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Abstract: This paper analyzes the organizational differences between small companies and big ones; and puts a light on their effects on quality management techniques. It shows the steps where companies make mistakes rather than a step by step TQM implementation, and give a list of resources that small companies could benefit from.

**A Study of Quality Implementation
Differentiation in a Small Business
Due to Its Size**

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TOTAL QUALITY MANAGEMENT I
INDIVIDUAL PAPER

A STUDY OF QUALITY IMPLEMENTATION
DIFFERENTIATION IN A SMALL BUSINESS DUE
TO ITS SIZE



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FOR
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INTRODUCTION

Quality has gained a new meaning in the last decade in the U. S.. It has changed the way America does business. U. S. has established its first quality prize (Malcolm Baldrige National Quality Award) 36 years after the Union of Japanese Scientists and Engineers established the Deming Prize in 1951. Corporate managers are rapidly discovering that ignorance is costly.

More and more companies have made customer satisfaction their primary goal and have learned that employee involvement is crucial to attaining success¹. They have used all kind of techniques to improve their overall quality level. Then they have forced their suppliers-often small companies-to implement these same techniques without taking care of their size.

Until recently, whenever the topic of quality was mentioned, the focus was on the big, powerful businesses. Whenever a quality implementation is brought up, people immediately refer to big corporations like General Motors, Toyota, AT&T and Motorola. All the quality suggestions have been derived from studies that have been done for the big businesses. There has never been done a detailed study on implementation of a TQM in a small business.

It becomes obvious that it is managers responsibility to decide at which degree a small company should use the total quality management (TQM). Often this has ended with frustration. In fact a survey done by Artur D. Little has shown that out of 500 manufacturing and service companies that use TQM only 36% felt a significant change in their competitiveness.

If we recall that it is the "small" firms, not the corporate giants, that make up the majority of enterprises in the United States² and dependence U. S. competitiveness of large companies on them, the problem of small businesses that are facing, in implementing the TQM, becomes more important.

This paper will analyze the organizational differences between small companies and big ones; and put a light on their effects on quality management techniques. It will show the steps where companies make mistakes rather than a step by step TQM implementation, and give a list of resources that small companies could benefit from.

DEFINITION OF THE SMALL BUSINESSES-IN U. S.

The definition for the small business has been done by U. S. Small Business Administration by using the size standards based on Federal Acquisition Regulations. The size standard for a business is determined by the type of industry, specifically the Standard Industrial Classification (SIC), it is in. For each SIC, "small" is defined by the number of employees or annual revenues; the majority of SICs are defined by number of employees. Most SICs indicate that companies with up to 500 employees are small, but there are some that define "small" as companies with as few as 100 employees and as many as 1,500 employees³. As a conclusion regardless of the boundary, small companies are abound; even at a boundary of 500 over 95 percent of all companies are "small"⁴.

When we analyze the economical structure of the U. S. we'll see that large manufacturers are heavily dependent on small suppliers. They often rely on smaller suppliers for 50% or more of the value of finished products, from computers to industrial machinery⁵. Small businesses greatly affect not only U. S. economy but also people's lives. More than 20 million small businesses in the United States employ 58% of the private work force and provide nearly half of all new jobs in this country. Furthermore they account for half of the total value added by U. S. manufacturing, according to the National Coalition for Advanced Manufacturing. They also produce nearly half of all U. S. Exports.

Its is apparent that any successful quality improvement will have a tremendous impact on U. S. economy in the long run. The trouble is, if small companies follow TQM ideas too strictly, they can end up filing for Chapter 11 like the 1990 Malcolm Baldrige National Quality Award winner-in small business category-Wallace Co., Inc.

DIFFERENCES OF SMALL BUSINESSES

Let's start by defining the major differences of a small company comparing to large ones:

- Limited human resources
- Limited budget
- Limited business scope
- Multiple roles that manager has to play
- Fewer people
- Fewer management levels

Limited human resources

With a work force 10 to 500 small companies can not easily afford to assign individuals for different projects. Efficiency is one of the most important thing in small companies; usually there is never an extra staff sitting around; they already are working in a most efficient way-this doesn't mean in a most profitable way; they might be producing a product that customer doesn't want or a product that has a lots of defects and reworks.

Limited budget

Companies do not have enough resources to fund different projects at the same time. Most of the small companies do not use any kind of credit to support their projects. Funding for new technologies or employee training is difficult. There is a very small tolerance for mistakes.

Limited business scope

Companies usually perform in a limited niche; involving relatively narrow product line. Therefore the impacts of any kind of changes affect relatively smaller number of customer. Related to this, they have small input for the new product development from the customers. Also small businesses tend to have less interaction with their community or governmental and industrial counterparts.

Multiple roles that manager has to play

Manager should have to lead different groups at the same time. S/he has to be a spokesperson as well as a leader and manage his or her time effectively.

Fewer people

The organization has relatively fewer work forces which enable faster information dissemination. In fact everybody knows each other. The formality is mostly in lowest level.

Fewer management levels

The organization has fewer layers in the hierarchy and fewer functional departments and consequently fewer managers. The upper managers are closer to the actions which take place at the work level; and have a better communication and coordination.

ADVANTAGES AND DISADVANTAGES IN TQM IMPLEMENTATIONS CAUSED BY DIFFERENCES

With the increasing importance of the quality, small companies have found their selves at the end of the quality hierarchy. They are suddenly asked to implement a quality procedure which they don't understand or sometimes even have no use for them. In general small companies, despite their collective importance, have had little power in defining the quality processes accepted by industry because of their little influence on their community. They have lacked to impose any kind of quality control procedure or make it become an industry standard. They have always had to accept what large companies have told them.

The "Big Brother" pressure for quality has created problems in small companies because it wasn't tailored for their needs. It is obvious that the any company in any size could benefit from TQM by using the major statements like

- Continuous improvement of products and services,
- Focus on customer satisfaction,
- Accurate measurements,
- Employee empowerment.

However, it should be remembered that the small companies might not have enough money, human resources and time to go with all of these at once. One step at a time is the best solution. Over commitment, to implement TQM plans might cause big troubles for small companies. Mark Hordes, president of Productivity & Quality Consultants International says "The process is same, but the rate at which you put it into force is greatly affected by your resources."⁶

Lack of resources makes difficult to train employees for statistical or any other quality procedure. Cross-training employees, by letting them become familiar with their coworkers' jobs and by clarifying how one employee's work affects everybody else's, might help to implement the teamwork and continuous improvement. Also we shouldn't forget that only few small company can afford to buy TQM training directly from big names for the managers. On the other side smaller scale of the management makes easier to communicate and compensate this lack in some degree. Furthermore a smaller work force can actually speed the quality transformation process.

usually don't have different departments to relocate them. They should warn their employees in advance and make sure they have enough time to find another job. John Wallace says their biggest mistake was not to cutback on general and administrative costs to apply the TQM saying of retraining and finding work elsewhere.

A research done by International Quality Study shows that based on empirical data, there is no magic quality formula to be successful. Instead, the companies advance in stages along a learning curve. At each level of performance they use a different tool to get maximum payoff⁹.

Some important points to remember

- Top management must be involved and committed with quality process.
- Having a TQM program doesn't mean that it will guarantee an improvement on accounting figures.
- TQM implementations take time. Every one in the company should be patient.
- Be consistent, and persistent
- Concentrate on easy to fix problems to get fast positive feedback, and continue to use same method for different problems.
- Make good connections with your customers.
- Keep all implementations as simple as possible.

OUTSIDE RESOURCES FOR SMALL COMPANIES

The most important drawback of the TQM implementation is-as stated above-lack of resources. However, there are three different resources that small companies can benefit from. First one is the big companies. Many big companies have programs to help implement quality programs. Usually they assign one of their personnel to give a speech or help analyze their suppliers process. Monthly or quarterly audits done by large corporations might help small ones to find their way.

The second resource is U. S. Small Business Administration; it provides training financing, and advocacy for small companies. It offers workshops, publications, and videotapes on a variety of topics, including techniques for problem solving and productivity improvement.

The third and the last one is the communities they are in. For example, Greater Philadelphia Chamber of Commerce was the first chamber to offer its members help in initiating quality programs. It offers several different programs, conferences and a video library for its members. Some community

colleges offer assistance to local businesses. The college's Business and Industrial Institute has a Quality Technology Center, which provides training and instruction in most aspects of quality and productivity improvement.

Of course there is always a possibility to hire a consultant if company can afford. It would be advisable to hire a small or midsize consulting firm because of their lower overhead than giant consulting firms. This might result in lower costs for hirer. Small companies could also buy off-the-shelf training programs instead of ordering a custom designed one¹⁰. Though, they should be careful in implementing.

The list of community, state, and private resources is a good point of start from where small companies might find low-cost assistance. Small companies should take advantage of these resources as much as possible.

CONCLUSION

The myth which states that good quality has to cost more than bad quality and has a more difficult production, has ended. Quality is here to stay. Today's consumers have tasted quality and are looking for it. If a company-in any size-wants to be successful they have to start using quality processes in their production. Th one that doesn't use will end up finding itself replaced by another company which provide everything plus quality.

Because of their importance to people and the country, small businesses need to survive. As TQM filters down from the Fortune 1,000 to small businesses, it's becoming increasingly clear that it has to be done differently because of less resources and different organizational structures. After all, the resources and the reality change completely¹¹.

All the informations we have so far, showed that there is no single best way to approach, implement, and measure quality improvement. Each company must create its own way and work in a pace it can afford. Since there is no right way, the attitude of the leader will determine the way that company will follow.

Although a small company might have less money to work with and fewer employees to assign, there are organizations that can help them. On the other hand there are the advantages as attributes of size, which are stated above as fast implementation, flexibility, and manageability.

The important fact to remember is that any company in any size can benefit from the quality process by using quality tools. Improved performance, happier customers, and happier employees would

References

- ¹ "Quality: A Road to profits." (1993) Agency Sales Magazine, January page 58
- ² Van Gray, Sam Seaman (1990) "Quality: What's a Small Firm to Do?" Baylor Business Review, Fall page 25
- ³ Karen Bernowski (1992) "Small in Size But Not in Stature." Quality Progress, November page 26.
- ⁴ Joseph M. Juran (1992) Quality Control Handbook, Macgraw Hill Newyork, page 6.26
- ⁵ Otis Port, John Carey, Kevin Kelly, and Stephanie A. Forest (1992) "Quality." Business Week, November 30 page 67
- ⁶ Mark Henricks (1992) "Quality Makes a Difference." Small Business Report, December, page 31
- ⁷ op. cit. Joseph M. Juran, Quality Control Handbook.
- ⁸ Michael Barrier (1992) "Small Firms Put Quality First." Nation's Business, May page 24
- ⁹ op. cit. Otis Port, John Carey, Kevin Kelly, and Stephanie A. Forest "Quality." page 69.
- ¹⁰ Patricia A. Galagan (1992) "How To Get Your TQM Training On Track." Nation's Business, October page 28
- ¹¹ op. cit. Mark Henricks "Quality Makes a Difference." page 29.

Bibliography

- "Quality: A Road to profits." (1993) Agency Sales Magazine, January pp 58-59.
- Gray, Van; Seaman Sam (1990) "Quality: What's a Small Firm to Do?" Baylor Business Review, Fall pp 25-27.
- Bernowski, Karen(1992) "Small in Size But Not in Stature." Quality Progress, November pp 23-27.
- Juran, Joseph M.(1992) Quality Control Handbook, Macgraw Hill Newyork
- Port, Otis; Carey, John; Kelly, Kevin; and Forest, Stephanie A.(1992) "Quality." Business Week, November 30 pp 66-72.
- Henricks, Mark(1992) "Quality Makes a Difference." Small Business Report, December, pp 29-38.
- Barrier, Michael(1992) "Small Firms Put Quality First." Nation's Business, May pp 22-32.
- Galagan, Patricia A.(1992) "How To Get Your TQM Training On Track." Nation's Business, October pp 24-28.
- Barrier, Michael (1993) "Where Quality is a Language." Nation's Business, January pp 57-59.
- Idstein, James R. (1993) "Small Company TQM." Management Accounting, September pp 39-40.
- Axland, Suzan (1992) "Small Wonders." Quality progress, November pp 29-34.
- Mishne, Patricia P. (1988) "A New Attitude Toward Quality." Manufacturing Engineering, October pp 50-55.
- Altany, David (1992) "Cinderella With a Drawl." Industry Week, January 6 pp 49-51.
- Collier, David A. "Service, Please: The Malcolm Baldrige National Quality Award." Business Horizons, July-August pp 88-95.
- Barrier, Michael (1992) "Doing Well What Comes Naturally." Nation's Business, September pp 25-26.
- Andreichuk, Brian (1992) "Getting Objective About Quality." Small Business Reports, March pp 28-38.