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MONITORING THE EFFECTIVENESS OF THE QUALITY MANAGEMENT SYSTEM IN MANUFACTURING ENTERPRISES

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Abstract: This article analyzes scientific concepts, phrases and research results related to ensuring the effectiveness of the formation, implementation and management of a quality management system in manufacturing enterprises, and develops recommendations for assessing its effectiveness. A quality management system is a system that summarizes many years of experience of manufacturing enterprises and has absorbed all positive world practices that force enterprises to form certain quality practices, and has integrated all quality concepts into its philosophy. Monitoring the effectiveness of the quality management system in manufacturing enterprises is an important part of the enterprise's activities. This process is the basis for quality control, increasing production efficiency, and minimizing risks related to the quality of products or services.

Keywords: efficiency, effectiveness, competition, quality, management, international standard, system, management and others.

Introduction. In the context of intensifying global competition, the imminent prospects of the Republic of Uzbekistan's accession to the World Trade Organization, and the intensification of market relations, local manufacturing enterprises are paying special attention to ensuring the quality and safety of products, improving production and management processes, and organizing business management processes on a scientific basis . Such a scientific basis increases the need for enterprises to develop a new development strategy aimed at achieving their goals through continuous improvement of the quality of management activities . In this regard, the formation and implementation of quality management systems that meet the requirements of international standards is of great importance . Such a management system allows for a unified analysis of production-technical, socio-economic and organizational-economic problems and the scientific modernization of organizational management processes.

To effectively solve the problem of management modernization, the top level of the enterprise's production system must have an effective tool for monitoring and assessing the strategic capabilities of the existing quality management system. The need to develop a comprehensive methodology based on the results of the analysis to assess the effectiveness of the enterprise's activities within the framework of the quality management system, to make and implement high-quality management decisions determines the relevance of the study.

Due to the intensification and complexity of competition as a result of economic reforms in our republic, as well as the sharp acceleration of environmental changes, manufacturing enterprises are forced to create effective management systems that not only take into account the specific characteristics of the enterprise, but also pay great attention to its interaction with the external environment, forming its ability to adapt to the external environment.

The key to improving the efficiency of an enterprise is to change the management paradigm and constantly improve the management system. Among the countless tools for improving operational efficiency, a number of the most promising directions for use in manufacturing enterprises can be distinguished. These are strategic management, budgeting, control, innovative management, and process-oriented management.

World practice proves that the implementation of a quality management system in enterprises in accordance with the requirements of international standards ISO 9001:2015 is a powerful tool for increasing the efficiency and competitiveness of activities. Therefore, in our country, a number of important measures are being implemented to reduce the risk factors affecting product quality and increase the effectiveness and efficiency of activity results in the production of high-quality, safe and competitive products.

In this regard, the Decree of the President of the Republic of Uzbekistan No. PF-37 dated February 21, 2024 on the State Program for the Implementation of the Strategy "Uzbekistan – 2030" in the "Year of Youth and Business Support" sets out important tasks, including "...Increasing the volume of finished and semi-finished products in the export structure by introducing new international standards into practice and introducing international standards to 822 enterprises...". In implementing these tasks, the formation, implementation and improvement of quality management systems that meet the requirements of international standards and are based on the experience of developed countries are of great importance.

A key step towards implementing these improvements in the management of manufacturing enterprises in Uzbekistan is the introduction of quality management systems that meet the requirements of the ISO 9000 series of international standards. The management principles and the quality criteria they formulate embody the fundamental experience of the international community in creating competitive businesses.

Methodology & empirical analysis. The issues of organization and management of enterprise activities, including the improvement of the quality management system, have been studied by many scientists. In particular, this issue is comprehensively covered in the published works of domestic and foreign specialists such as M. Toshpulatov, K. Sharipov, M. Saidov, O. Aristov, B. Akhmedov, P. Ismatullaev, I. Ikromov, G. Samatov, and such famous scientists as P. L. Chebyshev, A. M. Lepunov, I. G. Venetsky, A. M. Dlin, U. A. Shukhart, E. Deming, A. Feigenbaum have made a great contribution to solving the problem of modernization of enterprise management based on the formation of an effective quality management system.

The research analyzed the opportunities and circumstances for improving the current level of functionality to create new opportunities in the environment of internal and external changes, based on the requirements of the international standard ISO 9001:2015.

Analytical methods, process approach, multidimensional data analysis, statistical methods of process management, information models of quality management were used in the research process.

Results. At the current stage of development aimed at comprehensive coverage of various fields of activity, it is considered important to understand quality as a fundamental category that is complex, capacious, universal and has many characteristics. Currently, its following aspects can be noted:

1. The economic aspect is one of the most important, therefore, almost all decisions in the field of quality, quality improvement programs, quality management measures are associated with economic costs and are logically correct if they lead to acceptable economic results for the enterprise. Therefore, quality is considered, first of all, as the most important economic category.

2. The technical aspect is manifested through interrelated characteristics - the level of development of technology and the quality of man-made objects. On the one hand, the constant development of scientific and technological progress creates a strong foundation for improving the quality of products and services. On the other hand, the high quality of products and services, information and transport communication systems and other components of the quality of life create good conditions for accelerating scientific and technological progress.

3. The social aspect should also be considered from two positions. As the most important component of the environment, high quality, level of education, increasing intellectual development and well-being have a positive impact on the social environment, the social status of the state. At the same time, the social level of a person itself affects the quality of the products of his labor.

4. The moral aspect is reflected in such components of the quality of life as the quality of knowledge and personal development, the quality of labor products, the level of self-expression in labor, and the level of usefulness of labor.

5. With the widespread deterioration of the environmental situation, the environmental aspect is becoming increasingly important. Management strategies based on the desire to satisfy short-term needs at the expense of long-term interests and well-being of consumers are losing their relevance today. Buyers are putting pressure on governments and industries to increase their efforts and take measures to improve environmental protection.

6. The national aspect is associated with certain national characteristics that affect the standards of environmental quality requirements. It is manifested in the way of thinking in the field of quality that is specific to a particular nation.

7. The political aspect is manifested indirectly, through the competitiveness of products and enterprises, affecting the level of income of the population, the level of

unemployment, etc., and thus influencing the political situation within the country. The international status of states.

The selected aspects give a clear idea of how multifaceted the concept of quality is and how the multifaceted nature of this category determines the complexity and ambiguity of its interpretation.

World practice proves that the introduction of a quality management system in enterprises in accordance with the requirements of the ISO 9000 series of international standards is a powerful tool for increasing operational efficiency and competitiveness. The quality paradigm is gaining momentum in the Uzbek economy today, and its use in management provides enterprises with a number of advantages.

First, the ever-expanding economic integration and current prospects require management based on continuous improvement of quality as a method of international communication and as a means of facilitating access to the global economic space.

Secondly, quality provides a complete system for responding to the desires and demands of buyers, which allows for effective adherence to the basic principle of marketing - to produce things that will be sold, rather than to sell manufactured products.

Thirdly, management based on continuous improvement of quality forms a system of adapting market processes to demands and changes in society, which significantly increases the stability, balance and flexibility of the enterprise as a whole in relation to constant changes in the unstable external environment.

By understanding the prospects and potential impacts of quality management, almost all industrial enterprises can move to a new stage of management development, which is closely related to the development, implementation and certification of quality management systems in accordance with the requirements of ISO 9001:2015 standards, as well as their future development and integration into an integrated management system.

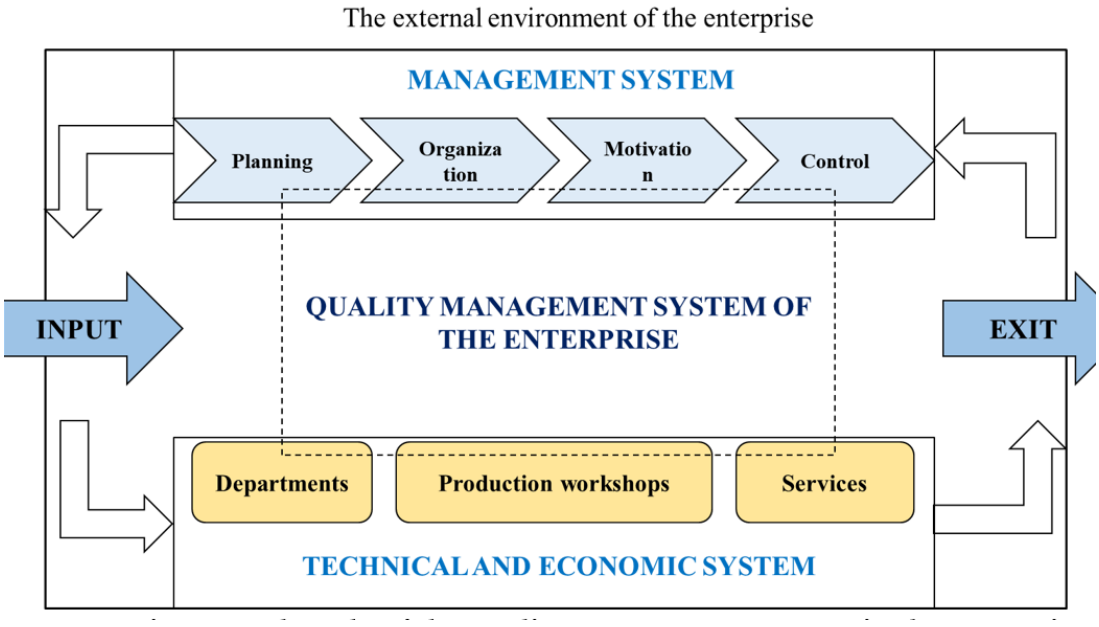

Figure 1. The role of the quality management system in the enterprise

We can say that the quality management system is a system that coordinates the activities of the two main subsystems of an enterprise, which are closely related and interconnected with the external environment.

The role of the quality management system in the enterprise can be described on the basis of system analysis using the “black box” principle (Figure 1).

The current edition of the ISO 9000 family of standards reflects fundamental changes in management approaches and facilitates the implementation and operation of quality management systems for organizations, regardless of their type of activity, scale, or legal form. The ISO 9000 series of international standards includes the following interrelated standards:

1. ISO 9000:2015 standards describe the basic principles of quality management systems and define the terminology for quality management systems, primarily aimed at the successful management and operation of an enterprise.

2. ISO 9001:2015 specifies requirements for a quality management system to demonstrate an organization's ability to provide products that meet customer and regulatory requirements, and to improve customer satisfaction. The requirements of this standard are related to certification and cover most aspects of company management.

3. ISO 9004:2015 contains guidelines that determine the effectiveness and efficiency of a quality management system. The purpose of the standard is to improve the performance of an organization and satisfy customers and other interested parties.

Thus, the ISO 9000 family of standards is the basis for a management system that provides a minimum level of quality for the entire management system (as well as the products and services within that system) that must meet the requirements of all interested parties. The formation of a set of agreed standards for quality management systems helps to develop, implement and maintain a quality management system, and also recognizes the need for continuous improvement of the enterprise, taking into account the needs of all interested parties.

The assessment of the effectiveness and efficiency of the quality management system is one of its main components. ISO 9001:2015 clearly defines the need to assess the effectiveness of quality management systems and sets out the requirements for it: “The organization shall determine, plan and implement processes for measuring, monitoring, reviewing and improving the quality management system to provide confidence that processes, products and/or services meet specified requirements. The effectiveness of the implemented measures shall be assessed periodically. The organization shall determine and establish processes for measuring the progress of the quality management system.” At the same time, the issue of the implementation of performance assessment and the technology for its implementation remains open.

The problem of the effectiveness of management systems has always been the subject of scientific research, and now it has become one of the most urgent tasks, of vital importance from the point of view of the development prospects of any organization. At the same time, it remains very little developed theoretically and is poorly understood in practice.

One of the well-known management theorists, G. Emerson, considered efficiency to be the main task of management, and within the framework of praxeology, T. Kotarbinsky and Zh. Zelenevsky used the concept of efficiency as one of the central factors of organizational success.

The above considerations allow us to conclude that the expansion of the conceptual apparatus of efficiency has made it possible to reflect the interrelationship of various aspects of the enterprise's activities: results and costs, results and goals, results and needs, results and values. As a multidimensional concept, efficiency is determined by various criteria, which requires special methods of adjusting these criteria to each other and methods of reaching compromises.

The problem of determining the effectiveness of quality management systems has gained relevance since their implementation and has become especially relevant with the widespread use of ISO 9000 standards in the management practice of industrial enterprises.

We will consider the main theoretical aspects of creating methods for evaluating the effectiveness of enterprise quality management systems, for this we will analyze the main rules of existing scientific principles and theories of approach. Figure 2 shows the main theoretical sources of the formation of the evaluation procedure of quality management systems.

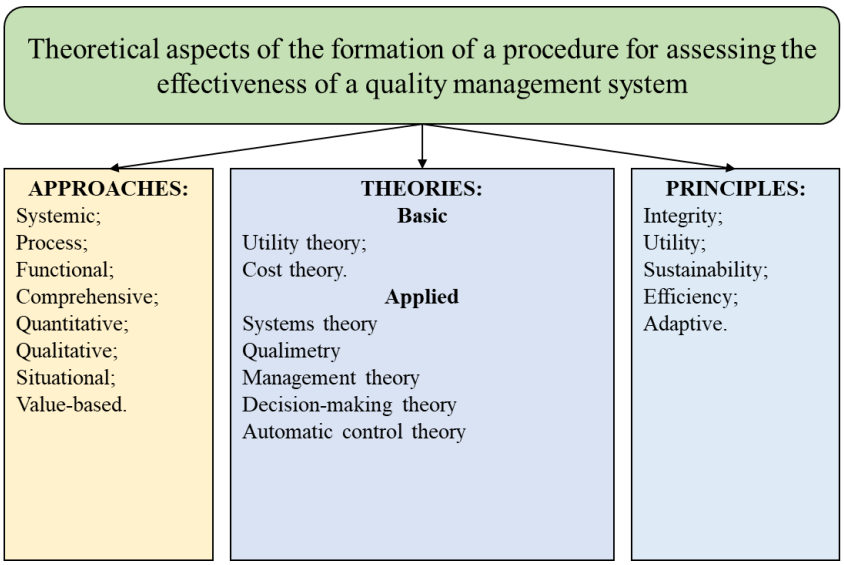

Figure 2. Theoretical aspects of the formation of the procedure for evaluating the effectiveness of the quality management system

The separation of theories into practical and basic is based on the possibility of identifying different groups of objectives for evaluating the effectiveness of quality management systems:

1. Scientific - involves the development of a theory and methodology for managing various objects, generalizing experience and identifying trends, as well as specific patterns and regularities that require new scientific explanation; the development of practical aspects of assessing the effectiveness of quality management systems in order

to develop organizational and economic methods and means of improving the quality of management of the entire enterprise.

2. Practical - includes assessing the state and development of quality management systems; identifying and studying factors affecting their effectiveness; analyzing problem areas and making recommendations for their elimination; improving the effectiveness of existing quality management systems, etc.

These theories are an integral element of the theoretical basis for evaluating the effectiveness of quality management systems.

Quantitative assessment of the priority of alternative solutions is based on the postulates of the theory of utility and its object is to express preferential relations by numerical criteria. In the search for a subset of alternatives that are acceptable in one sense or another in terms of priority, each alternative is associated with a certain number - a utility program. For any two alternatives, one is preferable to the other if the benefit of the first alternative exceeds the benefit of the second. The main content of the theory of utility can be expressed by a utility function, and utility itself should be considered as a characteristic feature of the stability of the functioning of the management system within the framework of assessing efficiency.

The theory of value is an integral part of the methods for assessing the effectiveness of quality management systems. Currently, value is understood as the monetary expression of the value of an object and the property rights associated with it at a certain point in time. Each object has a certain value, which determines its usefulness, value to internal and external counterparties. The task is to determine the parameters that make up the value of an object and their interrelationships.

In addition to basic scientific theories, it is necessary to study a number of practical theories that can be used to analyze emerging functional relationships and develop a framework for assessing the effectiveness of a quality management system.

Over the past decade, local manufacturing enterprises have significantly strengthened their activities in the development, implementation and operation of quality management systems, which is also due to the internal policy of management and the ongoing national policy aimed at introducing modern technologies and management methods.

According to the information on the website of the international organization ISO, quality management systems are being implemented in more than 180 countries around the world, and the share of organizations voluntarily certifying their systems' compliance with international standards is increasing every year. The growth rate of the number of certificates in Uzbekistan is increasing, but less than in developed and developing countries.

Many local enterprises emphasize that the presence of a certificate provides significant advantages in business and allows for rapid and effective development. At the same time, it should be noted that the presence of a certified quality management system by an enterprise is evidence of the enterprise's ability to organize its activities in a qualitative manner in accordance with the requirements of local or international

standards. The realization of this potential must be confirmed in practice, and for this it is necessary to increase the effectiveness of the certified quality management system and maintain it in working condition.

According to the estimates of local and foreign experts, the system did not give the expected results in up to 60% of the enterprises that aimed to get the certificate quickly.

Analyzing the main reasons for the ineffectiveness of quality management systems operating in enterprises, it can be noted that in this case there is a "domino" effect, when each previous cause aggravates the action of the next (Figure 3). The domino effect clearly shows that an ineffective quality management system will lead to large material losses in the future.

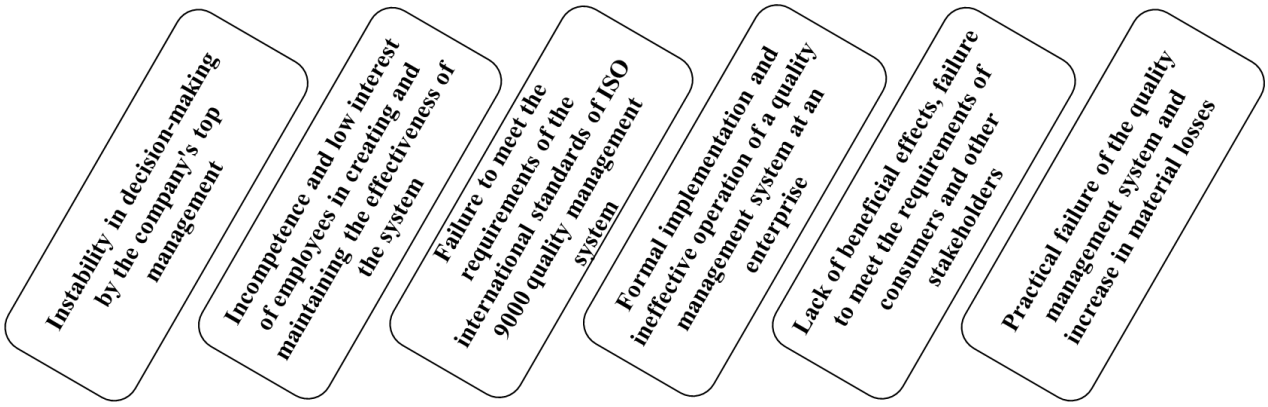

Figure 3. Increasing ineffectiveness of quality management systems under the influence of the "Domino" effect

The main reason for the ineffectiveness of the existing quality management system in manufacturing enterprises is the shortcomings of the top management in the target system, which, as a result, leads to the refusal to play a leading role in the creation and operation of the management system. In addition, the implementation of the quality management system and its continuous improvement should be carried out only at the initiative of top management, which requires not only reforming the historically established rules of business conduct, but also changing the worldview of all employees. This requires a strong administrative resource: top management, represented by the CEO and his deputies, must not only be interested in changes in the system, but also manage it.

Most local leaders still believe that quality management systems are designed to control the quality of manufactured products and services, and that ISO standards are purely technical documents under the jurisdiction of technical services. Such misconceptions prevent the benefits of quality management systems as a business model for sustainable enterprise development and the realization of the market essence of ISO standards.

According to the requirements of the international standard ISO 9004:2018, within the Leadership framework, top management must:

a) promote the mission, worldview, value and culture in a clear and understandable way to achieve unity of goals;

b) creating an internal environment in which employees are involved and committed to achieving the organization's goals;

c) Encourage and support leaders at appropriate levels to promote and maintain unity of purpose and direction set by senior management.

To achieve sustained success, senior management must demonstrate leadership and commitment within the organization by:

a) to determine the specific characteristics of the organization;

b) promoting a culture of trust and honesty;

c) establishing and maintaining team relationships;

e) providing staff with the necessary resources, training and authority to carry out activities with appropriate responsibility;

e) promote common values, fairness and ethical behavior to support them at all levels of the organization;

f) create and maintain an organizational structure to increase competitiveness, where necessary;

d) strengthening the values of the organization individually and collectively;

h) exchange information internally and externally on progress made, if possible;

i) create a basis for effective communication with people in the organization, discussing issues of common interest, including financial implications, if necessary;

j) supporting leadership development at all levels of the organization.

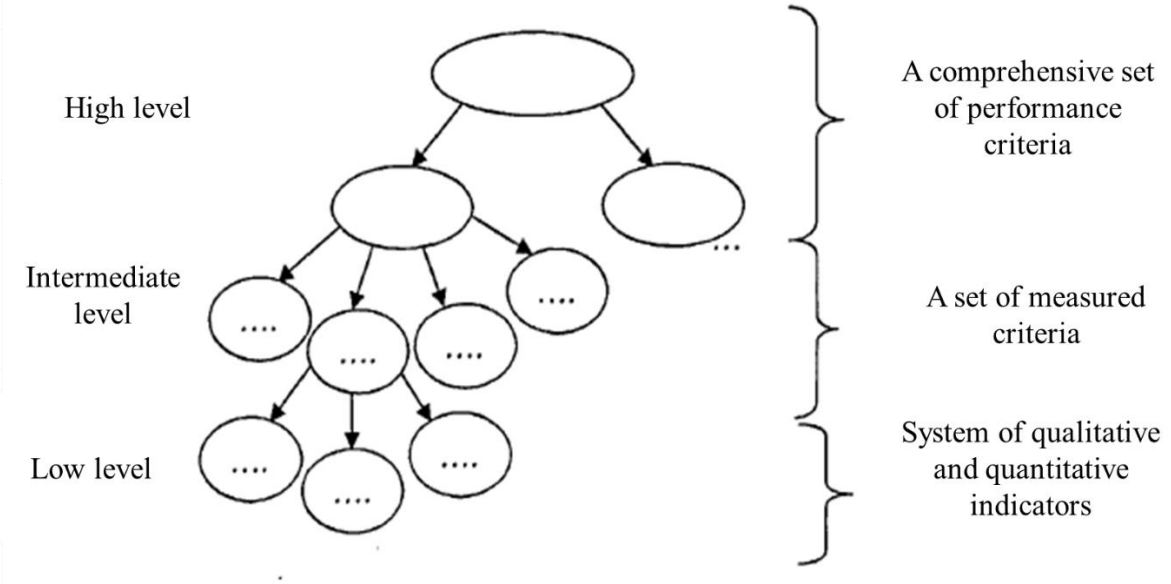

Figure 4. Hierarchy of criteria and indicators for evaluating the effectiveness of the quality management system of enterprises

This list of tasks within the quality management system has a clear strategic nature, and systematic management based on the use of this system as a business model allows the leader to balance the requirements in achieving benefits for all stakeholders of the company. It is the leader, like no one else, who should be interested in the effective functioning of the quality management system. Without interest and active participation in the work from top management, the system may collapse.

Monitoring the effectiveness of the quality management system should cover all elements of the developed system, that is, it includes the analysis and assessment of the effectiveness of the management system, reflected in various indicators for the management system and the subject of management, and these indicators have both qualitative and quantitative characteristics. At the same time, monitoring systematically has a 3-level hierarchy (Figure 4)

-“high” level - is a complex criterion of quality management system efficiency, its optimal value ensures the stable development of the enterprise in an unstable market environment.

-“average” level is a subjective criterion of quality management system efficiency, which is derived from the internal characteristics of its activity and has a number of fixed indicators. This level is open and its content is determined by the company itself in the form of a system of coefficients based on the principle of unity and completeness of each enterprise.

- “lower” level - a system of qualitative and quantitative indicators reflecting the main parameters and capabilities of the enterprise.

Using the capabilities of this system of criteria and indicators, the company's management can constantly monitor its activities and conduct its own internal analysis, analyze the capabilities of the system itself and the external business environment. Performance evaluation criteria can be used by top management not only to analyze the characteristics of the quality management system, but also as guidelines for the targeted development of the entire enterprise. Analysis and evaluation of the quality management system allows for a systematic approach to improving management and increasing the efficiency of the enterprise, based on objective assessments based on real data.

The set of quality management system efficiency criteria is formed taking into account its two areas of activity and development features:

1. assessment of the degree of compliance of the achieved results of the enterprise's activities with the established goals - the criterion of “balance of the requirements of all interested parties”;

2. according to the degree of compatibility of the features of the management system with the objective requirements of the enterprise and the external business environment - the criterion of “innovativeness of the development of the quality management system”.

In turn, each criterion includes a number of criteria that reflect the main characteristics of the enterprise's activity.

Finding the criterion of “Balance of the requirements of all interested parties” from the optimal combination of the following subcriteria includes:

- meeting customer needs (achieving a dynamic balance between their expectations and the actual quality of the purchased products or services);

- satisfaction of owners and shareholders (achieving business profitability and stable growth of the enterprise);

-satisfaction of the company's personnel (formation of personnel's loyalty to the company's activities);

-satisfaction of suppliers and business partners (balance of interests within cooperation to achieve clear competitive advantages);

- Satisfying the company as a whole (balance of interests between the company's needs and the enterprise's activities).

The criterion "Innovativeness of the development of the quality management system" also includes a number of sub-criteria covering all components of the innovative potential of the enterprise's activity revealed within the framework of an effective quality management system. In our opinion, the basis of innovation in the operation of the quality management system is:

-product innovation (development and production of new or improved products and services);

-social innovations (changing the relations of employees in the enterprise);

- technical and technological innovations (purchase of new equipment, changes in the enterprise's production processes);

-market innovations (using new mechanisms for advertising products, searching for new markets for products);

-organizational and management innovations (the use of new methods of organizing production and enterprise management technologies).

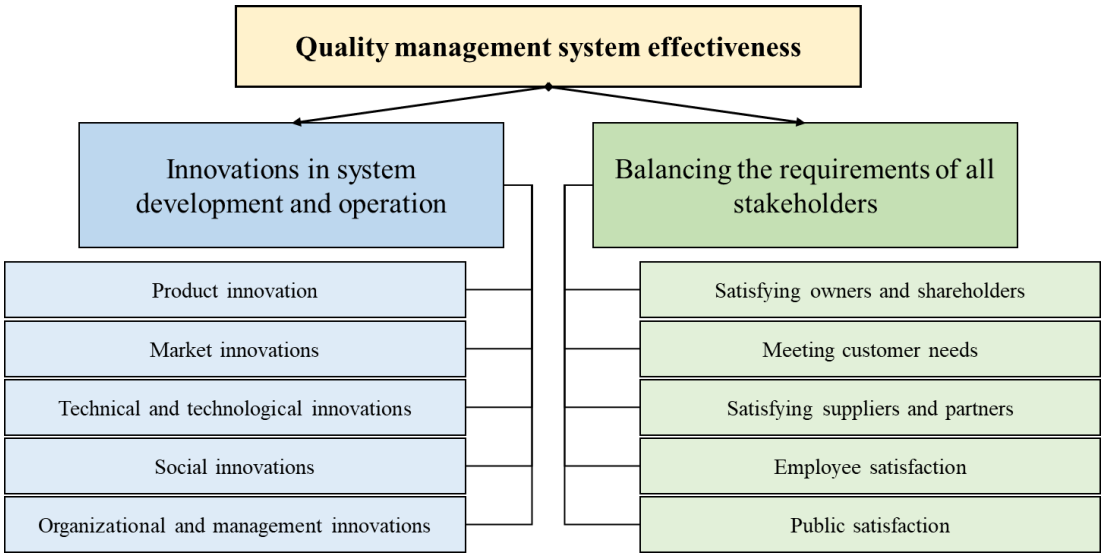

Figure 5. Criteria and sub-criteria for evaluating the effectiveness of the enterprise quality management system

A schematic diagram of the hierarchy of criteria and subcriteria forming the effectiveness of the quality management system is shown in Figure 5.

The selected criteria and subcriteria cover all elements of the quality management system and comprehensively reflect the innovative nature of its activities and development. Monitoring their changes allows you to analyze the effectiveness of the quality management system in a short time, identify the causes of emerging problems, quickly take measures to eliminate them, and identify areas for improving the system itself and the entire enterprise.

The source of information for monitoring changes in indicators is the enterprise's internal reporting, and the most effective method of collecting information is a systematic review of all aspects of activity.

Let's take a closer look at some of the groups of indicators formed within the criterion "Balance of stakeholders' requirements" and its sub-criteria.

The analysis of the effectiveness of the quality management system according to the sub-criterion "satisfaction of owners and shareholders" includes a comprehensive assessment of the activity within the system under consideration in accordance with the existing strategy of the enterprise.

This group includes quantitative financial and non-economic indicators that are necessary to understand the features of operation and forecasting of the improvement of the system and the company's activity as a whole. These indicators are presented in Table 1.

Table 1. Indicators on the sub-criterion "Satisfaction of owners and shareholders"

No.	Index	Signs	Formula for calculation
1	Profitability of sales by main product types	P_{sales}	$P_{sales} = \frac{TP_{sales}}{I}$
2	Fifty percent of net return on assets	P_{net}^{ass}	$P_{net}^{ass} = \frac{\mathrm{NP}_{net}}{AVV}$
3	The share of quality costs in the cost of production	$C_{quality}^{PC}$	$C_{quality}^{PC} = \frac{C_{quality}}{PC}$
4	The share of compliance costs in total quality costs	$C_{compli}^{quality}$	$C_{compli}^{quality} = \frac{C_{compli}}{C_{quality}}$
5	Return of capital on products sold	C_0	$C_0 = \frac{I}{\mathrm{AV}_{\mathrm{aver}}}$
6	Turnover ratio of current assets of the enterprise	R_{tur}^{CA}	$R_{tur}^{CA} = \frac{I}{\mathrm{CA}_{\mathrm{aver}}}$
7	Labor productivity	LP	$LP = \frac{I}{\mathrm{P}_{\mathrm{number}}^{\mathrm{aver}}}$
8	The level of utilization of production capacity for the production of the main types of products	$C_{\mathrm{capacity.util}}$	$C_{\mathrm{capacity.util}} = \frac{\mathrm{P}_p}{Cap}$
9	Percentage of product delivery from first presentation	$P_{present}$	$P_{present} = \frac{\mathrm{P}_{first\ present}}{\mathrm{P}_p}$
10	The ratio of overdue payables to sales volume	$OP_{loan\ debt}^{overdue}$	$OP_{loan\ debt}^{overdue} = \frac{OP_{overdue}}{I}$

Note: TP_{sales}- trade profit, sum; I- income, amount; NP_{net}- net profit, sum; AAV- average asset value, sum; $C_{quality}$- total cost of quality costs, sum; TH- price of the sold product, sum; C_{compli}- total quality compliance costs (preventive and control costs), sum; AV_{aver}- average annual value of fixed assets, sum; CA_{aver}- average annual value of current assets, sum; P_{number}^{aver}- the average number of employees of the enterprise, people; P_p- production volume of the main product, units; Cap- production capacity, units; $P_{first\ present}$- products received from the first presentation, pieces; $OP_{loan\ debt}^{overdue}$- amount of overdue loan debt, sum.

Analysis of the effectiveness of the quality management system according to the subcriterion "Employee satisfaction" includes a comprehensive assessment of working with employees to achieve a certain level of satisfaction and involvement in the activities of the enterprise. The list of quantitative and qualitative indicators is given in Table 2.

Table 2. Indicators on the sub-criterion "Employee satisfaction"

No.	Index	Signs	Formula for calculation
1	Employee satisfaction	E_{satis}	*Questionarie*
2	Lack of personnel in the enterprise	E_L	$E_L = \frac{E_{dis}}{E_{total}}$
3	Excessive loss of working time	$D_{loss}^{\%}$	$D_{loss}^{\%} = \frac{D_{loss}}{D_{plan}}$
4	Costs of personnel training and professional development in the total volume of sales	$E_{training}^{I}$	$E_{training}^{I} = \frac{E_{training}}{I}$
5	The amount of social benefits paid per employee	E_{social}^{people}	$E_{social}^{people} = \frac{E_{social}}{P_{number}^{aver}}$
6	Share of defects caused by employees	$Defect_{in.def}^{people}$	$Defect_{in.def}^{people} = \frac{E_{in.def}^{people}}{E_{in.def}}$
7	Average salary for an employee of the enterprise	W_{aver}^{people}	$W_{aver}^{people} = \frac{AWF}{P_{number}^{aver}}$
8	The ratio of trained managers and specialists to the total number of employees	$E_{man.spec}^{trained}$	$E_{man.spec}^{trained} = \frac{E_{man.spec}^{trained}}{E_{people}^{trained}}$
9	Costs of measures to improve labor protection and safety for each employee	$E_{labor\ pro}^{people}$	$E_{labor\ pro}^{people} = \frac{E_{labor\ pro}}{P_{number}^{aver}}$
10	Production for one worker	P_{people}	$P_{people} = \frac{P_p}{P_{number}^{aver}}$

Note: The survey of the company's employees was carried out with the help of a specially designed questionnaire that reflects the main factors of employee satisfaction, taking into account the characteristics of each company.

E_{dis}- number of employees dismissed voluntarily, due to absenteeism or other violations, employees; D_{loss}- duration of loss of working time, hours; D_{plan}- planned working time, hours; $E_{training}$- costs of training and advanced training of employees,

sums; E_{social}- amount of social payments at the enterprise, sums; $E_{in.def}^{people}$- amount of internal losses due to the fault of the enterprise's employees, sums; $E_{in.def}$ - total amount of internal defects in the enterprise, soums; AWF- annual wage fund, soum; $E_{man.spec}^{trained}$ - the number of trained managers and specialists, employees; $E_{people}^{trained}$- the number of employees of the enterprise who have undergone training, employee; $E_{labor\ pro}$- total costs of the event on labor protection and safety at the enterprise, soums.

Since the activities of an enterprise are multifunctional and have goals expected by many stakeholders, the effectiveness of the quality management system should be assessed in a multi-criteria manner using strategic indicators.

Based on a hierarchical system of criteria, subcriteria and indicators, monitoring, analysis and evaluation of the effectiveness of the quality management system covers the main processes that ensure the improvement and modernization of the management of production enterprises.

Conclusions. The scientific and practical significance of studying the effectiveness of quality management systems in manufacturing enterprises is that the implemented quality management systems should be considered not only as a subsystem of quality management, but as a whole system, allowing to ensure and maintain competitive advantages in an environment of market relations aimed at meeting the requirements of consumers and other stakeholders.

Currently, in many enterprises that have implemented a quality management system, top management does not have the opportunity to study its features in detail and fully utilize its unique potential. Practical solutions and recommendations for analyzing real data obtained as a result of monitoring the effectiveness of the quality management system and assessing its capabilities serve as the basis for modernizing management and choosing a strategic direction for the development of the enterprise's activities within the framework of quality.

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