The process of solutions involve in gemba management essay

Business, Management



\n[toc title="Table of Contents"]\n

 $n \t$

- 1. 1. OIntroduction \n \t
- 2. 2. 0The Concept of Kaizen \n \t
- 3. 2. 1The principle of Kaizen: \n \t
- 4. 2. 2The process of solutions involve in Gemba \n \t
- 5. 3. 0Implementation issues \n \t
- 6. 4. 0The applicability of Kaizen \n \t
- 7. <u>5. 0Benefits \n \t</u>
- 8. <u>6. OConclusion \n</u>

\n[/toc]\n \nASSIGNMENT REPORTENGINEER AND SOCIETYEHM

3066Trimester 3 2013/2014TitleKaizenStudent NameIDMajoringHuang Yuit

Hwai1092701359REJimmy Wong See Woei1111112618RELee

Yang1102700775REMichelle Lee Yan Ni1102702040RETable of Contents

1. 0Introduction

The word "Kaizen" is extract from the Japanese word where "kai" means "change" and "zen" means "better". In other words, it is a system of continuous improvement in some aspects such as technology, quality, processes, safety, company culture and leadership. After World War 11, most of the industries in Japan was ruin so they need a plan to reconstruct their country. The plan that successfully achieve the goal is known as Kaizen.

According to the past literature, we summarize the Kaizen methodology as:

1. one that involves all the employees of the firm; 2. improving the methods or processes of work; 3. improvement are small and incremental in nature

and 4. using teams as the vehicle for achieving theses incremental changes. As we relate it to the workplace, Kaizen is referred as continuous improvement involving managers and workers, customers and suppliers where it involves productivity improvement, quality control circle, zero defect, etc. [1]. The Kaizen strategy is undoubtedly the driving force for Japanese managers and it is important to their success. Since the successful lead of Japan, Kaizen philosophy has been implemented in organizations around the world. With the use of Kaizen, it improves production values, employee morale and safety.

2. 0The Concept of Kaizen

The origin of Kaizen can be traced to the quality Guru Dr. W Edwards Deming but Masaki Imai is the one who popularized the concept of Kaizen and make the revolution around the world. Imai once said, 90% of all corporate problem can be solved using the concept of continuous improvement and common sense.

2. 1The principle of Kaizen:

Elimination of Muda" Muda" is a Japanese word means " waste". Waste reduction is an effective way to increase the profitability where Muda elimination can be divided into following aspects: Muda of over production, Muda of inventory, Muda of waiting, Muda of motion, Muda of transportation, Muda of producing rejects and Muda of processing. For instance, the tragedy at Bhopal, India could be avoided if Muda of inventories were practiced [2]. Go to Gemba when in doubt" Gemba" in Japanese means workplace. Many managers learn about the problems that happened in Gemba from a report

that reaches them several days or even weeks after the problem exist. In other words, Gemba is the place where value is added and problems are solved through processes such as taking temporary countermeasures on the spot, find out the root cause and standardize for prevention and recurrence [2]. In short, whenever there is activity, it will involve work and Muda. Therefore, less Muda will make the clients to be more satisfy as quality, cost, delivery and services are taking into account into consideration.

2. 2The process of solutions involve in Gemba

Involve the peopleIn order to achieve success in an organization by using Kaizen, people needs to involve it where suggestions are required in a bottom to top manner. Systematic and continuous improvement is only possible when everyone in the organization is participated. Immediate action and search the root causeKaizen advocates taking immediate action on the suggestions, collection and analysis of the data to spot on the root cause of the Muda. Finally, it determines whether the solutions will reduce and eliminate Muda or not. StandardizeOnce the solution is confirmed and proved by the data collected and analyzed, the solution is standardized throughout the organization to ensure that there is no recurrence. Normally when we discuss about Kaizen, it does not mean the improvement and changes will be significant that will lead us a big step to the success. In fact, the concept of Kaizen is to systematically step by step increments towards improvement. Figure 1: Kaizen: improvements and changes

3. 0Implementation issues

Kaizen, a Japanese concept means continuous improvement, has been successful implement in a lot of companies in Japan or even western countries. One of the well-known implementation is Toyota Production system. Even in a world with limited resources, however, an organization must be mindful of what Goldman stresses: "There's always a better way, and never a best way" [3]. Therefore, to implement Kaizen concept to an organization, it will causes a lot of problems and issues before it success. The predominant method used by many organizations to achieve work outcomes in the early 20th century was Taylor's (1911) scientific management. This mainly concentrate in specialized work content, job standardization, and job classification. The present of independent work groups in organization clash with standardization of worker content, often resulted in managementworker conflicts thought to lead to low efficiency [1]. Objectives for Kaizen events typically originate from a deficiency identified in at least one lean principle and result in the assembly and deployment of a Kaizen team focused on identifying and eliminating waste within the specific work process, job design, or equipment. In this context, wastes mean by activities which consume resource but the outcome is non-value. Besides that, the most challenging issues for implement Kaizen activities is the transfer of Kaizen concept to overseas factories. For example, a Japanese organization transferring Kaizen activities to Japanese factory in Thailand to carry out Kaizen event. Since the majority of the workers are Thai people, it is difficult to implement Kaizen concept to them due to the language barrier, culture and background. In order to introduce Kaizen activities to Thai people, the

Japanese Managing Director tries to modify Kaizen concept to suit Thai culture, and organize a proactive awareness campaign. Firstly, he set up an event to communicate with Thai employees. Through these events, he encourage all employees to take part in small group activities. Furthermore, he often praised the operators for all their Kaizen activities. He wanted to make his employees feel Kaizen activities are enjoyable. As a result, Kaizen activities have not been " forced" on employees but have spread " cheerful" throughout the factory [2]. A year later, the manager changes the focus of the small group activities to productivity. The employees were becoming more motivated toward Kaizen activities and more operator started to accept the Kaizen concept. So he decided to change the purpose of Kaizen activities to increase the productivity. Overall, Kaizen activities were introduced to factory, they were introduced in a manner appropriate to Thai culture. In keeping with Thai cheerfulness, the Kaizen activities were sensed as "fun" by the operators. If cutting costs had been the focus from the first year, the operators would not accepted Kaizen activities but try to against it and Kaizen activities may not have penetrated as far as they did. Since the introduction and promotion of Kaizen activities focused on " acceptance," the operators held little resistance to the Kaizen activities [2]. The manager successful make his employee viewed the Kaizen activities as " fun" [2]. On the other hand, employees misunderstand or uninterested toward Kaizen activities is also one of other issue faced during the implementation of Kaizen concept. Manager will often meet their employees that lack of confidence and motivation toward a target. In order to solve this problem manager should give them a motivation talk and provide a clearer concept of

Kaizen by showing them the examples of successful Kaizen activities. Furthermore, manager should develop a suitable systems for resource allocation, measurement, reward and incentives. Once these preparations are done, ensure that each of the employee is understand and accept Kaizen as a means by which the firm can achieve a competitive advantage in the marketplace. Then employees are ask to form Kaizen teams, target should be set in discussion within the team members. A professional training should be given among them. Apart from that, during the Kaizen implementation manager often treat Kaizen as a short term project. It seen as short term project but it is emphasis in long term improvement. The main issue with the implementation is that the manager often expect a fast improvement and visibility in KPIs within a month or even a year. When this condition does not meet the expectation, then they consider Kaizen activities as a failure [1]. In fact, Kaizen activities will show minor improvement in the beginning, before slowly propagating throughout the organization. After a period of time, the company will start to benefit from it. The other one of implementation issue was how can expert knowledge form the manager be best used for different types of Kaizen teams [4]. Without correct way of the management, the expert knowledge cannot delivery through Kaizen activities efficiently. In order to solve this kind of problem, Kaizen teams can be divided into 3 team that follow methodologies in order to improve Kaizen work processes. Project Team, a temporary group, people in a mix of expert knowledge and experience from areas such as Engineering, Processes, Quality and Operations which brought together to solve an unknown problem, with high complexity and relevancy [4]. The other team is Kaizen directive team, a

management group, people from the first and second levels of the organization to lead and coordinate the research and development group in order to accomplish the new product development process [4]. The third team was Kaizen natural improve team, group of worker working in a common area of assembling, they have to define a correct way to assemble equipment in an effective way [4]. By the cooperation of this three teams, the organization can achieve their goal and gain benefit faster and efficient.

4. 0The applicability of Kaizen

The introduction of Kaizen and the concept of it had been discussed in previous. There must be a briefly understanding towards Kaizen until this moment. But, how capable it is? And how it can be applicable? The Kaizen can be applicable in wide perspectives, such as various production industries, medical Centre, governments and so on. Mainly, it is lean tool used for continuous improvement in processes. Nowadays, there are many successful cases that using Kaizen in worldwide. Originating with the Toyota Production System, lean production is the result of decades of development by automotive manufacturers, resulting in improved productivity, quality, and safety (Ohno 1988). In construction industry, safety and productivity are important. It is often facing with high injury rates and low productivity situation. The Kaizen can be applied here to make improvements such that safety level and productivity can be increase. From a case study that performed a Kaizen in one station (base framing) in a modular homebuilding plant over the course of 2 months by using the Safety and Lean Integrated Kaizen (SLIK) process, three major changes and several smaller changes

were implemented through a series of meetings and working sessions, particularly layout improvements and revised standard procedures[1]. These changes resulted in a 55% decrease in work hours needed to complete one base frame, a shift in activities from non-value-added to value-added of 16%, and a decrease or elimination of specific safety hazards [1]. The decreasing in work hours to complete one base frame can be said that the efficiency is increased. The productivity can be increased with the higher efficiency. There is limitation can be obtained in this case, such that only one specific work environment: modular homebuilding had been used and studied. Although modular homebuilding is essentially a residential construction processes, this industry has characteristics of manufacturing attributed to standardized processes and controlled environments [1]. There are still other different constructions such as on-site residential construction which is less predictable due to the weather, the coordination of various contractors, and always changing the job sites constantly. Now, let us see how it applicable in medical Centre. In medical Centre, it is always related with human life and humans' healthy. This is the reason why improvement in quality is very important in this perspective. From a case study on how Kaizen benefits in improving the quality in emergency department (ED), the Kaizen Program was constructed such that any physician could submit an idea at any time during his or her shift [2]. A web page with title "the Kaizen Portal" was built and the link was placed on every work station desktop and on the ED's homepage as well. This allowed a resident or faculty physician to submit a Kaizen-minded idea, concern, or observation, which had been called a Kaizen initiative (KI) [2]. The physicians were being encouraged to identify areas

that needed to be improve by using the Kaizen Portal and provide a solution if it is possible. A Web-based application titled the Kaizen Tracker was designed and built due to solve the problem of the Kaizen Portal faced which is the disorganization of the e-mail. It allows the ED chair to assign staff to specific KIs, set a due date, and categorize each KI into predetermined categories such as "equipment", "pharmacy", or "radiology" [2]. The Tracker also indicates whether the KI is active, deferred, or completed and tracks all comments made about the KI and allows every physician in the department to view information on every KI ever submitted [2]. Over the past 4 years, the Kaizen Program has been widely and frequently used within the ED and it has resulted in over 400 changes in the adult ED and because of the KI program, residents and attendings have become more consistently and actively involved in the CQI process, making the Kaizen Program a highly successful and visible CQI effort [2]. The Kaizen Program may be an excellent tool for other departments to assist with quality improvement and should be studied with a multicenter prospective approach [2]. With the feedback from the residents and faculty physicians, the medical care Centre can notice what problem that they are having all the times. This helps them to identify and provide a solution to solve it. The limitation in this case is the authors strongly believes that they have created a new culture in their ED and that all problems identified via the Kaizen Tracker are now addressed in a formal, transparent, and visible way, they recognize that they have not proven that their ED's provision of service has improved [2]. A major limitation to this study is that they do not have metrics to prove that their ED operates in a truly different way or that residents and faculty all agree that

the Kaizen Program is highly valuable [2]. Furthermore, it studies only one ED from a specific medical Centre. In many countries, the government agencies are trying hard to control and improve their financial condition through their budgets and operations. Sometimes, it can be help by those who behind bars. There is a case study that involves the offenders into a lean project. According to Jeannie Miller, lean operations manager for the Washington Department of Corrections, "include the offenders in that project because they are, in fact, our workforce." " Our mission is to truly train offenders that are incarcerated - to give them job skills so that when they are released there is a reduction in their recidivism," she said. The staff members that had been trained will then sent to their own particular work site to perform a value stream mapping project. From the case study, it also mentions that after applying lean, the total production space had decreased from 165, 698 square feet among four facilities which includes office furniture for state agencies, nonprofits, K-12 public schools and higher education institutions to 107, 979 square feet for manufacturing division. And the month long order-to-floor process dropped down to three days - a 90 percent reduction [3]. " It took about a year for our full evaluation process, but within three months we went from 30 percent to 40 percent past due to 90 percent on time," Miller said [3]. The food division had also achieved comparable success. It created a standardized statewide menu and centralized production planning, distribution and procurement as well as adding more production hour from 15. 6 hours to 22 hours per week and the standardized menu saved \$1. 3 million [3]. Within the textiles division, Miller said the former dynamic had been for each institution to hold its own

inventory of officer and offender uniforms of all ranges and sizes, some of which were not even common and it was the inventory for the whole Department of Corrections, not just Correctional Industries [3]. The textiles division will produce the uniforms when needed instead of storing them. By applying just-in-time, the division reduced inventory and increased shop capacity and including other value-added activities yielded \$2.7 million in savings [3]. After applying the Kaizen program is really making big step of improvement in this case and the offenders also playing an important roles. Overall, the applicability of Kaizen can be said incredibly well. It can applicable and helps to make improvement in many different perspectives, such as improve in productivity, performance, quality and so on.

5. OBenefits

Every human, and every things have to be improve from time to time, improve means a change for the better. [1] Improvement is so important because it leads a lot of benefits to us. For example: because of the advanced technology of medical, human life-span is extended. In Japanese culture, 'Kaizen' is one of the popular philosophy to help human in improvement. [2]Kaizen is a system of continuous improvement in quality, technology, processes, company culture, productivity, safety and leadership. [1] It focus on identifying the problem and do modification until the problem is ensure to solve. The benefits of Kaizen are: improve productivity [2]improve product quality [2]improve use of capital [2]improve space utilization [2]Improve employee retention [2]Improve communication [2]better safety [1]faster delivery [2]lower costs [2]Greater customer

satisfaction [2]On top of these benefits to the company, employees working in Kaizen-based companies generally will be easier and more enjoyable. This results in higher employee morale and job satisfaction, and lower turn-over. There is a big difference between employees of a company enjoy in his work and employees of a company do not enjoy in his work. An employee who enjoy in his work will have a higher efficiency compared to the employee who do not enjoy in his work. An employee who enjoy in his work will have an idea of wishing the company as good as possible. Therefore, they will support every decisions of making the company to be better and they will suggest their idea which they think can help in company development. In a Kaizen-based company, it is normal receive 25-30 suggestions per employee, per year, and to have over 90% of those implemented. For example, Toyota is well-known as one of the leaders in using Kaizen. In 1999 at one U. S. plant, 7, 000 Toyota employees submitted over 75, 000 suggestions, of which 99% were implemented. Kaizen not a building block only making improvement in quality and quantity of the product. It also help to reduces waste in areas such as: employee skills [2]waiting times [2]Transportation [2]worker motion [2]over production [2]excess inventory [2]quality and in processes [2]Reduce waste is very important because it helps us using lesser effort to gain greater profit. For example: Imagine you want to have a cup of coffee. How many steps are you go through? Do you pick up the cup when you pour the coffee into the cup and put it back to add sugar and cream? After that walk to another place to get a spoon to stir it? Look at every step you go through, find out all unnecessary step and cut it out to get higher efficiency. This is the concept of Kaizen. Kaizen teach us find out all

unnecessary human force, time, place and so on and cut them out to get the same result as before. According to the survey with the companies which using Kaizen, the following are some results that the companies achieved: Inventory reduction: 30-70% [1]Operating space: 50% of baseline [1]Leadtime reduction: 40-80% [1]Productivity improvement: 20-60% [1]Setup time reduction: 70-90% [1]Walking distance reduction: 40-90% [1]On top of these results, the section which reduce by the Kaizen most is Setup time. Chinese have a sentence states that times is the money. It is agree with everyone, nowadays, you can see the people around you do their things in a faster speed, seems like they are in a hurry. They wish to finish their jobs in a shortest time and using the free time to do a part time, take a part-time course to increase their knowledge or stay with their family. Lastly, we know that our earth is polluted by human. Some specialist suggest us do not use the goods that will harm our earth because it will directly affect our next generation. Kaizen is also a system that helps factory to reduce the pollution on earth. The companies or factories that involve in Kaizen able to use Kaizen as a foundation for pollution prevention to create sustainable results. The companies or factories will systematically recede the volume and level of severity of contamination.

6. 0Conclusion

As an overall, we can observe that there are two main components that build up 'Kaizen', those are improvement/ change for the better and continuous activities. Without one of those components, it is not known as 'Kaizen'. For instance, a businessman has his business as usual without any changes to

avoid risk contains the component of continuity. In contrast, if the businessman is expanding his business to achieve better outcome in that particular time; it contains only the components of improvement without continuity. Hence, those components cannot be separated in either ways. Kaizensists say that quality is a system or means to economically produce goods for services, which satisfy customer requirements [10].