



Proceedings of GLOGIFT 08
June 14-16, 2008
Stevens Institute of Technology
Hoboken, NJ, pp. 699-709

CHANGE MANAGEMENT: A CASE OF SMALL SCALE INDUSTRY IN INDIA

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ABSTRACT

Indian small scale industry is witnessing a very difficult time with increasing demand in global market and liberalization and globalization of economy. Competition amongst industries is becoming tough. Escalating material prices and reducing profit margins have contributed to problem for Indian small scale industries. In the present scenario, need of change is felt to adapt cost cutting, technology, lean structure and supportive systems to add to the competitiveness. This paper is based upon a case study of a small scale organization manufacturing valves and fittings. Various aspects like need of change, process of change, phases of change management and drivers of change have been considered in the case study. SWOT analysis as well as, SAP-Lap analysis and Matrix of change have been done in detail.

Introduction

Indian small scale industries are passing through a very difficult phase. Unprecedented level of competition brought about by globalization, liberalization and entry of multinational companies (MNCs) in Indian market has forced the industry to change its age-old practices and become competitive. Changing needs of customers, rapid technological developments and environmental issues have further contributed to the present situation. Industry needs to be run with utmost professionalism with clear emphasis on short-term as well as long-term goals and actions. Thus, the need of the time is to change from a conventional way of working to a work-environment of complete professionalism, competitiveness, efficiency, teamwork, flexibility and high level of productivity. The MNCs operating in India are have most of these qualities. They also possess strong financial background, world-class technology, global marketing and international reputation. All this gives them a distinct edge over the traditional Indian small scale industry.

Faced with acute competition from such strong and well-organized opponents, the small scale industry is gearing up to make changes in various areas like technology, systems, structure, culture and people. Despite the fact that some good companies have made major structural, systemic and cultural changes, they feel hard pressed even after changing substantially.

Change Management

Change management is about “creating and maintaining a framework for people to accept, integrate and build upon the changes in their working lives” (Prosci, 2002). The key to effective

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change management is to ensure the integration of people with business strategy, systems, structure, culture and technology. People must change their behaviour, knowledge, values, beliefs, assumptions, emotions, mindset and approaches as per the requirements. Being a combination of a large number of interrelated areas, the approach and procedures to be adopted for achieving desired level of change require a planned steering mechanism. Change agent(s) and driver(s) of change are needed to initiate the process of change. For managing the change, various approaches have been employed. A quick and effective change can be brought out only if all the areas, i.e. technology, system, structure, culture and people undergo a change simultaneously. The change agent(s) can employ any one or a combination of these areas as driver(s) of change. An isolated change in one of these areas influences other areas and requires a consequent change in them. In the process of change management, the most important aspect is resistance to change. Managing the resistance offered by the human beings has been the major part of a change programme. Resistance of individuals can be dealt with upgrading education and communication, boosting participation and involvement of people at all levels, facilitation and support by top management, negotiation and agreement between employees and management (Kotter and Schlesinger, 1989).

Case Study of XYZ Company

The case study has been carried out at XYZ Company in Punjab. The company manufacturing various fittings, Cast iron valves, brass valves, hydrants, strainer of different make and different sizes. The facility is located at Punjab. A Board of Directors have been formed for managing affairs of company. XYZ has been fast growing company and over the year it has expanded its product range to suite a large variety of customer in and outside India. XYZ is a growing company in the field of valves and fittings in the region of Punjab. The company was established in 1972 and started production of valves and fittings in 1974. Due to growing demand of these products in the market the company has started its operation in this field. The organization has one Managing Director who looks after the sales (overseas and domestic) of the company and also supervises group activities. Production and day to day affairs of XYZ are looked after by other two Directors. The company has employed nearly 100 workers and 10 engineers. It had established a network of dealers and suppliers and supplying the products to various PSU's, Nigam, boards, and overseas buyers. The company is constantly upgrading its technology and has adopted latest manufacturing practices. The company has modified the designs from time to time according to customer requirements. The company is aware of modern systematic practices also. It has obtained ISO-9001 accreditation in year 2001. It has expanded its capacity by starting a new plant for casting of valves in year 2003. XYZ entered in the world market in the year 2000 and started exports to European countries and Gulf countries with a brand name "ABC". In recent years, XYZ has established its branch offices in various metros to strengthen the customer relationship in domestic market and meet with the competition from other manufacturers.

Need of Change

The Company has started in the year 1972 for the manufacturing of fittings and valves. Till 1980's the Indian economy was fully protected from foreign competitors and only domestic competition exists in the Indian market. After 1990's with globalization and liberalization of economy, many new manufacturers entered in the all segments of Indian market and posed a stiff competition for existing manufacturers. Due to industrial recession at devaluation of Indian Rupee in international market, overall performance of company has affected a lot in the year 2000. Table 1 depicts some performance indicators of the company over the years. Performance of company and trends in these indicators are described below. In the below table the data of

various performance indicators is given and it describes about the performance of the organization over the period of years. It shows that there is substantial increase in the turnover and profits of the organization in 2003-04.

Table 1: Performance Indicators of XYZ

Performance Indicators	2003-04	2002-03	2001-02	2000-01	1999-00	1998-99
Turnover (In RS)	31000000	27500000	23600000	23000000	24600000	21000000
Profits(In RS)	400000	292000	258000	250000	300000	292000
Profit/Turn.	0.012903225	0.010618182	0.010932	0.01087	0.012195	0.013905
No. of employees	85	80	77	73	70	70
turn over/emp. (In RS)	364705.8	343750	306493.5	315068.5	351428.6	300000
Profits/employee(In RS)	4705.8	3650	3350.649	3424.658	4285.714	4171.429
Production in pcs/yr(In Pcs)	57356	53968	51328	43360	44075	34565
Production/employees(In Pcs)	675	674.6	666.5974	593.9726	629.6429	493.7857
Rejection in %	5	6	8	10	12	12

The various charts are showing below for the above performance indicators.

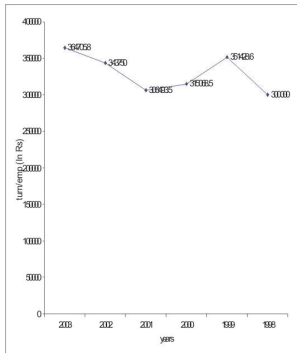


Figure 1: Turnover(In Rs)

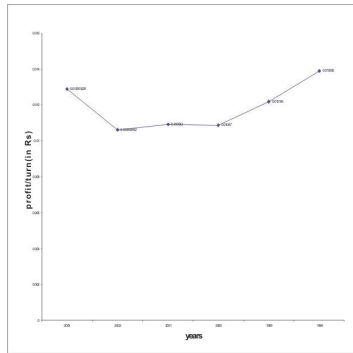


Figure 2: Profit(In Rs)

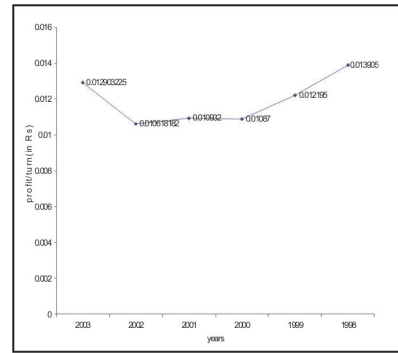


Figure 3: Turnover/profit

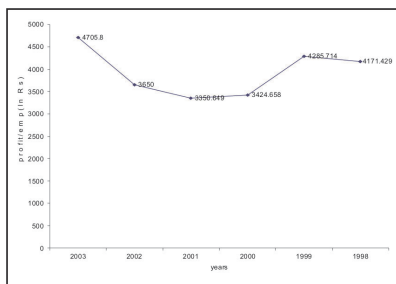


Figure 4: Profit/employee

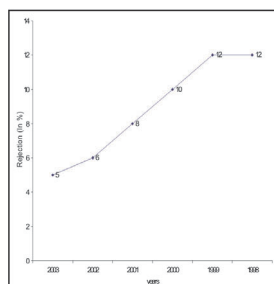


Figure 5: Rejection Rate (In %)

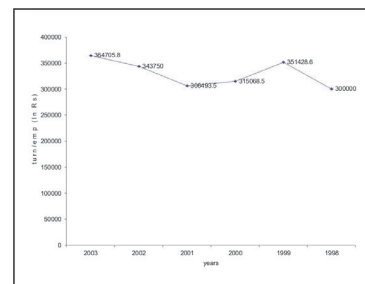


Figure 6: Turn over/emp. (In RS)

Phases of Change

Table 2 depicts three phase of change at XYZ. 1st phase depicts stable market condition, during this phase there was no threat from any competition. Profit margins were high, market share was quite appreciable. The 2nd phase was labelled, as competitive phase that starts from 1990. Turbulence phase has been the 3rd phase that has started from year 1998.

In the first phase, the company made major changes in its technology. There was growing

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need of quality products. The company made investment on new machines to meet the required quality level and increased the capacity of the plant. Technology was the driver of change in this phase for sustaining in growing market.

In the 2nd phase, other manufacturers gave a competition to XYZ. To sustain the competition, Structure was chosen as driver of change. The company widened its dealer base and sales network.

The 3rd phase is depicted emergent phase, when the market turns into customer market because of large variety. The company avoided any mega expenditure and adopted cost cutting in a big way. In this phase the systems as a driver of change has helped the company in getting success.

Table 2 (Process of Change)

S No.	Year	Major Area of change	Process of change	Driver of change
1	1973	TC	<i>Stable Market conditions</i> <ul style="list-style-type: none"> • Lack of competitions. • Growing demand of valves. • High rate of return • Govt. protection • Large investment on new facilities. By Kludging	Technology
2	1974	TC		
3	1975	TC-TC		
4	1976	SYS		
5	1977	ST-SYS		
6	1978	SYS		
7	1979	TC		
8	1980	TC		
9	1981	PL-PL		
10	1984	PL		
11	1986	TC		
12	1987	TC		
13	1990	TC-TC	<i>Competitive Phase</i> <ul style="list-style-type: none"> • competition from new entrants • Stable market share • Reduced rate of return on investment • Expand sales and market network 	Structure
14	1992	SY-TC		
15	1993	TC		
16	1994	ST		
17	1995	TC-ST-TC-TC		
18	1996	SY		
19	1997	ST-ST		
20	1998	ST-ST-TC	<i>Turbulence Phase</i> <ul style="list-style-type: none"> • Stable market share. • Stiff Competition • Reduction in profit margins • Increased turn over through export market • Accreditation for ISO-9001 • Govt. policies Investment of developing new products through Kludging	System
21	1999	SY-TC		
22	2000	SYS		
23	2000	ST		
24	2001	SY-SY-SY		
25	2002	SY-TC-PL		
26	2003	TC-ST-SY		

SWOT Analysis of XYZ

Strengths

- Experienced manpower
- Innovative attitude
- Capacity for risk taking
- Strong Brand image
- Large network for dealers, vendors and suppliers
- Large product mix

- Quality consciousness at all level

Weaknesses

- Lack of professionalism at top management
- Indian style of working
- Inadequate education level among employees
- Inadequate level training of employees
- No R & D capabilities
- Shortage of funds
- Large product development cycle

Opportunities

- Growing market from industrialization
- Growing avenue of exports in the neighboring countries

Threats

- Un organized sector manufacturing low quality but low cost valves
- Escalating material price

SAP-LAP Analysis

A flexible system methodology (SAP-LAP) has been developed by Sushil (1997). This methodology tries to resolve the end of continuum paradoxes, by treating all the system based methodologies, and techniques as lying on a continuum ranging from well structured to unstructured. The three basic components in flexible systems management paradigm are situation, actor and process. The situation is to be managed to an organic order by an actor through flexibility evolved self-organizing management process, which recreates the situation. The actor exercises the freedom of choice to flexibly and systemically evolve a management process in an interactive and innovative manner.

Situation

- Escalating material Price.
- Reduction in profit margins.
- Changing demand of customers.
- Entry of new manufacturers in valve industry.
- Need of technology transfer
- Govt. norms and policies.
- Reducing rate of return on investment requiring large turnover/growth.
- Need of transformation of family owned business to professional run organization.

Actors

- Business Partners
- Managers
- Supervisors and operators

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- Dealers
- Customers

Process

- Technological Process
 - optimum utilization of existing machinery and skills
 - Productivity increase by changing conventional M/c to CNC
 - Development of new product from In house innovations
 - Standardization of design of common valves and bigger lot sizes
- Structural Process
 - Widen dealer network
 - Developing vendors for timely supply
 - Expanding new market
- System Process
 - Accreditation of ISO 9001
 - Product certified for quality through ISI mark
 - Reduction of inventory level
 - In house Testing
 - Reducing Overheads
- People and Culture Process:
 - Education and training programs for employees at all cadres.
 - Increased involvement of employees in organizational policies.
 - Clearly defining duties, authority and responsibility of employees at all cadres.

Learning Issues

- The era is gone when prices were decided by the manufacturers considering the cost of production and adding hefty profit margins. Now with the rise of competition, reduction of manufacturing prices has been the strategy to survive in the market.
- There is lot of scope of cost cutting which can be done by:
 - a) Technological up gradation.
 - b) Replacing the obsolete technological equipments
 - c) Developing cheap alternatives of the costly materials.
 - d) Reducing the scrap rate/waste rejection etc.
- Formation of organization systems and procedures and to aligning the organizational working with the same.
- Getting accreditations for Quality standards like ISO-9001, TS 16949, ISO- 14001 etc help an organization ion gaining market reputation.
- Optimizing number of employees, delayering, encouraging team spirit and developing multi skill ability results in plant productivity

- Involved customers/dealers in product development through feed backs to help in developing new designs and also value additions.
- Product innovations and pro active approach helps an organization in getting a competitive edge in the market

Action

- To become professional in business, management needs to involve employees at top and middle level in decision making.
- Delegating authority and responsibility at various levels for quick decision making which is urgently required.
- Dealers networks in India and abroad needs to be widened for new markets.

Performance

As a result of various actions the following indicators / Parameters are expected to increase.

- Market share
- Productivity
- Turnover and Profits
- Competitiveness

Matrix of Change

The Matrix of Change is a tool introduced by Brynjolfsson et al (1997). It presents a way to capture connections between organizational practices. It graphically displays both reinforcing and interfering organizational processes. Armed with this knowledge, a change agent can use intuitive principles to seek points of leverage and design a smoother transition. Once the broad outlines of the new system and the transition path are charted, authority can be decentralized for implementation. The procedure recommended by the researchers in the tool is used in this research work.

Matrix of Change functions as a four-step process. It provides a systematic means to judge those practices that matter most to the organization. It highlights interactions among these practices and possible transition difficulties from one set of practices to another. It encourages people to provide feedback on proposed changes. And, it uses process interactions to provide guidelines on the pace, sequence, feasibility, and location of change. These procedures have been used in this study to analyze the change process in engineering industry.

Matrix of Change system consists of three matrices and a set of evaluation made by the people. These matrices represent the following:

- The current organizational practices,
- The desired practices,
- And a transitional state that bridges these two.

Involvement of people working in the organization is sought in evaluation. The evaluation by people provides them an opportunity to state the importance of these processes to their job activities

Using Matrix of Change for XYZ Company

For making matrix of change, a team was constituted in which supervisors were involved from

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the case company. The objective of the matrix of change was made very clear to team members. Critical processes in the company are found as in-house research and development capability, reduction in inventory, cost cutting and better HR practices.

Existing Practices

- Inefficient manufacturing operations in practice
 - Conventional machines grouped based upon operations.
 - Excess casual labor.
 - Narrow job functions.
 - Negligible participation of employee in decision making.
 - Scarcity of multi skilled workers.
- Product quality and quantity
 - 100% inspection by quality assurance.
 - Large inventories levels.
 - Large lead time.
 - Salaried and wages limited to product quantity.
- Organizations structure
 - Family owned business.
 - Decision making by executives.
 - Vertical structure.
 - Lack of professionalism by top management.
 - Business mainly in Indian market.

Target Practices

- Searching new avenues for sales and marketing.
- Use of CNC, SPM's to cope with the technological change.
- Systematised production, planning and control.
- Delegation of power to middle management for routine decision making.
- Involvement of all people in accomplishing organizational objectives.
- Inspection to be performed by individuals and final inspection by quality assurance.
- Reducing inventories and lead time for product development.
- All raw materials and sub assemblies out sourced.
- Reduction in material movement
- Improving manpower productivity
- Line rationalization.

Matrix of change for the case organization was prepared as shown in Figure 1.

Interpreting the Matrix

- **Feasibility:** From horizontal matrix, this is depicted that the current practices in XYZ are stable. From vertical matrix, the target practices are also indicated as stable. It depicts that

the organization can make the targeted change.

- **Sequence of execution:** From transition matrix, it is depicted that company have to eliminate lack of professionalism and bring highly professionalizes people who take company away from family owned enterprise to professionally managed enterprise. The XYZ has to improve its technological capabilities by replacing conventional machines with CNC's. The XYZ have to shift from its current existing practices to above recommended target practices. They have to reduce inventory, impart greater job responsibilities, link incentive to quality and expanded business into India and abroad.
- **Location:** Taking the level of interference in the transition matrix into consideration and then evaluating stability of organization from matrix, it is recommended to go for small changes leading to a radical change.
- **Pace and nature of change:** Various factors depict pace and nature of change as given follows:

Independence: Pace of change within the block is rapid but between the blocks may be slow. Target block associated with I reduced and expanded into Indian market and abroad are independent as depicted from matrix, while all other target practices like bringing highly professionalism, technological capabilities, greater job responsibilities and linking incentive to quality have relation between themselves and are interdependent.

- **Receptiveness to change:** Since the change need to pass through several parts of the organization, so change should be performed in incremental way in XYZ. Since the existing culture is supportive so it is easy to make changes.
- **External pressure:** Since there is no strong pressure of trade unions in this company, the transition time does not affect the change process. Hence slow pace of change can manage the change process

People's evaluation: Culture in this organization is supportive and mindset of people is flexible. From Tornado plot (Fig.2), this is recommended that in wake of tough competition, this company has to bring high professionalism in working, improve technological capabilities by use of CNCs and SPMs followed by reduce inventory. Company has to expand its market in India and abroad to increase market share is another recommendation. Greater job responsibility and incentive to quality production are the other two recommendations.

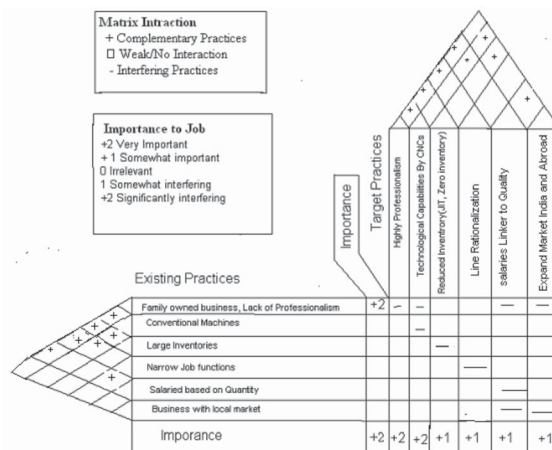


Figure 7: Matrix of Change for XYZ

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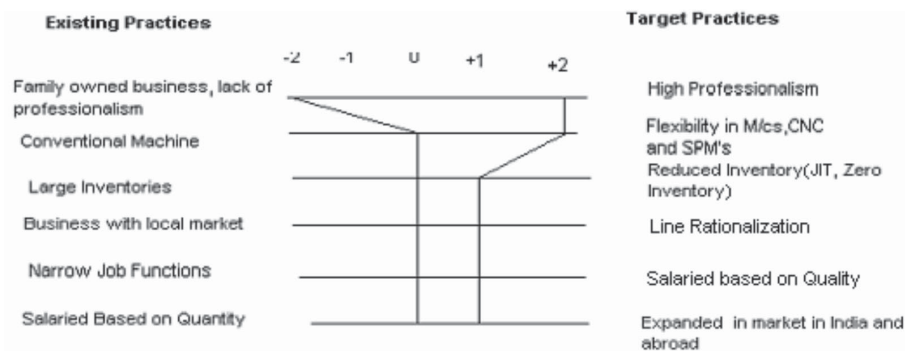


Figure 8: Tornado Plot for XYZ

Conclusions

From the results of the detailed study carried out through case study, matrix of change, it is concluded that with regard to technology changes, innovations, new systems of working and other aspects of change management, there is a dire need and scope for change in small scale organizations. There is a definite relationship between various change agents and success of change programme. BODs/Director of the companies as change agents has met a great success followed by Managing Director and General Manager in order. Regarding drivers of change, technology has emerged as the main driver of change followed in order by system, structure culture and people. Further, significant relationships exist amongst various major areas of change management like technology, structure, systems, people and culture depicting their complementary nature. The India engineering industry is fast becoming a part of a business environment that is fiercely competitive. The companies need to strive hard to become innovative, profitable, and technologically superior. The continuous pace with world-class technology change, supportive systems, restructuring and cultural modifications help the organizations to change flexibly and achieve success.

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