Kaizen Implementation in Ethiopia: Evidence in Literature

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Abstract
The main objective of industries today is to increase productivity through system simplification and incremental improvements by using modern available techniques. Improving customer service, making operation faster, more operation and reduction in costs are challenges faced by most industries today. To meet these challenges many companies in the world searching to improve their ability to compete globally. One of the most recognized technique in order to minimize such problems is kaizen- continuous improvement which was created in Japan and it becomes an important and widely used in various industries. The effective implementation of kaizen methodology will lead to the success of the organization. The objective of this paper is to discuss different literatures that have been published in this field and presents a review of literature which will be helpful to new research in this field. From literature detailed implementations of kaizen vary considerably between organizations, but all rely on kaizen to achieve targets as an integral element in the management system. This may include identification of the improvement area, selection of the key problem, definition of the cause of improvement, planning of the measurement, implementation of the improvement idea, analysis and comparison of the results and standardization.

Keywords: Continuous Improvement, Kaizen, Kaizen Implementation, Kaizen Methodology

1. Introduction
Increasing competition in the industrial world requires the company to make continuous improvement about the quality of product and services offered (Winy Utari, 2011). The kaizen method has been established as an outcome of various activities undertaken for improving the productivity and quality of Japanese products after mid 1940s, as Japanese manufactures were urgently trying to catch up with the standards of American and European manufacturers (Chen et al., 2000). Initially, efforts were made to learn from western management systems, particularly the statistical quality control methods. Introduction of an annual award for quality management, the Deming Prize, has contributed to awareness among enterprises and provided opportunities to learn from best practices. Through this process, the western management strategy was combined with Japanese management methodologies and gradually developed into the kaizen system (Imai M., 1986).

In Japanese management, kaizen means “continuous improvement” involving the entire work force from the top management
to middle managers and workers. The origin of Japan’s kaizen movement was the quality control method imported from the United States (US) in the post World War II period. Japan assimilated and developed this as its own management practice method which later even surpassed performance in the US. This adapted method, which became known as kaizen, spread rapidly among Japanese companies including a large number of small and medium-sized enterprises. It subsequently spread overseas as Japanese business activities expanded abroad and Japanese companies began to build production networks with local companies (Izumi Ohno et al., 2009).

Japan offers assistance for kaizen in many developing countries through private channels such as intra-company technology transfer and support for local suppliers, as well as through public channels such as official development assistance and guidance provided by various public organizations. 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. 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 (Izumi Ohno et al., 2009).

The general objective of this article is to use evidence in literature to give analysis of the kaizen implementation in industries. Specifically the article has been achieved the following objectives:
- To explain the conditions for successful implementation of kaizen strategy;
- To discuss reasons of kaizen implementation failure;
- To outline the methodology of kaizen implementation

2. Article Methodology
The objective is to collect, organize and synthesis existing knowledge relating to kaizen philosophy. Thus, the study employed descriptive in nature where the focus is on fact finding investigation with adequate interpretation. For this purpose secondary data were collected. The secondary data were collected through journals, thesis, newspapers, magazines, books, conference proceedings, government reports and websites. Besides, unpublished research outputs concerning kaizen philosophy were reviewed.

3. Kaizen in Africa
African manufacturers are not only disadvantaged by the technological gap but also by the lack of knowledge in key managerial methodologies like kaizen (Izumi Ohno, et al., 2009). While engineering capacity may take time to catch up, managerial capacity may be improved more quickly since kaizen tools are
developed in a way to be appreciated by all the workers, and its fundamental methodology is not very complicated. Kaizen is more to do with a philosophy and daily practices rather than techniques. The beauty of kaizen is that it can realize productivity improvements with little additional investments. Simplicity and cost effectiveness are the major reasons why kaizen is well appreciated globally (Ishiwata, A., 2009).

However, there are a few challenges in implementing kaizen in Africa. Firstly, in countries which have a socialistic nature like Ethiopia, power may be very much concentrated in the hands of top managers, whereas the basic concept of kaizen is empowering the workers in gemba (workplace). It may be a challenge for managers to change their attitude and trust the workers in gemba. Secondly, the sources of productivity loss are often found outside the company, particularly delays in the delivery of materials and sudden interruption of orders from retailers and traders due to oversupply in the markets. Therefore, the problems of gemba may often be found outside the company. Improving the business network, both backward and forward, should be an important element of productivity improvement for most African manufacturers.

Furthermore, in order to nationally disseminate kaizen activities in African countries, two measures should be considered. Firstly, kaizen needs to be publicized as a national movement. Disseminating the best practices through the media should raise awareness amongst people of the need for kaizen activities. Secondly, the dissemination route through vocational institutions shall be vital. Vocational institutions provide for a wider array of beneficiaries among workers in the manufacturing sector than in other types of institutions in Africa.

4. Kaizen in Ethiopia

The introduction of kaizen as a management tool in Ethiopia has been started with the assistance of JICA in response to the request of the government of Ethiopia to the government of Japan for kaizen technology transfer to Ethiopia. After the project design phase was completed, the former Ministry of Trade and Industry established kaizen unit with professionals drawn from the ministry and relevant sectoral institutes, and JICA deployed a consultant team to work with the Unit. The kaizen project was officially launched with the first National Kaizen Seminar in the presence of high level officials from both sides. With the project pilot companies, kaizen is selected as one of management tools to improve and enhance managerial capability to implement Growth and Transformation Plan (GRIPS, 2011).

There is large evidence that kaizen implementation have positive impact on the performance of the industries (Williams, 2001). Different scholars in the area have been arguing that proper understanding of policy instruments, methods, culture, principles, and application techniques of the kaizen philosophy would be one essential step towards addressing and solving the currently existing problems and challenges. By so doing, the enterprises move towards incidentally achieving the desired developmental objectives (Murata, K., Katayama, H., 2010; Murata, K., Katayama, H., 2009).

Coming back to the case of the Ethiopian context so far, there have been limited and inconclusive studies conducted on the implementation of Kaizen in business organizations at different levels. Nesra Seid (2012) conducted a quantitative study on the role of the Ethiopian Government in implementing kaizen as a modern management tool for quality and productivity at Kadisco Chemical Industry in Addis Ababa. The findings of this study indicated that the implementation of the Kaizen policy was found to increase labor productivity by reducing, on average of 50%, time wastage for searching tools; improved a defect ratio which ranged from 50% to 70%; and improved lead time in the range of 16% to 90%. The study thus concludes that the implementation of Kaizen at Kadisco Industry has brought those benefits.

Kelly (2000), in contrast, states that the partial or incorrect implementation of generated policy will always produce instability and wastage of resources. Hence, the Government employs professionals to implement the full package of industrial extension and technology adaptation and transfer which was launched as the second phase in 2011.

As noted in Asayehgn Desta et al., (2014), based on the three pilot companies (Mesfin Industrial Engineering PLC, Almeda Textile Factory PLC., and Sheba Leather and Tanning Industry PLC), the study found that the employees didn’t have the full capacity to accept the kaizen management system. If they had for example, by forming a kaizen cross functional teamwork approach, workers could have been empowered to challenge the status quo, gathering the most conspicuous internal and external factors that could be become part of the work ethics necessary for continuous improvement of productivity. Instead, it was found that some of the executive managers were themselves not committed to the kaizen teamwork because they didn’t usually participate nor did they allow the shop floor workers or operators to participate in team group work.

In addition, the tools and techniques used by the pilot companies did not create lean enterprises that could have minimized waste. This might be because the internal and external training given to the employees was designed for very short periods of time and some of the managers and employees of the pilot companies were not yet fully committed to the kaizen management philosophy. Despite these weaknesses, however, it can be appreciated that though
only partially committed to the kaizen management philosophy, the three pilot companies have marginally reduced the costs of production, improved quality, reduced lead time and improved customer’s satisfaction (Asayehgn Desta et al, 2014). On the other hand, the study found that Ethiopia does not have problems of leadership, since kaizen was driven by strong commitment of the top leader. As a result, kaizen has come to be known among policy makers and business managers in Ethiopia (GRIPS, 2011).

Thus, kaizen implementation in private firm and in the context of the Ethiopian Government show that there is a paradox and, therefore, seems strange. There is no conclusive empirical evidence which clearly show whether or not the kaizen implementations in different contexts (such as SMEs) have brought about positive outcomes (Berhanu T. T., 2014).

5. Implementation of Kaizen Methodology

As articulated by Anh, et al., (2011) though not a universal model for successful kaizen transferability to other countries, kaizen practices should be adapted to the local culture in order to have the highest probability of success (J. Michalska, D. Szewieczek, 2007). Given that kaizen is a vital approach to problem solving, its application requires restructuring the organizational culture and then use formal root cause analysis to identify and correct the problem at the source. Thus, kaizen practices could be implemented by the manufacturing companies of host countries provided that the host companies have a low level of centralization of authority, and practice cross-functional team cooperation of 8 to 12 people with a skilled facilitator to identify, measure, and correct the problem associated with the process. As discussed by Zimmerman (1991) and Imai (1997), as a process kaizen utilizes various tools and methods to make the problem visible, and uses formal root tool cause analysis and other means to identify and correct the problem.

In order to implement the kaizen the company should follow the methodology of kaizen. This standard methodology of kaizen can be implemented in various fields. Today, it is used to improve various kinds of processes that are involved in manufacturing, management and other supporting processes in the business. This is also known as Deming’s cycle, Shewhart cycle or PDCA cycle (Watson M., 1986)
To implement the kaizen approach, what the organization need is a rapid team that has been consistent with the use of the lean systems. Typically, the people in this group will have to undergo some training so that we can start facilitating the kaizen methodology into our organization. Kaizen is actually an activity that we have to perform daily and what we should do here is to provide a purpose which should go beyond improvement. When implemented correctly, kaizen will enable the organization to humanize the workplace as well as eliminate all the processes that need a lot of work from our employees which can be about mental and physical activities. Kaizen will also teach people how they can perform tasks in a rapid way through experiments and they need to apply here is a scientific method that will help them learn to eliminate waste in the process and process can be improved (Rajesh G. et al., 2012).

6. Critical Success Factors
Kaizen is a Japanese philosophy that encourages the continuous improvement of one's personal life and the ongoing quest for improvement at work. Kaizen philosophy is one that works to constantly improve the performance of employees and managers, the interaction between employees and management, and the pursuit of better productivity.

According to Monden, Y., Hamada, K., (1991); Ashmore C., (2001); Imai M., (1986); Watson M., (1986); Wickens P. D., (1990), Teian K., (1992) and Hammer M.,et al., (1993) several factors need to be part of the corporate culture for a kaizen philosophy to take effect in the organization.

- For a kaizen strategy to work, employees must be satisfied with their jobs and be interested in working to continuously improve their performance (job satisfaction). The human resources department should survey employees to determine the staff attitudes toward job satisfaction and work to improve the workplace conditions until job satisfaction is achieved.

- The company must be dedicated to a kaizen strategy for it to work (company involvement). Managers need to be encouraged to set time aside for employee evaluations, and employees need to be allowed time to monitor the managerial staff as well. A kaizen needs...
to be a priority in business planning for it to be successful.

- The organization must present a kaizen strategy to the managers and employees as a way to improve company productivity and add to the corporate bottom line. A kaizen strategy can look like a common-sense approach to job development, but its effectiveness is in the ability of the staff and managers to stay dedicated to it (dedication). Developing the proper attitude toward a kaizen strategy and getting your company to understand its benefits will make it easier to implement.

- A kaizen philosophy requires a lot of questions about individual and group performance (questioning). The staff needs to be prepared to field a lot of questions about why they did something a particular way, what results they were hoping for and how they judge the results they achieved. Letting the staff to know these questions are not an indictment of their performance but rather a way to improve productivity.

- The employees need to have an open mind for a kaizen strategy to work (open-minded). It can be a significant departure from the conventional way doing things. The constant analysis of job duties and employee interaction can seem unnecessary at times.

- When a person working within a kaizen philosophy has a question about a work process, the manager should encourage that person to ask several people for input (teamwork) (Wickens, 1990). The employee needs to learn to work as a team and respect each others’ opinions and input for kaizen to be effective.

- Finally, when something goes wrong, a common defense for employees is to begin pointing fingers at others (no finger pointing). The managers need to create a culture where mistakes are looked at as opportunities to learn and improve as opposed to being reasons for accusations.

7. Obstacles of Kaizen Implementation

The Japanese concept of kaizen, or continuous improvement, has been long lauded as a success. However, there have been charges levied against kaizen that it is simply a passing management fad, popular one day but out the next. Such an attitude is a truism: if a company treats it as a fad then it will be a fad. Here are six reasons why organizations fail when implementing kaizen. One of the reasons of kaizen failure is that a company is not fully committed to making kaizen the cornerstone of their strategy.

From different literatures for instance Murata, K., Katayama, H., 2010; Murata, K., Katayama, H., 2009; M.H.M. Rusli, A.Jaffar, S. Muhamud-Kayat, 2013; Wickens P. D.,1990; Dean M, Robinson A, 1991; Bassant J, Caffyn S, 1994; M. Huson, D. Nanda, 1995; R. Balakrishnan, T.J. Linsmeier, M. Venkatachalam, 1996; Radharamanan R, Godoy L P and Watanabe K I) here are several obstacles in organizations when implementing kaizen. Firstly, kaizen is seen as a short term project. The emphasis here is on long-term improvement. Although the concept of kaizen is quite simple to understand, it is
difficult to master and will need time before it is fully understood by all employees. The main problem with implementation is that often companies expect a quick turn around and visibility in Key Performance Indicators (KPIs) within a year, and when it doesn’t appear, write kaizen off as a failure. Secondly, kaizen can only succeed in places where there is a true desire to improve (overemphasis on tying kaizen to KPIs). While it is important to tie kaizen to KPIs, over emphasis on it would ignore the fact that improvements are often incremental, not revolutionary. Kaizen is like a snowball rolling down a gently sloping hill – it gathers momentum and increases in size as it comes down. The improvements gradually accumulate overtime, as processes are perfected and methodologies tweaked. Thirdly, lack of commitment is only one of several common reasons why kaizen implementation fails (implementing kaizen in a heavily bureaucratic organization). Kaizen will never succeed in an organization bogged down by a bureaucratic mind-set, filled with rules and procedures with people who would resist any sort of change. Another type is where change is punished and blocked, whether formally or socially, decimating any incentive to improve. Fourthly, kaizen will never work if people do not implement its full suite of tools and concepts, with sufficient training given to take advantage of them (training on kaizen isn’t provided). All the tools and the mindset that everything can be improved, is an essential part. Fifthly, kaizen implementation will fail where management does not support kaizen initiatives. The importance of support cannot be over emphasized. It is essential that management isn’t just fully on board, but essential that they want to fully embrace the long-term commitment of kaizen to the organization. They need to pass on their enthusiasm and demonstrate that even they are continually looking for new and better ways of doing things.

To conclude, kaizen is about everyone improving everything, not just a group doing all the work. Kaizen is all about making things better in the long run, and improving profits and processes. It is a strategy that needs to be implemented now, for the future.

8. Contributions of this Article
This article contributes to the body of knowledge by systematically and empirically documenting the implementation of Kaizen and by identifying the critical success factors that are most strongly related to kaizen outcomes. In addition, the article contributes to organizational practice by increasing understanding of the factors that affect kaizen implementation negatively. Thus, the research will help organizations design and implement more effective kaizen.

9. Conclusion
From the literature, it can be concluded that there is a reasonably vast literature available on kaizen philosophy, which gives a broad view of past practices and researches carried across the globe. However, there has been limited empirical research in implementation of kaizen in Ethiopia to verify the degree of outcomes achieved through kaizen. In
particular, researches on kaizen implementation in service industry appear to be rare. Thus, kaizen is a widely accepted philosophy in industries more research work is required in this field. The author also feels that from the different technique kaizen, more emphasis should be given to the influence of training in the kaizen implementation. So a great scope of research is available for researchers in this field particularly in Ethiopia.

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