

2. Formation of strategic principles of quality management at the enterprises of Ukraine

At the present stage of development of the world economy, Ukraine's integration into the European space, much attention is paid to the effective functioning of the enterprise, which in turn depends on product quality. Ignoring this factor, it is difficult to create optimal conditions for the development of any trade, sales and profitability of enterprises. Improving the quality system of goods of enterprises in modern conditions is a complex and urgent task that requires immediate solution. The long-term course of sustainable development of the enterprise should be aimed at achieving not so much quantitative indicators as qualitative ones, so managers should pay attention to the development of measures to increase competitiveness and reach the international level. Construction, implementation and certification of an integrated product quality management system will give them a number of competitive advantages and confidence in a level of production and service that meets international standards and is able to win the competition in domestic and foreign markets.

The quality management system in enterprises should take into account the characteristics of each stage of the life cycle of products, the specifics of business entities that provide both the entire life cycle and its individual stages, the level of product innovation, based on quality control and technological processes. used in the creation of products and the introduction of value motivation of staff. All this necessitates the creation of integrated product quality management systems that will use an interconnected system of standards, moral and ethical values and will have a competitive advantage to ensure product quality.

An important role in the formation of an integrated quality management system at Ukrainian enterprises, especially in the context of European integration, is played by public policy, whose main tasks are to form the concept of improving and developing product quality management system in Ukraine, defining their strategic guidelines. State policy in terms of product quality assurance and its compliance with EU requirements should be aimed at choosing areas of quality management.

The issues of product quality management have been studied in depth in domestic and foreign economic literature. The following domestic and foreign scientists made a significant contribution to the development of the theory and practice of quality management: S. Bezrodna [18], A. Vakulenko [19], E. Wexler [20], O. Dukan [39], H. Kaletnik [21], O. Khaietska [40], A. Feihenbaum and others.

The problem of implementing a quality management system at Ukrainian enterprises is strategically important and requires further research, taking into account industry specifics, calculating its effectiveness and optimality.

Improving quality is the basis of the efficiency of the country's economy, allows to better meet the needs of consumers, increase productivity of social work, increase profits, reduce material consumption, increase the competitiveness of products in domestic and foreign markets.

Analyzing the development trends of ideas and practices of quality assurance, we should pay attention to two factors: the formation of a new type of thinking that affects the understanding of the value of quality, and the pervasive need for quality as a factor of competitiveness, strategy and efficiency.

The formulation of the concept of "quality" is based on several different points of view, with which you can reflect all the multifaceted nature of this concept.

1. From the point of view of objective assessment of product properties, quality can be accurately measured. Differences in quality can be quantified by certain product characteristics.

2. From the point of view of the buyer, the quality of the product is determined to a greater extent by the subjective assessment of the consumer and to a lesser extent by the characteristics of the product itself. Individual buyers have different needs, and those products that best meet these needs are considered to be of the highest quality.

3. From the point of view of the production process, quality is compliance with specifications, and any deviation from them leads to a decrease in quality. The highest quality implies well-done work, the result of which fully meets the requirements.

4. In terms of value for money, quality is expressed through costs and prices. A quality product performs a certain function at an affordable price, as well as in accordance with the specification at reasonable costs [18].

Studying the problem of quality management, first of all we will try to define the very concept of "quality". Its evolution dates back to the time of Aristotle and is generalized in the works of EM Wexler, W.M. Reef, L.F. Vasilevich. In the textbook "Quality Management" [20, p. 13] updated dynamics of definitions of quality concepts (table 1).

Table 1

Definition of "quality" [18, 20, 23]

Author	Formulation of quality definitions
Aristotle (III century BC)	Differences between subject grades; good-bad differentiation
Chinese version / Ancient China (I-II centuries BC)	The hieroglyph, which denotes quality, consists of two elements - "balance" and "money" (quality = balance + money), so quality is identical to the concept of "high quality", "expensive"
Hegel (XIX century)	Quality, first of all, is identical with being, certainty / certainty, which ceases to be what it is when it loses its quality
W. Schuhart (1931)	Quality has two aspects: objective physical characteristics and subjective assessments (how "good" the thing is)
K. Isikava (1950)	Quality is a property that really satisfies the consumer
J. Juran (1979)	Quality has two aspects: - suitability for use (compliance with the purpose); - subjective assessment - the degree of customer satisfaction (to achieve quality, the manufacturer must know the requirements of the consumer and make their products so that they meet these needs).
State standard DSTU 15467-79	Product quality - a set of product properties that determine its suitability to meet certain needs in accordance with its purpose
International standard ISO 8402-86	Quality - a set of properties and characteristics of products or services that give them the ability to meet predetermined or anticipated needs
American Standards Institute and American Quality Society (1990)	Quality - the total number of features and characteristics of a product or service, which extends to its ability to meet certain needs
International standard ISO 8402-94	Quality is the set of characteristics of an object in terms of its ability to meet established and anticipated needs

Continuation of table 1

New explanatory dictionary of the Ukrainian language (1998)	Quality: The internal certainty of the subject, which is the specificity that distinguishes it from all others. The degree of value, value, suitability of something for its intended use; quality factor. One or another characteristic feature, property, trait of someone or something
International standard ISO 9001-2000 / 2008 DSTU ISO 9001-2001 / 2009	The degree to which the set of own characteristics satisfies the requirements
EOY Secretary-General Bertrand De Norey (2000)	Quality is more than certification, standards of compliance. This is the concept of improvement, how to make the world better and how to implement improvement

T. Angibous commented on the importance of quality in terms of current and future business demands: "Quality will have to be everywhere and be integrated into all aspects of the winning organization" [25, p. 91]. Indeed, the more we pay attention to quality, the more we care about the future.

In the context of globalization, the problem of quality is relevant for all countries, industries, institutions and organizations, is multifaceted and has political, social, economic, scientific, technical and organizational aspects.

The political aspect of the problem is due primarily to the fact that mass production of high quality products is one of the criteria for the development of society, an indicator of the level of economic development of the state.

The social aspect of the problem. The need to improve quality reflects the need to bring the level of product quality to the level of consumer requirements and the need to improve the quality of work itself. There are other aspects of the social aspect of this problem: ensuring proper education, proper education, training, etc., without which the problem of quality improvement cannot be solved.

The economic aspect of the problem is that improving quality is the basis for improving the efficiency of the economy, because it allows to better meet the needs of consumers, increase productivity, increase profits, reduce material consumption, save raw materials and fuel and increase the competitiveness of domestic and foreign markets.

Scientific and technical aspect of the problem. Improving product quality and increasing the pace of scientific and technological progress is the only process.

There are the following main reasons why the problem of quality assurance is so relevant in modern production [18]:

- quality - the main criterion for making a purchase for the most important buyers. Losing an order with an insufficient level of quality is much worse than losing a high price: you can lose a customer forever;

- quality is a comprehensive concept. The company implements many separate measures to counter competition. Quality and quality management systems offer a set of activities that covers all stages of the production process - product policy, planning, marketing, sales, personnel, innovation and technology;

- quality - the main tool for reducing costs. It is always cheaper to do the right thing the first time than to correct the mistake later;

- quality leads to strengthening the company's position in the market. In open and liberalized markets, goods and services are becoming increasingly interchangeable. The level of quality of goods becomes crucial.

Based on the wording provided in the standard ISO 9000-2005 "Quality Management System. Basic provisions and glossary of terms" [30] in Fig. 1 presents an analysis of the term "quality".

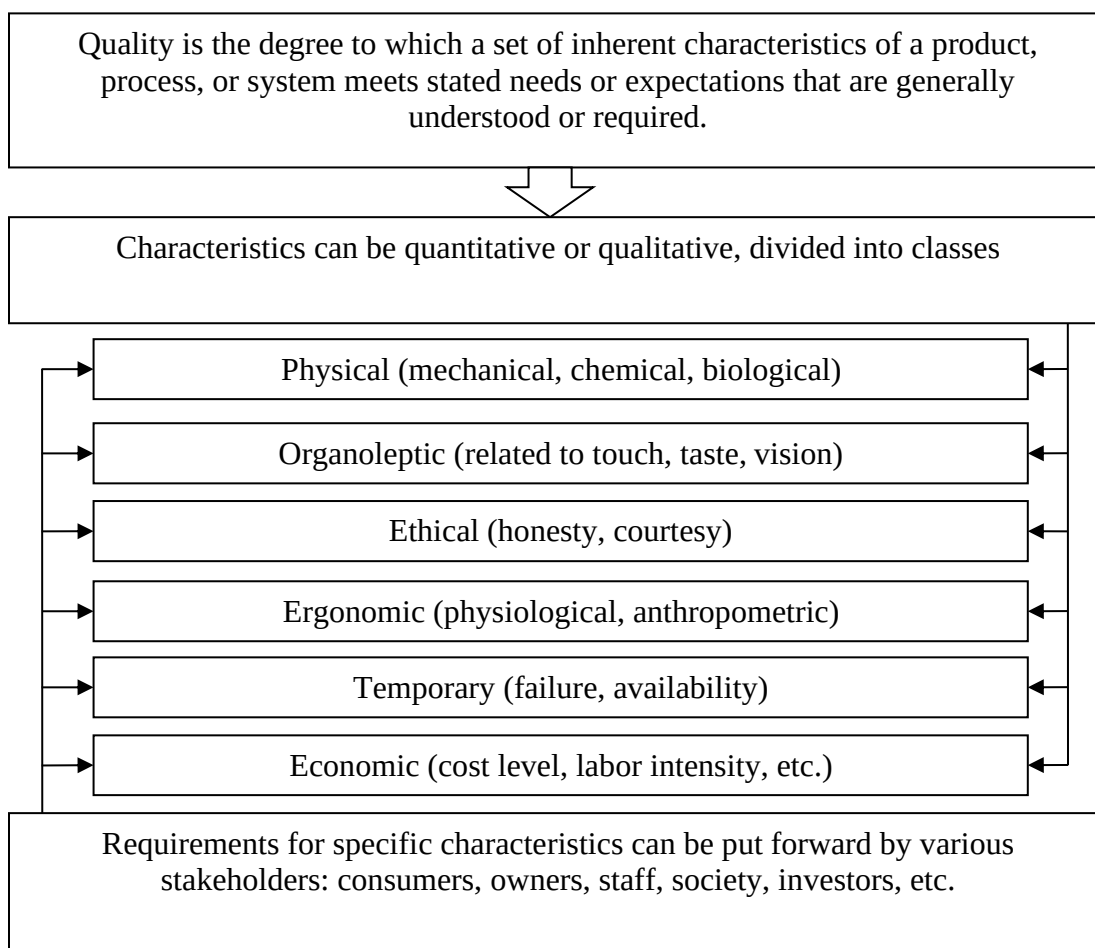


Fig. 1. Modern understanding of the category "quality"

Indicators of product quality, depending on the nature of the tasks to assess the level of product quality can be classified as follows (Table 2).

Table 2

Classification of product quality indicators

Sign of classification	Groups of product quality indicators
According to the properties that are characterized	Destination indicators; Indicators of reliability (reliability, durability, maintainability, safety); Ergonomic indicators; Aesthetic indicators; Indicators of manufacturability; Transportability indicators; Indicators of standardization and unification; Patent and legal indicators; Environmental indicators; Safety indicators

Continuation of table 2

By way of expression	Indicators expressed in natural units (kg, m, points, dimensionless) Indicators expressed in value units
By the number of properties characterized	Unit indicators; Complex indicators (group, generalized, integrated)
By use for evaluation	Basic indicators; Relative indicators
Depending on the stage of determining the values of indicators	Projected indicators; Project indicators; Production indicators; Performance

Quality management means the general function of organizational systems, which ensures the preservation of their structures, maintaining the mode of operation, implementing their programs, achieving goals.

Product properties can be characterized quantitatively and qualitatively. Quantitative characteristics of one or more properties of products that make up its quality is called an indicator of product quality. Product quality should be assessed only on the basis of a set of indicators that are directly related to it and established in accordance with the purpose of the product. Product quality indicators are relative. Regulation of the principles of selection of the system of indicators is reflected in the regulatory documentation, quantitative methods of quality assessment are an independent section in quality management - qualimetry [28].

Classification of types of technical quality control of the enterprise is presented in table. 3.

Table 3

Classification of types of technical quality control at the enterprise

Signs of classification	Basic types of control
Organizational form	Solid Selective Statistical Volatile Inspection
The nature of control operations	Visual Geometric Laboratory analysis Passing tests

Continuation of table 3

Stage of the production process	Incoming (resource control) Intermediate (process control) Output (product control)
Influence on the course of the technological process	Active Passive
Applied means of control	Automatic Mechanized Manual
Place of implementation	Stationary Variable

The most effective types of quality control are: statistical, active and automated.

According to the properties of quality indicators are divided into the following groups. Purpose indicators characterize the essence of the product, the properties that determine the ability of the product to perform its functions in the given conditions of use for its intended purpose. Reliability indicators reflect the ability of products to perform the required functions in a given mode. These are indicators of reliability, maintainability, durability, storage. Safety indicators assess the degree of safety in operation (consumption).

According to the elements of the business process, quality indicators are divided into the following groups:

- information (related to the receipt, processing and transmission of information);
- material (including ensuring the input control of raw materials, materials, semi-finished products);
- technical and technological (related to the maintenance of equipment and its condition);
- labor (show the qualifications of staff, the level of training of staff in the field of quality);
- organizational (reflect the use of progressive methods of organization of production) [29].

Under the management of the quality of products (services) are the actions carried out during its development, production (provision) or sale (consumption) in order to form, ensure and maintain a given level of quality.

A quality management mechanism is a set of interrelated objects and subjects of management, principles, methods and functions of management used at different stages of the product life cycle and levels of quality management.

The method of quality management means a set of techniques and rules of action on the objects of management, which are aimed at achieving a given quality.

In the table. 4 shows the main methods of quality management and examples of means of their implementation in the internal and external environment of the enterprise.

Table 4

Basic methods of quality management

Quality management methods	Parameters of implementation of quality management methods in relation to the enterprise	
	intrafirm	External
Organized (administrative)	- order of the director on creation of system of quality management at the enterprise - introduction of documentation of quality systems at the enterprise - Declaration of gratitude to employees for high performance in the company and awarding prizes	- compliance with the Laws "On safety of buildings" - compliance with the regulations "On safety of machinery and equipment"
Socio-psychological	- formation of corporate culture of quality improvement organization - quality groups	- holding competitions in the field of quality - awarding quality prizes (international, national)
Technical and technological	- statistical quality control at the enterprise - analysis of risks that increase in the technological process, which is critical to ensure safety at critical points of the process	-
Diplomatic	- development of a system of material incentives for wages to promote the quality of work of employees - встановлення цін according to quality categories - functioning of works on creation of a management system at the enterprise	- optimization of quality costs to ensure competitiveness - payment for certification work enterprise quality management systems

Objects of quality management of products and services are indicators of quality of products and services, factors and conditions that determine their level, as well as the processes of forming the quality of products and services.

The subjects of service quality management are management bodies and individuals who implement quality management functions in accordance with established principles and methods.

Quality management methods are classified as follows:

- classical methods;
- "new methods";
- modern methods and tools of organization management that can be used in the process of creating a quality management system and mastering the principles of TQM.

The functions of quality management of products and services at the enterprise include:

- forecasting and planning the quality of products and services;
- assessment and analysis of product and service quality;
- quality control of products and services;
- promoting the quality of products and services and responsibility for it.

A separate function is implemented in the corresponding function of the product quality management system subsystem. Functions are implemented in the consistent implementation of planning, organization, control, regulation, activation and incentives [40].

A systematic approach to quality management involves the formation of a target subsystem of enterprise management - an ordered set of interconnected and interacting elements of production facilities, which are designed to achieve this goal - to create conditions to ensure a given level of quality at minimal cost.

A systematic approach to quality management in the enterprise involves the use of the following principles:

- purposefulness - allows you to set boundaries of management and targeting of management decisions;

- complexity - covers all stages of the life cycle of products and services, all departments, management and all personnel of the enterprise;
- continuity - provides a management process that focuses on continuous improvement of the system;
- objectivity - focuses on the use of adequate management methods, the choice of indicators that reflect the actual state of quality management, the selection of management staff with appropriate qualifications;
- optimality - implies the need to ensure the effectiveness and efficiency of quality management processes in particular and the system as a whole.

To form a quality strategy, it is necessary to identify its main elements: the goals set by the organization in the strategic perspective in the field of quality; directions of activity of the organization; tools for achieving strategic goals in the field of quality in the areas of the organization [19, p.128].

Improving one's own work is ensured through proper, experienced management, on the one hand, and the conscious behavior of each employee of the enterprise, his conscientious attitude to work - on the other.

Therefore, the main criterion of the quality strategy will be to ensure a balance of satisfaction of all stakeholders, which can be achieved by creating a quality management system in the enterprise.

The quality management system of the enterprise can be built on the basis of various models, methods and tools (technologies and tools) of quality management, which are selected based on the industry characteristics of the enterprise and its development strategy.

In fig. Figure 2 shows a diagram illustrating the contour of strategic quality management of the enterprise, which shows the relationship of strategy, policy, goals in the field of enterprise quality and quality management system [18, p.15].

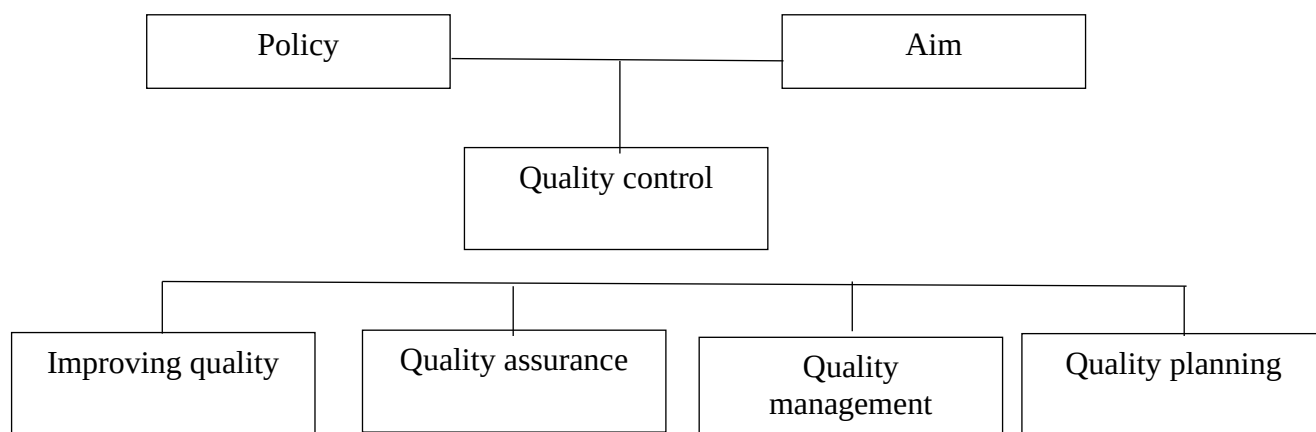


Fig. 2. Scheme of strategic quality management of the enterprise

The world is actively working on the problem of quality assurance. Its methodological basis is the so-called "quality loop", which in the classical version has the following form (Fig. 3).

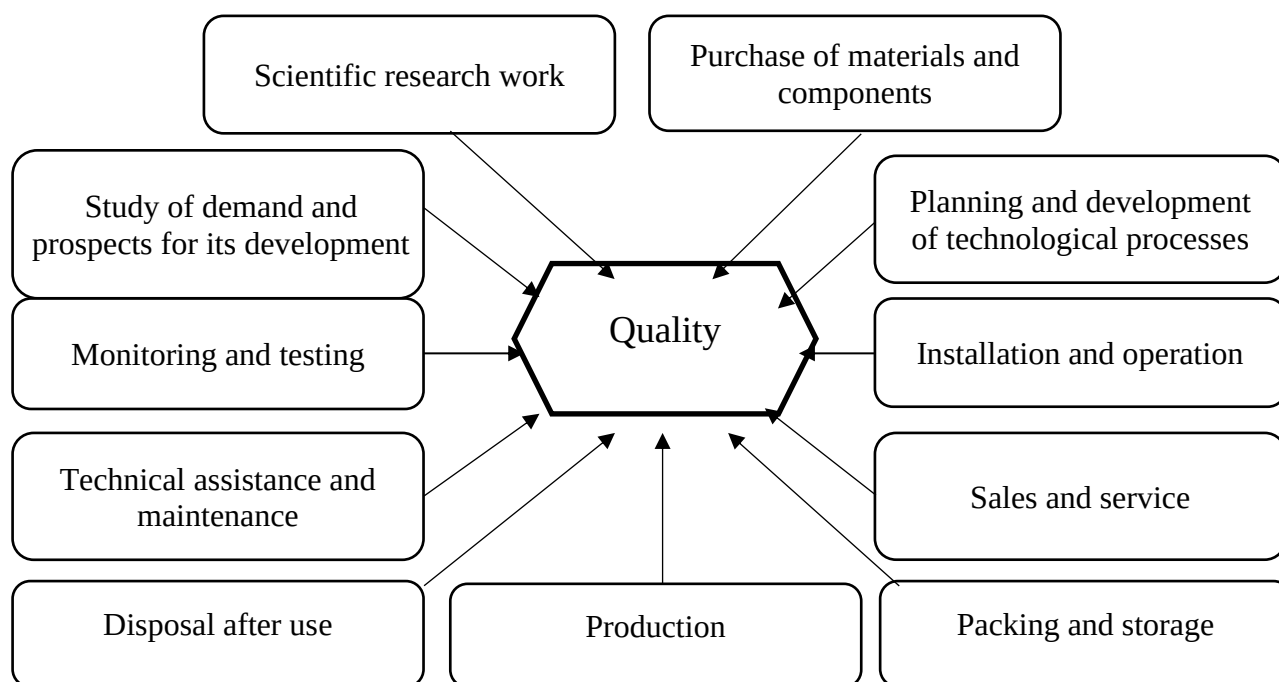


Fig. 3. "Quality loop" [18, p.19]

The strategic quality management of the enterprise is directly influenced by the mission, enterprise development strategy, legislative and regulatory framework, operational quality management. Defining the goals of quality management is expected to be carried out depending on the idea of the desired state of the organization and understanding of the goals.

Annual plans are formed and developed on the basis of quality goals. The implementation of tasks and annual plans is constantly monitored.

The data obtained are analyzed, and if necessary, adjustments to policies, goals and objectives in the field of quality, as well as strategies to achieve these goals.

One of the basic elements that should be included in the strategic plan of the organization is the process of identifying improvement initiatives. If the organization's strategic plan does not include improvement initiatives, it can be assumed that it will not receive adequate support from management and the resources needed to achieve the financial results set out in the plan.

Thus, strategic quality management allows you to direct resources to the activities necessary for the annual implementation of the organization's plans, the results of which may be increased customer satisfaction, reduce costs not related to the organization, as well as increase organizational value for investors.

It is also important to be aware of the need and urgency of making changes to existing quality management practices in terms of assessing the importance and value of strategic management.

So, in our opinion, quality is the degree to which the set of own characteristics satisfies the requirements. Quality management is not an isolated activity of the technical control department. To be effective, this process must cover the operations of all departments, including those involved in marketing, design, technology, production.

The presence of a quality management system in the enterprise is an indication that it is a competent partner that can produce competitive products.

The organization of work on product quality management at enterprises involves the development and implementation of quality management systems.

The quality system must meet the following groups of requirements:

- 1) requirements for quality management systems at all stages of the product life cycle;
- 2) requirements for the system of organization of production.

The strategic decision on its creation is made by the top management of the enterprise and is made out by the order. In most cases, the creation of quality management

systems and its certification are voluntary. In general, the main stages of developing a quality management system can be represented as follows:

1. Deciding on the establishment of a quality management system by senior management. Such a decision is made out by an order, in accordance with which the project manager (management representative) is appointed, the composition of the structural units of the quality system is determined; the main stages, executors, terms of development and implementation of the quality system are established, if necessary - terms of its certification.

2. Identification of elements (key processes) of the quality system, establishing their interaction. At this stage it is necessary to conduct a thorough analysis of the product creation process and present it in the form of a detailed list of works (processes). The list is based on the stages of the product life cycle, which are specific to a particular enterprise. The definition of the main elements (processes) of the quality management system is carried out taking into account the recommendations of ISO 9000 standards and the characteristics of the enterprise.

3. Development of regulatory documentation of the quality system. To perform the functions of the quality system, new normative documents are developed and revised or used. That is, the quality system is filled with the necessary internal content.

4. Carrying out an internal audit of quality management systems and eliminating identified discrepancies, which will mean the completion of the system.

5. Organization and certification of quality management system. Certification is the verification and confirmation by a third party of compliance with ISO 9001: 2000 standards [30].

Modern quality management system at the enterprise, regardless of ownership and scale of production, must optimally combine actions, methods and tools that provide, on the one hand, production that meets current market demands and needs, and on the other - the development of new products , able to meet future needs and future market demands (it is necessary to focus directly on the nature of needs, their structure and dynamics, capacity and market conditions).

World experience has formed not only the general features of existing quality management systems, but also the principles and methods that can be used in each of them, which is reflected in international standards ISO 9000. The main goal of quality systems based on these standards - quality assurance products required by the customer and providing him with evidence of the company's ability to achieve this. The mechanism of the quality system, methods and tools are focused on this goal. In most cases, the creation of quality management systems and its certification are voluntary.

The main goals and benefits of implementing modern quality management systems (Fig. 4):

- first, the successful implementation of quality management standards ensures the creation of a system that ensures the gradual growth of business performance. Due to the reengineering of processes in need, the possibility of their rapid and dramatic improvement in growth can be in some cases even drastic;
- secondly, due to the standardization of procedures there is a clear division and increased responsibility of participants in certified processes.

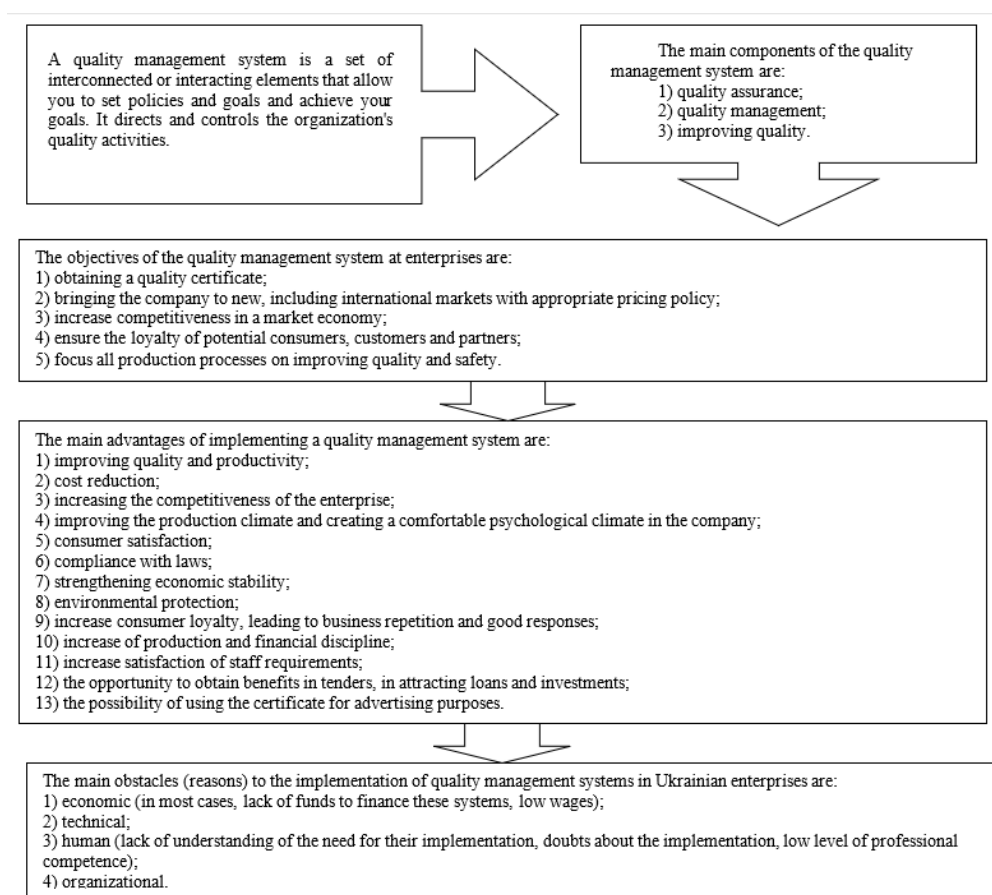


Fig. 4 The essence of the quality management system in the enterprise

The quality management system is focused, on the one hand, on identifying enterprising employees, their effective rotation, on the other hand, eliminates duplication of functions. As a result, the overall manageability of the organization increases;

- thirdly, according to statistics, the implementation of quality management systems reduces the share of marriage by 25%. The requirement of the standard is the implementation of phased quality control of products at all stages of the life cycle;

- fourth, the use of marketing is not as a sale of products, but as a way to find out what the product must be to buy it.

Building and implementing a quality management system in the organization is a complex procedure that requires significant time and resources and is focused on continuous improvement and improvement of activities. There are two main goals of developing quality management systems. The first is to optimize the work of the organization and ensure, in particular, the competitiveness of products and services produced, increase production efficiency. The second goal is to demonstrate to all potential consumers the ability to consistently produce products of a given level of quality that meets all their requirements and needs.

According to the state standard DSTU ISO 9001: 2016 [32], the introduction of quality management system should be a strategic decision of the organization. Its development and implementation in the organization are influenced by the following factors:

- a) the organization's environment, changes in that environment, and the risks associated with that environment;
- b) changing the needs of the organization;
- c) specific goals of the organization and its mission;
- d) existing processes for the production or provision of services; e) the size and structure of the organization.

In the process of creating a quality management system in the organization it is advisable to implement its basic principles and management methods.

The principles of quality management are the fundamental principles and ideas that underlie the construction and operation of quality management. The principles determine the mechanism of building a quality management system, help to understand DSTU ISO 9001: 2016, evaluate the existing management system. According to the standard, the construction of quality management systems is based on the following basic principles: 1) focus on the consumer (customer); 2) leadership; 3) involvement of employees; 4) process approach; 5) a systematic approach to management, 6) continuous improvement and improvement; 7) making decisions on the basis of facts; 8) mutually beneficial relationships with suppliers

An important element of creating a quality management system in the organization is the implementation of its process approach. The "process" approach is understood as the application within the organization of a system of processes together with their identification and interaction, as well as their management in order to obtain the established result. This approach involves the transition from a functional model of the organization to the integration of all operations aimed at meeting the needs of consumers in quality products. The process model is a kind of mechanism for organizing and structuring work in the organization and makes it possible to consider its activities in both vertical and horizontal directions on the principle of closed management.

The process of quality management in the enterprise is carried out in several stages and depends on the chosen concept of the enterprise and quality strategy. The content of operations of the quality management process and the conditions of their implementation are given in table. 5.

Table 5

**The content of operations of the quality management process and the
conditions of their implementation**

<i>Nº</i>	The composition of operations	Conditions for successful operations
Goal setting		
1	1. Defining goals 2. Justification of goals 3. Formation of goals 4. Goal setting 5. Adjustment of goals	1. Qualification level and professionalism 2. Consideration of objective laws 3. The system of interests 4. The amount and value of information
Option		
2	1. Evaluation of the management mechanism 2. Choice of management methods 3. Substantiation of methods 4. Combining methods	1. Features of the control mechanism 2. The composition of the means of influence 3. Conformity of means of influence
Information work		
3	1. Accumulation of information 2. Storage of information 3. Search for information 4. Information processing 5. Transfer of information	1. Amount of information 2. The value of information 3. The possibility of an information system 4. Automation of processing
Analytical work		
4	1. Estimation of parameters 2. Calculation of indicators 3. Graphic work 4. Classification, analysis	1. Method of analysis 2. Qualification of workers 3. Automation of calculations and logical operations
Development and selection of options for action (type of solutions)		
5	1. Search for options 2. Definition of selection criteria 3. Comparison of options 4. Organizational design 5. Decision making	1. Methods of development 2. Experience and qualifications of the head 3. Use of modern technology 4. Work style
Organizational and practical work (implementation of decisions)		
6	1. Bringing the decision to the performers 2. Clarification and clarification of the decision 3. Distribution of tasks 4. Empowerment 5. Performance control	1. Type of organization 2. Discipline 3. Socio-psychological climate 4. The authority of the head 5. Management style

The organization of quality management provides that the top management of the enterprise establishes appropriate management and control procedures depending

on the chosen strategy. The implementation of the developed concept involves all the staff of the enterprise, including workers, who must understand the goals and objectives of management and product quality.

The purpose of the next stage is to determine and justify the requirements of consumers for certain goods, and these requirements may apply to suppliers of certain materials, spare parts, semi-finished products by the manufacturer and end consumers indirectly through product quality.

Closely related to the identification of consumer requirements and needs is the stage of control over the current levels of implementation of quality management decisions. To do this, it is necessary to determine the methodological tools for measuring deviations from a given level of quality. Such tools in the control of production procedures are various statistical methods of selective and continuous control, quality control maps, charts, pareto-analysis and more. The link between the third and fourth stages is usually made using a systematic approach and analysis. The general procedure of quality management is shown in fig. 5.

The next step is to implement the adopted quality strategy. The complexity of the implementation lies in the variety of aspects of quality associated with the many works performed by staff both directly to the manufacturer of finished products and intermediaries. The task of quality management is to develop a common ideology and understanding of the company's position in the adopted quality strategy for all categories of personnel: management, production, warehousing and other categories of workers, drivers, workers engaged in cargo handling and packaging, specific specialists in quality control in production and service [28 , p.69].



Fig. 5. The process of quality management in the enterprise

The quality management system is based on a set of certain standards - the requirements established by regulations for the volume, quality and conditions of service. Standards contain a list of services, regulations for service delivery processes, etc.

Today in quality management the certification of quality management systems is important, which is a guarantee of high stability and stability of product quality. A certificate of quality system allows the company to maintain a competitive advantage in the market.

In international practice, the safety of products for humans and the environment has long been confirmed by certification and, although its cost is significant, the manufacturer is forced to obtain a certificate in order to have a market and avoid losses when selling their products.

Among the existing and widely used methods of ensuring production, the leading place is occupied by in-house technical quality control. At the enterprises the functions of direct quality control of components and in general ready-to-eat products are

performed by technical control departments. The main task of technical control is to constantly ensure the necessary quality control, recorded in regulations, by direct inspection of each product and targeted impact on the conditions and factors that shape it.

Successful solution of this problem can be achieved with the right choice of objects and methods of quality control. The objects of control should be all components of all components of the production system and its interconnected elements, ie input (resources), the production process itself, output (products).

The need to control resources (materials, energy, tools, information, personnel) at the entrance to the system is due to the fact that their quality determines the competitiveness of the finished product.

Product quality is largely determined during the production process. This necessitates careful control of the technology of its manufacture. The objects of control here are full compliance with production and labor discipline, technological modes of processing and assembly of products. The main output control of the production system (enterprise and its divisions) is to prevent the transfer of defective products to the consumer or the next technological phases (stages) at the same enterprise with the ensuing consequences. In addition, such control makes it possible to determine the degree of fulfillment of production tasks of economic results of production.

The object of control is the level of product quality. The level of quality is a quantitative characteristic of the degree of suitability of a particular type of product to meet a specific demand for it as compared with the relevant baseline indicators under fixed conditions of consumption. Product quality assessment involves determining the absolute, relative, future and optimal levels.

The absolute level of quality of a product is found by calculating the indicators selected for its measurement, without comparing them with the corresponding indicators of similar products. Determining the absolute level of quality is insufficient, because the absolute values of quality meters do not reflect the degree of its compliance with modern requirements. Therefore, at the same time the relative level of quality of certain types of products is determined by comparing its indicators with the absolute

quality indicators of the best domestic and foreign counterparts. However, the level of product quality under the influence of scientific and technological progress and consumer demands must constantly grow. Therefore, there is a need to assess the quality of products based on its promising level, taking into account the priority areas and rates of development of science and technology. For new types of products and especially tools, it is advisable to determine the optimal level of quality, ie its level at which the total social costs of production and use (operation) of products under certain conditions of consumption would be minimal.

The main advantage of building an effective management system and quality assurance is the guarantee of ordering manufacturers, survival in market conditions and competition.

An effective means of product quality management is its standardization, which includes a set of norms, rules, requirements for the quality of specific products.

The product standard is the main normative and technical document in which quality indicators are set based on the latest advances in science, technology, best practices and consumer demand.

Quality indicators, which are standardized in food standards, guarantee consumers the nutritional value of products, their high taste, safety and more. The standard regulates the requirements not only for a specific type of product, but also for technological processes and modes, raw materials, equipment, control, measuring instruments and more. It is a normative and technical document, as the indicators provided for in it correspond to the minimum level of quality, at the reduction of which the products are considered to be of poor quality.

Standards can be:

- international - adopted by international standardization bodies;
- regional - adopted at the appropriate regional level by the competent authorities of certain geographical or economic areas, such as Asia, Europe, etc .;
- national - state standards of Ukraine, adopted by the central executive body for standardization.

Today, the normative documents that set the basic requirements for quality management systems are the international standards of the ISO series and the state standards of Ukraine developed on their basis.

ISO standards are the minimum set of rules that should be followed by every organization whose activities are aimed at continuous improvement and reducing the number of problems both internally and when interacting with external consumers. The ideology of the quality management system according to the ISO model is based on the use of the system of international standards developed by the International Organization for Standardization (ISO). ISO is a non-governmental global federation of national standardization bodies. Work on the preparation of international standards in this organization is carried out through ISO technical committees, which involve both governmental and non-governmental quality organizations.

The total portfolio of the current base of international ISO standards includes about 19 thousand documents, which can be divided into three groups: basic (standards that contain guidelines for the construction, implementation and application of quality management systems); support standards (provide assistance in conducting audits, risk management, use of statistical methods of analysis and quality control, measurement management, quality economics management, etc.); sectoral (the largest group that sets specific requirements for quality management systems in various fields and industries) 14.

The fundamental standards in the ISO 9000 series of standards are: ISO 9000: 2015 - Quality Management System. Basic principles and concepts. This standard establishes the basic principles and defines the terminology required for the correct application in practice of implemented quality management systems.

ISO 9001: 2016 - Quality management systems. Requirements. The standard specifies the requirements that the organization will meet to meet the needs and expectations of consumers regarding quality.

ISO 9004: 2009 - Management of sustainable success of the organization. Quality management approach. The standard provides guidelines for managing an organization in a complex and changing environment from a quality perspective. The

standard is aimed at: improving the performance of the organization; satisfaction of consumers and other stakeholders; involvement of all employees in these processes; implementation of preventive and corrective actions.

ISO 19011: 2009 - Guidance on the audit of quality management systems and environmental management systems. The document contains recommendations for the audit of quality management systems and environmental management systems [32].

All these standards have been introduced in Ukraine through national standards: DSTU ISO 9000-2016, DSTU ISO 9001-2016, DSTU ISO 9004-2009, DSTU ISO 19011: 2009. This allows for the development of a coherent set of standards that promotes mutual understanding in national and international trade through the common recognition of quality management approaches, principles and methods.

In addition to general standards, a system of industry quality standards is being developed, based on ISO 9000 series standards, which reflect the special requirements for certain areas of economic activity, as well as complement each other. Such standards, in particular, are as follows.

ISO 14000 - Environmental management system. The system of standards is focused on reducing the negative impact on the environment and at three levels: organizational (through improving the "environmental behavior" of the organization as a result of compliance with environmental standards); national (through the use of standards in public environmental policy); international (through improving the conditions of international trade in environmentally friendly goods). The introduction of environmental management approaches in the organization provides improvement of its image in the field of environmental protection, the introduction of resource-saving production technologies, expanding the segment of environmentally friendly products, improving the management system and more.

OHSAS 18000 (Occupational Health and Safety Management Systems) - Occupational Health and Safety Management Systems. The requirements of the standard are aimed at ensuring occupational safety, protection and reduction of human losses and disability. The standard was developed with the participation of companies and research organizations in the UK, Japan, South Africa and Ireland. Includes the

following main elements of the occupational health and safety management system in the organization: development of the organization's policy in the field of occupational safety and health; use of quantitative methods to assess the state of occupational safety; calculation of indicators of efficiency of labor safety management; analysis of events and critical situations; conducting safety audits, production and technical inspections; investigation of events; division of responsibilities; event prevention and first aid; implementation of fire prevention measures; protection of property and information; formation of culture and labor safety, etc.

SA 8000 (Social Accountability) - Standard of social responsibility. The standard is aimed at implementing a system of social and ethical management on a voluntary basis. It was developed in 1977 and is based on the norms of corporate social responsibility. The following international documents were used in the development of the standard: conventions of the International Labor Organization and related international human rights instruments, the UN Universal Declaration of Human Rights, the UN Convention on the Rights of the Child, etc. The standard sets requirements for the regulation of the following issues: child labor; forced labor; health and safety; freedom of association and the right to negotiate when concluding a collective agreement; inadmissibility of discrimination; disciplinary measures; working hours; guarantees of wages and social security; management systems.

Within the framework of Ukraine's integration into the world community, the quality of agricultural products, in particular the quality of food products, is given special attention. Consumer demands for food safety are constantly growing, which leads to a significant number of standards in this area.

In order to avoid contradictions related to different standards adopted in the world, the world standard ISO 22000: 2010 was developed. It is based on the international concept of HACCP - Hazard Analysis and Critical Control Points (HACCP), which is a tool for food safety risk management.

HACCP (system of risk analysis and control (regulation) at critical points) - a system for identifying, assessing, analyzing and controlling risks that are important for food safety. It is a scientifically sound, rational and systematic approach to product

identification, assessment and control of risks that may arise during the production, processing, storage and use of food.

Today, the HACCP food safety management system is recognized as the most reliable system in the world that prevents the production of unsafe food.

The ISO 22000: 2010 standard is a flexible system of requirements that guarantees the safety of food products in the technological process of their production in a chain "from the field to the table". Implementing a food safety management system helps organizations focus on the risks that affect food safety and food hygiene.

For modern organizations it is important to build integrated management systems as a condition for purposeful development of the organization aimed at excellence. An integrated management system is one that meets the requirements of more than one system standard (ISO 9001, ISO 14001, OHSAS 18000, SA 8000, ISO 26000, ISO 27001, etc.), and is focused on meeting the needs of stakeholders: owners, staff, consumers, suppliers, society as a whole.

A sign of integrated management systems is the following: development of general policy of the organization, where the main goal - improving quality, complemented by other goals in the strategic development of the organization, increasing financial stability and profitability, compliance with environmental safety, health and safety, occupational safety; formation of a common model of processes. At the same time, the common processes inherent in the systems implemented in the management of the organization are built. Such processes are: analysis by management; documentation management; HR; monitoring and measurement; internal information; continuous improvement; corrective and precautionary measures; data analysis; drawing up a joint document on the management of the integrated system, which describes the relationship of all processes, establishes inputs and outputs of processes and determines the criteria for their effectiveness of processes, develops a matrix of staff responsibilities according to organizational structure, etc.

The other side of the process of setting standards and requirements for products, processes, procedures, etc. and certification of compliance with these requirements is certification.

Certification is a procedure by which the authorized body documents the conformity of products, quality systems of the environmental management system, personnel, the requirements established by law [36].

Product certification is carried out in order to:

- prevention of the sale of products dangerous to life, health and property of citizens and the environment;
- assisting the consumer in the competent choice of products;
- creating conditions for the participation of business entities in international economic, scientific and technical cooperation and international trade.

In world practice, the system of standardization and certification of products is based on the initiative of consumers and producers. In Ukraine, there is mandatory and voluntary certification (Fig. 6) [33, p. 263].

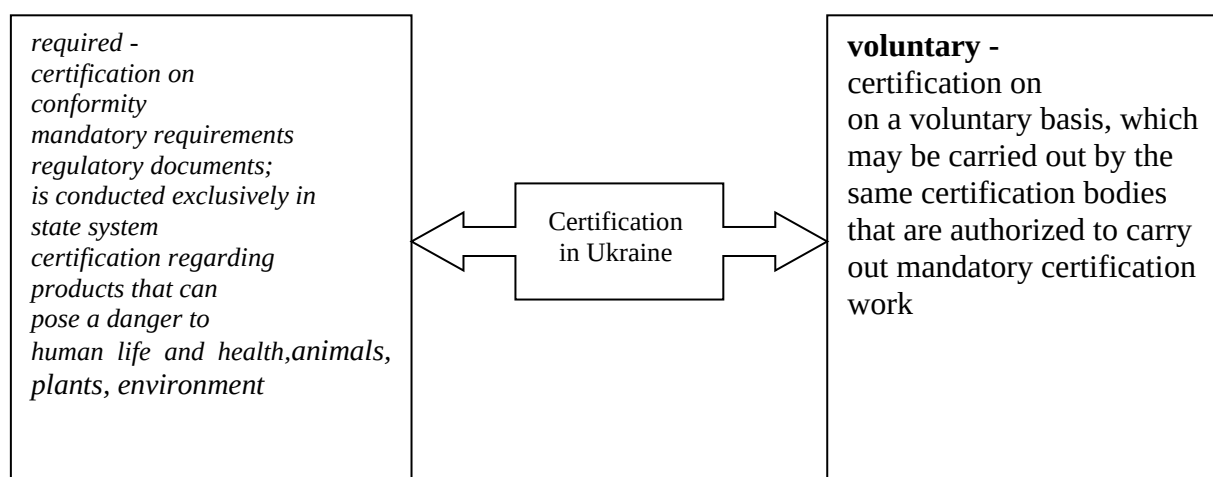


Fig. 6. Types of certification in Ukraine

Certification ends with the issuance of a certificate. A certificate is a document that confirms compliance with the requirements of a specific standard or other regulatory document of product quality, quality system, quality management system, etc.

Ukraine has a state system of product certification - UkrSEPRO. This organization conducts voluntary and mandatory product quality certification. Work in the UkrSEPRO system is organized by the State Inspectorate of Ukraine for Consumer

Protection (State Consumer Inspectorate of Ukraine), which is a national certification body.

The most famous certification bodies for management systems, accredited in accordance with the requirements of ISO / IEC 17021: 2011 (DSTU ISO 22000: 2007 Food safety management systems. Requirements for any food chain organization), which have the right to issue certificates of conformity to agricultural enterprises in Ukraine, are: LLC "Intersectoral Quality Center" GROWTH (Kyiv), Certification Authority Management System LLC Testing Certification Center "PIVDENTEST" (Dnipro), Certification Authority Management System State Enterprise "Nikolaev Research and Production Center for Standardization, Metrology and Certification" (Mykolaiv), SE "Kyiv Regional Standard Metrology" (Bila Tserkva), Management Systems Certification Body "GLOBAL CERTIFICATE" LLC (Kyiv), etc. [35].

Internationally known accreditation centers providing services in agriculture are: NSF International (Belgium), United Kingdom Accreditation Service (UK), National Accreditation Board for Certification Bodies (India), Dubai Accreditation Center (UAE), Singapore Accreditation Council (Singapore), Deutsche Akkreditierungsstelle (Germany) and others. [34].

At the international level, there are different international schemes of certification of agriculture [21, 24], and in the markets of different countries, buyers prefer different schemes. The most common of them in agriculture include:

1. Global GAP Integrated Farm Assurance (IFA) - a scheme of international certification for compliance with the standard of good agricultural practice, which applies to crop production, animal husbandry, feed production. It allows to improve the practice of agricultural enterprise management and compliance with legislation in key areas of food safety, environmental protection, health and safety of workers, animal care [35].

2. Primus GFS is an international certification scheme that focuses on the food safety of fresh or minimally processed products from the agricultural sector and is intended for human consumption. This scheme covers the chain of agricultural

activities from production to delivery to the final consumer. Covers HACCP, GAP, and food safety management systems.

3. BRC - Global Food Safety Standard covers food safety and product quality management in packaging and processed agricultural products. This certificate helps to ensure the consistency of ingredients in finished food products.

4. FSCS 22000 - certification system designed for enterprises that process or produce products of animal origin, perishable products, vegetable products, long-term storage products, as well as various supplements and vitamins.

5. IFS - certification scheme for compliance with international standards IFS and GFSI to verify food safety and quality of food production processes. IFS includes requirements for senior management systems, food quality and safety management systems, resource management, production process, measurement, analysis, improvement and protection of food.

In addition to the significant benefits of implementing international certification, there are a number of caveats and deterrents for Ukrainian agricultural producers. Thus, the most common reasons for the reluctance of agricultural producers to certify their production, experts include:

- low level of production infrastructure development. The facilities most often required for certification are often missing: storage facilities for products, designated storage areas for fertilizers and pesticides, and facilities for processing products;

Disposal of fertilizers and pesticides remains a rather difficult issue. Sometimes these containers are simply burned or reused in the household, which is unacceptable;

- use of agricultural machinery that does not meet technical standards;
- the need for certain investments to obtain a certificate and for its annual confirmation, etc. [36].

The study of some international certification systems allowed to form a typical algorithm for domestic agricultural producers (Fig. 7) [37, p. 137].

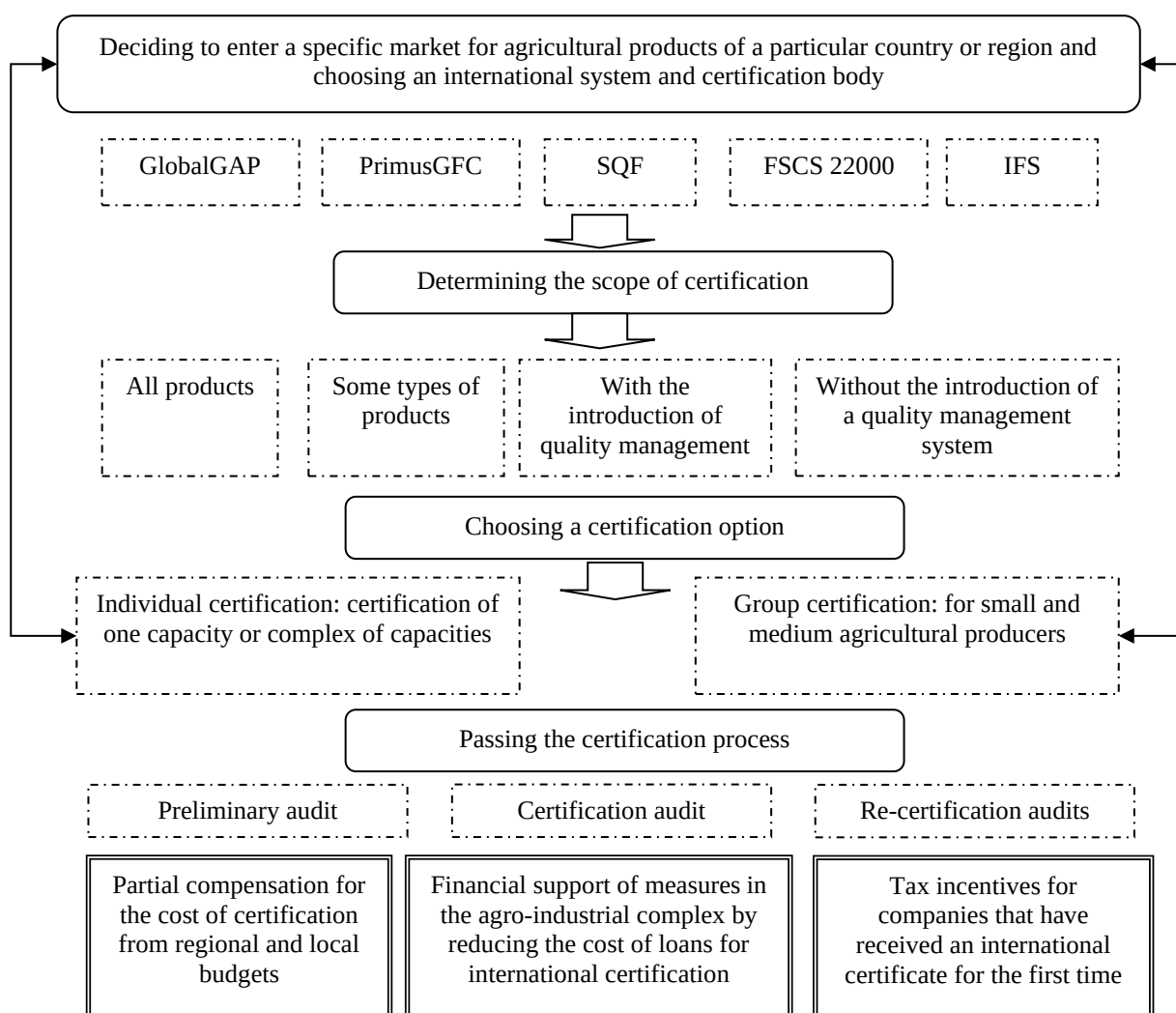


Fig. 7. Typical algorithm for certification of agricultural producers of Ukraine in accordance with the requirements of international systems in the context of forming a quality management strategy at the enterprise

It is established that the most vulnerable point in the development of certification of agricultural producers to meet the requirements of international systems, regardless of their activities (crop, livestock, organic production), is the cost of certification.

In order to reduce the cost of the international certification process, it is appropriate for research subjects to certify only those products that are exported when entering the world market. In this case, the certification of all economic activities of the agricultural producer, if desired, may take place later.

Certification, as part of the strategy of quality management of agricultural producers, can not only form their competitive advantages in the world market, but also

improve the quality of agricultural products and food products in the domestic market, which in turn has a positive impact on the overall economic situation. demographic problems. Therefore, this problem should be solved with the assistance of state, regional and local authorities.

Globalization of the world economy, Ukraine's integration into the European space expand the boundaries of markets for domestic enterprises. Open economy makes high demands on the quality of domestic enterprises, ensuring their competitive advantages, which necessitates improving the efficiency of production management in terms of quality management. Modern and effective quality management system should take into account the characteristics of each stage of the product life cycle, the specifics of entities that provide both the entire life cycle and its individual stages, the level of product innovation, based on quality control not of products but project procedures and technological processes used in the creation of products and the introduction of cultural and value motivation of staff.

An important role in the formation of an integrated quality management system at Ukrainian enterprises, especially in the context of European integration, is played by public policy, whose main tasks are to form the concept of improving and developing product quality management system in Ukraine, defining their strategic guidelines. Conditions for the functioning of enterprises and organizations are changing at the macro- and microeconomic level. Thus, enterprises in a mixed economy differed from similar market-oriented enterprises both in individual characteristics, such as size and "behavior" in the external environment.

Figure 8 shows the "concept of the enterprise": resource, information, behavior and more. The concept of the enterprise as an "open system" is gaining more and more supporters.

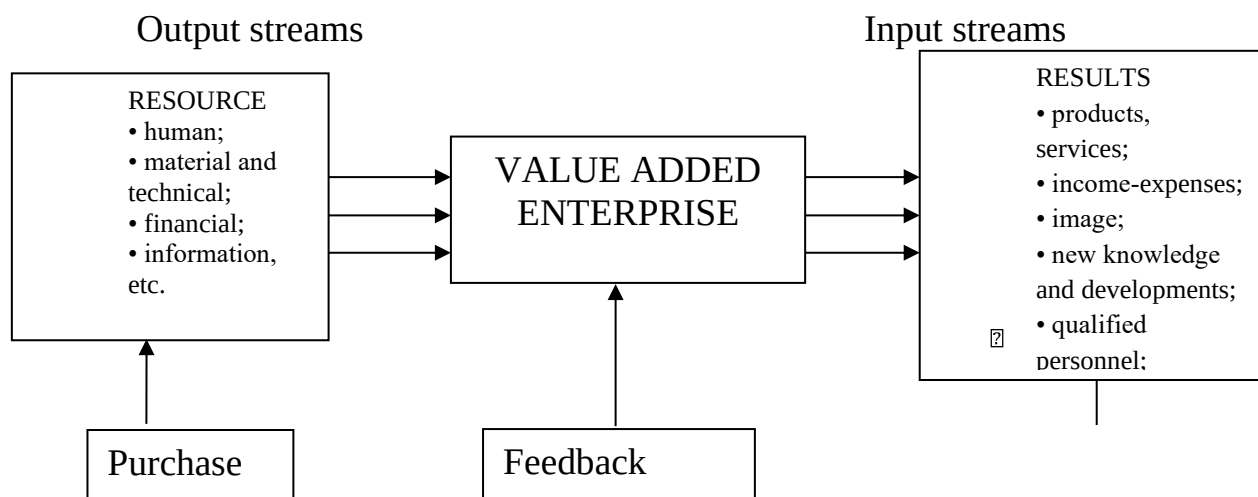


Fig. 8. The concept of enterprise as an "open system"

In fig. 8 presents a comparative description of "closed" and "open" enterprises, which allows to determine the advantages of the latter.

The activities of any enterprise can be described in terms of the model "entry - exit": at the entrance of the enterprise are all kinds of tangible and intangible resources (raw materials, equipment, personnel, finance, information, etc.), and at the "exit" - goods, services, highly qualified staff, etc.

Strategic planning as a phenomenon and process of predicting the future and preparing for the future is interpreted quite broadly: as an integrated process of preparation and decision-making of a certain type, as formulating goals and identifying ways to achieve them, as preparing the company to compete in markets and more. Strategic planning covers a system of long-, medium- and short-term plans, projects and programs, but the main substantive emphasis is placed on long-term goals and strategies to achieve them.

Initially, strategic planning was limited to defining goals and strategies to achieve them, ie defining the strategic policy of the enterprise in the system "product - market".

The initial idea, which reflects the essence of the concept of strategic management, is the idea of the need to take into account the relationship and interaction of external and internal environment in determining the goals of the enterprise; strategies in this case act as tools to achieve goals, and to implement strategies it is

necessary that the whole enterprise operates in a strategic mode.

The concept of strategic management underlies strategic thinking and finds expression in certain characteristics of its application:

1. It is based on a certain combination of theory: systemic, situational and targeted approaches to the activities of the enterprise, which is interpreted as an open socio-economic system. The use of only one of these principles does not allow to achieve the desired results - the development of the enterprise in the long run.

2. Focuses on the study of the conditions in which the enterprise operates. This allows you to create adequate to these conditions strategic management systems that will differ from each other depending on the characteristics of the enterprise and the characteristics of the external environment.

3. Focuses on the need to collect and use strategic information databases. Analysis, interpretation and application of information for strategic decision-making allows to determine the content and sequence of actions for change in the enterprise by reducing the uncertainty of the situation.

4. Allows you to predict the consequences of decisions made by influencing the situation through the appropriate allocation of resources, establishing effective relationships and forming strategic behavior of staff.

5. Provides for the use of certain tools and methods of enterprise development (goals, "goal tree", strategies, "strategic set"), strategic plans, projects and programs, strategic planning and control.

Strategic management is a multifaceted, formal-behavioral management process that helps to formulate and implement effective strategies that help balance the relationship between the organization, including its parts, and the external environment, as well as achieve goals.

Just as it is difficult to imagine two identical companies, it is impossible to create identical strategic management systems. Characteristic features of the strategic management system of a particular enterprise depend on the interaction of the following factors:

- industry affiliation;

- the size of the enterprise;
- type of production, level of specialization, concentration and cooperation;
- characteristic features of production potential;
- presence (absence) of scientific and technical potential.

General competitive strategies exist in the following types:

- leadership in reducing costs (prices);
- differentiation;
- focusing.

These strategies link the goals set by managers to fill the strategic gap with the competitive advantages that allow the company to achieve them (more detailed description of strategies according to M. Porter).

Table 6

**Characteristic features of competitive strategies
(according to the approach of M. Porter)**

Strategy	The main features	Risks
Leadership based on cost reduction (prices)	Production characteristics: "No one will make it cheaper." Marketing features: «Price calculations / low costs" Standardized products: only a few varieties, limited choice No significant changes in the conduct of business: "the reputation of a modest and reliable company." Taking into account the features of the "experience curve": lower prices ® additional income due to increased sales and market share ® reduced conditional fixed costs per unit of output due to the effect of scale. High productivity per 1 worker. Reduce the cost of innovation. Possibilities of setting the lower limit of market prices: the leading position allows you to use prices as an offensive or defensive weapon. Permissible low marginal profit at high speeds.	With a technological breakthrough (invention, creation of new technology) - the risk of losing the advantage Convergence of previously made investments. The need for additional costs ("conversion costs") for the reconstruction (liquidation) of mass production. Competitors' research on the same indicators due to imitation and targeted cost reduction measures. Delays in reacting to changes in the market due to over-focusing on cost issues. Investment growth costs, as a result of which it is impossible to minimize the benefits of differentiation.

Continuation of table 6

Differentiation	Production characteristics: "no one will do it better". Marketing features: "our products (services) are the best among others". The basis - variety, choice of models, batches, parts, service, etc. Creating more than one distinctive feature of a product (service). Various innovations. Individual prices that exceed the cost of obtaining various features. Intensive advertising and sales activities.	The attractiveness of differentiation (ie the peculiarity of the range, additional services) may be less than economic motivators, because differentiation is usually expensive (compared to serial and mass production of similar products). The need for differentiation will decrease due to increased consumer awareness of the market situation in general and for individual product groups. Imitation can hide the difference between goods (especially at the stage of maturity of the industry).
Forcing	Production characteristics: "made just for you". Marketing features: "we meet your needs best of all." Specialization in a certain niche: customer segment, geographical region, final consumption. Competitive advantages are protected: a) leadership based on cost reduction in a particular market segment or b) in-depth differentiation (manufacturing a product or providing a service to meet the special needs of consumers in the target segment).	Reducing the effect of differentiation by focusing by increasing the cost of servicing a narrow strategic target group (movement to the left of the break-even point). Reduction of differences in the characteristics of the needs of a narrow strategic group and the market in general (potential consumption of consumers). Due to further market segmentation within the strategic target group of the competitor (loss of consumers).

The combination of general and general competitive strategies depends on the characteristics of the industry, the overall competitive position of the firm in the environment, as well as the characteristics of the enterprise itself.

When developing the overall strategy of the enterprise take into account certain factors that are under the direct influence of managers. General strategies set the parameters of the strategic set, so each time they are researched, justified and implemented.

Determining the main course of Ukraine's European integration involves bringing the products of national producers in line with the requirements of the

European Union aimed at ensuring consumer protection, namely technical, environmental and requirements in the field of sanitary and phytosanitary measures. The main problems of implementing a progressive quality management system include [38]:

- contradictions and inconsistencies of regulations of national legislation to ensure quality in accordance with European requirements;

- lack of practical experience in implementing a quality management system. Unfortunately, the quality management system of national enterprises began to implement when there was a need to move to international standards, while the world's leading countries have extensive experience in implementing management systems, a strong theoretical and methodological basis;

- lack of qualified specialists in the field of quality management. There are few specialists in Ukraine who are well-versed in quality management systems and their implementation in enterprises, taking into account the specifics of each enterprise.

In Ukraine, there is a tendency for most business leaders and organizations to be aware that without modern management systems they will not have stability and growth in the near future, and the concept of quality is reduced to the need to comply with technical conditions and requirements. Ukraine is actively working to reform the technical regulation system. The Laws of Ukraine “On Metrology and Metrological Activity”, “On Standardization” were developed and adopted, which provide for the harmonization of legislative acts with documents of International Organizations of Standardization, Legislative Metrology, and acts of EU legislation. The implementation of these laws is aimed at improving national legal and organizational principles in relevant areas, bringing them into line with European models. The functions of the national standardization body are entrusted to the state enterprise "Ukrainian Research and Training Center for Standardization, Certification and Quality". The state is working to bring national standards to European standards. We offer a three-level system of strategic guidelines for improving the management system and quality assurance, the areas of which are divided into the following groups:

organizational and legal, economic, cultural and value [33]. The strategic guidelines of the first level - the state level - include:

- harmonization and improvement of the regulatory framework in the field of quality, - obtaining the right of Ukrainian institutions in the field of quality to issue certificates of European standard, adoption of international standards in the field of quality management, approval of national standards;

- development of theoretical and methodological recommendations for the implementation of quality management system;

- creation of units in the executive authorities to promote the implementation of quality management system, the main task of which is to monitor the status of work on the development and implementation of modern quality management systems;

- creation of a multilevel and extensive system of education in the field of quality, an extensive network of methodological and advisory centers, the development of research in the field of quality management;

- development and implementation of the program of state support of domestic enterprises that are at the initial stage of implementation of the quality management system;

- investment support for standardization and product quality assurance;

- formation of a unified national system of values; -development and implementation of ethical principles of doing business;

- coverage in the media of the experience of domestic enterprises in the implementation of quality management system, quality issues, business excellence and social orientation [39].

The second level of strategic guidelines for the implementation of quality management systems, improvement of existing ones is the regional level. It includes the following guidelines:

- formation of a regional center of standardization, certification, which will have the right to issue quality certificates of national standard;

- harmonization of regional regulations on quality assurance and implementation of its management system, which will meet the requirements of partner countries;

- creation of a progressive system of training specialists in quality management;
- stimulating the development of enterprises that are at the stage of implementing a quality management system;
- stimulating the development of enterprises whose activities are aimed at providing services for the development and implementation of quality management systems for enterprises;
- creation of a regional monitoring system for product quality and the state of work on the development and implementation of modern quality management systems;
- formation of a favorable investment climate;
- formation of regional programs to improve the quality of products of enterprises in the region;
- providing local budgets with financial resources for interest-free targeted lending to enterprises in the region for the development, implementation and certification of quality management systems;
- development of ethical norms of doing business, bringing them to the enterprises of the region;
- development of a system of incentives for enterprises with high quality products, progressive quality management system, conscientiously performing business activities;
- coverage of information on the latest quality management systems, the main provisions of state and regional policy in the field of quality, the experience of enterprises in the region on product quality management [39].

Among the strategic landmarks of the third level - the enterprise level - we propose to highlight:

- bringing the technical requirements of the enterprise in line with regional and national ones;
- certification and standardization of enterprise products;
- introduction of the model of organizational improvement;
- creation of a system of continuous monitoring and quality control; -increasing the competencies of employees of the enterprise;

- cultural and value motivation of staff to improve product quality;
- introduction of lean production; -transition to the 5th, 6th technological modes;
- formation of corporate culture of the enterprise;
- harmonization of value systems of the enterprise and its employees.

With the growing importance of regional development policy, a key element in ensuring the competitiveness of the region and enterprises is the creation and implementation of an integrated regional quality management system. The integrated logistics approach is based on the formation of a set of relationships and interaction of components of the product quality management system support system, namely: personnel, information, technological, regulatory, financial, methodological and organizational support based on the principles of logistics management, which will create effective regional quality management system, will encourage companies to implement progressive quality management systems that will increase the level of product quality, their competitiveness [39]. The proposed integrated regional quality management system is presented in Fig. 9. The integrated quality management system must be subordinated to the subsystem of public administration, guided by public policy. The subsystem of state quality management involves the formation and implementation of quality policy, creating an institutional environment that will promote the implementation of quality management systems at the regional level, incentives, incentives to improve product quality, improve the regulatory framework, train highly qualified specialists in quality management, which will ensure the work of regional centers of standardization, metrology and certification.

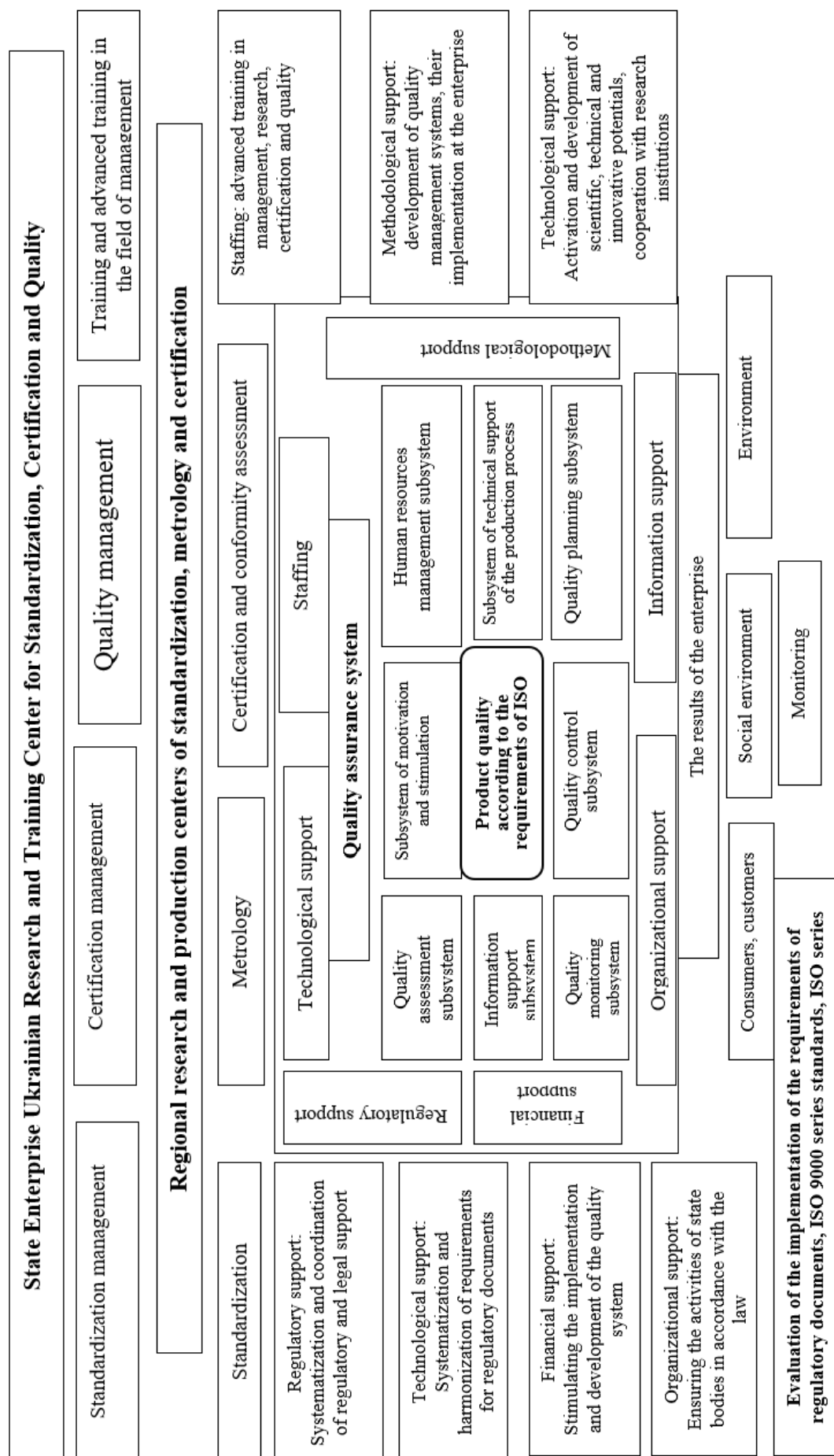


Fig. 9. Integrated regional quality management system at enterprises

The Regional Center for Standardization, Metrology and Certification acts in the regional subsystem of the quality management system. quality management. The center conducts work in the field of metrology, standardization, certification and conformity assessment, provides product testing services. The need for training of highly qualified specialists in the field of quality management should also be taken into account. To do this, it is necessary to form a subsystem of staffing, which will include the Institute for training and retraining of specialists in quality management. Higher education institutions that can produce quality assurance specialists should also be involved. The Institute of Quality Management, Standardization, Conformity Assessment and Metrology at the UkrNDNC is trained by specialists in the field of quality management.

The main direction of the existing system of training specialists in the field of quality is the training of auditors, civil servants, hold consultative seminars for business leaders, but for quality staffing this is not enough. Stimulation of a new direction of entrepreneurship - providing the company with services for the development, implementation of quality management system of a particular business. An individual approach to each enterprise will contribute to the creation of a quality management system, and the presence of organizations that provide such services at the regional level will promote the creation of individual, progressive management systems based on national methodology based on ISO 9000 series, ISO 14000 series. This subsystem is to control the quality of products of enterprises in the region, determining its compliance with national and international requirements.

The subsystem of technological support provides for the activation and development of scientific and technical potential of the region, based on the formation of close mutually beneficial links between industrial and scientific sectors of the region, which will promote the introduction of new technologies in the region.

The main task of the financial subsystem of the region is to create a favorable investment climate, develop an incentive system.

The information support subsystem involves the creation of an information portal on the requirements for quality management systems, existing quality management systems, organizations that promote the development and implementation

of management systems, company ratings according to the level of product quality, etc. At the enterprise level, product quality management should be performed in two directions:

- use of a logistical approach to quality management, which, unlike existing ones, is based on material and information flow management, which will reduce production costs, establish the optimal level of cooperation between all parts of the production process and its economic agents, speed up the process of obtaining information. customer satisfaction in product quality, control the quality of products at the stages of provision of material resources, technological process and supply [33];

Ensuring the responsibility of staff for product quality based on the development and implementation of their cultural and value motivation.

The key factor in ensuring the competitiveness of enterprises, their entry into European markets is the proper quality of their products. Identifying problems of implementation of effective quality management systems in enterprises confirms the need for a certain approach to addressing issues [26]. Adherence to strategic guidelines for improving the quality management system is proposed through the use of integration and logistics approach, which will establish a relationship between all participants in the process of quality formation based on the creation of an integrated regional quality management system.

In matters of ensuring higher product quality and increasing competitiveness, there is a high responsibility of management and motivation of enterprise personnel to increase the production of quality goods and services.

In practice, the work of enterprises on the basis of quality management, there are two main objectives of its development. First and foremost - optimizing the operation of the enterprise, ensuring its viability, in particular, the competitiveness of products and services produced, and increase production efficiency. The purpose of development is to demonstrate to the potential consumer that the company can stably produce products of a given level of quality, ie one that meets all its requirements. If to achieve the first stated goal it is enough to simply develop and implement quality management systems at the enterprise, then to achieve the second goal it is necessary

to certify quality management systems. Management is responsible for developing policies on service quality and customer satisfaction.

Responsibility for all aspects of quality policy in Ukrainian enterprises should be placed on the head of the enterprise or heads of structural units, depending on the management structure. Food quality and safety policy should take into account all types of products produced; image of the enterprise; tasks in the field of product quality; methods of performing tasks in the field of quality; the role of the company's staff responsible for the implementation of quality policy.

To perform tasks in the field of quality, the manager creates a service (or department) of the quality system, which allows at all stages of production to effectively manage product quality, evaluate and improve it. It is necessary to clearly establish the general and personal responsibility and authority of all employees on whose activities the quality of services depends. At the same time, the need for effective relations between the consumer and the supplier on all aspects of their interaction both within the organization and outside it should be provided.

However, the manager must be responsible for developing a quality system. He must be responsible directly or through his designee for the implementation of the quality system, its verification, continuous measurement of parameters and analysis for improvement. The scope of the quality system covers all functions, and continuous quality improvement requires the participation, dedication and effective interaction of all personnel of the organization.

Particular attention should be paid to the need or possibility of improving quality. The analysis should be performed by appropriate specialists or a competent, independent expert who informs the management.

Such an analysis should include clearly articulated and comprehensive assessments based on all sources of relevant information, including:

- on the conclusions of the analysis of the level of product quality, ie data on the overall efficiency and effectiveness of the production process in terms of compliance with product requirements and customer satisfaction;

- on the conclusions of internal quality inspections on the implementation and effectiveness of all elements of the quality system in terms of fulfilling the tasks of quality assurance of services;

- on changes caused by new technologies, quality concepts, market strategies, as well as social and environmental conditions.

The basic elements of the system approach are the consideration of all events, phenomena and processes in their relationship; setting priorities; work with causes, not their consequences; effectiveness.

A systematic approach to quality management in Ukrainian enterprises should be implemented through the implementation of the following main stages:

1. Identification of the problem related to non-compliance of products with the established requirements and technical conditions.
2. Analysis of the causes of nonconformities.
3. Development of measures to solve the problem.
4. Search for resources and estimate losses from non-compliance.
5. Control over the quality of work and production process.

In order to function effectively, an enterprise must identify and manage all interrelated activities. Resource-intensive activities that can be managed to convert inputs to outputs can be considered a process. Often the output of one process is directly the input of the next. The advantage of the process approach is that it provides continuous control over the connections of individual processes within the system of processes, as well as their connection and interaction. If this approach is applied within a quality management system, it emphasizes the importance of: a) understanding and complying with the requirements; b) the need to consider processes in terms of creating additional values; c) measuring the results of the process and its efficiency; d) continuous improvement of processes based on objective measurements.

In the context of quality management, management must provide the necessary and sufficient resources to improve quality and meet quality objectives. The most important resource of any organization is employees.

The leading role of management is explained by the fact that it is fully responsible for key issues of enterprise operation: resource allocation; formation of organizational structure; identification of development prospects; development and implementation of a product quality assurance and control system; development and implementation of standards, rules and procedures; control over the implementation of product quality standards; selection, training and advanced training; evaluation and promotion of performance; creating conditions for the application of a team approach to product quality management problems (Fig. 10).

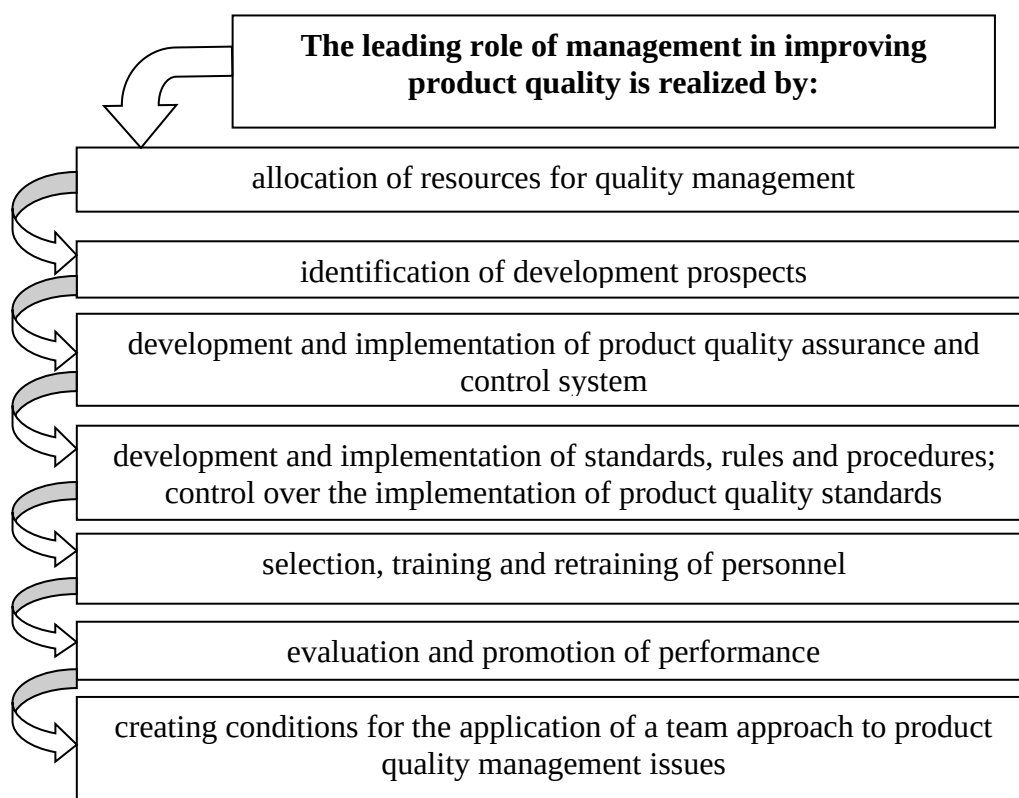


Fig. 10. Conditions for determining the leading role in the organizational support of the implementation of quality management systems

Attention should be paid to the importance of staff training in the field of quality. To ensure the successful development and implementation of quality management systems, training should be conducted for all levels of staff. Thus it is necessary to begin training with the top management.

The key function in achieving the required product quality is staff motivation. Knowledge and use of personnel management methods and, in particular, theories of motivation is of paramount importance in managing the quality of all enterprises.

Material incentives for staff to improve quality are important in the quality management system. Material incentives: in response to the previous salary increase, one can expect a more responsible attitude of the employee to the quality of their work, greater enthusiasm and, as a result, higher quality products.

Sales volumes increase not only due to improved product quality, but also due to reduced costs (then a corresponding reduction in prices) and increased production. All this will be a very real consequence of civilized relations of production, interrelated with the implementation of this method (Fig. 11) [39].

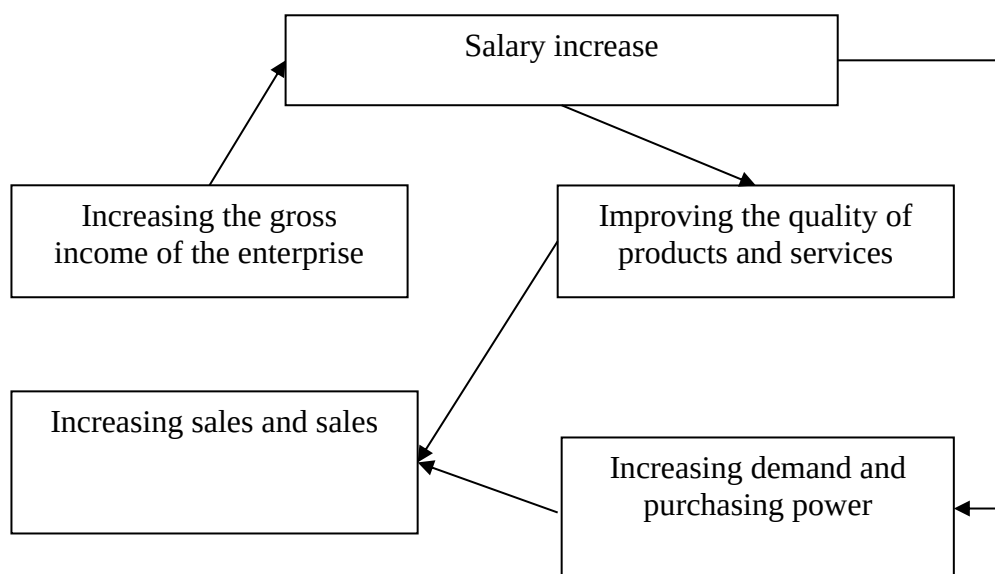


Fig. 11. The fundamental essence of the method of increasing wages in improving product quality

For the successful operation of enterprises it is necessary: managers to determine the goals and activities in the field of quality, to organize activities in quality and provide it with the necessary resources, including qualified personnel; maintain an appropriate level of staff motivation; make decisions aimed at achieving the required quality of work; to provide the production process with new technologies and materials. Both the authority and responsibility for the level of product quality and the

motivation of the staff to increase the efficiency and quality of work should be defined for all personnel of enterprises. Such procedures should be reflected in the collective agreement, employment contract, etc.

Thus, the quality management system is a personnel management system that needs to be supplemented by the implementation of a number of motivational measures, because it is necessary not only to have qualified specialists, but also to interest them in effectively realizing their potential.

Ukrainian companies should use the experience of world management to solve the problem of product quality through improving the system of marketing and organizational structure of the enterprise. To ensure the quality of products (goods, services) at enterprises it is necessary to implement a number of consistent and interdependent factors: analysis, identification and systematization of key factors and conditions that determine the competitiveness of products (goods, services) in a market economy); promising areas of development and improvement of economic mechanisms (pricing, cost, rate and mass of profit, economic efficiency, incentives, tax, credit conditions, etc.); regulatory and technical framework (standardization, certification, coding and cataloging of products, technical and economic information, etc.); substantiation of perspective directions of development and improvement of organizational mechanisms (service, advertising, etc.); improvement and dissemination of product quality management systems (based on international standards) by levels, areas, aspects (factors), stages of the "life cycle" of products, facilities, elements of product quality; substantiation of directions of formation of the system of protection of the rights of consumers on a legislative and public basis (guarantees, information, interaction with the organizations of protection of interests and the rights of consumers, etc.).