

Total Quality Management as a Structuring Task

by

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1. Introduction of the Speaker
2. Presentation of the company
3. Why did management want to restructure Schülke & Mayr?
 - Why restructure?
 - Why TQM?
 - What was known about TQM?
4. What is Total Quality Management?
5. What are the major contents of TQM at Schülke & Mayr?
6. How was TQM implemented?
7. A scientific view of the subject / what is the target of this paper?

1. Introduction of the Speaker (Personal Background)

Name: Weltgen

First Name: Werner

Date of Birth: 1954

Education: Engineer (Degree in Aerospace Technology)

Relevant experience: Quality manager (automobile component industry, aerospace industry, consumer goods industry, health care and the chemical/pharmaceutical industry)

- EOQ-Auditor (ISO 9001)
- Environmental Manager
- Total Quality Manager (see above)
- EFQM-Assessor
- Senior Assessor "Quality Award Schleswig-Holstein"

Present position: Director of "Total Quality Management" at Schülke&Mayr GmbH
Managing Director at OPAL Service GmbH

2. Presentation of the Company

Name: Schülke & Mayr GmbH

Founded: 1889

Affiliation: Air Liquide S.A. (since 1996)

Location: Norderstedt/Hamburg (Germany)

- Subsidiaries in A, CH, UK, NL, B, I, F, Singapur, Malaysia, China, USA
- Consulting company in Germany (OPAL Service GmbH)

Industry sector: Chemical / Pharmaceutical

Products: Disinfectants
Preservatives
Skin care products

Employees: 560, approx. 130 blue-collar workers

Sales Volume: 110 M € (2004)

Certifications: ISO 9001:2000 (Q), ISO 14001:1996 (E)
ISO 13485 (MD), EG 761/2001 (E)
Directive 93/42/EEC (MD)

3. Why did management want to restructure Schülke&Mayr?

Why restructure?

In 1993, Schülke&Mayr belonged to the American firm Eastman Kodak. It was led by an American chief executive officer and several German executive managers. At this point in time, Schülke&Mayr was very successful in three market segments (health care, production industry and the consumer market). However, it became obvious that these markets would change dramatically within the next five to ten years. For this reason management took the decision to re-establish the company, i.e., restructure it. While doing this, the following goals were to be attained:

- In the future, the company should be able to react to customer wishes and demands more quickly and with more flexibility.
- In the future, the company should be organized to be able to quickly adapt to any future changes whether they be due to legal, market or economic demands.
- The employees' sense of responsibility should be promoted and they should take part in the decision-making process.

Why introduce TQM?

The goals that have been set can only be achieved with a total concept plan. There are many ways to build-up and organize a company. However, most of these possibilities are not total concept plans that take into account the entire firm, i.e., all employees from the receptionist to the CEO, and suppliers as well as customers. Such a concept is Total Quality Management.

How was TQM viewed by the management?

When Schülke&Mayr's managers started looking at TQM back in 1993, they only knew that it was a total concept plan. Very little information was available concerning content, implementation possibilities and difficulties in introducing TQM. They started a search for a specialist that not only had the theoretical knowledge, but also had the practical experience to back it up. At the end of 1993 they found him in the automobile component industry.

4. What is Total Quality Management?

Total Quality Management (TQM) is a approach to leading and organizing a company. It takes into account all participants (employees, middle management and top management as well as customers and sub-contractors). TQM isn't a project; it's a process that has a starting point, but no ending point. If the TQM process is successful, it's a "never ending story". TQM has little to do with quality management programs such as ISO 9000 or with quality control programs.

TQM is only indirectly related to products. It is a management philosophy that starts at the top, where leading by example is a pre-requisite, but it is supported by all involved in the firm.

5. What are the major contents of TQM at Schülke&Mayr?

In order to successfully start and implement TQM, the content has to be custom tailored to the individual company or organization.

At Schülke&Mayr, the following major themes were determined:

Customer orientation

Customer orientation cannot be seen as only an external concern. Every employee has customers and suppliers, and is therefore both a customer and a supplier in his own right. In order to fulfill customer needs and demands, every employee must be aware of the necessary processes and know his/her customers and suppliers and their requirements. In order to successfully implement this, processes must be defined and described; interfaces and responsibilities have to be clearly designated; it must be clearly defined what my customer needs to get his work done.

Employee orientation

Employees are the source of added value. They fulfill the needs of customers, be it in regard to the product, a service or in communication and information. The employees have the best knowledge of their areas and know where the bottlenecks are. They are responsible for these processes and have the opportunity to contribute and implement their ideas for improvement. Comprehensive training and schooling programs are used to carry this out effectively, so that the necessary knowledge is available on the ground.

Process orientation

All of the actions in a firm can be seen as a combination of various procedures or processes. An effective quality control requires knowledge of the processes in which the employees are involved in order to analyze and improve them. Errors and mistakes usually occur due to deficient knowledge of the processes involved. It therefore makes sense to tackle the individual elements of a process in order to optimize it as an entity. In order to accomplish this, a new and different way of thinking is required in comparison to that of the past.

- a willingness to change,
- recognition that change is essential to survival,
- constant improvement is a part of every work day,
- constant communication with "customers" and "suppliers".

Management tasks and responsibilities

The management level (all leadership positions) plays a key role in the introduction and development of TQM. When the employees are deeply involved in the TQM process, leading by example and enthusiasm on the part of leadership personnel, in particular the top management, becomes one of the most important and decisive points. Supervisors must assume the function of coaches. Coaching in this sense implies training and support at the psychological, physical and mental levels. The coach is not necessarily the most skilled, but rather one who understands how to bring the best out of his people and to optimally utilize them in a team according to their strengths and weaknesses. The supervisor provides an optimal working environment and promotes individual and independent actions on the part of his charges in order to accomplish the established goals. He ensures training with the necessary instruments, methods and tools and is available to assist in the event of a problem.

Continual Improvement

A company has no future if its employees are not seeking improvements in all areas and questioning all procedures in order to find a better way to meet their customers' needs. At the same time, the improvements shouldn't be the result of large projects, but rather of a combination of small incremental steps and measures of improvement. The Continual Improvement Process (CIP) encourages employees at all levels to tackle different ideas on a daily basis. Not just mistakes and problems, but rather ideas should be taken, analyzed and developed into a concept for improvement which can be implemented and tested to see if the desired result can be achieved. The employees should, however, keep in mind that their new ideas must conform to company principles, existing laws and the company goals. They only have to inform their supervisors and the Total Quality Manager of the thematic area involved. If necessary, and to facilitate contact to other areas, specially trained colleagues, known as moderators, can be requested to support the effort.

Preventing errors

Errors are to be considered as not fulfilling an agreed upon request or order. Quality control measures in the preliminary stages must be carried out in order to prevent this from occurring. This means that before starting a job, the employees think about "what could go wrong?" and then formulate "what can we do to solve it?" and "what can we do to prevent it?" This is active risk management.

Corporate Culture

The following topics have to be determined and defined in order to develop a corporate culture that is suitable for TQM:

- How do we deal with mistakes?
- Who is responsible for what?
- How are employees involved in the decision-making process?
- How is information distributed?
- How do employees act interpersonally?
- How do supervisors interact with their employees?
- What are our common goals?

Team orientation

Employee and team orientation are promoted when, among other things, the individual employee is seen as an important part of problem solving and a source of creative potential. By forming problem solving groups, this potential can be activated and the employees can become involved in the improvement process. Competence and knowledge should be brought into the teams and by bringing together different levels of experience, better and more efficient solutions can be found.

Principle: instead of $2+2=4$, make it $2+2=5$

„The whole is greater than the sum of its parts“...

6. How was TQM implemented?

Schooling of the management team and defining the implementation

The first step was intensive schooling of the management team since no one in the company had clear ideas about what TQM means. Further procedures for the introduction of TQM were defined during the course of this schooling.

Timely information for all employees

A major issue in the implementation was providing timely information concerning the major substance of TQM and the further operating procedures of the employees. The

conferences were led by the general manager. Major emphasis was placed on the reasons for S&M starting the TQM Process.

The goal of the TQM Process was to prepare the Schülke&Mayr company, regardless of its excellent market position and economic success, for the year 2000. The firm should be structured to successfully meet all future demands.

Another focal point of these conferences was to present a concise overview of the major themes of the TQM Process as well as providing the opportunity to answer any questions.

Major themes were:

- Zero Error Concept
- Learning from mistakes
- Continual Improvement Process (CIP)
- Involvement of the employees in the structuring of the firm
- Many small Steps, not just large ones
- Dealing with ideas for improvement
- Information requirements (duty to provide and seek information)
- Bureaucracy in the TQM Process
- How will TQM change the way things were done in the past? (or is it just a gimmick?)
- Fear/freedom from fear
- Leadership setting an example
- Personal responsibility/moral courage
- Process responsibility

Schooling of all employees

After the information conferences, a 15-hour schooling/workshop for all employees, including the field staff, in groups of 12-15 participants was a major step in introducing the TQM Process. The participants were formed into inter-disciplinary groups.

The topics are as follows:

- Customer orientation (external/internal)
- Employee orientation
- Process orientation/management system
- Management tasks/leadership
- Continual improvement
- Prevention of mistakes
- Corporate culture
- Team orientation

The schooling of the personnel in Norderstedt, as well as all of the field staff, was carried out within the timeframe April-October 1994.

Training of Moderators and Multipliers

In order to ease employees' confrontations with the most varied topics, moderators were trained and charged with the task of supporting and promoting communication amongst the employees. Major emphasis was placed on dealing with dynamic group processes and the utilization of quality tools and methods.

The moderators fulfilled a further function as multipliers of the TQM Process. In this role they were points of contact for the employees concerning topics of the TQM Process.

Initiating the Continual Improvement Process

Basic principle: every employee who wants to improve something, whether it be an error or an optimization, is allowed to do so.

He must orient his actions according to company policies and guidelines and in accordance with the agreed goals. The supervisor must be informed. He/she must provide all needed information necessary for working with this topic.

It is also possible to request a moderator in the event that several employees are needed to carry out a plan, especially if they come from different departments.

The themes of these teams, internally known as Improvement Teams, must be reported to the TQM manager in order to provide for company-wide co-ordination.

7. A Scientific view of the subject/what is the goal of this paper?

TQM is often brushed off as a fashionable organizational trend that had its hey-day in the 90's and is now passé. TQM is not a completely new way of thinking or a closed concept. TQM is best described as a "think tank" or a philosophy in which well-known principles can be brought together as building blocks under one roof. When considered in this manner, TQM can have a great influence on corporate organization and culture.

In the company described here, Schülke&Mayr GmbH, internal and external customer-supplier relations were formed within the scope of TQM and processes for the continual improvement of the firm were initiated and implemented over the past ten years with an impressive degree of success. At Schülke&Mayr, TQM is not a project with a starting and ending date, but rather a never-ending process. The TQM Process has become an influential element in forming corporate culture. By actively involving and empowering the employees it becomes a spirited process in which the continual improvement process is the driving force.

The question is, why has TQM been so successful at Schülke&Mayr? How can the major influencing factors be specified and systemized?

The introduction and successful implementation of a management method such as TQM is basically an organizational task which also raises questions about organizational development and culture. First we will discuss the basic approaches to system theory and decision-making theory.

The past process of introducing the TQM Process will be empirically retraced. The social and cultural results of this ten-year structuring process will be identified and reconstructed in their dimensions and determinants.

A great deal of intensive empirical experience, which can be applied in practice and theory, are a result of the author's dual role as a scientist and practitioner. The result of a paper should be practical explanations and procedural models as well as scientific contributions.