A study of TQM and organizational change and development - A study of few industries in Mysore

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Abstract

The research papers discusses the role, significance and importance of total quality management implementation process in bringing positive organizational change and development process in any industrial concern. The research paper stresses the need to have quality organizational environment in place to have "change and development" plans to yield results. The research paper identifies different TQM implementation parameters such as Quality circle programmes in the units, Kaizen in production process, lean engineering, just in time programme adopted in the units, TQM training programmes (on behavioral, leadership, team building skills and on the statistical analysis and production process tools), ISO or quality standard certification process, Quality audits and business process re-engineering programme and implementation. The research finds that some TQM parameters like Quality circle, kaizen, TQM – HR skill based training has a direct bearing effect on the change and development process and rest of the parameters doesn't show significant effect on the organizational change and development processes. The overall outcome of the research show a significant relationship between the TQM and organizational change parameters which could be used as benchmark for production managers in manufacturing units to bring result oriented organizational environment in any type of industrial units.

1. Introduction to research:

The Title of the research indicates that the research is into the study of total quality management and organizational change and development. To be explicit the research would like to throw light on the relationship of TQM implementation parameters and organizational change and development parameters and find whether and how much is the bearing effect of TQM implementation on creating conducive HR environment in bringing positive organizational change and organizational development in turning the business concern into "a learning and sustainable organization". Few industries from mysore which have implemented

TQM and adopted quality movement and culture as their culture in sprit and action have been taken for sample study of the present research.

From 1995 implementation of TQM in Indian industries with ISO certification has become a fad and even a necessity as brand building and to apply and participate in global tenders and to have recognized as vendor to reputed national and international multi-national organizations. But it pathetic to note that very companies have gone beyond ISO certification and small cosmetic changes here and there in their organization using BPR* and ERP* packages and changing the organization structure into BU's. But TQM is a never ending passionate journey towards quality in heart, sprit and action "of delivery of goods and service" to each customer where every customer would fell that "a customized product or service has been delivered" to him to his surprise and delight.

Indian companies need to track a long way before this complete transformation will take place. But this quality evolutionary process would lead to a revolution to emerge "India" as number one economically and socially and organizationally matures nation and each Indian would be proud of. This is the responsibility of top-management, ceo's, each manager of the companies because this is one and only process of change to satisfy all stake holders. But neither the less it is happy to note that slowly and studiedly India is moving towards such a goal and is partially and significantly made leveraging effect on the economy of the country. This was made possible only because of committed CEO's and managers of TQM conscious companies and "economic emergency to change and survive" created by globalization process. The research has selected such committed TQM implemented companies for study to find the effect of TQM implementation on organizational change and development.

Presently India is taking an exponential economic growth leaving aside US,UK and other developed countries in growth rate because of TQM movement shows the importance of research.

2. Literature survey:

2.1 Introduction to Total Quality Management:

The total quality management could be defined under Deming's framework as follows:

"Quality" is to satisfy customer requirements continuously,

 "Total Quality" is to achieve quality at lowest cost,

"Total Quality Management" is to obtain total quality by involving everyone in the organization with total commitment of top management in the process.

He said that quality of the product shall be defined by customer's requirements. Most important parameters of the product as to how the product should perform, how the product should look like, how the product should be packed, how the product should be delivered, shall be decided by customer and his ever changing requirements and not according to the dreams of CEO or the research & development engineers alone. The product and service are designed, redesigned, changed again & again, but by the CEO's and R&D's joint vision to realize, what is the dream of customer about the product company is presently offering and what he is expecting it to be in future.

He framed fourteen rules, which are like pillars around the banquet hall of TQM, supporting & strengthening the whole structure of the building. They are:

1. Constancy of purpose to continuously improve quality.
2. Adopt new philosophy of quality culture (zero defect philosophy).
3. Cease dependency on cent percent inspection.
4. End the practice of awarding contracts solely on the basis of "lowest tender".
5. Improve every process of production – "system improvement".
6. Institute training on job (training on the skill is essential part of system).
7. Institute leadership (in the place of annual rating & grading systems)
8. Drive out fear among peers, suppliers and whole environment.
9. Break down barriers between departments & staff areas.
10. Eliminate exhortations, slogans & arbitrary targets to workman.
11. Eliminate numerical quotas for workmen & arbitrary goals for management.
12. Protect pride of workmanship.
13. Encourage education (educate all in quality management & its urgency).
14. Bring everybody in the organization in the process of transformation (by top management's total commitment)

Equally Important and famous management consultant from America, Dr Joseph Juran, who visited Japan with Deming (first visit by 1955) stressed that quality shall be defined as "fitness for use", should be distinguished from the user's and the manufacture's view point. This became the foundations for ISO 9000 series documents framed from the year 1987). Juran stressed the need to improve quality through proper training of employees and direct involvement of top management in the leadership of the company's activities. (Juran established Juran quality institute at Japan on the basis of experiments regarding quality improvement innovative plans in Japanese industries).

Dr. Deming pointed out that 96% of problems of quality & defects lay in the "systems" and only 6% could be assignable to employees or people, in his book "Out of crisis". According to Deming roots of majority of our problems lay in the "systems" or the process used in each industry to produce the goods, rather than the employees or individuals responsible for production at shop floor.

2.2 Introduction to KAIZEN: The Most excellent word coined in the field of TQM now is "Kaizen "i.e., continuous improvement in Japanese language. Continuous improvement is possible with no extra or very little cost. This means that quality is free, if one minds & mends himself & system he uses. Small improvements everyday makes way for mountain of changes and innovation in the days to come is the philosophy of Kaizen.

As everybody from the workers to top managers are involved in the process of bringing growth & stability to the industry, thinking for the first time "quality " not as the aspect of inspection department , but product's quality as dependent on everybody & belongs to everybody in the organization. According to Dr. Deming that "customer should be seen as part of production line " was the most revolutionary & challenging idea of the process of total quality management.

2.3 Quality definition:

Basically Quality of a product in general are classified as:

Objective quality: - is the product's total number of attributes already defined & expected by customer.

Subjective quality:- is the consumer's experience of the product's objective attributes which might have caused customer's delight or dislike of the product or service.

To develop the TQM process , the industry shall be guided by four basic principles & eight core concepts.

Principles	core concepts
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1. Delight of customer:	customer satisfaction, internal customers are real.
2. Management by facts	all work is a process, measurement is a must.
3. People based management	Teamwork, people create quality.
4. Continuous improvement	prevention, the continuous improvement in quality.

Finally TQM advocated adoption of new philosophy, new culture and new style of management and involving everybody in the organisation in the un ending journey of quality in creating product and service experience to each customer in the way he has dreamt it and expected it to happen. This is the miracle of TQM movement.

2.4 Introduction to organizational change:

Company or organization going through a transformation. Organization change occurs when business strategies or major sections of organisation are altered. This change is also called as reorganization, restructuring and turnaround etc... (Ref: business dictionary.com). Today such processes are called in an integrated approach as business process reengineering. BPR which is the off-shoot of total quality management process.

Change management is a structured approach to shifting/transitioning individuals, teams, and organisations from a current state to a desired future state. It is an organisational process aimed at helping employees to accept and embrace changes in their current business environment. [1] In project management, change management refers to a project management process where changes to a project are formally introduced and approved.[1]

Kotter[2] defines change management as the utilization of basic structures and tools to control any organizational change effort. Change management's goal is to minimize the change impacts on workers and avoid distractions.

Linda Ackerman Anderson[3] co-author of Beyond Change Management, described how in the late 1980s and early 1990s top leaders were growing dissatisfied with the failures of creating and implementing changes in a top-down fashion. They created the role of the change leader to take responsibility for the people side of the change. February 1994 is the unofficial beginning of the Change Management Industry, with the publication of the first "State of the Change Management Industry" report in the Consultants News. [4]

McKinsey consultant Julien Phillips first published a change management model in 1982 in the journal Human Resource Management, though it took a decade for his change management peers to catch up with him.[5]

Marshak[6] credits the big accounting firms and management consulting firms with creating the change management industry when they branded their reengineering services groups as change management services in the late 1980s.

2.5 Introduction organisational development :

Organization development (OD) is a deliberately planned effort to increase an organization's relevance and viability. (Vasudevan} has referred to OD as, future readiness to meet change, thus a systemic learning and development strategy intended to change the basics of beliefs, attitudes and relevance of values, and structure of the current organization to better absorb disruptive technologies, shrinking or exploding market opportunities and ensuing challenges and chaos. OD is the framework for a change process designed to lead to desirable positive impact to all stakeholders and the environment. OD can design interventions with application of several multidisciplinary methods and research besides traditional OD approaches.[7]

2.6 OD humanistic values and processes:

Underlying Organizational Development are humanistic values.[8] Margulies and Raia (1972) articulated the humanistic values of OD as follows:

1. Providing opportunities for people to function as human beings rather than as resources in the productive process.

2. Providing opportunities for each organization member, as well as for the organization itself, to develop to his full potential.

3. Seeking to increase the effectiveness of the organization in terms of all of its goals.

4. Attempting to create an environment in which it is possible to find exciting and challenging work.

5. Providing opportunities for people in organizations to influence the way in which they relate to work, the organization, and the environment.

6. Treating each human being as a person with a complex set of needs, all of which are important in his work and in his life.[8]

2.7 Organizational Development - OD interventions:

"Interventions" [9] are principal learning processes in the "action" stage (see Figure 1) of organization development. Interventions are structured activities used individually or in combination by the members of a client system to improve their social or task performance. They may be introduced by a change agent as part of an improvement program, or they may be used by the client following a program to check on the state of the organization's health, or to effect necessary changes in its own behavior. "Structured activities" mean such diverse procedures as experiential exercises, questionnaires, attitude surveys, interviews, relevant group discussions, and even lunchtime meetings between the change agent and a member of

the client organization. Every action that influences an organization's improvement program in a change agent-client system relationship can be said to be an intervention.[9]

2. 8 previous research paper cited:

The researcher has gone through several books and research articles which have deliberations linking the Total quality management implementation techniques and outcomes with the organisational change and development process. Excerpts of some of important citations out of hundreds visited are packed below which shows the importance of the subject matter of research and also the scope of the subject.

Thamos Packard.[10] opines in his Book that "While Total Quality Management has proven to be an effective process for improving organizational functioning, its value can only be assured through a comprehensive and well thought out implementation process. He The key aspects of implementation of largescale organizational change which may enable a practitioner to more thoughtfully and successfully implement TQM. First, the context will be set. TQM is, in fact, a large scale systems change, and guiding principles and considerations regarding this scale of change will be presented. Without attention to contextual factors, well intended changes may not be adequately designed. As another aspect of context, the expectations and perceptions of employees (workers and managers) will be assessed, so that the implementation plan can address them. Specifically, sources of resistance to change and ways of dealing with them will be discussed.

This is important to allow a change agent to anticipate resistances and design for them, so that the process does not bog down or stall. Visionary leadership will be offered as an overriding perspective for someone instituting TQM. In recent years the literature on change management and leadership has grown steadily, and applications based on research findings will be more likely to succeed. Use of tested principles will also enable the change agent to avoid reinventing the proverbial wheel. Implementation principles will be followed by a review of steps in managing the transition to the new system and ways of helping institutionalize the process as part of the organization's culture." .[10]

Hayes and threasa .[11] speaks about TQM and OC and D as follows "While many contributors to the literature relating to Total Quality Management provide in-depth cover relating to various facets of TQM, this working paper examines TQM in the broader context of organisational change. In essence, putting TQM in place in an organisation Involves movement and change. Broadly speaking, TQM can be viewed as an organisation-wide effort to improve quality through changes in structure, practices, systems and attitudes (Dale and Cooper 1992). Therefore an appreciation of the contours of organisational change is

instructive when implementing a TQM programme. Ivancevich et al (1994:533) support this stance, commenting that 'bringing about a TQM change is difficult, but can be made easier by understanding resistance to change and how to overcome resistance. The authors discussed about the nature of change in the contemporary world, the impact of change on organisational life and TQM. The implementation of TQM is one of the responses adopted by organisations in their efforts to remain afloat in the sea of relentless competition which characterises the environment in which many now operate To get movement into any change process in an organisation, roadblocks arising from resistance to change have to be addressed." .[11]

Samuel [12] speaks in his research article that the fundamentals of total quality management (TQM) are revisited for providing a relevant perspective on business excellence. Judging from the experience of the Japanese TQM movement, there is a need for a step-by-step approach towards TQ. As a result of exploratory research, a model called TQMEX, standing for TQM Excellence Model, has been developed based on sound TQM practices. Both the theoretical background, personal experience, and results of an intensive questionnaire survey conducted in Hong Kong, Japan, and the UK have highlighted the importance of the Japanese 5-S, DPR, QCC, ISO 9000 and TPM on TQM practice. The findings are useful for firms wanting to benchmark against the business excellence of leading firms which have survived and grown despite the two global oil crises and the recent Asian financial turmoil[12].

Benjamin , Arthur and Richard [13] - Three authors in their research article speaks on" change due to TQM " as follows: "TQM approach involves changing many facets of organizational funtioning. Whereas the human potential and the socio-technical approaches to performance enhancement focus on relatively narrow, albeit organization wide, issues, TQM focuses on the customer and requires every facet of the organization to be involved. With this focus, TQM comes closest of the three change perspectives described here to providing a climate and culture frame of reference for change.

Also, because TQM is a TOC effort to meet the needs of the customer, meet the needs of the customer, it emphasizes the broadest range of issues and activities regarding the goal of sustained organizational change. These include such changes as:

1. Preplanning during the product design stage, involving engineering, production, quality assurance, marketing, and human resources.
2. Training employees to be able to deliver high quality.

3. Developing expectations of high quality in employees through selection, training, and reward systems, and by supplying them with the necessary supplies, equipment, and information to deliver that quality.

4. Encouraging employees to discuss and resolve quality issues, not hide them.

5. Working with suppliers to assure defect-free parts, and accepting only perfect parts.

6. Eliminating the concept of an acceptable quality level and, instead, adopting the concept of continuous improvement with the goal of zero defects.[13]

These authors[13] speaks how TQM affects change as follows: "Effective organization change occurs when new climates and cultures are created and maintained. No single climate or culture is best for achieving sustained change. Different climates and cultures can be equally effective for different organizations, depending on their industry, their markets, and the nature of their work force. However, what people in an organization experience as the climate and believe is the culture ultimately determines whether sustained change is accomplished.

Top management is responsible for climate and culture, and thus for the degree to which TOC (total organisational change) is implemented and sustained. The practices it puts into place and the values it communicates determine the climate and culture. The climate and culture vantage point to total organizational change offers a realistic view of the many opportunities for management to bring about sustainable change. The more of the opportunities attended to, the more likely the change is to be implemented, sustained, and successful, thereby breaking the spiral of dysfunctional failures. [13]

Guangming , Steve and Brian [14] writes in their research article that "While total quality management (TQM) has been widely applied in the management of change, and is likely to remain a priority into the next century, failure rates at times above 75 per cent give cause for concern. The study on which this paper is based has reviewed TQM as an approach to change management. Four interrelated classifications of organisational change are presented: change as structure (or "functional change"), process, values, or power distribution. Of these, it is contended,

TQM adequately addresses only process change, with incidences of failure closely correlated to the application of process-based TQM techniques in change contexts characterised by structure, values or power. This study suggests that, for TQM to be applied successfully, either an approach is required which adequately addresses all types of change context (a so-called "systemic" approach), or its application needs to be restricted to those contexts where process dominates."[14]

The researcher has visited and referred more than a hundred of citations and research articles to understand the subject matter of research those citations would be recorded in detail in the thesis.   These articles show thee importance and also that there is great requirement of research in the effect and implementation of TQM on the organisational change and development.

2.9 Research Gap and present research question :

The above research paper shows that not much of the specific research has been addressing the TQM implementation parameters and its relationship to the change and development process in manufacturing units. This is the research gap and so my research. So my research is study goes into further research of different specific parameters of total quality management and it's relation to organizational change and development process and how each of the parameters of total quality management is going to affect and whether this would help in creating conducive and constructive HR environment in the industry to bring about positive change and development process**.** This is challenge of present research.

The literature review and the GAP above stated leads us to present research question i.e to find what are the relationship of "TQM implementation" and "organisational change and development"   and find whether and how much is the bearing effect of TQM implementation on creating conducive HR environment to bring organisational change and making strategic organisational development interventions. Whether this process of TQM implementation could bring about "a learning and sustainable organisation" in the present system –which is the aim of organisational development process.

3. OBJECTIVES OF THE RESEARCH:

As the Title of the research suggests the research is addressing the major TQM and OC & OD issues. The research is focused on finding the relationship of TQM variables (of implementations) with organisational change variables and development variables in manufacturing units in mysore. The research would be conducted on a sample of middle level managers and supervisory cadre engineers (reporting to managers) selected out of employees working in these sample units at Mysore.

The   overall objective of the present research could be split up into the study of following TQM implementation parameters –

a) Quality circle movement

b) Kaizen in production process

c) Lean engineering and JIT in production process.

d) "TQM" (quality) training for managers and supervisors at shop-floor.(training on TQM culture / leadership / team building / kaizen /quality circle / pareto charts , Ishikawa diagrams and other statistical methods of TQM)

e) ISO 9000 or Quality standard certification process

f) Business process reengineering adopted in units.

And to study how these parameters have affected organisational change and organisational development interventions in these survey units.

The objectives of the research are listed as follows;

The main research objective of the thesis is to find out the level of implementation of TQM and relationship between TQM and "organisational change and development" through a sample study of managers and supervisory engineers (* managers – means middle level managers and   supervisors** – means the engineers who report to middle level managers)

The objectives of the research could be listed as follows:

I. To study the level of implementation of Total quality management through the perception of managers and supervisors in the survey units.

II. To find whether there is any bearing effect of TQM implementation on creating conducive HR environment in bringing positive organisational change.

III. To find whether is there any bearing effect of TQM implementation on organisational development process in turning these sample units into "a learning and sustainable organisation".

IV. To study the role of Quality circle movement on organisational change and development parameters.

V. To study the role of Kaizen in production process on organisational change and development parameters.

VI. To study the role of Lean engineering and JIT process on organisational change and development parameters.

VII. To study the role of "TQM" training for managers and supervisors on organisational change and development parameters.

VIII. To study the role of ISO 9000 (or quality standard certification process and implementation) on organisational change and development parameters.

IX. To study the role of Business process reengineering process (adopted in units) on organisational change and development parameters.

    X.   To arrive at suitable findings and conclusions useful for the manufacturing units in specific and others industries in general with regard to subject matter of research.

The Researcher has conducted a preliminary sample study by way of discussions and interviews with the selected managers and engineers and has designed the following NULL hypotheses :

1. **Ho**$_1$ The level of TQM implementation are NOT evenly distributed among survey units in mysore.

2. **Ho**$_2$ There is NO relation-ship between the TQM implementation parameters and organisational change parameters.

3. **Ho**$_3$ There is NO relation-ship between the TQM implementation parameters and organisational development parameters.

4. **Ho**$_4$ The quality circle movement has NO bearing effect on organisational change and development process.

5. **H**$_{05}$ The kaizen initiative has NO bearing effect on organisational change and development process.

6. **Ho**$_6$ The adoption of lean engineering and JIT process has NO bearing effect on organisational change and development process.

7. **Ho**$_7$ The "TQM" training has NO bearing effect on organisational change and development process.

8. **Ho**$_8$ The quality certification process has NO bearing effect on organisational change and development process

9. **Ho**$_9$ The BPR (business process reengineering implemented in units) has NO bearing effect on organisational change and development process.

The following hypothesis have been framed by the initial survey to be investigated by primary and secondary research survey on the TQM and it's relationship on "organisational change and development" and their correlation and whether these programmers can lead the company to have higher productivity and sustainable competencies among survey units which is the aim of both TQM as well as OC &D process.

4. METHODOLOGY OF RESEARCH:

The research methodology of this research would involve a primary research by way of sample survey on managers and engineers selected manufacturing units at Mysore to find the level of implementation of TQM and it's relationship to Organisational Change and Development process (OC and D*). The methodology also include besides this sample survey the secondary survey of Books, management journals, research organization records

and research magazines, conference proceedings and annual reports of the sample survey companies with additional information from web sources

4.1 Sample survey:

The study mainly goes into research through a primary sample survey to find the level of implementation of TQM and it's relationship to OC and D* process in manufacturing units, by way of a random sample survey of the respondents through a questionnaire study conducted on selected five manufacturing units at Mysore. This primary survey is coupled with the discussions and interviews with chief project officers, location heads, departmental heads and vice –presidents of the units of sample organisations to cater subtle information regarding the subject matter of research.

A questionnaire is designed with regard to the awareness, understanding, implementation levels of TQM as well as on organizational change and development process (viewed by the perception of managers and engineers at shop-floor who are actually involved in the arduous process of TQM implementation such as quality circle, quality certification, lean and JIT, kaizen and training programmes on vision, mission, tqm culture, team building etc..). the change in leadership style, over all change in HR policies is also be a part of the questionnaires supplied to both classes of respondents drawn from these survey units at Mysore.

The primary data so collected is analysed using suitable statistical tools of   like averaging, summarizing, chi-square tests and the objectives are addressed and hypothesis are tested and the results are analyzed and suggestions are arrived at before the final conclusion are drawn.The secondary data such as text Books, management journals – national and international , research organization records and research magazines, conference proceedings are used to understand the basic aspects of Total quality management, organisational change and development manufacturing units in India and abroad and also review of recent research papers published addressing the same issue and subject matter of the research.

4.2 primary survey studies:

The organizations selected for this research are as follows:

1. Bharath Earth movers Limited. Mysore division
2. TVS motors, Mysore division.
3. Automotive axiles Limited. Mysore
4. Rane Madras Limited.Mysore Division.
5. J.K Tyres Limited, Mysore division

These five leading manufacturing units at mysore which are totally focused on the implementation of TQM since a decade and which have quality certification in place and have been in the process of benchmarking their quality progammes on a continuous basis. Two of these survey organisations i.e TVS and Rane madras have won world famous Deming's awards. These units have undergone sea of change in their leadership and organizational development process over a decade time in the process of building core competencies to face globalization challenges.

The stratification of data of respondents selected for the research is as follows:

Middle level managers	supervisors	Total
unit 1 – 30	unit1 60	Total = 90 (BEML)
Unit 2 - 30	unit2 60	Total= 90 (TVS)
Unit 3 - 30	unit 3 60	Total= 90 (AAL
Unit 4 - 30	unit 3 60	Total= 90 (RML
Unit 5 - 30	unit 3 60	Total= 90 (JK Tyres)
150 Nos.	300 Nos.	= 450 nos.

The survey will be conducted with a sample study on randomly selected numbers of respondents from all the above cadres which are stratified under the different unit levels above mentioned (so that the generic results as well as stratified results in each units and cadre could be arrived at by research).

5 Significance and limitations of the study:

5. Significance of research:

The study would contribute significantly in understanding the process of "organisational change and development" and how these positive changes could be initiated by suitable and conducive environment created out of the adoption of TQM principles envisaged by Deming, Juran, Crosby and others quality gurus These organisational changes have helped to bring OD interventions for turnaround and other strategy adoptions in much more smoother way.

So the study has significance as it could lead to conclusions which would be simulated and advantages could be realised not only for manufacturing units but also in service sector organisations. The Study also helps to investigate the power of TQM parameters in creating strategies for OD interventions and organisational changes that would empower organisations to create successful and suitable systems and culture.

The researchers focus to understand he new dimensions and emerging models of converging the power of TQM, organisational change and organisational development through this research will be helpful for every managers in any sector. There is a great utility in new-model that the research would sincerely try to find in creating supportive organisational culture that leads any firm, company or organisation to greater heights of financial glory and success in fulfilling corporate social responsibility as well for the betterment of all the stake holders and society as a whole.

6 Limitations of research:

As the research and survey is limited to the analysis of five manufacturing units at Mysore and the number of units selected for the research is the first limitation. The research has limited itself in selecting units from manufacturing sector only. The number of respondents selected is around 150 managers and 300 engineers out of thousands of managers and engineers working in these survey units would also act as a limitation of research. To adopt the conclusions of this research study with TQM implementation and it's effect on organisational change and development to any other organizations in any sector, - state, zone, area and sector specific changes and modifications might be required and the researcher is confident that it would help for better working and effective operations in those organisations.

6.RESEARCH FINDINGS :

6.1 The findings of present research are as follows:

1. The research has found that the principles of Deming's such as "protect pride of work of each employee", encouragement quality education, driving out fear from the mind of each employee, involving everybody in the organisation in the process of quality transformation, training on TQM culture and leadership , breaking down of barriers between departments and changing the isolated working of departments into integrated concerns - have bearing effect on the "organisational change management" and "organisational development process".

2. It found by research that the "Kaizen movement" in these organisations are in place and have a clear cut plan of award, rewards, increments, promotions, incentives and certifications (given out employees for each "opportunity for improvement" plans suggested by them). These are creating an environment for organisational change and development. This "Kaizen" initiative motivated by suitable reward system (in these survey units) has shown significant

effect on creating conducive environment for strategic organizational change and organisational development interventions.

3. The research has found that communication of "the vision and mission" to all employees and involving every worker in the day to day process of production plans, weekly and monthly production schedules have great effect in bringing the positive readiness for any type of organisation development interventions.

4. The research had found that the "clarity and transparency" in employee annual assessment and appraisal systems which are coupled with self-assessment (for the employee by him-self) – one of key TQM parameter of implementation will create (has created in these units) the organisational environment required for change and development in the concern.

5. The research has found that the Juran's principle of "Top-management's commitment" the prerequisite of TQM implementation parameter has exhibited positive and significant effect on the parameters of organisational change and development.

6. The research has found that team work motivated by TQM implementation has shown positive and significant effect on the parameters of organisational change and development.

7. The research has found that quality circle mooted (in these survey units) with reward systems have shown positive and significant effect on the parameters of organisational change and development.

8. The research has found that training on quality tools such as Pareto's diagrams, Ishikawa cause and effect diagrams, statistical tools, production process planning and statistical control systems of have shown no effect on the parameters organizational change and development.

9. The research has found that "the skill and job based training" (on new technology and process) has no effect on the parameters organizational change and development.

10.The research has found that the training on "vision" and "mission" of the company , the team building, TQM culture, communication, leadership building, quality circle building and on kaizen (continuous improvement of people, process and technology) has got (exhibited) positive and bearing effect on the parameters of organizational change and development.

11. The research has found the Lean engineering and just in time (JIT) adopted by these manufacturing units have (shown) no bearing effect on parameters of organizational change and organisational development plans and processes..

12 The research has found that the quality certification process (ISO 9000 /other Quality standard used in survey units) have (shown) no bearing effect on the organizational change and organisational development parameters.

13 The research has found that "System" changes matted as solution (rather than "people" changes) in the situation of crisis and problems have a bearing effect on organisational change and development processes.

14 The research has found that business process engineering (BPR) has shown partial and not significant bearing effect on organisational change and development processes in human resource platform.

15. The overall research findings show that the TQM implementation parameters have significant and bearing effect on creation of strategic environment for organisational change and orgnisational development process and interventions to succeed in this competitive era.

The findings referred above show that some respective hypotheses were proved and some hypotheses were disproved in the course of research and on the basis of statistical analysis and results.

6.2 Research Conclusions:

The research concludes that the total quality management implementation will go a long way in creating readiness in the organisational environment for change and development in human resource front. The Top- management of any organisation can take leads from this research study and take-up "quality initiative and plans" before they plan and implement organisation change and development process. The quality movement, kaizen plans with award systems, quality training (especially in leadership, team building and quality circle) , the self assessment and appraisal systems, top-management's total commitment to involve everybody in the journey of TQM implementation will be able pave way to successful implements of organisational change and organization development in any organisation. This "positive environment creation with least human resource resistance for change" - which is one of the outcome of TQM implementation. This becomes a key for organisation change based on the "every day changing customers needs and preferences" is essential for an organisation to stay on top as a market leader. Because more faster the organisation change and adopt new processes , plans and technology to deliver new products and services to customer , then the organisation will have greater chances of "sustenance, growth and prosperity" in this competitive globalised world.

Conclusion:

The TQM implementation has got greater advantages than disadvantages. The TQM not leads the organisation to have stable and robust systems to deliver delight creating products and services but also will have a greater inbuilt human resource dynamics that will be able to change immediately their processes, methods and way of functioning of organisation to the changing needs of market. TQM implementation will work wonders as the organisation work as a single team not as parts brought together for a functional cause. Thereby total quality implementation programs bring total transformation in the whole organisation with greater dynamism and energy and readiness to adopt changes. The changes are brought under the HR-TQM environment based on new culture of trust, belief, fearlessness, mutual respect, knowledge sharing, pride and belongingness (to one's company), ownership feeling (to all) and happiness and security to one and all stakeholders.

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