

QUALITY FUNCTIONS AS KEY FACTORS FOR ORGANIZATION DEVELOPMENT

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Abstract: In this paper it is introduced how systems approach, process approach, and functioning by objectives help an organization to embody continual improvement and make progress in long term. The idea is to ascertain impact spheres of different processes, to determine the impact of the processes to the organization effectiveness and efficiency and to evaluate the impact of process parameters to the process quality and other output parameters of the process.

Key words: organization, process, quality, improvement

1. INTRODUCTION

Growth of international competition has lead customers to more and more increasing expectations regarding quality. To be competitive and maintain effectiveness, an organization has to implement continuously more effective management, control, and other systems. These systems have to assure continual improvement of quality, growth of the organization's efficiency and, in the end, growth of satisfaction of all interested parties.

Implementation of quality management system is voluntary for an organization. The international quality management standard ISO 9001:2000 gives requirements that have to be considered in the implementation of quality management system. To assure satisfaction of customer and/or other interested parties, the organization may add supplementary requirements or interpret the standard's requirements more strictly for itself. Implementation of quality management system influences the most organization's culture. Stability, equalization, and common objectives ensue from the organization's mission. Quality management system has to involve all employees, starting from top management and ending with rank-and-file workers – only such approach makes the system effective.

Many managers consider the implementation of the quality management system according to the requirements of ISO 9001:2000 as possibility to organize the organization as a system, to turn the processes more efficient and to detect and liquidate probable bottlenecks as early as possible.

Quality management system establishes for an organization good basis for further development, so it is necessary both for quickly developing organizations as well as for organizations, which have been functioned stably for a long term. Number of employees of the organization is not an indicator to determine whether the implementation of the quality management system is needed or not. Determining factors are concern, comprehension, and involvement of top management. The need for implementation of quality management system may arise because of international or national requirements to the organization or its products as well.

2. ORGANIZATION AS A SYSTEM

What is system? System may be defined in a following way:

- System is a whole, which is constitutive of many components (parts).
- System (sub-system) has definable objective.
- Every part of the system contributes to the achievement of the system's objective, but none of the parts is capable to achieve this objective unwittingly or separately.
- Every part has its own objective, but affecting the total system, it depends on other parts. Thus, the parts of the system are mutually dependent.
- It is possible to understand or evaluate single part by its suitability to the system as a whole. But we cannot understand the system by exploring all its parts separately, without forming a whole of them.
- Study about the co-operation of the parts could help us understand, how the system works, but to understand, why this system exists, we have to look outwards the system.
- To understand the system, we have to understand its objective and mechanisms of mutual impacts and relations of the parts.

On the assumption of the determinations of the system, we amount to the organization (company). Organization with its fixed structure, departments and management schemes fulfils established objectives in the process of transforming inputs to outputs in effective way. Transformation processes proceed by fixed operating processes, which take places in different departments (Fig.1).

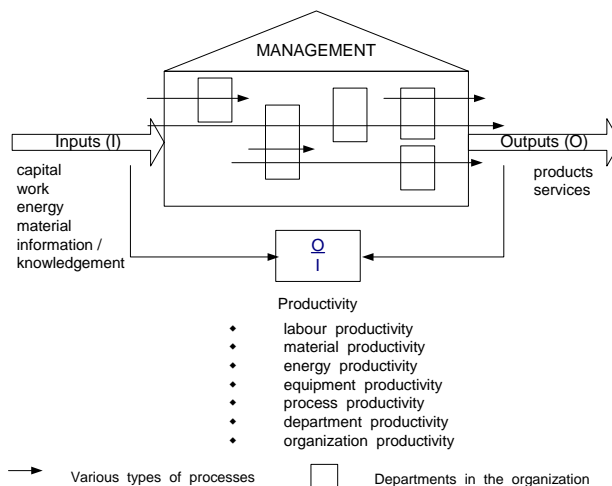


Figure 1. Organization as a system with measurable value

In the activities of an organization, there collaborate many different interested parties. Different interested parties and their expectations should be considered in organization's formation, development, and process planning. Main interested parties and their expectations are presented in Table 1.

Interested parties	Typical expectations or needs
Customer	Quality and price of product or service Order fulfilment accuracy Short delivery time
Employee	Career Satisfaction with work Satisfactory salary Good work conditions
Managers	Beneficial price/quality ratio
Shareholders	Efficiency of the investment, profit
Subcontractors	Continuing possibilities for business activity with increasing amounts Mutually beneficial relations
Community	Responsible management Employment

Table 1. Interested parties and their expectations

Dealing with all different interested parties is the key factor for success – only this enables to achieve very good results during long-time period. Concentrating on satisfaction of only one or two groups may give good results in short term, but in longer perspective the organization’s outcome may decline considerably.

Development of well-operating structure and realization of processes resultant from the organization’s conceptual activity are needed to consider and satisfy the expectations and needs of the organization and its interested parties.

Conception of the organization’s activity determines the nature of its business chain. Business chain is realization format of the organization’s actions (research and development, marketing, logistics, production, sales, servicing, improvement activities). Whatever chain is strong and unbroken when its entire links are strong and unbroken.

Thus, organization’s structure has to be appropriate to the organization’s external environment in concrete time and space and to allow flexibly realize planned processes to fulfil the objectives set. Organization’s structure and main and support processes taking place cannot be some dogma, but have to be appropriate for the current situation and possibilities and to ensure overall development of the organization. Hence the needs for:

- Restructuring, when market situation changes or qualitative or quantitative changes take place in the organization’s development;
- Fix up processes, when nomenclature or quantities of the products or delivery dates are changed.

Effectiveness of the structure is expressed by its flexibility, adjustability with environment and external conditions.

Organization’s structure is bearer of processes, which realization takes place on the basis of available resources (human resources, equipment, buildings, communication channels, information). Scheme of management of processes and liabilities depends on the model of business chain and organization’s structure. One of possible process management schemes is presented in Figure 2.

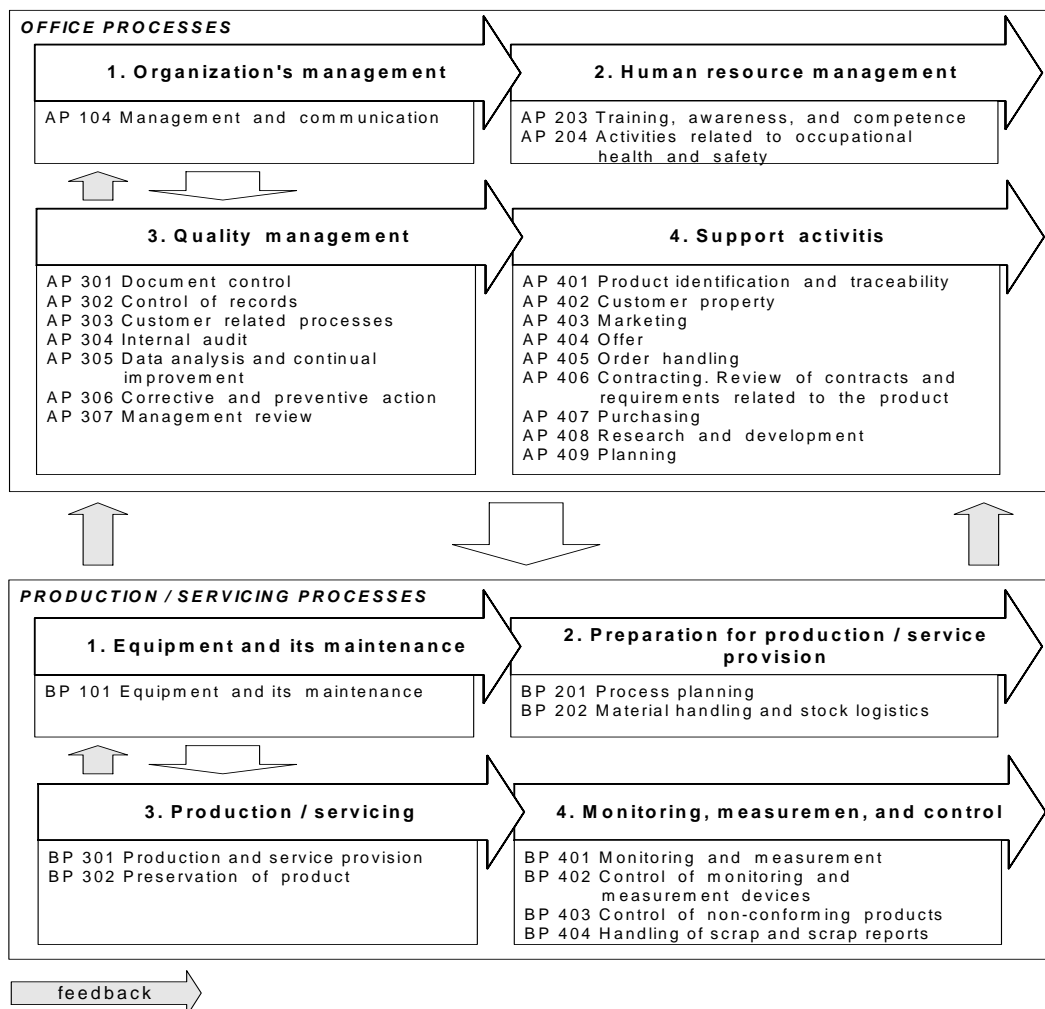


Figure 2. Process management

3. CONTINUAL IMPROVEMENT

3.1. Essence of continual improvement

For improvement of business processes, it is necessary to build up the evaluation model (see Figure 3). This model starts from determining the objectives and tasks (both as general objectives as well as for each department). The next step is to determine processes and general process improvement matrix. Every organization should fix its quality functions and perspectives (see Figure 4). Quality perspectives may come from the actual situation, existing and available resources, and elaborated strategy, as well as from specified requirements and expectations of interested parties. Functional general indicators (Figure 4, 1-5) should be converted to concrete quantitative indices (e.g. manufacturing cycle time, organization's total productivity or partial productivity, turnover per employee, etc.).

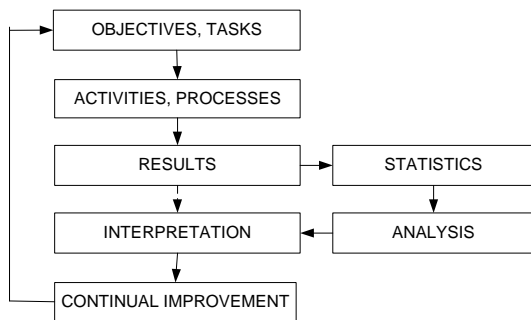


Figure 3. Process of continual improvement

In this way, there are real measurable functions. The organization's quality policy should indicate, which are the organization's overall principles with regard to quality and which functions are concerned. The system for collection of information about results, mechanism of analysis, and improvement process should be determined in the organization, too.

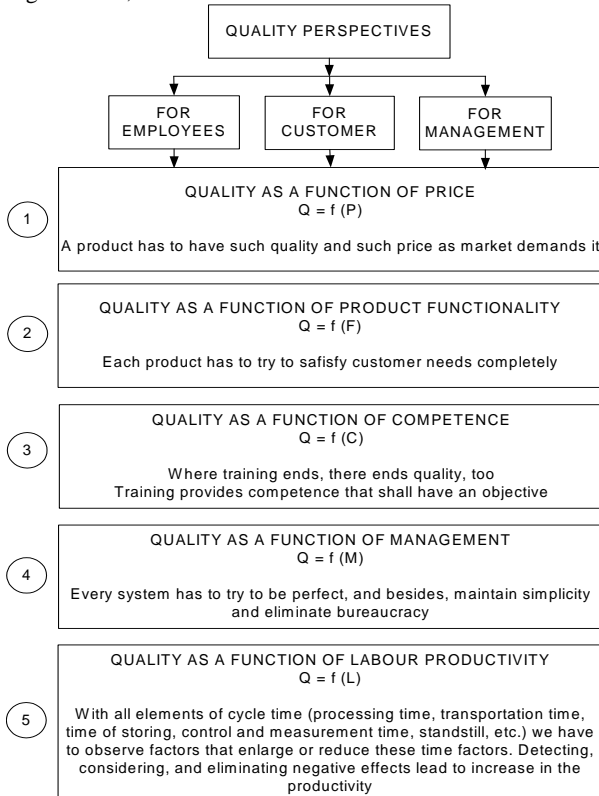


Figure 4. Expression forms of the quality

3.2. Management by objectives

There are various concepts regarding the analysis of certain processes improvement (references, 2-5).

In Britain, the leading exponent of management by objectives (MbO) has been John Humble, a well-known management consultant. Humble sees MbO as a means of integrating organizational goals, such as profit and growth, with the needs of individual managers to contribute to the organization and to their own self-development. A system of management by objectives, therefore, seeks to achieve a sense of common purpose and common direction amongst the management of an organization in the fulfilment of business results.

The most important features of MbO are:

- it focuses on *results* (system outputs) rather than on *activity* (system process).
- it develops logically from the corporate planning process by translating corporate and departmental objectives into individual manager-objectives.
- it seeks to improve management performance.

MbO enables the management of an organization to concentrate their efforts on obtaining results from the key areas of the business. It provides an opportunity for managers and their superiors to collaborate in (a) identifying the key areas for results, and (b) establishing appropriate performance standards against which results can be measured. The principal stages of an MbO system can be summarised as shown in Figure 5.

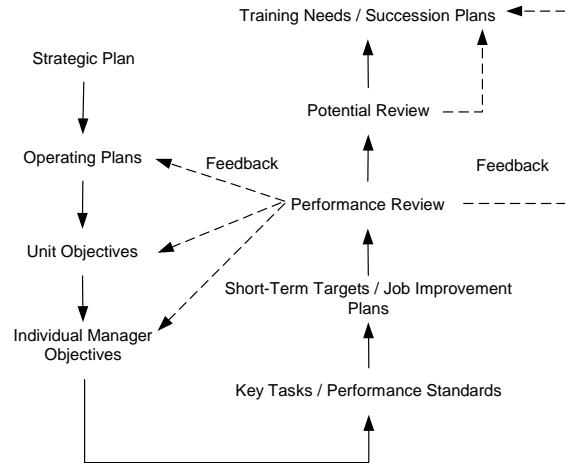


Figure 5. The MbO cycle

The cycle of events demonstrates the links between the organization's strategic plan, the objectives and key tasks of individual managers, and the vital review of performance, which provides important feedback to the operating system (plans and objectives), and to the training and development system (training needs and succession plans). The potential review feeds back to the training and development system.

In practice, MbO realizes through its bearing elements, which are:

- Establishing the objectives (mission, policies, goals, objectives);
- Planning the activities (plans);
- Fixation and assignment of tasks (reports, minutes, records);
- Observation of tasks fulfilment and control of final results (reporting).

Most organizations tend to set long-term objectives in the following areas:

- Profitability
- Market Share

- Sales Volume
- Production
- Research and Development
- Stock / Inventory Levels
- Resourcing (financial, manpower, and physical).

Cross-matrix of MbO, which proceeds from the figure 1 and takes into consideration the organization's processes (Figure 2), is presented in Figure 6.

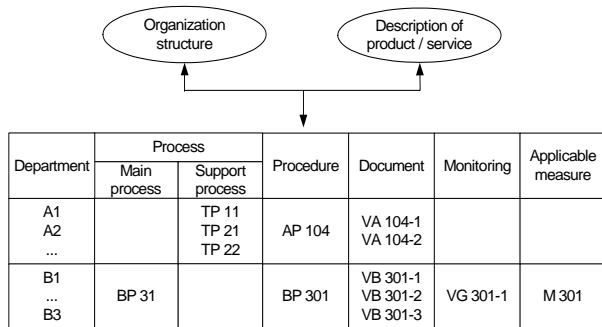


Figure 6. Cross-matrix of management system

Management system is controlled by its documentation. While the processes determine activity stages and procedures give instructions how to act, then through monitoring and measurement the objective picture of reality has obtained. Analysing the reality, process of continual improvement is started.

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