

KAIZEN as a Strategy for Improving SSMEs' Performance: Assessing its Acceptability and Feasibility in Tanzania

Bwemelo, Gordian

College of Business Education, Department of Marketing, P.O. Box 1968, Dar es Salaam, Tanzania

Email of the corresponding author: gbemelo@yahoo.com

Abstract

KAIZEN, a Japanese business management concept that calls for continuous improvement, has been introduced in Tanzania to strengthen Small Scale Manufacturing Enterprises (SSMEs) through productivity and quality improvement. This paper examines the acceptability and feasibility of KAIZEN among SSMEs in Tanzania. A survey of 500 stakeholders and 23 pilot enterprises was carried out using questionnaires, interviews and observations during sensitization seminars and on-site trainings on 5S-KAIZEN methodology held in Dar es Salaam region. The study revealed that participants demonstrated willingness to implement KAIZEN. However, the study revealed some challenges confronting the feasibility of KAIZEN practices. The conclusion can be drawn that KAIZEN is acceptable among SSMEs though its feasibility is very challenging. The study recommends training of managers and employees, motivation of employees, transformation of management style and making KAIZEN a national campaign as suitable strategies to facilitate successful adoption and implementation of KAIZEN in Tanzania.

Keywords: KAIZEN, 5S-KAIZEN, SSMEs, Acceptability, Feasibility

1. Introduction

Small and Medium Enterprises (SMEs) worldwide are increasingly recognized to play a major role in steering the development of the national economy. This is apparently the case of Tanzania, where SMEs contribute significantly to employment creation, income generation and hence poverty alleviation. The sector is estimated to generate about a third of the country's Gross Domestic Product (GDP), employs about 20% of the Tanzanian labour force and has greatest potential for further employment generation (URT, MIT, 2003).

Despite their many contributions, the full potential of SMEs has yet to be tapped due to existence of a number of the constraints hampering their development (URT, MIT, 2003). While their low performance is persistently attributed to the unfavourable circumstances surrounding them, the impact of constraints related to the SMEs themselves cannot be underestimated. Among the evident internal challenges limiting performance of SMEs include low levels of productivity, high production costs, insufficient quality and poor safety (Mnenwa & Maliti, 2009). Hence, a need to adopt a management model to overcome such challenges and elevate performance of SMEs becomes imperative. It is for this reason KAIZEN has been introduced in Tanzania.

What is KAIZEN?

In its original form KAIZEN is a Japanese word which means improvement or change for the better (Barnes, 1996). It focuses on continuous improvement across all functions, systems and processes within a business. From management perspective, KAIZEN means the creation of a system, which enables continuous and sustainable improvement for an organization.

Imai (1986) defines KAIZEN as "a means of continuing improvement in personal life, home life, social life, and working life. At the workplace, KAIZEN means continuous improvement involving everyone, including both managers and workers. It is a small, low-cost, low-risk improvement that can be easily implemented.

KAIZEN is a never-ending journey towards waste elimination, productivity improvement, quality improvement and efficient utilization of resources. If done correctly, KAIZEN helps to humanize the workplace, eliminate hard work, and teach people how to perform to the best of their abilities and reduce waste in the manufacturing process.

According to Imai (1986) the KAIZEN philosophy is what distinguishes the Japanese management from the Western concepts. KAIZEN focuses on the process-way of thinking as opposed to the western focus on innovation and result-orientation (Imai, 1986). KAIZEN includes the aspect of constant challenge (gradual change) of status quo and therefore does not only focus on the innovations and radical changes. In addition, Imai (1986) claims that there are always factors and parts of a process that can be improved and also, they deserve to be improved.

The concept called KAIZEN is internationally acknowledged as a solid strategic instrument which allows the enhancement of productivity, quality, efficiency and safety (Titu, Oprean & Grecu, 2010). According to (Bhuiyan & Baghel (2005), the KAIZEN philosophy was initially adopted in several Japanese businesses after the World War II for improvement of quality and productivity. This has been one of the key concepts in success of Japanese industries (Womack, Jones, & Roos, 1990). KAIZEN is an underlying principle of Lean techniques which have boosted Toyota to the world's number one car maker. Inspired by Japan's success, many

organizations around the world have adopted KAIZEN philosophy as a way to improve production values while also improving employee morale and safety (Imran, 2011).

1.1. Statement of the Problem

The government of the United Republic of Tanzania with the support from the government of Japan recently initiated KAIZEN project in the country as one of strategic intervention for supporting and promoting manufacturing sector growth. The project specifically aims at embracing productivity, quality and safety improvement among Small Scale Manufacturing Enterprises (SSMEs) in the country. This project which will run for three years from April, 2013 to March 2016, is under supervision of the Ministry of Industry, Trade and Marketing through the Tanzania KAIZEN Unit (TKU) in collaboration with the Japan International Cooperation Agency (JICA). The project is perceived as an opportunity for the local entrepreneurs to learn and emulate the knowledge from the Japanese experts for the development of the local Small and Medium Enterprises (SMEs). The project started with training local experts who are in turn used as trainers of local entrepreneurs through seminars and on-site trainings. Nationwide, 15 local consultants from the College of Business Education (CBE), Small Industries Development Organization (SIDO) and Private sector are involved in this undertaking.

The first phase of KAIZEN project on which this paper is based took place from August, 2013 to 29th November, 2013. This was intended to equip local consultants with 5S-KAIZEN knowledge and training skills. It was further intended to enable pilot enterprises to acquire ability to implement 5S-KAIZEN themselves in an attempt to improve productivity and quality. To accomplish the mission of the first phase the Japanese experts taught various concepts and practices of KAIZEN to the local consultants. After classroom training, local consultants under guidance of Japanese experts conducted workshops in Dar es Salaam to sensitize various stakeholders on the concept of 5S-KAIZEN, its principles and benefits. Additionally, consultants conducted on-site trainings through two rounds. The first round (August- September, 2013) involved 8 enterprises and the 2nd round (21st October – 29th November, 2013) involves 15 enterprises all based in Dar es Salaam region. The primary focus was on implementing the 5S-KAIZEN workplace improvement practices.

Being a newly introduced concept in Tanzania, the adoption and implementation KAIZEN may be challenging. However, there is lack of systematic evidence to support whether or not KAIZEN will be successfully implemented among SMEs in Tanzania. Accordingly, this calls for academic inquiry to assess its acceptability and feasibility and makes this study particularly crucial and timely.

1.2. Objectives of the Study

The general objective of the study was to examine the acceptability and feasibility of KAIZEN strategy among SSMEs in Tanzania. In this study, the researcher specifically intended to:

- a) Examine the extent to which SSMEs accepted 5S-KAIZEN practices and principles as a strategy of improving their business performance.
- b) Examine the extent to which the participating enterprises managed to implement 5S-KAIZEN.
- c) Identify challenges the participating enterprises experienced in transforming their practices in accordance with the 5S-KAIZEN model.

2. Theoretical Background and Literature Review

2.1. Theoretical Framework

The theoretical framework of this study draws on the Johnson and Scholes Model of Suitability, Feasibility and Acceptability as selection criteria to evaluate strategic options. According to Johnson and Scholes (1999), a strategic option must be evaluated before implementing in a new context. Johnson and Scholes (1999) suggest three 'Strategic Option Evaluation Tests', which are helpful in evaluating a strategic option before applying to a particular environment. These are Suitability Test, Acceptability Test and Feasibility Test.

The Test of Suitability considers whether the option is the right one in given circumstances. According to the Suitability Test, if a strategic option helps a firm or an industry to overcome a weakness such an option would be suitable for application (Senaratne & Wijesiri, 2008). Low levels of productivity, high production costs, insufficient quality and poor safety are significant weaknesses among SSMEs in Tanzania (Mnenwa & Maliti, 2009). Thus, KAIZEN will be regarded as a suitable strategic option if SSMEs declare that it has eradicated such weaknesses.

The Feasibility Test is concerned with determining if the strategy can be made to work successfully using the organization's resources (Senaratne & Wijesiri, 2008). It focuses on evaluation of the internal capabilities of the company. For example, if the existing employees and management have no required knowledge and skill set, can they be trained? Are there resisting forces due to management style, organization structure and cultural reasons?

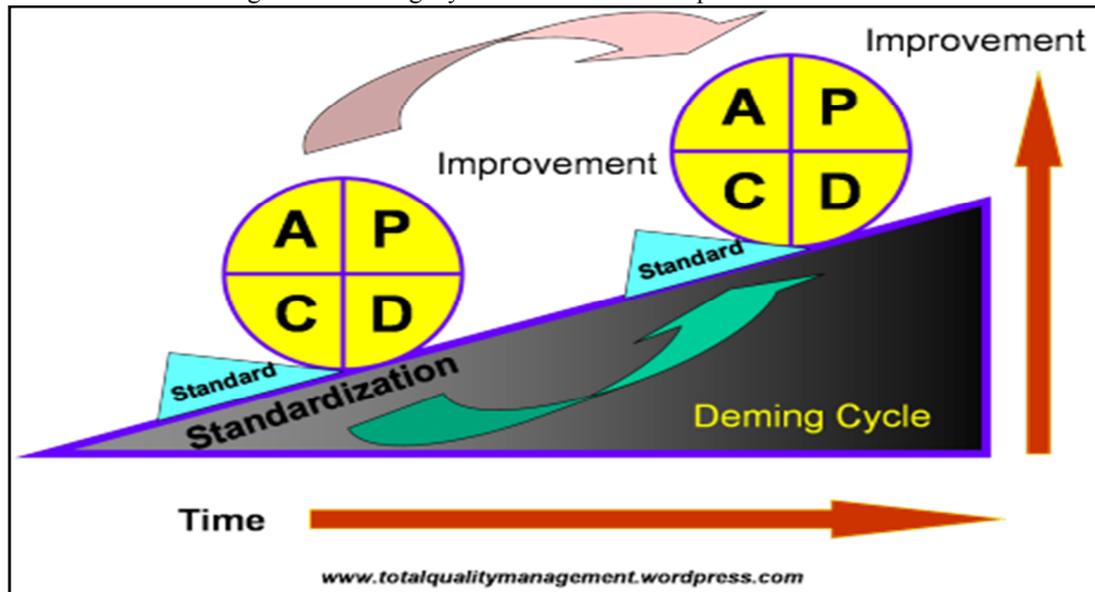
The Acceptability Test considers whether the strategic option will gain crucial support from the people it needs to or whether it will lead to opposition or criticism (Senaratne & Wijesiri, 2008). The general

management theorists argue that people will accept new philosophies if they accept its principles and believe that they are true (Carnall, 1990). Thus, if SSMEs are to accept KAIZEN, they should believe in these principles and demonstrate readiness to implement KAIZEN.

The core principles of KAIZEN and the methodologies to attain the concept are herein presented.

Continuous improvement: KAIZEN is not a once a day, a once a month or a once a year activity. Its implementation requires an ongoing effort to improve all aspects of your business in the light of their efficiency, effectiveness and flexibility. Improvements are based on many, small changes rather than the radical changes that might arise from Research and Development (Imai, 1986). W. Edwards Deming, a pioneer of the field, popularized a tool called the plan-do-check-act (PDCA) cycle, also known as Deming Cycle for continuous improvement (Aguayo, 1991) presented in figure 1.

Figure 1: Deming Cycle for Continuous Improvement



(Source: www.totalqualitymanagement.wordpress.com)

Plan: involves analyzing the current situation, identifying an opportunity and planning for change.

Do: Implement the change on a small scale.

Check: Use data to analyse the results of the change and determine whether it made a difference.

Act: If the change was successful, implement it on a wider scale and continuously assess your results. If the change did not work, begin the cycle again.

Other continuous improvement methods such as Six Sigma, Lean, and Total Quality Management are also recommended in the implementation of KAIZEN (Izumi, Kenichi, and Sayoko, 2009).

Teamwork: KAIZEN calls for continuous improvement that involves everyone in the organization from top management to bottom. Teamwork is an aspect that is paramount to fulfilling the functions of KAIZEN (Yokozawa, Steenhuis and Bruijin, 2010). Thus, the KAIZEN operating system allows employee participation and the delegation of responsibility. The KAIZEN organizational structure is characterized by open lines of communication, transparency, consultative-decision making, and sharing of responsibility by employees at all levels.

Suggestion system: A Suggestion System is the method by which the ideas and suggestions of employees are communicated upwards through the management hierarchy to achieve cost savings or improve product quality, workplace efficiency, customer service, or working conditions (Izumi et al, 2009). In many Japanese companies, the number of suggestions made by each worker is looked at as a reflection of the supervisor's KAIZEN efforts. KAIZEN philosophy recognizes that there is always room for improvement. Everyone is encouraged to come up with small improvement suggestions on a regular basis. In companies such as Toyota and Canon, a total of 60 to 70 suggestions per employee per year are written down and implemented (Poornima, 2011). In most cases these are not ideas for major changes. Suggestions are not limited to a specific area such as production or marketing. KAIZEN is based on making changes anywhere that improvements can be made. KAIZEN focuses on making improvements in any area where there is a scope for improvement. The management of the company encourages suggestion or KAIZENs from employees regarding possible improvements in their respective work areas.

Process orientation: Improvements through KAIZEN have a process focus. KAIZEN fosters process-

oriented thinking because processes must be improved for results to improve. Failure to achieve planned results indicates a failure in the process. Management must identify and correct such process-based errors. KAIZEN strategies have failed in many companies simply because they ignored process (Imai, 1986). Joseph M. Juran pointed out that the source of most problems is in the process we use to do our work. He discovered the “85/15 rule,” which states that 85% of the problems are in the process and the remaining 15% are due to the people who operate the process (Hoerl & Snee, 2012). Rather than identifying employees as the problem, KAIZEN emphasizes that the process is the target and employees can provide improvements by understanding how their jobs fit into the process and changing it.

Elimination of wastes and losses: KAIZEN focuses on eliminating wastes (Muda) and losses from the processes. KAIZEN is not about eliminating people. Waste is any non-value adding procedure, item, or activity but consumes resources. Womack et al (2003) define waste as any activity that creates or adds no value to the process as defined by the ultimate customer. Examples of wastes include defects/damages, idle time of employees/equipment, mistakes/interruptions, extra steps, material supply in excess, overproduction, unnecessary movements, waiting, unnecessary processes, delays etc. Some studies indicate that manufacturing companies waste over 70% of their resources, while those who implement Lean Manufacturing cut that percentage in half (www.businessknowledgesource.com/).

Standardisation: Standardisation is KAIZEN’s main feature, where policies, rules, directives and procedures are used as guidelines for employees to do their jobs successfully. Without a firm base line to start from it is almost impossible to either drive improvement or know for sure if any improvement has been made. Products are created as a result of following a series of processes according to a certain standard. According to Wittenberg (1994), standards must be maintained to assure quality (Al-Tahat, 2010). Berger (1997), asserts that standards should be brought to every operation and it is management’s responsibility to see that every operation is performed according to the standards (Al-Tahat, 2010). To support the higher standards, KAIZEN also involves providing the training, materials and supervision that is needed for employees to achieve higher standards and maintain their ability to meet those standards on an on-going basis.

5S KAIZEN: One of the fundamental steps to begin a successful KAIZEN initiative is implementing 5S-KAIZEN (Cooper, Keif, & Macro, 2007). 5S-KAIZEN is a methodology of managing a workplace or workflow with the intention of improving efficiency, eliminating waste, and increasing process consistency. It derives its name from the use of five Japanese words beginning with the letter S as the cornerstones of this philosophy. These words are: "Seiri" meaning Sort, "Seiton" meaning Set in Order, "Seiso" which implies Shining or Cleanliness, "Seiketsu" which means Standardize, and "Shitsuke" which implies Sustaining. For the sake of consistency these words, all starting with the letter S have been transliterated in Swahili as “Sasambua”, “Seti”, “Safisha” “Sanifisha” and “Shikilia” respectively.

Seiri (Sort). The first step of 5S is to differentiate between what you need and what you don't. What is essential and what is not. To do that effectively, you need to eliminate unneeded materials, tools or equipment from the work place.

Seiton (Set in Order). Once sorting has taken place, efficient storage methods must be enacted so that items are easy to locate and use, as well as put away (Hough, 2008). The logic behind this stage is that everything that is needed to do a job should be placed where it can be easily accessed (Howell, 2009). Every tool, every Standard Operational Procedure (SOP) and Material Safety Data Sheet (MSDS) manual must be designated a place where it can be found easily when needed.

In process industry changeovers, this can reduce the downtime of the machines because changeovers become faster (Howell, 2009). Having the right tools in clear line of sight (Howell, 2009) near to the workplace where they are required creates more efficient movement of people as well as materials (Cooper, *et al.*, 2007). Drawing current and future-state maps (Cooper *et al.*, 2009) is a good way to identify material position and plan on how things can be re-arranged to make the movement more effective and efficient. A commonly recommended way to execute this phase of the 5S process is (Bullington, 2003; Cooper, *et al.*, 2007):

1. Labeling equipment and storage locations clearly so that all employees can identify them
2. Drawing borders that can distinguish different work areas
3. Drawing lines around specific equipment and highlight the traffic and transportation lanes
4. Identifying safety hazard issues and arrange items so that possible negative effects are countered

Seiso (Scrub or Shine). This phase assumes that everything unneeded is thrown away or disposed and all the tools now available are organized for efficient use (Howell, 2009). This phase means thoroughly clean up clutter, fixes things (Hough, 2008) and involves checking and inspection of everything to not only clean up the work place but also to eliminate the root cause of that problem (Van Patten, 2006). Some 5S projects put more emphasis on cleaning, and in the process useful information can be lost in the sweeping. Thus it is imperative that the cleaning process is done not by an outside contractor but by the team members who are focused on interpreting information that the cleaning process is generating.

This phase not only provides a clean work environment for working but many times broken pipes or

damaged wires are found and this helps to fix safety hazards (Hough, 2008).

Seiketsu (Standardize). Standardizing involves working with the team in such a way that the team members without exception agree to implement the new way of working as the normal way of working (Van Patten, 2006). It is important that gains made by the first three phases are not lost by allowing the procedures from breaking down (Howell, 2008). This can be used to reinforce procedures or practices that will be key in driving improvements in the future.

Some of the points that can help better the standardized process (Cooper *et al.*, 2007) could be listed as:

1. Write down the procedures for the first three phases and make them part of the daily routine
2. Use visual aids and visual management (shadow boards, labelled shelving, tagged bins etc.) as much as possible because that will make abnormalities stand out
3. Schedule 5S activities as often as possible
4. Consider an official 5S agreement that outlines expectations, roles and responsibilities before starting the implementation of the program.

Shitsuke (Sustain). Most studies (Bullington, 2003, Cooper *et al.*, 2007; Hough, 2008; Howell, 2009; Van Patten, 2006) identify the fifth phase as the most difficult phase to be executed in the process. It is important not to go back to the comfort of old methods of doing things (Hough, 2008). The root cause of this problem is that changing long-standing practices and behaviours can be difficult. It involves making 5S philosophy as the way of life in an organization (Howell, 2009) and personal discipline to follow agreed upon new standards (Van Patten, 2006).

According to Van Patten (2006) most organizations fail to support their 5S teams in this final step even though they might have completed the first four steps extremely successfully. The culture of the organization is a very big factor that dictates how this phase turns out for an organization (Cooper *et al.*, 2007). It takes a very committed effort to keep 5S alive.

Drawing on the Johnson and Scholes Model, a study was needed to examine the acceptability and feasibility of KAIZEN prior to its implementation. On the other hand, the literature indicates that successful implementation KAIZEN requires the organization to put emphasis on continuous improvement, teamwork, improvement suggestions, process-oriented thinking, elimination of waste and standardization. It is further recognized that 5S-KAIZEN 5S lays the foundation for all other KAIZEN activities. Given these principles, the question that needs to be addressed is: Are the KAIZEN principles and methods that are embedded in the Japanese culture and management systems transferrable to the Tanzanian context considering our environmental differences in terms of culture, management systems and behavioural patterns?

2.2. Empirical Literature Review

In recent years, studies have been conducted on the transfer of Japanese production systems, including KAIZEN, to other countries. For example Hong, Easterby-Smith and Snell (2006), Taylor (1999), and Aoki (2008) examined the transferability of Japanese practices to China (Phan, Zeng and Yoshiki (2011). Saka (2004) and Oliver & Wilkinson (1992) examined the diffusion of Japanese operations, including KAIZEN, to the UK while Kenney & Florida (1993) looked at the transfer to the US. The results of studies on success of KAIZEN transfer are mixed. Fukuda (1988), Kono (1982), and White & Trevor (1983) found that KAIZEN was not successfully transferred. It is proclaimed that KAIZEN approaches were not easily adopted in abroad due to such environmental factors as the differences in national culture and working ethics. Along with national culture aspects, scholar argued that the adoption of KAIZEN highly depends on some specific organizational culture such as centralization of authority and cross functional cooperation (Recht & Wilderom, 1998). In contrast, Adler, Goldoftas and Levine (1998) found that KAIZEN was successfully transferred, in particular at NUMMI, a Toyota/General Motors joint venture.

Mathenge (2012), examined the factors influencing implementation of quality standards (KAIZEN) in Kenyan flower industry. His study indicated that the following factors influenced implementation of KAIZEN; team work was leading in influence, followed by training, followed by management support and last was education level of workers. The researcher concluded that team work was very important in the implementation of KAIZEN while education level had very little influence in KAIZEN implementation.

Kaplinsky and Posthuma (1988) who studied Japanese management techniques and their transferability in India, Brazil, the Dominican Republic, Mexico and Zimbabwe argue that Japanese management techniques were adopted in these countries because of the fact that they are late starters and were seeking to be innovative. Hosono (2009) also endorses the view that KAIZEN as well as Japanese types of Total Quality Circles (TQC) and Total Quality Management (TQM) can be introduced to countries where the culture is very different from that of Japan.

2.3. Knowledge Gap

The motivation for this study came from the striking lack of empirically based framework for transferability of

KAIZEN to Tanzania. Being a newly introduced concept in Tanzania, it is not certain whether or not KAIZEN will be successfully implemented among SMEs in Tanzania. This paper provides additional insight into transferability KAIZEN by examining its acceptability and feasibility among SSMEs in Tanzania.

3. Methodology

The study was conducted in Dar es Salaam region where the first phase of KAIZEN project took place. Subjects of this study were participants who attended sensitization seminars and participants from pilot enterprises where on-site trainings took place. A total of 500 individual participants representing various enterprises participated in the sensitization seminars whereas 23 enterprises participated in the on-site training.

The study consisted of 1) opinion survey during sensitization seminars and wrap up meetings after on-site training programmes and 2) site visits to evaluate pilot enterprises operations as they pursued 5S-KAIZEN practices. In each of the sensitization seminars on 5S-KAIZEN and during wrap up meetings after on-site training programmes, questionnaires were distributed amongst participants asking them to provide their opinion on the extent to which they accept 5S-KAIZEN practices and principles as a strategy of improving their business performance.

Judgmental sampling was used to recruit pilot enterprises to participate in the on-site training. At the outset of the on-site training 50 enterprises from Dar es salaam region were invited to a meeting to receive a one-day lecture on KAIZEN, and each participating enterprise was asked to decide on whether or not to participate in the on-site training. Out of the 50 invited enterprises 30 were represented in the lecture and all made the decision to participate in the on-site training. However, due to limited number of local trainers, only 23 enterprises were selected to participate in the first phase on which this study is based.

Evaluation of the pilot enterprises involved direct observation, photography and informal interviews with entrepreneurs and employees to address two questions about the effectiveness of KAIZEN implementation: (1) To what extent did the participating enterprises manage to implement 5S-KAIZEN? (2) What challenges did the enterprises experience in transforming their practices in accordance with the 5S-KAIZEN model? Two half-day site visits per week were made to each enterprise for six weeks. During the observation, the trainers used structured checklist with a series of standard items and photography to record the improvements made by each participating enterprise. Exit interviews with owners, managers, supervisors and workers were conducted asking them questions relating to achievements they had made through 5S-KAIZEN practices and the impediments confronting the implementation of KAIZEN in their enterprises. Exit interviews were held in all 23 participating enterprises.

Descriptive statistics was used to analyze data collected through questionnaire. In this case statistical tools such bar chart, frequency and percentage distributions were used. Responses from interviews were analyzed using quote-research approach.

4. Analysis and Findings

4.1. Acceptability of KAIZEN in Tanzania

To assess the acceptability of KAIZEN, participants were asked to mark their opinion on what benefits they believed KAIZEN practices would bring. The study findings are summarized and presented in Figure 2.

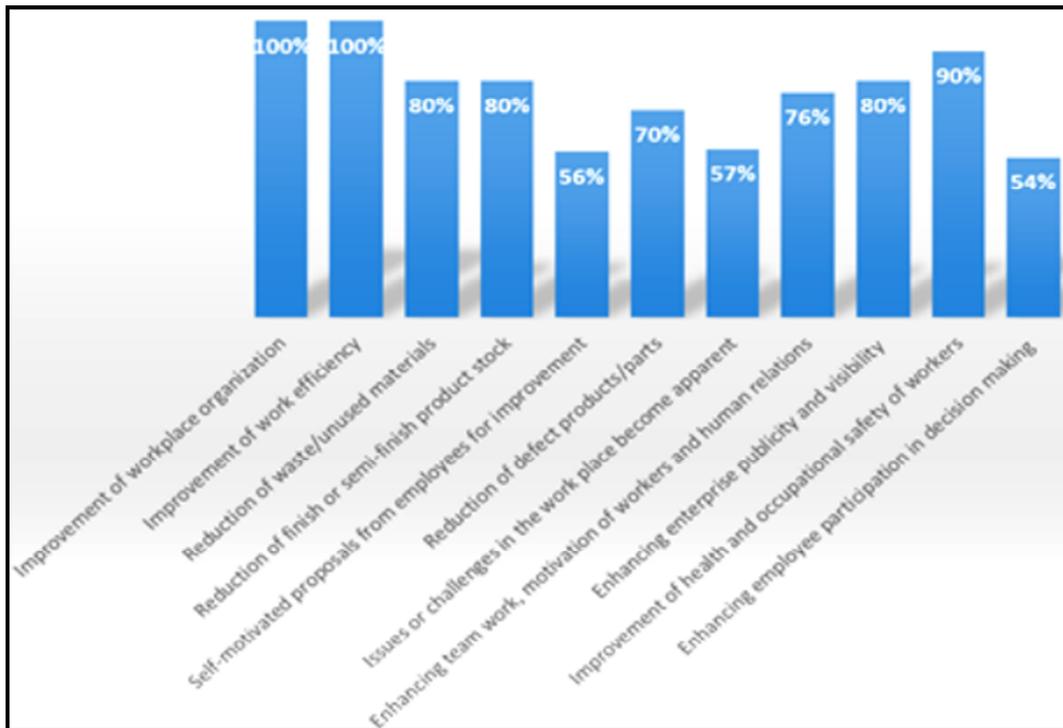


Figure 2: Benefits of 5S-KAIZEN as per Participants' Opinions

According to the results in Figure 2, all participants viewed KAIZEN practices useful and recognized a lot of benefits it would bring. This was an indication that KAIZEN is suitable and acceptable.

Likewise, from interviews with participants, it was found that they would benefit a lot from KAIZEN practices and principles and demonstrated willingness to practice them. When asked to share their opinions on what they believed KAIZEN would contribute to their business performance, participants had a lot to share. Many participants commended on the benefits of enhancing efficiency, minimizing wastes and costs, improving quality and safety and improving customer satisfaction.

“KAIZEN is very useful because it enhances the efficient methods of doing things and highlights the areas where people waste their time. But it also provides several advantages of improving services to customers”.

“KAIZEN is really good and we can apply it in our day-to-day life to improve service quality and safety”.

“With KAIZEN, resources are efficiently utilized, as it emphasises the use of less to achieve more. I have been amazed by the way it teaches how to improve space utilization”.

“It becomes easier to work if things are put in order and the workplace is clean”.

Additionally, participants stressed on the importance of KAIZEN in enhancing teamwork, encouraging workers to propose improvement and problem solving.

“I am happy to learn that KAIZEN emphasises the idea of teamwork”.

“by having each employee come up with with ideas that would make his or her work more efficient and improve the process for other people as well is the best management style”.

“I like and accept KAIZEN because it teaches skills for problem solving”

Since all enterprises that participated in the one-day lecture made decision to implement KAIZEN it was an indication that KAIZEN is acceptable.

4.2. Feasibility of KAIZEN in Tanzania

To examine the feasibility of KAIZEN, the pilot enterprises operations as they pursued 5S-KAIZEN practices were evaluated to identify the extent of achievements made and the challenges experienced.

4.2.1. Achievements obtained by pilot enterprises in pursuit of 5s-kaizen

Structured checklist was used to record scores relating to achievements made by individual participating enterprises in implementation of 5S-KAIZEN. Findings are summarized and presented in Table 1. The results are expressed in terms of mean percentage scores derived from individual enterprise percentage scores against all the items.

Table 1: Mean percentage Scores of KAIZEN Implementation Performance

Assessment Item	Mean Percentage Score
Understanding and participation of top management in implementation of 5S-KAIZEN	60%
Inclusion of 5S-KAIZEN in daily activities of top management	56%
Evidence of follow up, regular inspections	78%
Orderliness and cleanliness of gate/entrance/lobby areas	87%
Outside areas within the premises free of clutter	71%
Classification system in place	76%
Items stored according to frequency of use	77%
Walls /notice boards free of old posters, calendars, pictures, notices etc.	90%
Visual controls such as warning signs, labels, checklists, work instruction, schedules and codes are in place	92%
Factory, stores and other large areas have grid references clearly marked	95%
Reporting systems in place	77%
Regular training programmes	66%

According to the results in Table 1, the performance of the participating enterprises was generally high. This is an indication that implementation of KAIZEN is was effective.

From interviews with owners, managers, supervisors and workers, it was found that 5S-KAIZEN practices contributed to significant improvements. Many participants acclaimed a number of improvements such as creation of clean working environment, enhancement of convenient and visible workflow, enhancement of self-discipline among workers and improvement of health and occupational safety of workers. Other improvements as per participants' remarks were reduction or eradication of accidents and mistakes in workplace, easy identification of imperfections and malfunctions and reduction of hard manual work. Pictorial illustrations of the improvements made are shown in Appendix 1.

4.2.2. Challenges confronting implementation of 5s-kaizen among SSMEs in Tanzania

Despite the positive achievements obtained during the ongoing KAIZEN training project, a number of challenges in adoption of KAIZEN were identified. Some of these challenges include employee resistance towards continuous improvement due to sudden introduction of change at workplace. The study also revealed lack of motivation among employees due to inability of management to involve them in decision making, lack of recognition of hardworking employees, inadequate communication, and lack of workplace meetings was among the factors that affected KAIZEN practices within the organization context. Furthermore, the study revealed that most of the enterprises had rigid job descriptions and bureaucratic organizational structures that prevented workers from sharing responsibility, having open communication, or developing teamwork, aspects that are paramount to fulfilling the functions of KAIZEN. It was established that employees in most of the pilot enterprises claimed that every decision required approval by their senior managers, thus even little action was not to be taken without approval by seniors.

In most of the enterprises it was established that many workers sufficient education backgrounds such that they could not understand the tools used in KAIZEN work environment or observe the established standards. Attitude and misconception about KAIZEN posed another challenge. Some managers, supervisors and employees perceived KAIZEN as time consuming, costly, quick result oriented and just the matter of housekeeping. Lack of top management commitment and support was another challenge reported by employees in various pilot enterprises.

5. Discussion

The findings of the study revealed that KAIZEN was found to be an effective strategy for improving SSMEs' performance and participants expressed desire to benefit from it. However, the findings further revealed that the feasibility of KAIZEN is very challenging. The findings of the study are in line with what was argued by (Recht & Wilderom, 1998) that the adoption of KAIZEN highly depends on some specific organizational culture such as centralization of authority and cross functional cooperation. The findings further support the argument made by Yokozawa, Steenhuis, and de Bruijn (2010) that one of the major reasons why Japanese companies have been facing difficulties with transferring KAIZEN abroad is because of different organization structures in countries outside of Japan. Hayashi's (1994) research shows that the Japanese companies in general have more of an organic structure than that of non-Japanese companies. It can also explain why Japanese companies who set up plants abroad prefer Greenfield investments rather than joint-ventures. In Greenfield investments, the Japanese can develop an organic organizational structure from the start and they do not need to deal with changing an initially more mechanistic oriented organizational structure (Yokozawa et al, 2010).

6. Conclusion, Implications and Recommendations

6.1. Conclusion

This paper was based on the study designed to examine the acceptability and feasibility of KAIZEN among SSMEs in Tanzania. The findings of the study revealed that KAIZEN was perceived to be an effective strategy for improving SSMEs' performance and participants expressed desire to benefit from it. However, the study further revealed a number of challenges confronting the feasibility of KAIZEN practices. The conclusion can be drawn that KAIZEN as a strategy for improving SSMEs' performance is acceptable in Tanzania though its feasibility is very challenging.

6.2. Implications of the Study

In order to increase the chances for successful KAIZEN adoption and implementation in Tanzanian SSMEs, sound strategies to transform organizational culture, aspects of organizational culture, attitude, values, mindset, management techniques and behavioural patterns of managers, supervisors and employees are necessary.

6.3. Recommendations

For successful adoption and implementation of KAIZEN in Tanzanian SSMEs the study has some recommendations to make.

6.3.1. Recommendations for actions

First, the management should be sensitized and trained to use bottom up approach of management for effective implementation of KAIZEN practices.

Secondly, training of employees to let them understand KAIZEN related tools should be taken seriously.

Thirdly, the management should motivate employees using both monetary and non-monetary rewards for better performance.

Fourth, KAIZEN should be made the national campaign focusing on offering further trainings and sensitization seminars.

6.3.2. Recommendations for further research

The present study had some limitations. First, since the study was confined to Dar es Salaam region, the conclusions in this study cannot be generalized to all SSMEs in the whole country. Second, this report presents the preliminary results findings of the ongoing KAIZEN project which mainly focused on 5S-KAIZEN. Thus, other elements of KAIZEN such as Just in Time (JIT), Quality Control Circle (QCC), Quality Control Tools, Total Productive Maintenance (TPM), Automation, Value Stream Mapping, and Material Handling remain unaddressed in the present study. Third, time constraints restricted exhaustive examination of factors influencing feasibility of KAIZEN practices among SSMEs in Tanzania.

To complement findings of the present study, further study covering many SSMEs across all regions of Tanzania is recommended. Moreover, further study should attempt to explore factors influencing acceptability and feasibility of KAIZEN among Tanzanian SSMEs.

References

- Adler, P. S., Goldoftas, B. and Levine, D. (1998). Stability and Change at NUMMI. In R. Boyer, E. Charron, U. Jürgens & S. Tolliday (Eds.), *Between Imitation and Innovation, the Transfer and Hybridization of Productive Models in the International Automobile Industry* (pp. 128-161). Oxford: Oxford University Press.
- Aguayo, R. (1991). *Dr. Deming: The American who taught the Japanese about quality*. Fireside. New York.
- Al-Tahat, M. D. (2010). Investigation of the potential of implementing KAIZEN principles in Jordanian companies. *Int. J. Product Development, Vol. 10, Nos. 1/2/3, 2010*
- Aoki, K. (2008). Transferring Japanese kaizen activities to overseas plants in China. *International Journal of Operations and Production Management, 28(6), 518-539*.
- Barnes, T. (1996). *KAIZEN strategies for successful leadership*. London: Pitman.
- Bhuiyan, N. and Baghel, A. (2005). An overview of continuous improvement: from the past to the present. *Management decision, 43, 761*.
- Bullington, K. E. (2003). 5S for Suppliers. *Quality Progress, pp. 56-59*.
- Carnall, C.A. (1990). *Managing Change in Organisations*. London: Prentice Hall International (UK) Ltd.
- Cooper, K., Keif, M. and Macro, K. (2007). *Lean Printing Pathway to Success*. Sewickly, PA, USA: PIAIGATF Press.
- Fukuda, K. J. (1988). *Japanese Style Management Transferred: The Experience of East Asia*. New York: Routledge.
- Hayashi, S. (1988). *Culture and management in Japan*. Tokyo: University of Tokyo Press.
- Hong, J.F.L., Easterby-Smith, M. and Snell, R.S. (2006) 'Transferring organizational learning systems to

- Japanese subsidiaries in China', *Journal of Management Studies*, Vol.43, No.5, 1027-58.
- Hosono, A. (October 2009). "Kaizen: Quality, Productivity and Beyond." Intronction Kaizen in Africa. GRIPS Development Forum.
- Hough, R. (2008). 5S Implementation Methodology. *Management Services*, pp. 44-45.
- Howell, V. W. (2009). 5S for Success. *Ceramic Industry*, pp. 17-20.
- Imai, M. (1986). *KAIZEN, the key to Japan's competitive success*. United State of America: McGraw-Hill, Inc.
- Imran, A., K. (2011). KAIZEN: The Japanese Strategy for Continuous Improvement. *VSRS International Journal of Business & Management Research*, Vol. 1 (3), 2011, 177-184.
- Izumi, O., Kenichi O. and Sayoko, U. (2009). Introducing KAIZEN in Africa. *GRIPS Development Forum, October, 2009*. Tokyo, Japan.
- Johnson, G. and Scholes, K. (1999). *Exploring corporate strategy* (5th Ed.). USA: Prentice Hall.
- Kaplinsky, R. and Posthuma (1994). "Easternisations: The Spread of Japanese Management Techniques to the Developing Countries."
- Kenney, M. and Florida, R. L. (1993). *Beyond mass production: The Japanese system and its transfer to the US*. New York, Oxford: Oxford University Press.
- Kitaw, D. (2011). "Singapore's Productivity Movement: Lessons Learned and Recommendations for Ethiopia," March.
- Koch, A. (2014). What's different in the Japanese approach? In Makigami Info (2014). Accessed from <http://www.makigami.info/cms/consensus-japan-35> on 20th November, 2013.
- Kono, T. (1982). Japanese management philosophy: can it be exported? *Long Range Planning*, 15(3), 90-102.
- Mathenge, S. (2012). Factors influencing implementation of quality standards (Kaizen) in flower industry: A case of Kariki Ltd Kiambu County
- Mnenwa, K. R and Maliti, E. (2005). *Assessing the Institutional Framework for Promoting the Growth of MSEs in Tanzania: The Case of Dar es Salaam*; Report submitted to REPOA, 2009.
- Natcha, T. (2007). *Selecting Quality Management and Improvement Initiatives: Case studies of industries in Thailand*. Nottingham University Business School University of Nottingham.
- Oliver, N. and Wilkinson, B. (1992). *The Japanization of British industry*. Oxford UK and New York, NY: Blackwell Oxford.
- Phan, C., Zeng, J. and Yoshiki, M. (2011). "Empirical study on Transferability of KAIZEN Practices." *The 11th International DSI and the 16th APDSI Jint Meeting*, Taipei, Taiwan, July 12-16, 2011.
- Poornima, M. C. (2011). *Total Quality Management*. Dorling Kindersly (India) Pvt. Ltd, Licensee of Pearson Education in South Asia, pp. 273.
- Recht, R. and Wilderom, C. (1998). Kaizen and culture: on the transferability of Japanese suggestion systems. *International Business Review*, 7(1), 7-22.
- Saka, A. (2004). The Cross-National Diffusion of Work Systems: Translation of Japanese Operations in the UK. *Organization Studies* 25(2), 209.
- Senaratne, S. and Wijesiri, D. (2008). Lean Construction as a Strategic Option: Testing its Suitability and Acceptability in Sri Lanka. *Lean Construction Journal 2008*; pp. 34-48.
- Taylor, B. Japanese management style in China? Production practices in Japanese manufacturing plants. *New Technology, Work and Employment*, 14(2), 129-142
- Titu, M. A., Oprean, C. and Grecu, D. (2010). Applying the KAIZEN Method and the 5S Technique in the Activity of Post-Sale Services in the Knowledge-Based Organization: *Proceeding of the International Multi Conference of Engineers and Computer Scientists 2010 Vol III*, IMECS 2010, March 17-19, 2010, Hong Kong.
- URT, MIT (2003). Small and Medium Enterprises Development Policy. Dar-es-Salaam, Tanzania.
- Van Patten. (2006). A Second Look at 5S. *Quality Progress*, pp. 55-59. Womack, J., & Jones, D. T. (2003), *Lean Thinking: Banish Waste and Create Wealth for Your Corporation (2nd edn)*, Simon and Schuster, New York.
- White, M. R. M. and Trevor, M. (1983). *Under Japanese management: the experience of British workers*. London: Heinemann
- Educational Publishers. www.businessknowledgesource.com/manufacturing/using_KAIZEN_methodology_to_reduce_manufacturing_waste_032106.html
- Yokozawa, K., Steenhuis, H.J. and de Bruijn, E.J. (2010). Recent experience with transferring Japanese management systems abroad. *Journal of Strategic Management Studies*, 2(1): 1-16. Yokozawa, K., Steenhuis, H., & de Bruijn, E. J. (2010).

Appendix A

Pictorial Illustrations of Improvements Made by Pilot Enterprises after Implementing 5S-KAIZEN



Equipment before 5S-KAIZEN



Equipment after 5S-KAIZEN



Safety level before 5S-KAIZEN



Safety level after 5S-KAIZEN



The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

