office has been changed?

- a) Strongly agree       c) Agree   
b) Strongly disagree       d) Disagree



**17. If you are given a chance to choose from implementing Kaizen or not, which one**

**Do you choose?**

a) I choose to implement Kaizen       b) I don't choose to implement Kaizen

**18. Do you think the service given by your office after Kaizen implementation is?**

**Customer cantered?**

a) Yes       b) No

**19. Do you think that the work flow reduced after implementation of Kaizen?**

a) Yes       b) No

**20. Do you believe that quality of work and space consumption improved after the implementation of Kaizen?**

a) Yes       b) No

**21. Do you believe that the implementation of kaizen improve the quality of services provided by AUC?**

a) Yes       b) No

**22. If you have any additional comments on Kaizen application in your office**

---

---

---

**THANKYOU VERY MUCH!**

## **In-Depth Interview Questions**

### **Interview questions for the process owner**

1. Do you think Kaizen brought about some change in your office? What are the changes?
2. What are the major challenges you faced in implementing Kaizen in your office?
3. Do you think the challenges can be solved? If so how and what are the Possible solutions to solve the problems?
4. Do you think Kaizen is implemented as it is designed? How?
5. What are the best practices from your office in applying Kaizen?
6. Do you think Kaizen implementation improve the performance of the AUC in terms of quality, time consumption, space, work flow process and revenue
7. Do you believe that Kaizen brought structural changes in terms of work flow process?
8. Do you think Kaizen can bring about a radical change in public institutions in General?

## Appendix B

### Graphical presentation of kaizen changes

KAIZEN PROJECT SCOPE			SETTING IMPROVEMENT TARGETS			BEFORE GKW PHOTOS		AFTER GKW PHOTOS																																
PROJECT:	5S at Publishing and reproduction plant		PERFORMANCE PARAMETER	BEFORE KAIZEN	TARGET																																			
OBJECTIVE:	To Sort, PEEP, Clean, make search free, and release work space in the specified Gemba		Primary Measure																																					
PROJECT DATES:	16-19th Feb, 2010		5S Audit Score	32%	80%																																			
	Team Members		Secondary Measures																																					
	1. Biniam Getu, 2. Ahmed Aman, 3. Ermias Ayalew, 4. Gezachew T/Wolde, 5. Abera Alemu		No of red tag material types	5	0																																			
			No of abnormalities	2	0																																			
<b>Team Name</b> SUCCESS <b>AREAS OF CONCERN</b> Cluttered Gemba with mixed records and lack of labelling and Visuals Long Search time of 2 to 5 Minutes for materials Work and storage spaces were blocked, Choked and dusty.			BEFORE GKW AUDIT CHART																																					
<b>QUANTIFYING THE CURRENT STATUS</b>			1. Identification of Mudas Team 16th Feb 2. Marking of heavy duty photo copiers and baskets Team 17th Feb 3. Proper dressing of loosely hanging electric cables Team 17th Feb 4. Creation of Zone map Team 18th Feb 5. Marking of trays, Printers and stationeries Team 18th Feb 6. Proper labelling of equipments and materials. Team 18th Feb																																					
<b>DATA TO BE COLLECTED</b>																																								
	WHO	WHEN																																						
List of Red tagged material with total quantity of all the material = 32	Team	16th feb																																						
List of 5S abnormalities = 2	Team	16th feb																																						
<b>POST WORKSHOP ACTION PLAN</b>			<b>AFTER GKW AUDIT SCORE</b>			<b>C RESULTS SUMMARY</b>																																		
What	By Whom	By When	Status				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Primary Measure</th> <th>Before Kaizen</th> <th>Target</th> <th>After Kaizen</th> <th>% Improved</th> <th>Benefits</th> </tr> </thead> <tbody> <tr> <td>5S Audit Score</td> <td>32%</td> <td>80%</td> <td>80%</td> <td>150%</td> <td></td> </tr> <tr> <td colspan="6"><b>Secondary Measures</b></td> </tr> <tr> <td>No of Red Tag materials</td> <td>5</td> <td>0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>No of 5S abnormalities</td> <td>2</td> <td>0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Primary Measure	Before Kaizen	Target	After Kaizen	% Improved	Benefits	5S Audit Score	32%	80%	80%	150%		<b>Secondary Measures</b>						No of Red Tag materials	5	0				No of 5S abnormalities	2	0			
Primary Measure	Before Kaizen	Target	After Kaizen	% Improved	Benefits																																			
5S Audit Score	32%	80%	80%	150%																																				
<b>Secondary Measures</b>																																								
No of Red Tag materials	5	0																																						
No of 5S abnormalities	2	0																																						
Weekly 5S Audit	Team	22nd Feb	Yes																																					
Preparation of Cleaning Calender	Team	22nd Feb	Completed																																					

# KAIZEN RESULTS

**BEFORE KAIZEN**



**AFTER KAIZEN**



