INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
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Contributions to books

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

Journal and other articles

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

Conference papers

- Chandel K.S. (2009): "Ethics in Commerce Education." Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

Unpublished dissertations and theses

- Kumar S. (2006): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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- Kelkar V. (2009): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on February 17, 2011 http://epw.in/epw/user/viewabstract.jsp

KAIZEN IN THE INDIAN CONTEXT- A CASE STUDY

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ABSTRACT

Quality has become a prerequisite for success of any organization. It is being increasingly recognized that a high quality of products and services and their associated customer satisfaction are the key to survival for any enterprise. Quality consciousness of the customer and competitors has forced the manufacturers and service providers to search for more and more effective ways to achieve quality as defined by ultimate end users. In today's turbulent and market driven economy, only those companies will survive who will adopt such practices, programs or methods which help in considerable and continuous improvement in products and services offered by them.Total Quality Management (TQM) is widely accepted philosophy for achieving continuous quality improvements in all aspects of business. Kaizen, a philosophy, a strategy, a progrmme & an inherent part of the TQM process, helps to improve quality of goods & services of an organization. Continuous improvement (or Kaizen) is the philosophy of continually seeking ways to improve operations. It transforms the drive towards quality into a never – ending journey. Kaizen means improvement & ongoing – continuous & never ending improvement involving everyone in work life. This has been one of the key concepts in success of Japanese industries. Kaizen is built on the premise that the knowledge of how to improve the workplace should come from the workplace itself and not to be imposed from outside. This paper illustrates the concept, principles of kaizen with a structured approach for its implementation. This paper also presents an insight into the kaizen system in a large Petrochemical plant based at Surat, Gujarat, India. Areas for improvement of the system in this organization are also presented which helps to continuously improve quality and productivity of work processes of the organization and thereby helping the organization in setting and reaching higher and higher standards of performance.

KEYWORDS
Kaizen, TQM, Petrochemical Unit, Kaizen Implementation

INTRODUCTION

Quality is one of the key attributes to a product or service that is used by customers to gauge organizations, in this present day of competitiveness. Many organizations worldwide constantly work towards improving quality, reducing unnecessary processes, involving all employees within the organization towards meeting the business objectives. These activities are being managed through various concepts with few aiming at major changes while others at small and continual improvements. One such popular concept is Kaizen. Kaizen is about making small improvements. In a growing economy many companies grow looking at big quantum changes. However, during lean market conditions many organizations look at small changes that can result in eliminating unnecessary processes, changes that can save cost, improve quality etc. Whether organizations look at big quantum or small changes, Kaizen, yields good results if implemented properly. Apart from the small continual improvements, Kaizen results into more employee participation and motivation.

Japanese companies have benefited to a great extent from this concept. Looking at this success many companies worldwide have adopted the same. Companies like Aarti Drugs Ltd, Andhra Petrochemicals Ltd, Assam Company India Ltd., Bhansali Engineering Polymers Ltd., Bongaigaon Refinery & Petrochemicals Ltd., Cairn India Ltd, Castrol India Limited, Chemcel Biotech Ltd, Chemplast Sanmar Ltd, Deepak Fertilizers & Petrochemicals Corporation. Ltd, Duke Offshore Ltd, Essar Oil Limited, GAIL (India) Limited, Hindustan Petroleum Corporation Limited, Hingir Rampur Coal Company Ltd, Indian Oil Corporation Limited, Indian Petrochemicals Corpn. Ltd, Indraprastha Gas Limited, Kesoram Industries Ltd, Manali Petrochemical Ltd, Mangalore Refinery & Petrochemicals Ltd., Marathwada Refractories Ltd., Multibase India Ltd, Nu Tek India Ltd, Oil and Natural Gas Corporation Limited, Oil India Limited, Rama Petrochemicals Ltd, Refex Refrigerants Ltd, Reliance Industries Limited, Sen Pet (India) Ltd, Shri Shakti LPG Ltd., South Asian Petrochem Ltd, SPL Polymers Ltd, Supreme Petrochem Ltd, SVC Superchem Ltd, Tamilnadu Petroproducts Ltd, Tide Water Oil Company (India) Ltd., Triveni Glass Ltd., UUnimers India Ltd, VVision Organics Ltd. to name a few, in India have adopted this concept; employees are encouraged to participate.

TOTAL QUALITY MANAGEMENT

TQM is integration of all functions, processes and personnel with an organization in order to achieve continuous improvement of quality services to meet the needs and expectations of customers. TQM is about efficiency, productivity, long term success and adopting an attitude that all individuals can contribute to the pursuit of continuous improvement. It is about driving out fear, breaking down barriers and encouraging people to educate or develop themselves to work in teams, to think for themselves and believe that things can be continuously improved. Everyone in the organization needs to believe in quality to contribute towards it by constantly improving standards.

KAIZEN (CONTINUOUS IMPROVEMENT)

Kaizen is a Japanese word. Kai means "to change or modify" and Zen means "to improve or make better" and together they mean continuous improvement & it means continuous, gradual and orderly improvements. Kaizen, the core concept of TQM, is a short term, cost effective and

result oriented technique, which helps to identify root causes of inefficient working and offer systematic approach to change the attitude of people, to eliminate causes of problems in the process, leading to improvement in quality of output and to miraculous organizational changes. Kaizen signifies step by step, gradual, large number of continuous improvements, no matter how small, which should be taking place all the time, in every process involving everyone from management to workers. In contrast to seeking improvement through radical technological change (i.e. break through improvement), Kaizen focuses on small, gradual and frequent improvements over the long run (Seth and Rastogi, 2004).

Principles of Kaizen: Kaizen implementation operates on the following principles:-
1. Human recourses are company's most important assets. In the core of the system lies the fact that the best person to suggest improvement is the man on ground.
2. Success cannot be achieved by some occasional radical changes alone, but by incremental yet consistently arriving improvements.
3. Improvements must be based on a statistical or quantitative study of the performance of process.

Concept of Kaizen: Any activity directed towards improvements falls under the **Kaizen umbrella.** Activities to institute employee suggestion schemes, zero defects programme, CWQC, JIT, installing robotics and advanced technology – all leads to improvement & serve to enhance the quality of the firm(**Fig.1)** .Everybody deserves to and should be willing to improve himself/herself for the better continually.

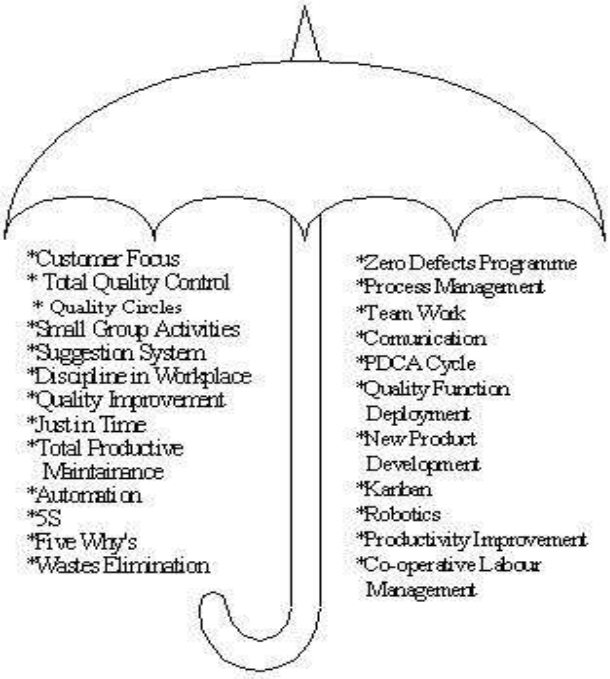


Fig. 1: A Kaizen Umbrella [3]

THE KAIZEN PROCESS: Kaizen process provides a disciplined & analytical approach to problem solving. Kaizen puts its emphasis on process-oriented way of thinking & management system that supports & acknowledges peoples' process-orientated efforts for improvement. The kaizen process is built on PDCA cycle & consists of seven basic steps (**Fig.2),** which allows any individual or team to solve problems scientifically, rationally & effectively.

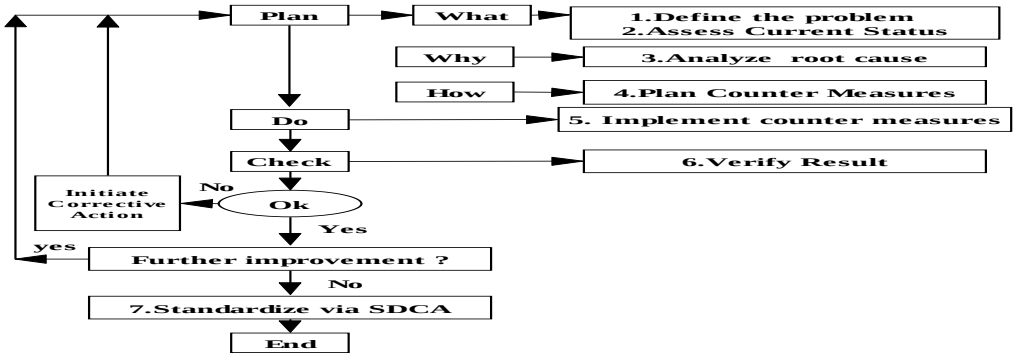


Fig. 2: Pictorial Form of Kaizen Process [4]

Kaizen Variables & Organizational Performance: - The relationship of Kaizen variables & its positive consequences on the organizational performance is presented in **Fig 3.**

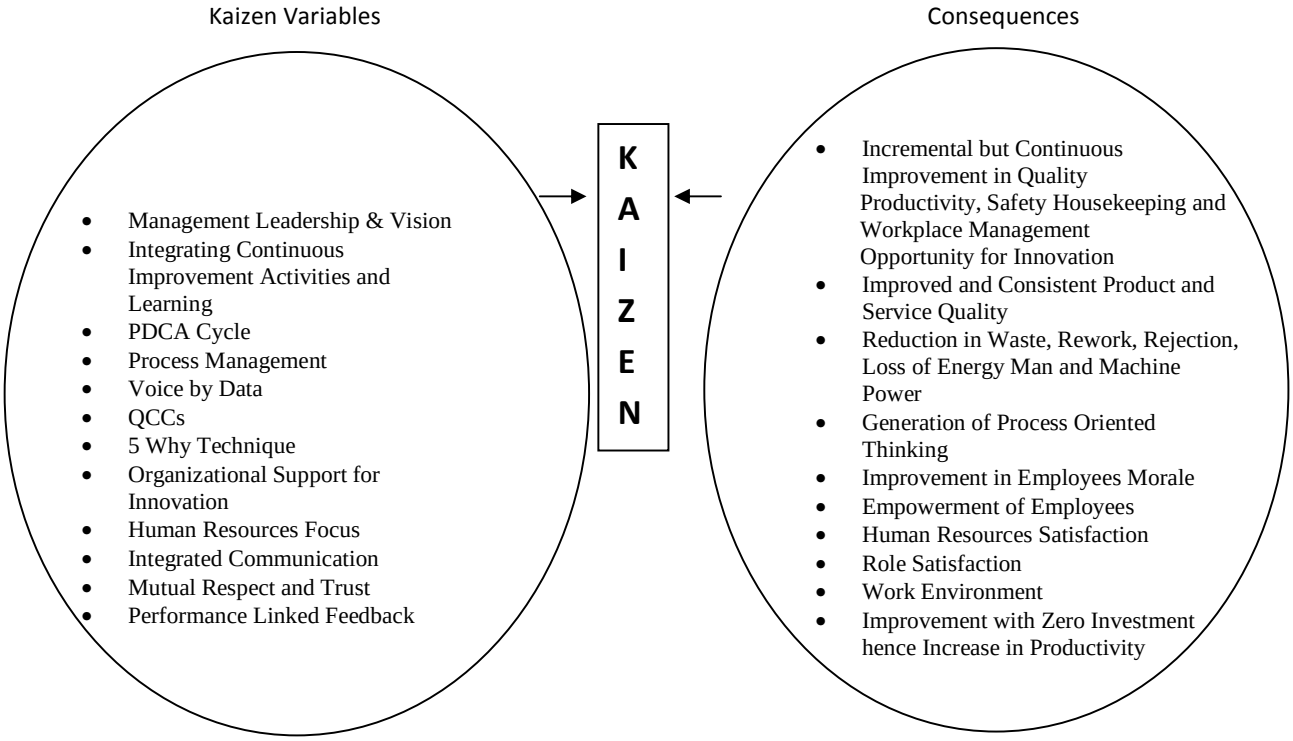


Fig 3: Kaizen Variables & its Consequences on Organizational Performance [3]

Kaizen Track Record: - The organization can maintain kaizen track record as shown in **Fig 4.** The company can analyze their Kaizen movement from number of Kaizens per man –year. The Kaizen rate per man year may go up & then fall. Every company concentrates on quality in the first few years, so the number of kaizens initially always shows an uptrend then the number of kaizens falls as a result, before it stabilizes. That is quite normal.

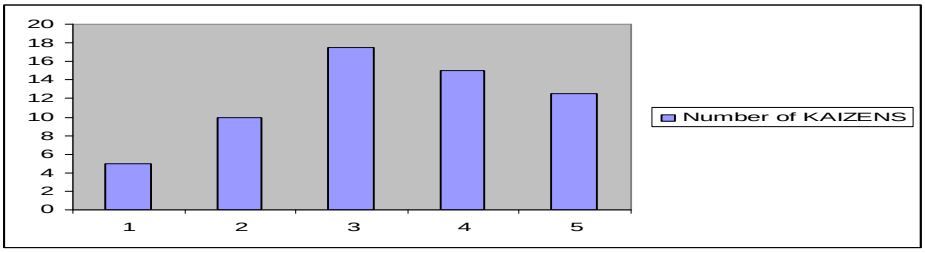


Fig 4: KAIZEN Track Record

Few aspects of a Kaizen system: Few aspects of Kaizen concepts/practices are presented:

(a) Employee participation

The most important aim of Kaizen movement is employee participation. This is based on the philosophy that employees working in a function know the problems associated with their work and can solve their problems and generate creative proposals.

(b) Characteristics of a Kaizen system

If a Kaizen system has to bring positive results, it must have the following three characteristics:

1. Must be a compelling force: The ultimate compelling force is the attitude of the company's senior managers. Any corporate activity depends on guidance and support from senior management, for survival. Another compelling factor is associated with the administrative structure. Managers are in-charge of departments, and they should be responsible as well for any activity that improves the management of business.
2. Must create motivation and incentives: Although creating a compelling top-down appeal is the fastest and most immediately effective way to promote improvement activity, a genuine kaizen movement requires more than that. Mistakes can be costly, because each mistake takes away employee interest. If managers exert force on employees, using quotas and other means for leverage, they may achieve an effect opposite to the one intended. While compelling force is useful in the initial stages before the improvement proposal movement picks up speed, educating the employees why they are doing the activities will help them stay motivated. If the intention is to create a system that looks good to company managers, employees may not take the system seriously.

3. Must be educational and must be instrumental in developing skills: A movement based only on willingness to participate has obvious limitations. With participation as the only criterion, it would be easy to give high marks to superficial and temporary measures that are not improvements in the real sense of the word.

(c) Introducing and developing a suitable system

Reward schemes differ from organization to organization. Some companies pay good amounts for a proposal received, while others pay a small amount. Some companies request ideas that can bring about big quantum changes, while other companies expect a series of small personal and innovative ideas.

Some companies form evaluation committees consisting of people in key positions. The managers who are responsible for specific areas decide whether to accept a proposal and determine the amount of reward.

Whatever the purpose of a system, success depends on whether the means to achieve that purpose is suitable for the purpose. If a system is in place, but gets no results, it is often because the purpose of the proposal system does not correspond with the system that is used.

(d) Implementation of Kaizens

When company establishes a proposal system in which the problems of one department are open territory to the people of another department, suggestions are apt to pour in from every quarter. Soon the company is overwhelmed with suggestions, finding it difficult to implement the suggestions. Some projects would cost a lot of money to carry out. If it is a major proposal, it often involves some risk and a lengthy implementation process. Certainly, the implementation of such projects is much more time-consuming and labor intensive than the act of making the proposal.

That is why people who are busy trying to do their jobs postpone indefinitely the implementation of suggestions from other departments. If this is the reaction to a proposal that is sincerely meant, surely it is better for employees to concentrate on their own work and stop wasting their time making unappreciated suggestions.

So it is important that an organization decide upon the area within which Kaizens can be generated by employees.

(e) Personnel for implementation of Kaizens

Many companies encourage the proposer actually implement the Kaizen. It was observed that the number of suggestions go up.

(f) Skills and Abilities

The more experienced one is in the area relevant to the proposal; the better is the chances for seeing that proposal realized. Improvements are usually proposed by people who have mastered the area needing improvement. A good proposal presumes the skills and experience of its author. Employees must cultivate their skills and abilities if they want to be able to implement their own ideas. In this respect, improvement activity can also be regarded as development of abilities.

(g) Trends and Key points of the Kaizen cycle

Kaizen proposal activity represents a cycle with four major components **(Fig. 5)**

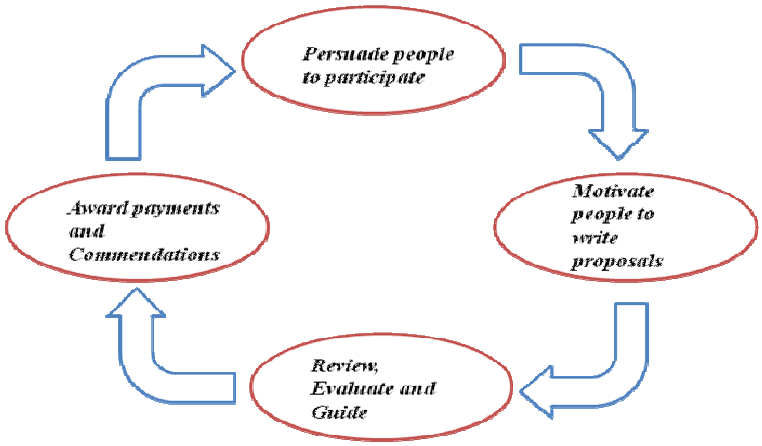


Fig 5: Kaizen Cycle

Smooth flow of the cycle has to be ensured for effective implementation and running of the system. Even if a system is already developed there can be problems. It is essential to analyze the reasons for obstruction and initiate corrective actions.

(h) Influencing proposal activities

Push strategy: The push strategy includes methods of influencing people from outside, nudging them in the desired direction of proposal activity. Some of these methods are soft and subtle, some are forceful and convincing. Methods that use compelling measures, quotas, and targets will get positive results quickly, at least in the short term. They are definitely necessary in the initial period, until desired working habits have been established. Campaigns and events, on the other hand, represent more subtle methods, a “soft” push.

Pull strategy: This typically involves encouragement or incentive offered by one person to another or an employee getting a colleague involved in the activities. One tool that can be used in this strategy is payment of bonus awards. Even if the awards are modest, it is better to have some payments than none at all. Proposal activity based on continuous improvement uses bonus awards as one component that makes the pull strategy more attractive. The award represents recognition of a person’s ideas. The other important pull components of the proposal activity are review, evaluation, guidance, and most of all, assistance with implementation. This combination of methods represents a powerful force that is instrumental in getting everybody involved.

(i) Review and guidance

The biggest stumbling blocks in the proposal cycle lie in the area of review, evaluation, and guidance. When people submit their ideas for evaluation and never hear back from the examiners, they may feel dejected and frustrated. When the review, evaluation, and guidance aspect

of the system functions properly, it can be a great motivating force. This force is more effective than money awards or campaign appeals from management to come up with proposals.

CASE STUDY OF KAIZEN IMPLEMENTATION

(a) Background

A large petrochemical firm, eager to implement quality improvement systems decided to implement Kaizen system. This was introduced along with few other Japanese quality systems. This system has been in place for the past seven years. These systems were brought into practice only after the organization operated without systems like these in place for more than a decade.

This petrochemical firm typically consisted of departments like operations, services, administration, technical, stores etc. Hierarchy of personnel, for a department, ranges from senior managers, managers, executives and technicians **Fig.6.** The role of senior management is typically administration, while that for managers is a combination of administration and shop floor work. The role of executives and technicians is typically shop floor work.

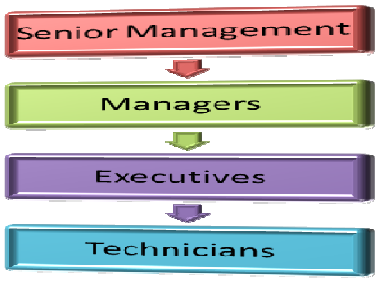


Fig 6: Hierarchy in Service Department

(b) Highlights of Kaizen system

In the initial years of implementation, the response to this system was Luke warm. To encourage participation of all employees various training sessions were conducted. However, the response didn't get better. So the management issued a guideline on the number of Kaizens that an employee should generate in a year. A computerized system was developed to enter a suggestion that is subsequently evaluated. Kaizens can either be given by an individual or by a team. A committee, consisting of top brass personnel, was put in place, to evaluate Kaizens within a given timeframe. A methodology to evaluate a Kaizen was developed with the key parameters for evaluation being:

a. The areas of focus – Reliability improvement, Safety improvement, Quality improvement, Process simplification
b. The cost of implementation
c. The returns upon implementation of Kaizen – Tangible, intangible, recurring benefits, one-time benefit
d. The cadre of the personnel generating Kaizen, with lower cadres being given a higher weightage
e. The complexity of analysis needed to arrive at that Kaizen
f. The degree of innovativeness involved in the Kaizen
g. Feasibility for implementation

Kaizen received is evaluated in terms of the above and marks are assigned against each criterion. Later on the net score is calculated. For implementable Kaizens, necessary actions are initiated. Kaizens that are not feasible for implementation are rejected. For all those Kaizens that are accepted, the employee is monetarily awarded based on the score. This methodology is same for all employees irrespective of departments.

(c) Data collection and compilation

The case study presented below is based on the Kaizens received from employees from the service department. Total number of employees in this service department is One Hundred and Fifty Five.

- Technicians – 26
- Executives – 53
- Managers - 66
- Senior managers – 10

The number of Kaizens generated in one year is 576.

Manpower distribution in service department is shown in fig. 7

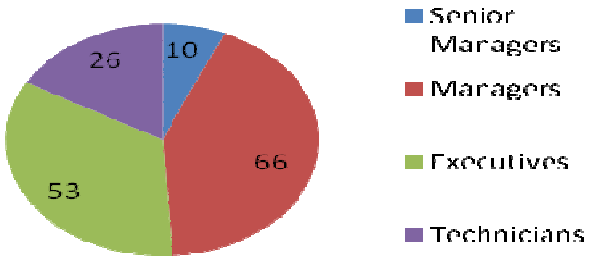
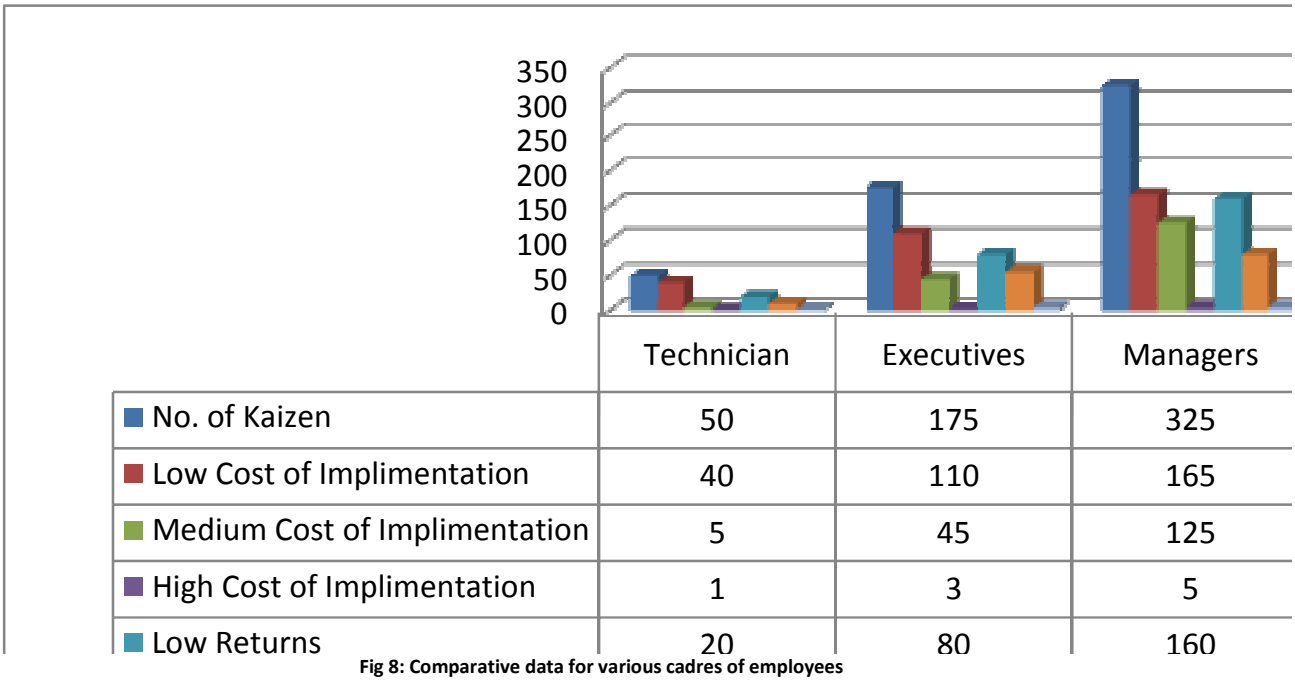


Fig 7: Manpower distribution in service department

Analysis of the trends associated with Kaizens indicated the following:

1. Number of Kaizens generated by contractor staff was 0
2. 56 Kaizens were generated by Technicians.
3. 179 Kaizens were generated by Executives.
4. 335 Kaizens were generated by Managers.
5. 6 Kaizens were generated by Top managers
6. 125 Kaizens were from areas other than individual's area of work.
7. 451 Kaizens were from areas within individual's area of work.
8. 336 were ones with low cost for implementation (Cost of implementation < Rs. 5000/-).
9. 213 were the ones with medium cost of implementation (Rs. 5000/- to Rs. 20,000/-).
10. 27 were the ones with high cost of implementation (> Rs. 20,000/-).
11. 305 were the ones with low returns (<Rs. 20,000).
12. 226 were the ones with medium returns (Rs. 20,000 to Rs. 1,00,000/-).
13. 45 were the ones with high returns (>Rs. 1,00,000/-).
14. 61 Kaizens were proactive in nature.
15. 515 Kaizens were reactive in nature.
16. 26 Kaizens were the ones received from personnel in Administrative role.
17. 548 Kaizens were the ones received from front line employees (shop floor personnel).
18. 228 Kaizens were generated for the same discipline.
19. 348 Kaizens were generated for a different discipline.
20. Number of Kaizens per employee is 5.0 (as per guidelines prevailing in the organization), while the average is 3.72.
21. The contributions made are not from every employee, but the average is due generation of more than 5 Kaizens by certain employees.
22. Most of the Kaizens arose out of the activity a person undertook during a repair work. The activity is non-repetitive, not standardized later on, nor in any way do helps resolve a similar problem. These were basically a documentation of an individual's response to a breakdown.
23. The content of many Kaizens simply reiterate an already well established engineering principle or practice, but were cited through an example.
24. Most of the cross-functional Kaizens (i.e. Kaizens for the target department) were basically system related. Systems were developed by departments without consulting the user departments.
25. 365 (63%) of the Kaizens await implementation, even though they can be implemented.
26. There is no system in place to link up Kaizens (those that can be implemented only during annual shutdowns) to the actual shutdown planning process. Many opportunities were missed.

Figure 8 presents comparative data for various cadres of employees.



	Technician	Executives	Managers
No. of Kaizen	50	175	325
Low Cost of Implimentation	40	110	165
Medium Cost of Implimentation	5	45	125
High Cost of Implimentation	1	3	5
Low Returns	20	80	160

Fig 8: Comparative data for various cadres of employees

(d) Discussion

On Kaizens received:

From the above the following are evident:

- 9.72% of Kaizens were received from 16.7% of employees (Technicians).
- 31.08% of Kaizens were received from 34.2% of employees (Executives).
- 58.16% of Kaizens were received from 42.6% of employees (Managers).

- 1.04% of Kaizens were received from 6.5% of employees (Senior managers)

1. The number of Kaizens per employee is the highest in the Manager group (5.08) and the least in the senior manager group (0.6). This is probably due to the following reasons:

- Effect of nature of work on the ability to generate a Kaizen
- Acquaintance with shop floor
- Understanding of Kaizen system
- Work pressures
- Associated mind set
- Inadequate training programs

2. More number of Kaizens was given in areas that were not within the line function of an individual. Most of these were out of a casual observation in other areas or were about systems developed by other departments. This probably is out of improper functional knowledge of employees or due to a rush to meet the targets or due to any inhibitions arising out of analyzing one's own functional area.

3. Majority of the Kaizens were of the low cost of implementation type. This was not the outcome of a rigorous analysis to search for low cost solutions but were due to :

- Improper concept of employees about Kaizen
- Incapacity to evaluate the actual cost
- Out of a reservation that the management would not appreciate Kaizens associated with high cost of implementation (even when the returns were good)
- Inadequate knowledge of employees regarding concept of Kaizen

Medium cost Kaizens were better worked out. High cost of implementation Kaizens were the ones that were associated with reliability, debottlenecking.

4. 10.6% of the Kaizens were generated in a proactive manner i.e. an improvement has been visualized, and suggestion towards improvement had been thoroughly analyzed and the solution derived. The rest of the Kaizens were reactive in nature implying that the solution had been developed after a failure occurred. Most of such Kaizens were based on repair activity that an individual adopted during trouble shooting or repairing a component, and these Kaizens didn't reflect the philosophy of Kaizen in a true sense, and they never aimed at any improvements. This is probably due to

- Inadequate understanding of employees about Kaizen
- Compulsion to meet the target

5. Many employees generated Kaizens as a group, and of a low quality (in terms of the returns, content of Kaizen) suggesting a very marginal level of involvement into this scheme and is probably due to

- Inadequate knowledge of a function
- Compulsion to meet the targets
- Ambitious in-charges eager to demonstrate their commitment by ensuring that their team achieves target
- Inadequate awards and commendations system in place
- Bias in evaluation of Kaizen thereby taking away the employee enthusiasm
- Inadequate level of motivation generated by the senior management

6. 63% of suggestions await implementation even after 365 days after acceptance of the Kaizen. Employees get greatly motivated when they see their Kaizens get implemented. It also speaks a lot on the commitment of management towards implementing and conducting the system of Kaizen. At present there is no effective system in place, to monitor the implementation of a Kaizen. This can be very demotivating factor.

On Kaizen system adopted by the organization:

The practice adopted by this organization in implementing and continuing the Kaizen system is identified here.

(e) Rewarding

The organization has a rewarding system that grades Kaizens in terms of the efforts put in and the results obtained. For higher and medium effectiveness Kaizens, the amount paid is of the order of Rs. 5,000/-, while the low effectiveness Kaizens are rewarded by a marginal amount of Rs. 100/- as an appreciation. However, the Kaizens that are rejected by the evaluation committee are not monetarily rewarded nor reasons for rejection provided.

Many of the accepted Kaizens are a simple reiteration of an established engineering principle or the course of action chosen by an employee in trouble shooting equipment. Even these types of Kaizens are rewarded. With many Kaizens in this low effectiveness type, there is a danger that high effectiveness Kaizens may receive a blow. Owing to this, many ideas, that could achieve high quantum results, are not floated at times, and personnel are more inclined to provide small Kaizens, in order to meet the targets.

At present both operations and service personnel are gauged on the same scale. However, this being a large scale production firm, there should be a difference between the criterion of evaluation between operations and service sector personnel. Owing to even a very small improvement in process parameters, the results will be quiet high. Achieving the same level of return by service personnel is quiet difficult.

(f) Employee participation

This company has systems developed by the senior management with little participation by employees. So the employees are also not much enthused with participation. The participation is basically to achieve the targets.

(g) Implementation of Kaizens

Majority of Kaizens await implementation after acceptance by the evaluation committee. This can send negative signals within the organization. This says that there is no effective way to implement the acceptable Kaizens, no definite responsibility on implementation of the same. This also reflects that the management is more interested in the figures regarding the generated Kaizens.

(h) Skills and Abilities

This organization is in existence for more than two decades, and personnel are very experienced. Even in spite of this, there seems to be a scope for greatly improving the quality of generated Kaizens. So the issue seems to be with the seriousness of implementation, commitment by the top management, lack of training in writing better Kaizens.

(I) Influencing proposal activities

Even after seven years of implementation, the only factor that seems to drive the scheme is the quota decided by management. Though this method is suitable during initial stages of the scheme, is not so good an indication of the health of the scheme.

(j) Review and guidance

There is no system in place for guidance though there is a system for reviewing the Kaizens. Guidance in the area of generating better Kaizens would be beneficial. This would provide lot of encouragement for the employees.

(k) Documentation

This organization has a good system for recording and storing Kaizens. This is quiet a friendly system.

AREAS FOR IMPROVEMENT

Following areas for improvement are suggested for making the available system more effective:

1. Kaizens are at present evaluated by a team of technical personnel, holding high positions in their respective disciplines. Evaluation by a dedicated team, instead, comprising of members belonging to various cadres may be considered prior to evaluation by in-charges of individual departments.
2. Name of personnel should not be disclosed in order to eliminate the subjectivity associated with evaluation. Loss of motivation for some personnel can be eliminated this way. Also, the practice of total transparency will help maintaining a healthy environment.
3. For Kaizens that are rejected, the proposer should be given an opportunity to present his Kaizen, so that clarity can be improved.
4. As a part of motivating people, eliminate the system with targets, instead other methods like public recognition may be tried.
5. Every accepted Kaizen should be linked to daily job planning or to a shutdown job planning. The number of Kaizens that await implementation can be brought down.
6. The committee should release the status of implementation every month, clearly stating the reasons for pending, and the same should be projected to the senior management.
7. Continuous training of employees in their line function can help them contribute better on improvements front. Also, employees need to be guided in proposal writing of Kaizens.
8. To improve the level of motivation of the service discipline personnel, it is necessary to have a different criterion for evaluation of their Kaizens.
9. Contract manpower carryout most of the field work. It is really surprising to see that there is no system in place to tap the potential of this work force. To enable this, top management should adopt a system, where a contractor can also contribute to the company's improvement. Methodology for evaluation should be the different.
10. Regular audits on the effectiveness of Kaizen system should be conducted. Viewpoints of employees can be obtained by a questionnaire / survey.
11. Senior managers can focus on improving systems, i.e. in their own functional areas.

ADVANTAGES OF KAIZEN

Implementation of Kaizen in the industry resulted into following benefits:

1. Ensured incremental but continuous improvement in quality, productivity, safety, cleanliness and machine utilization.
2. Reduced process hassles.
3. Provided opportunity for innovation.
4. Improved morale of employees and brings commitment to work.
5. Improved team building, better participation and involvement.
6. Improvement of performance skills on job.
7. Improved sense of ownership.
8. Kaizen system works well in slow-growth economy.

CONCLUSION

From the cited example, companies can relook into their existing Kaizen systems by periodic audits to focus specifically on the effectiveness of the system. Regular training and guidance of the employees in this area will definitely help a lot. For companies with contract manpower, it is definitely advisable to include them in the scope of Kaizen system. Obtaining feedback from personnel can help a lot in maintaining the Kaizen system fit.

Kaizen focuses on small, gradual & frequent improvements over the long term with minimum financial investment. Pursuit of small improvements keeps people thinking about the process & its current operation. They identify potential improvements by analyzing the current situation & its relative inefficiencies. It begins with the notion that an organization can assure its long term survival and success only when everyone in the organization participates in the improvement to identify & implement improvements every day. Kaizen is described by a saying, "Every day and in every way, we are getting better and better." Kaizen has been proved as an effective way to identify small problems & eliminate them permanently by following the gradualist approach for improvement. With Kaizen system effectively in operation, people productivity increases through HRD, leading employees' development with organizational gain. There must be an established wisdom of introducing "Continuous Improvement" as a means of raising organizational standards. There is a need to give wide popularity to Kaizen strategy for improving companies, management world-over. Kaizen can be very helpful in implementing TQM in Indian organizations.

ABBREVIATION

- TQM – Total Quality Management
- PDCA – Plan Do Check Act
- JIT – Just In Time
- CWQC – Company wide Quality Control

REFERENCES

1. Kaizen Teian 1: Developing systems for continuous improvement through employee suggestions – edited by Japan Human Relations Association, Productivity Press, 1st edition, 1992
2. Global Management Solutions Demystified – by Dinesh Seth and Subhash C. Rastogi, Thomson, 2004, pp. 245-261.
3. Conference Proceedings of 49th Annual Convention of Indian Institution of Industrial Engineering organized at Bangalore during September, 2006.
4. L.C. Jhamb, Production Operations Management, Everest Pub. House, Pune, 2005.

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