

IMPROVEMENT MODEL FOR SHARPENING VALUE EDGE

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ABSTRACT

This paper is an overview of the improvement model followed in Tata Steel, one of the best run steel plants in this part of the subcontinent. It discusses the improvement model's three distinct dimensions: 1. The improvement process that it follows, 2. The important supporting linkages it provides to improvement and 3. The all important corporate and union support it provides for the improvement process to be effective.

Acquisition of technology, has been an effective way to improve products and processes. Since this involves very high capital costs, today, the focus is on powerful human processes. Team work among employees, suppliers and customers releases immense creative potential resulting in ideas for improvement and commitment to implementation.

Tata Steel, probably the oldest steel maker in Asia, has a right combination of technology where it matters, and a system of improvement involving human processes that today it is rated as one of the best run plants in this part of the world. It has drawn heavily from such methods to provide products and services which beat the expectation of its customers and users.

IMPROVEMENT - AN IMPERATIVE NEED

Someone said "To stay in business you have to run and grow". To stay ahead of competition it is necessary to improve performance even if it is in small measures. The Japanese call it Kaizen meaning small but continuous improvement. In today's economic situation, to sustain the business pressures, every business enterprise must become more effective and much more efficient in their operations.

To match the changing needs of business and the people who manage it. Engineers, Scientists, and Researchers bring forth new theories, systems and techniques that assure the user full success.

There has never been an availability level of so many techniques, as is the case today. A true practitioner, who wants to improve his organizational performance, wonders what to choose, and when to apply them? Many old techniques are being sacrificed for the new ones just to be in touch with state of the art methods and not to be left behind in the ever competitive race.

The rapidity with which technology and society is now changing in the world, makes change the only security for many business enterprises. Do we want to be taken by surprise suddenly and overrun by change or do we want to bring about change, in a systematic and planned manner to our advantage? If the latter choice is preferred then the change vehicle has to be steered carefully in the right direction. The modern techniques are meant to help the organizations to steer them towards improved performance standards -improvements in Quality, Reliability, Performance and Costs.

Unfortunately techniques by themselves do not bring about improvement. Just saying that our company follows the VE plan or has a number of Quality Circles does not in any way guarantee improvement. A study of all good organizations clearly shows that they all provide opportunities to make things better, continuously improve the level of performance, through the human processes.

IT ALL STARTS AT THE TOP

Any improvement program has to clearly follow a discernible path. The most logical way to make a start is by making an assessment of where it is today and knowing where it wants to be. In other words, organizations need to have a vision -a significant goal and strategic plan towards which their efforts are to be directed. A challenging and exciting vision can shake off the complacency into which some organizations may have been drawn as a result of repeated success in an unchanging or less competitive environment that prevailed in the past.

For this to be realized, the most important change has to start from the top. In Tata Steel, for the last eight decades, the chief executives have been governed by the foresight and vision of its founder, J. N. Tata. These chief executives have steered the company from success to success and have made change a way of life. The company's commitment to bringing about continuous improvement is communicated to all its employees through a Quality Policy Statement, signed by the Chairman cum Managing Director himself.

The company has a special way of communicating to all its employees "Where it wants to be" through a number of periodical dialogues, held in trust, by the upper management, directly with the company's officers. Meetings are held, at departmental levels, where management and the Union representatives meet, once every two weeks, and discuss problems of mutual concern. Every possible forum is used to communicate the need for improvement. Thus there is a high degree of awareness about the company's overall goals. With a clear direction spelt out, the next concern for the organization is to make the vision a reality. Hence we need to look at the model of improvement process followed in the company.

MODEL OF THE IMPROVEMENT PROCESS

Figure 1. depicts a model of the Improvement Process followed in Tata Steel.

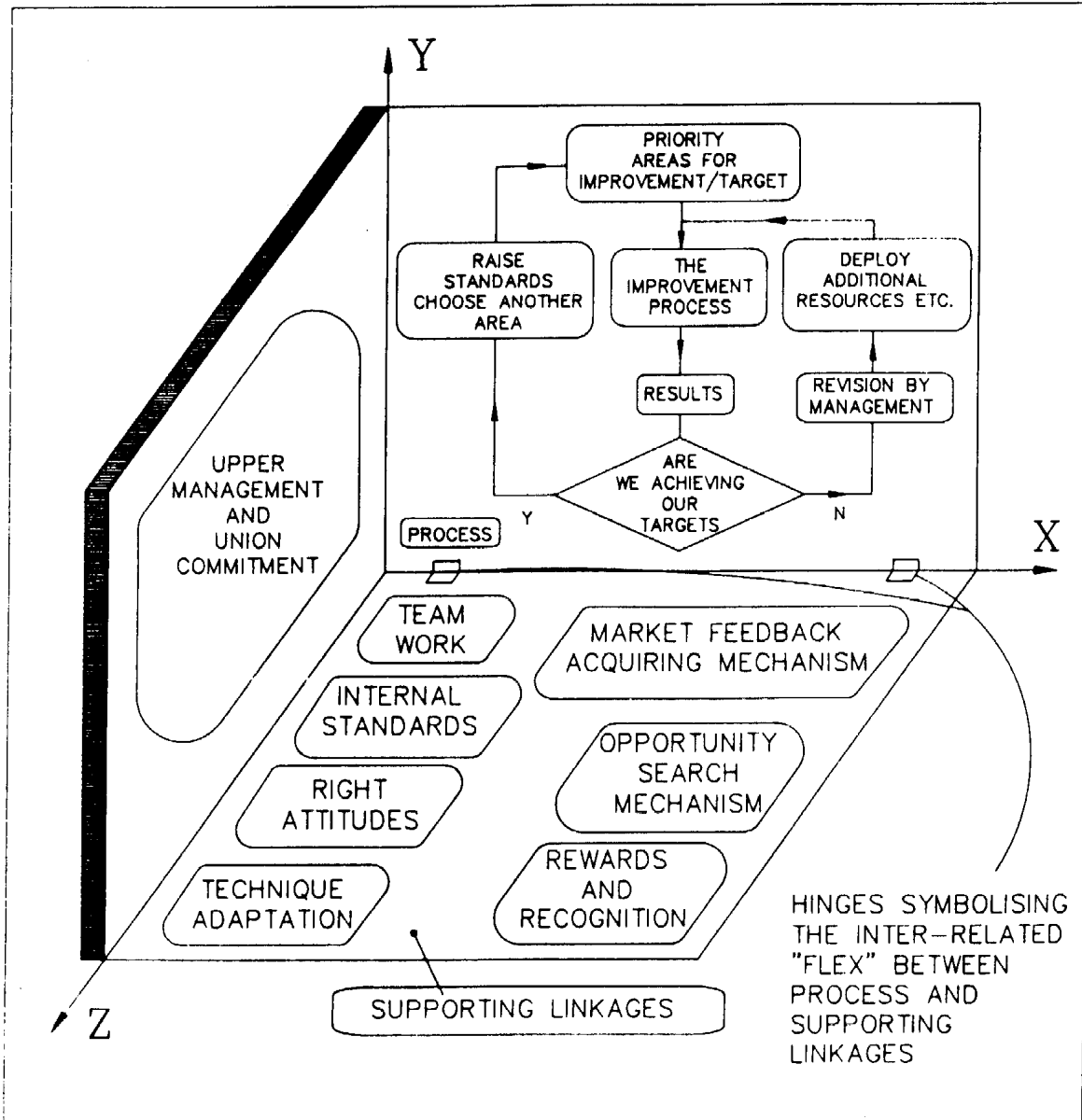


Figure 1

Insert Figure 1 here (File 9231-1.GIF)

The surface formed by the x and y axes represents the process plane and consists of the following major actions/tasks:

- * Setting targets for improvement, after identifying priority areas.
- * Forming teams to make improvement.
- * Facilitating the process of making improvement, and stimulating the use of the creative and analytical abilities of all concerned.
- * Reviewing the progress made from time to time and finally
- * Taking remedial action to support improve-ment, providing resources, and raising the targets/standards.

This plan is a dynamic one being responsible for the real outcome in the improvement effort.

The surface formed by the x and z axes represents the plane of "supporting Linkages" and consists of the following:

TECHNIQUE ADAPTATION

It is realized by the company that new techniques developed elsewhere need to be, not adopted but adapted, with or without modifications to suit the overall organizational culture and the environment around us. This has helped in easy adaptation of the techniques, without losing the significance of the change element that would be brought about by the use of the technique. For example the VE Job-Plan normally calls for five

phases but we have adapted an eight phase Job -Plan as indicated in Table 1, to ensure proper selection of the projects, the team and their leader and also incorporate certain checks and balances in the VE administration.

It is noteworthy to mention the impact of the VE and Juran Quality Improvement Process in supporting and fostering team work. In both systems, the line managers from different departments/division get together to solve problems as well as to derive benefits from opportunities that exist across the boundaries

THE VE JOB PLAN		
Normal Phases	As adapted in	Remarks
	Orientation	Includes 2 days of training in VE Selection of Projects, Leader and team
Information	Information	
Function	Function	
Creation	Creation	
Evaluation	Evaluation	Midcourse correction. Discussions with Sr. Executives
	Recommendation	Presentation before Sr. Mgmt.
Implementation	Implementation	
	Audit	Technical & cost audit done by an independent agency

Table 1

Also note that refinements during the Evaluation phase in the form of Mid-course correction is brought about by the VE team discussing its proposed ideas with senior and experienced colleagues. A check on the implementation is done through an independent group doing the technical audit, followed by the finance department carrying out a cost audit. Such refinement has greatly increased the credibility and success of the VE Programme.

TEAM WORK

Tata Steel realized early in its history that the old dictatorial methods of management, actions that resulted from following essentially "Theory X" were not effective towards bringing about improvement. It has a strong bias for "People Orientation", one of the key elements of the Total Quality Management. Its elaborate Human Resource Management system provides employees a freedom of action and thought to participate in the decisions that effect the company.

of their respective division. Quality Circles represent another form of team activity that has effective impact on the improvement process to Tata Steel.

REWARD AND RECOGNITION

The company's commitment to the improvement process is evident in supporting recognition and regarding systems. It has been the organization's philosophy to encourage all such improvement effort. For example the VE effort is amply rewarded by the company in such a way that the employees participating in the team effort feel happy and motivated to take on more VE projects. The employee, on their successful completion of the VE projects, after the audit team issues the necessary certificate, is encouraged to present their cases before the upper management and also share their experiences before their fellow employees in formal training programmes. A certificate signed by the Joint Managing Director is issued to the employee, on successful completion of the project. The successful teams are invited a colorful VE Awards Banquet Nite, along with their spouse, where the team members are recognized in the presence of an august gathering with a silver salver. The

recognition touches its peak when the spouse of the employee is given colorful gifts for their supporting role played outside the organizational boundaries. The VE team shares the table at the banquet with the senior and upper management of the company. The case studies of the VE projects, are published through the company's quarterly VE Newsletter, and in a compilation of cases titled TISVALUE which clearly goes to support the improvement process and the teams that bring about the improvement.

RIGHT ATTITUDE

Great emphasis is laid on instilling the right attitude of mind, towards improvement through organized training and development programme. It starts right from the stage of recruitment, through a systematically developed training plan, which is so elaborate and innovative that it includes adventure programmes like trekking in the Himalayas. The need for team work and risk taking is built in the employees from the beginning. Tata Steel is probably one of the few companies in India to have an Open Appraisal system where the executives have the freedom to write their disagreements, in case they do not agree with their appraisal. Such disagreements are looked into by the management. It also has a system, where the immediate superior, is appraised, in strict confidence, by their junior colleagues. Such feedbacks are then compiled and communicated to the superiors. All this helps in development in an objective manner a healthy attitude towards work that is so very conducive to productivity through continuous improvements.

OPPORTUNITY SEARCH MECHANISM

The management continuously seeks the opinion and ideas on all the major issues that confront the company through specially organized "Brainstorming Sessions" by inviting officers and others who are likely to be affected and those who could probably share their experience and contribute. A number of "Dialogue session" that are simple open forums for employees to share their opinions directly with upper management. In such dialogues, all the directors on the board of the company including the Chairman cum Managing Director, are present to hear what the employees say. The employees are encouraged to give their suggestions through a well administered Suggestion Management Scheme where the rewards for a successfully implemented suggestions is very attractive and in some cases as high as equivalent to two years gross salary!

Marketing division, which remains in constant touch with the customers, provide the customers points of view, in a formal setting and action plans are drawn to meet those needs. For example improving the packing of steel products or developing a special quality steel is discussed by marketing with all the concerned departments and improvement teams are formed. The suggestions and criticism are received in an atmosphere of "openness" that encourages more ideas that unearth more opportunities for improvement.

INTERNAL STANDARDS

Management continues to encourage improving standards of performance, year after year, in all the spheres of the company's activities by specially recognizing such effort in large open gatherings. It is a common sight, inside the works, to see poster and display hoarding that show how the safety standards have been improved or how the rejection rates have been brought

down. Statistics on "best ever achievements" are a common sight. These standards are periodically compared with global standards to fix new "Benchmarks" for the various departments and divisions. From time to time consultants, of world class, are called to study the company's working and suggests improvements in any area of company operations.

MARKETING FEEDBACK ACQUIRING MECHANISM

As mentioned earlier, our marketing department remains in constant touch with the customers and in both structured and non-structured basis, continuously providing feedback to the steel works where improvements are sought. They also help in providing the standards achieved by others in the field and thus help the works to establish new benchmarks.

The above are linkages most vital for the improvement process to take off and continue.

Finally the "YZ" plans: this is the one that links and provides rigidity to the other two surfaces and represents the commitment of the upper management and the Union leadership in the organization. Without this, the entire process would collapse. In the model above, removing the surface YZ would make the XY plane collapse upon ZX plane turning around the hinges --resulting in the process going up in a veritable "Clap" of smoke.

THE OBSESSION FOR BETTERMENT

To introduce and sustain any improvement programme an organization has to develop a health dissatisfaction with the present. It has to believe that whatever it is doing today can be done in a superior way. Management support alone cannot result in successful group activity aimed at improvement. Dissatisfaction with the present state of the organization, coupled with the belief that everything can be done better, faster, or more economically, in addition to management and union support, provides an environment conducive to improving overall performance. The VE Programme launched three years ago, has achieved its goal in a large measure as a department and creating an awareness for this among others.

CORPORATE SUPPORT: WHAT GETS MEASURED GETS DONE

Corporate groups that only talk of improvement but do not participate in the real improvement process can never make the change happen. That upper management commitment reflects the values of the top team and its participation is an example for other to follow. The constant flow of new structures and systems for furthering improvement and several im-provement teams led by the divisional heads themselves indicates top management commitment in Tata Steel. Along with them, the Tata Workers Union, which is the employees representative body, is also involved directly in a number of areas in fostering improvement. The Joint Works Quality Council created by them for quality improvement is an example. Corporate support for the improvement process is further discernible by the fact that the top management review the progress made by the various improvement teams, taking time out for this purpose. Table 2 shows the number of reviews conducted at various levels, during 1990-91.

VE PROJECT REVIEWS - 1990-91

<u>Level in the heirarchy</u>	<u>Number of reviews</u>
Directors on the board and General Managers	6
Assistant General Managers and Divisional Heads	30
Departmental Heads and Team Leaders	393

Table 2

Insert Table 2 here (File 9231-T2.GIF)

THE IMPROVEMENT SYSTEM

The systems that are actually operating within Tata Steel and bringing about improvement at a significant rate are:

1. The Suggestions scheme
2. Quality Circles
3. Innovation groups
4. The VE Technique
5. The Juran Quality Improvement Technique
6. Cost control groups
7. Synergy Group - set up mainly to harness the strength of the subsidiaries of the steel company.
8. Special Project Teams
9. Plant Engineering and Process Analysis Cell and
10. Process Information department

New systems are added to this list as per the requirement and the organization is dynamic in this sense. For example, through VE was introduced some time in 1964 it had not taken a formal shape for quite some time. When the need was felt strongly a VE Group was launched in 1988 on a full-time basis to coordinate all the VE activities of the company and its subsidiaries. The Process Information Department was formed in 1991 to improve information sharing and is headed by a very senior officer at the level of a Divisional Managers.

These agencies use improvement teams as well as the involvement of individuals to bring about a radical improvement in performance. Top management provided the direction and a common foundation for the entire improvement process in Tata Steel.

CONCLUSION

As depicted in the model, upper man-agement's

participation in all aspects of improvement is intense. In fact, it is solely because of the company's strategic orientation towards people and its top-down commitment towards improvement that enables Tata Steel systematically to bring about change for the better, in day-to-day front line operation. The company had gained a lot by adopting the above model and fostering improvement at every stage. If the trends in the West are any indication, then continuous innovation and developing and advantage on the basis of systematic improvement alone will provide the cutting edge to organizations in the future. Tata Steel is already creating better value for its customers. This is borne out by its overall commitment to produce excellent products, by its efforts to reduce cost, and raise the standards of performance; and finally by thinking of improvement as an obsession.

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