# Integrative approach to total quality management for gaining competitive advantage

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## Abstract

Introducing and use of total quality management in organizations is very current and a complex category which, in the future, will give an incentive of its implementation in order to achieve competitive advantage. The effects of total quality management are only an indicator of further studies.

This study is focused on the analysis of a very important point of view in the process of implementing total quality management in organizations for gaining competitive advantage. By integrating the basic principles of total quality management, the organizations themselves begin to experience the benefits and positive effects of utilizing it.

The studies that were made will contribute to furthering the knowledge of this current global process and will stimulate organizations to have a more scientific approach to the assesment of the benefits of total quality management in the future, and at the same time, to begin using total quality management in order to acquire competitive advantage.

**Keywords:** organization, quality, quality management, total quality management, integrative approach, competitiveness, competitive advantage.

## 1.1. Definition of the integrative approach to total quality management for gaining competitive advantage

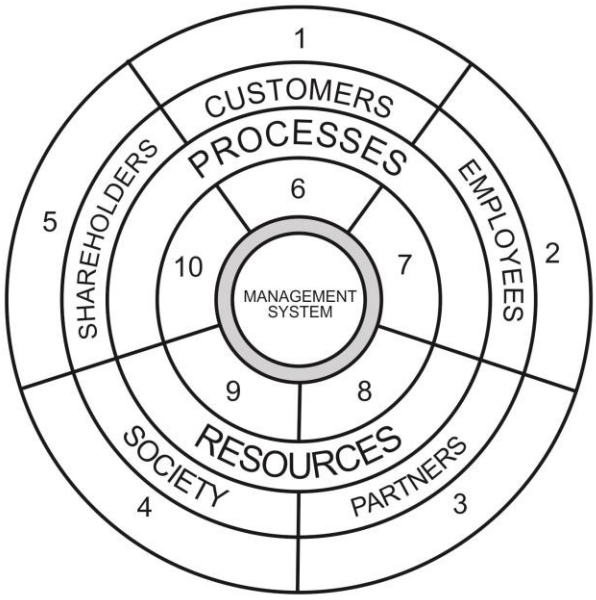
The realization of the integrative approach to TQM is often based on the interests of the organization's major users, and is in essence a major challenge that requires particular management capability. In order to meet the requirements of each user, it is necessary to build an integrated management system. With this system built, different goals are achieved, and it consists of:[1]

- QMS – a quality management system that complies with the requirements of ISO 9001 and

  FSMS - a food safety management system for organizations in all areas of operation, and complies with the requirements of ISO 22000 or HACCP standards to satisfy customers;
- partial management finance system to meet the requirements of the owners;
- - strategic management, policy management, and management of improvement and innovation for the purpose of achieving growth and development goals, which are occasionally in the interests of owners;
- EMS - an environmental management system that complies with the requirements of ISO 14001, which is of public interest;
- DHSMS - a Occupational Health and Safety Management System that is pursuant to the requirements of OHSAS 18001 and is of interest to the employees;
- a social responsibility management system for employees that complies with the requirements of SA 8000;
- a management system for development and motivation of the employees, etc.

[1] Heleta, M., “Menadzment kvaliteta”, Univerzitet Singidunum, Beograd, 2008, p.104-110

Graph 1: TQM structure by management system integration




CAPTIONS:

1. QMS - ISO 9000

FSMS – ISO 22000/ HACCP AND QUALITY MANAGEMENT SYSTEMS FOR FOOD SAFETY

2. OH AND SMS – OHSAS 18000

MANAGEMENT SYSTEM FOR DEVELOPMENT AND MOTIVATION OF STAFF

3. PARTNER RELATION BUILDING SYSTEM

4. LEGAL MANAGEMENT SYSTEM AND ETHICAL RULES EMS – ISO 14000

5. MANAGEMENT SYSTEM FOR FINANCES, MANAGEMENT SYSTEM FOR POLICY AND STRATEGY AND MANAGEMENT SYSTEM FOR IMPROVEMENT AND INOVATION

6. MEETING REQUIREMENTS AND NEEDS, AND SURPASSING THE EXPECTATIONS OF CUSTOMERS

7. COLLECTIVE AGREEMENT OBLIGATIONS

- SAFETY

- CLIMATE

- FUTURE

8. FAIR RELATIONS

FINANCIAL RESULTS

9. LEGAL OBLIGATIONS; ENVIRONMENT PROTECTION; PRODUCT SAFETY; ACCORDANCE WITH THE LAWS; GOOD NEIGHBOUR

Source: Heleta, M., „Menadzment kvaliteta", Univerzitet Singidunum, Beograd, 2008, p.104-110

As can be seen from Graph 1, the structure of the TQM concept shows the relations between partial management systems in an organization with respect to its users. In essence, it is the first step towards building an integrated management system that can achieve TQM goals and provide competitive advantage. According to the concept, managers are required to carry out a complete transformation of the management style in a way that emphasizes:

- leadership that represents a new type of leader and where at the top of the pyramid of the organization is the buyer and the manager is at the bottom (bottom);
- anticipation of anticipating future customer needs;
- development of new organizational culture;
- Involvement of all employees in the realization of TQM goals;
- system orientation rather than problem solving orientation;
- use of the Deming Circle PDCA in realization of operations;
- active participation in the process of continuous improvements involving learning, drastic and incremental improvements and innovations;

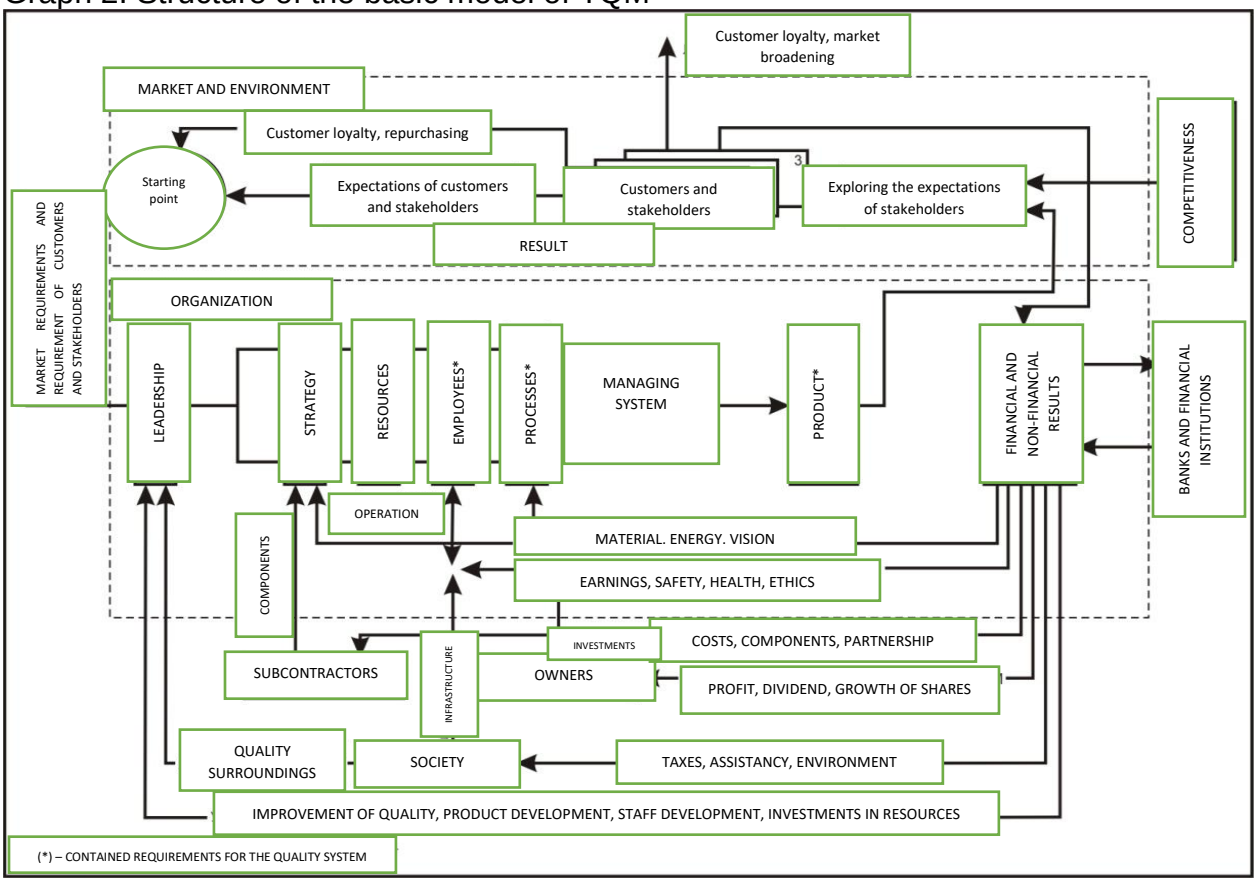
- Communications with all employees, not just members of the management team;
- intensive use of TQM tools.

By implementing all of the above mentioned features it contributes to the achievement of the TQM goals and the creation of competitive advantage for the organizations.

## Basic model

The basic model represents the configuration of the management system structure and the results of operating with the logical links between them. This model resulted from the development of the elementary model, applying the concept of TQM.

Graph 2: Structure of the basic model of TQM




Source: Heleta, M., „Menadzment kvaliteta", Univerzitet Singidunum, Beograd, 2008, p.105

The TQM elementary model refers to one thing or product, the results achieved, and the current state of the organization. In contrast, the basic model shown in Figure 2 also

incorporates the organization's long-term strategy with repetition of orders. When implementing this model, it covers not only customers but also other stakeholders who have their own requirements, and will measure the fulfillment of their expectations in terms of the organization's performance and its performance management system. gaining competitive advantage. When applying this model, the leadership of the organization is the leadership of the management system. Its purpose is to strike a balance in meeting the interests of all users. Such leadership includes not only the executive management team, but also other leaders and others who have a leadership role in the organization. The complete management system as an element of TQM consists of: strategy, people, processes and resources - all delivering results to all users.

There is a fundamental difference between an integrated and a complete management system contained in the following:[2]

- The first covers standardized management systems: EMQ - according to ISO 14001; QMS - according to ISO 9001 and OH & SMS - according to OHSAS 18001, but also the existing management systems in the organization (production, financial, personnel, strategic, etc.) that aim to provide satisfaction to a specific user (Stakeholder).

- The latter encompasses all the capabilities of the organization, which means it refers to the leadership, vision, people, processes and all resources, including their great synergy and balanced results to all users. All the opportunities and results of the organization strive for excellence in gaining competitive advantage.

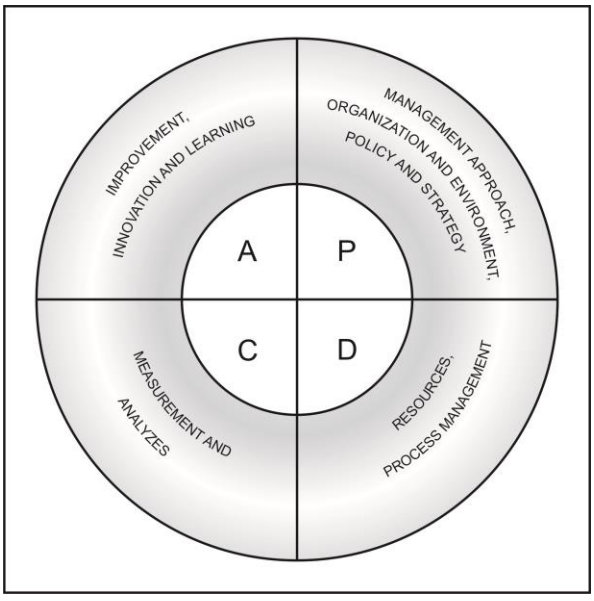
Distribution of organization results to its users with feedback is defined in the base model:[3]

- to the customers, in order to achieve loyalty through fulfilling and exceeding their expectations by repetition of orders and market expansion through recommendations of other buyers;
- to the subcontractors by covering the costs of the components;
- to employees through payment of labor, health and safety at work, staff development;
- to shareholders through profit, dividend and share growth, and
- to society through taxes, environmental protection and added value.

[2] Heleta, M., “Menadzment kvaliteta”, Univerzitet Singidunum, Beograd, 2008, p. 104-110
[3] Ibid

The basic model can be defined as: "Customer and other stakeholder orientation which is the starting point and leading dimension for all actions in an organization that has a full-fledged management system whose products, financial and non-financial outcomes should meet the expectations of all of them, and thus gain competitive advantage.".[4]
Investment and development, quality improvement, staff development and their products, learning process, continuous improvement and innovation are the result of meeting the needs of all users leading to the realization of competitive advantage. How should the organization's excellence and growth be achieved, the answer will be the model of excellence and it should define the management style and culture of the organization that are needed for its application.
The management approach to sustainable development and success of an organization is based on the TQM concept. His methodology is based on applying a combination of the QMS model and the model of excellence. This approach is known as the Deming Circle.

Graph 3: Management of sustainable development – Deming circle




Source: Heleta, M., „Menadzment kvaliteta", Univerzitet Singidunum, Beograd, 2008, p.104-110

[4] Ibid

Graph 3 demonstrates that compared to the  the QMS process model, the main changes in the Deming circle refer to the P part of the cycle containing the elements:

- management approach;
- organization environment and
- policy and strategy,

as well as part A of the same cycle containing the elements:

- improvement;
- innovation and
- learning.

The aforementioned elements of the P cycle carry the greatest risk over the QMS process model.

According to the attached picture it can be concluded that it is necessary to plan well, then to do, then to check what was done and finally to close the circle with action. Fully implementing the elements of the Deming Circle enables organizations to gain greater competitive advantage.

### 1.1. Organizational culture when introducing TQM

Organizational culture is a model of the core assumptions, values and norms of a particular group that has been developed or discovered by learning how to solve external problems and internal integration needs that will work well enough to be communicated to other employees in the organization in a proper way. of thinking and feeling the same. There are several factors that characterize organizational culture.[5] First of all, these are stated strategic needs with clear goals and a concrete policy for their realization. These include the concept of the organization's operations, the dominant way of managing, the way employees are selected and socialized, the usual rituals, popular stories of key people and events, the way they evaluate performance, reward criteria, communication systems and systems.

[5] Shcein, E., Organizational culture and leadership, Jossey-Bass, San Francisco, 2004

But when organizational culture lacks the appropriate assumptions, values and beliefs, then it has a major negative impact on job success, making it difficult to apply strategy and way of working.[6]

The theoreticians Zeitz, Johahhesson and Ritchie claim that the basis for TQM's success lies in the changing the organizational culture, while the tools of this system are the means of change [7]. If an organization wants to apply TQM as a guiding concept, according to Westbrook it should begin with the management's efforts to create a culture that will support the changes brought about by the new system (TQM).

Hilderbrandt also believes that existing underlying assumptions are a primary requirement for successful TQM implementation, as assumptions that affect the implementation process may be inconsistent with the existing organizational culture[8]. Kekale has a viewpoint that when implementing TQM, an organization may choose from two possibilities:[9]

- an approach that fits into the existing organizational culture or
- systematically manage organizational change.

Given the fact that organizational culture is a major driver in setting the direction and limitations of organizational change, McNabb and Sepic are pessimistic when it comes to opportunities for change of culture.[10] In their research regarding the difficulties encountered in implementing TQM, Reger et al. (1994) concluded that organizations apply conceptual theories of self-concept in order to explain why in the event of planned organizational changes, including cultural, there is resistance even by the most loyal members.[11]

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[6] Nastasic, A., Model medzuzavisnosti situacionih faktora organizacione kulture i organizacione strukture, magistarski rad, Mashinski fakultet, Beograd, 2006

[7] Zeitz, G., Johahhensson, R., Richie, Jr., J. E., An Employee Survey measuring Total Quality Managenet Practices and Culture, Group and Organization Management (December) 22, No. 4, 1997, p.414-444

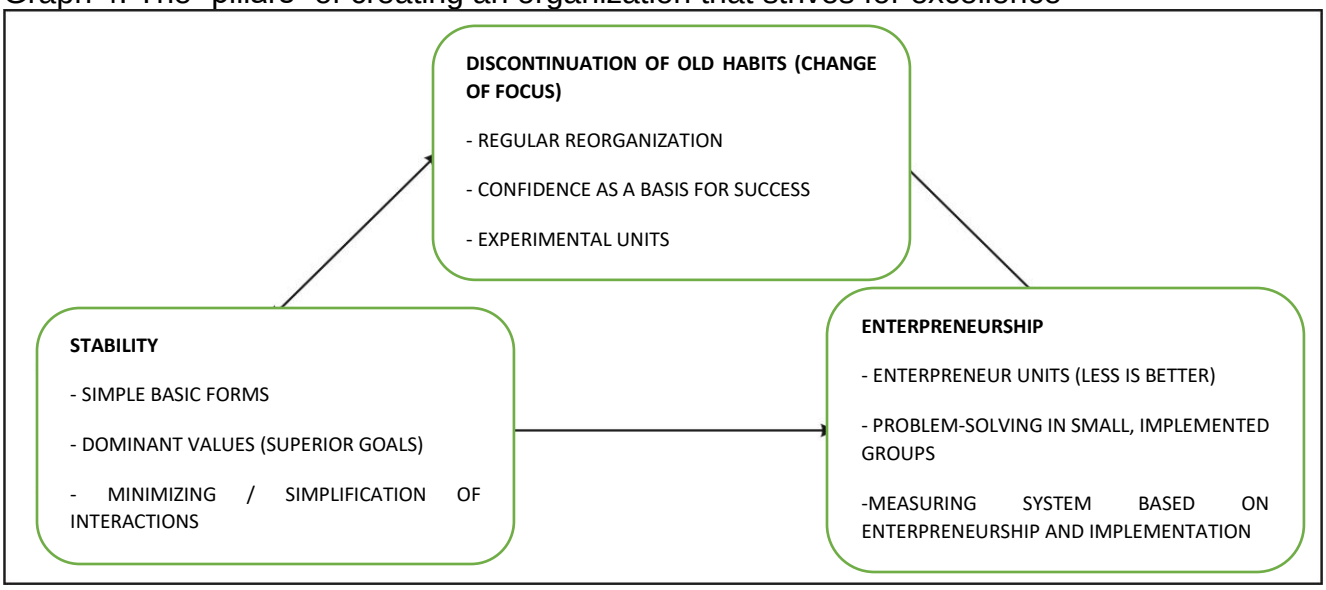
[8] Hilderbrandt, S., Quality culture and TQM, Total Quality Management, Vol.2, No.1, 1991, p. 1-16

[9] Kekale, T., The Effect of Organizational Culture on Successes and Failures in Imlementation of some Total Quality Management Practices, Acta Wasenia, No.65, Industrial Management 1., University of Vaasa, 1998

[10] McNabb, D. E., Sepic, F. T., Culture, climate and total quality management, measuring readiness for change, Public Productivity & Management Review 18, No.4 (Summer), 1995, p.369-385

[11] Kujala, J., TQM as cultural phenomenon, Helsinki University of tehnology, dissertacion for the degree of Doctor of technology, 2002

Graph 4: The “pillars” of creating an organization that strives for excellence




Source: Peters, T., Waterman, R. H., In search of Exellence- Lessons from America’s Best-Run Companies, HarperCallins Publishers, 1992

Any change in the correlations between the "pillars" or incompleteness of any of them will lead to a disturbance in the organization that strives for excellence. For these reasons, each of the three pillars must be solid, i.e. to be complete. At the same time, there must be no connection between them.The road to excellence has been paved with research on top US companies in the 1980s..[12] Graph 4 shows a visual representation of establishing a business organization based on three pillars.

Successful implementation of TQM in an organization depends on its compatibility with the existing organizational culture. If compatible, the TQM system will be integrated into the organizational culture as a set of common quality norms, principles and principles. Changing culture, or at least awareness of it, is a necessary precondition for quality excellence.[13]

In practice it has already been confirmed that an organization can achieve the desired results only by introducing an appropriate organizational culture of quality without formally adopting the TQM system. Dellana & Hausser identified that adhocracy and group culture

[12] Ibid

[13] Lewis, D., How useful a concept is organizational culture, Strategic Change 7 (august), 1998, p. 261-276

most support TQM implementation. Adhocracy is characterized by: creativity, risk responsibility, and creative leadership. Teamwork, participation and mentorship leadership are characteristics of group culture.[14] Effective implementation of TQM requires an appropriate culture and vice versa: TQM system programs such as training, employee engagement, and empowerment clearly change the organizational culture.[15]

If the organizational culture is not adequate, then it will slow down the efficiency of the above conditions. The task of management is to influence the change of factors that create and maintain organizational culture.[16]

In order to change the organizational culture, it must first be evaluated and compared with the desired culture. If an existing gap is established between these two states, then the elements that need to be changed are identified. Organizational cultures differ according to certain interdependent characteristics. Monitoring and evaluating organizational culture is done on the basis of the following dimensions:[17]

the initiative of the individual; risk tolerance; direction; integration; support to management; control; identity; reward system; conflict tolerance; way of communication. Robbins[18] believes that an essential element are answers to questions: how has the organization responded to crises, what has it learned from previous experience, and how has it responded to deviant events? According to the answers to these questions, certain values and their meaning are formed, ultimately defining the boundaries of organizational culture.

## 1.2. TQM strategy activities

The integrative approach to total quality management results in certain activities that are closely related to the strategy envisioned by it. The following table 1 shows the activities of the TQM strategy:

[14] Dellana, S. A., Hausser, R.D., Toward defining the quality culture, Engineering Managament Journal 11, No.2, 1999, p. 11-15
[15] Ibid
[16] Cvijanovic, J. M., Lazic, J., Nastasic, A., Korporativna kultura I organizaciona struktura, Ekonomski Institut, Beograd, 2006
[17] Robbins, P. S., Organizational Theory- Structure, Design and Applicaton, San Diego, 1990, p. 439
[18] Ibid, p. 459-461

Table 1: Activities of the TQM strategy

| TQM strategy | Activities of the TQM strategy |
|---|---|
| Top management leadership | 1. Quality policy incorporated in the working vision of the organization, while the basic principles are applied by all employees |
| | 2. Quality objectives are clearly defined, structured by levels, monitored and corrective actions performed. |
| | 3. Working procedures form the basis of quality policy |
| | 4. The responsibilities and powers of quality are clearly defined |
| Complete education and training | 1. Training for the management and employees regarding the application of a new quality concept |
| | 2. Workshops for all levels and functions with cross-functional teams to apply a new quality concept |
| | 3. Specialists in various functions are trained in the application of tools and techniques to improve the quality of their function. |
| | 4. Training for other members aims to show them the place and meaning of their work in the new concept of quality |
| Market orientation | 1. Research and analysis of customer and market requirements |
| | 2. Permanent benchmarking of the company (studies of competences) |
| | 3. Market trends are constantly monitored |
| | 4. Product-level activities from initial idea to use are planned and monitored in terms of quality |
| | 1. The high-quality team (top management) adopts and monitors the goals, priorities, supervision, coordination |

| | |
|---|---|
| Quality Improvement Program | and management of all quality improvement program activities. |
| | 2. Trainings regarding application of tools and techniques for continuous improvement |
| | 3. Monitoring quality costs, analyzing them and taking corrective actions |
| | 4. Monitoring and analyzing customer information |
| | 5. Evaluation of one's own TQM model is done through one of the TQM rewards models |

Source: Heleta, M., „Menadzment kvaliteta", Univerzitet Singidunum, Beograd, 2008, p.104-110

The leadership of the top management should perform certain activities. One is to lead a quality policy, incorporated into the working vision of the organization itself. In doing so, top management must ensure that the basic principles apply to all employees. Another important activity relates to quality objectives where they must and should be clearly defined and structured at levels. Top management must follow them in order to be able to timely take and implement corrective actions. Working procedures that form the basis of quality policy are also an activity that top management is responsible for. Equally important to top management leadership is the activity that sets out the quality responsibilities and powers that must always be clearly defined.

The second strategy of the TQM system provides for complete education and training of employees. Here also entails the implementation some activities. First of all, there is the training for management and employees in applying a new quality concept. Complete education and training as an activity also foresees workshops designed for all levels and functions, which have cross functional teams to apply the new concept of quality. Another activity that is part of full education and training is the training of specialists of different functions who can successfully apply the tools and techniques for quality improvement in their function. And full education and training includes training other employees in order to understand the place and meaning of their work in the new concept of quality.

Researching and analyzing customer and market demand is one of the activities that TQM strategy foresees when it comes to market orientation. The second activity that an organization should take in integrating the TQM system is to carry out continuous benchmarking of the organization, ie to conduct ongoing competency studies. Market orientation as a TQM strategy will not be complete unless market trends are continuously followed. It is essential for taking the next steps of the organization. Market orientation also provides product-level activities. It involves activities from the initial idea to the use of a particular product. These activities include planning and monitoring the product in terms of its quality.

The activities of the TQM strategy continue through quality improvement programs. Initially, the highest quality team (top management) adopts and follows the goals and priorities. It does not neglect, nor does oversight and coordination, and what is important, also manages all the activities of the quality improvement programs. Another activity of the TQM strategy is to organize and deliver training that will enable employees to use the tools and technologies for continuous improvement in the best possible way. Quality improvement programs also provide for mandatory monitoring of costs related to quality, their continuous analysis and corrective actions. One of the essential actions to improve quality is to track the information coming from customers and to analyze them in detail. Equally important is the evaluation of its own TQM model. This is done by choosing one of the TQM reward models.

## Conclusion

In today's world of globalization, new values and fundamental rules are being established. The new concept of quality that has the ambition to retain market leadership and respond to new world changes is reflected through creative thinking. In times of dynamic change, management must fully understand the current state of the organization so that it can take action to improve it.

To make quality orientation an integral part of the whole business, it is necessary to implement a new way of thinking about quality in all the activities of organizations with a

unique commitment to quality. The goal of the integrative approach to total quality management is to achieve competitive advantage by changing the way we operate and reengineering at a faster pace than changes in the environment. The biggest step to take is to shift the focus from producing a quality product to quality management by fully enhancing product performance and all the capabilities and capabilities of organizations.

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