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ABOUT THE RELATIONSHIP OF THE UNION OF LEAN ECONOMY AND SMART QUALITY MANAGEMENT FOR THE PRODUCTION OF IN-DEMAND PRODUCTS

Abstract: *in the article, the authors motivate the manufacturer to recommend to the market, due to their motivation, by managing quality, to produce import-substituting products for the consumer, to reconsider their concept of creating a market for popular and competitive goods, taking into account their attractiveness. Such mutual understanding will fully correspond to the desire of the consumer to satisfy his desire to make a purchase taking into account his social status, to ensure that manufacturers sell their products in full and guarantee themselves sustainable TEP from their activities and financial stability.*

In addition, the authors focused on the need for motivated high political responsibility for the results of the enterprise headed by the management. Personifying responsibility does not just mean finding who is responsible for everything. It is important to understand that personification of responsibility implies its delegation for obtaining the desired result. And here it is important not to make a serious methodological mistake - to reduce economic policy to economic analysis, but to maintain a spirit of solidarity in the team - one for all and all for one - and success will definitely find the seeker.

Key words: *quality, import substitution, demand, competitiveness, market, profit, demand, buyer, manufacturer, financial stability, sustainable technical and economic indicators, priority, assortment, assortment policy, demand, implementation, paradigm, economic policy, economic analysis, team, success.*

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Introduction

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The research presented to your attention is the fruit of joint reflection on current problems of improving the activities of an important sector of the public economy by leading Russian and foreign specialists - light industry. Collectively performed research always has an advantage over individual creativity. An individual researcher, no matter how knowledgeable and authoritative he may be, will be forced by the nature of the circumstances to explain not only his point of view on the problem under study, but also to talk about how his colleagues "see" this problem, to present someone else's view of the order of things, to turn during the announced discussion in their opponents. Such a transformation, despite all its conventionality, is not so harmless for objectivity in understanding. Even such a wonderful thinker as G. Hegel sinned, wittingly or unwittingly setting up his opponents so that it would be more convenient to criticize them. This work represents the author's original approach and opens up the opportunity to learn the most significant things first-hand, without intermediaries, which often overshadow creative relationships. The quality is "destined" to be at all times at the epicenter of both scientific and amateurish reflections. The problem of ensuring the quality of activities is not just universally relevant, it is strategic. The dilemma in relation to quality is reasonable only within the limits of contrasting the relationship between "direct" and "indirect" actions. The saying "it's all about him" owes its origin to quality. It is possible to "forget" about the quality problem solely because every fruitful and luminous activity is ultimately aimed at improving quality. Quality is either "in the mind" or "implied". From the relationship in the dynamics of these projections, quality problems in creative thinking are arranged in an appropriate schedule, reflecting the relevance and profitability of activities aimed at developing highly efficient production. Reanimate the role and importance of a quality-oriented strategy, since only in this case will enterprise managers be subjectively and objectively forced to improve their production, using nanotechnology and innovative processes, so that competitive and in-demand materials and products fully satisfy the needs of domestic consumers. At the same time, the assertion of manufacturers that the consumption of domestic materials and products is regulated by the market is justified. In this case, market requirements should form in production, and they confirm this situation, paying attention to the role of the state and consumers in creating sustainable demand for domestic materials and products, namely: maintaining a range of goods, regulating it with federal, regional and municipal

orders; stimulate price stability; increase consumer power and gradually improve their quality. The implementation of these tasks will create the basis forso that the consumer realizes the need to pay for the benefits of high-quality materials and products, and the manufacturer realizes that improving the quality of materials and products cannot be associated only with rising prices, but also through technical innovations aimed at the use of new technological and engineering solutions, guaranteeing consumers their quality.

Main part

It is equally important to understand the role and significance of quality activity, that is, to what extent leaders have penetrated into the essence of things, learned to manage things, change their properties (assortment), form, forcing them to serve people without significant damage to nature, for the benefit and in the name of man. The quality of activity is the final criterion of its individual, collective and national status. It is in quality that the energy of creation is accumulated. The quality of activity testifies to how much we have penetrated into the essence of things, learned to control things, change their properties, shape, forcing them to serve man, without significant damage to nature. Quality allows us to see the person himself from new angles, to pay tribute to his talent, will, and professionalism. Research conducted under the UN development program made it possible to measure the share of the "human factor" in national and global wealth: 65% of the wealth of the world community is the contribution of human potential and only a third of the world's wealth comes from natural resources and production structure. A quality-oriented strategy undoubtedly contributes to an increase in the very role of the subjective factor in the development of production, and to a more complete comprehensive satisfaction of human needs themselves. The desire to "live according to reasonable needs," as well as the need to "work according to one's capabilities," along with the communist ideal, no one dared to openly and officially abolish, realizing the absurdity of denying the essential powers of man. In a "hot" state, the quality problem is steadily supported by both the internal forces of active consciousness and external life factors. The highest function of consciousness is cognitive. By understanding nature, we discover its qualities, state of quality, quality levels, translating new knowledge into production. Classical political economy (A. Smith, D. Ricardo, K. Marx, J. Mill) focused on quality problems in production. Post-classical economic thought shifted quality towards consumption, trying to give production a "human face" - a person alienates himself in the production process, but this measure is forced and, in a systemic sense, temporary, conditional. Labor is a kind of "terrible cauldron" that Vanya the Fool had to

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overcome in order to turn into Ivan Tsarevich. The main thing in production is the result, not the process. Consumption is regulated by the market. Therefore, market demands must dominate production. The task of society is to globally promote the development of demand in the market: maintain a range of goods, stimulate price stability, increase purchasing power, and improve the quality of goods. E. Deming, calling the “network of deadly diseases” of modern production, puts in the first place “production planning that is not focused on such goods and services for which the market is in demand.” Try to object to him. Production during the transition from industrial to post-industrial society of mass consumption is conceived as a function of the market.

The dynamics of market development in the last decades of the last century and at the beginning of the third millennium invariably show an increase in consumer demand for product quality. Despite all the economic, social and political costs, humanity is getting richer, but wealth is being distributed unevenly. Finance, as before, is concentrated in certain regions, however, in the same way as the premieres of modern production. Analysts confidently and universally predict the trend towards product quality. The consumer has realized the need to pay for the benefits of quality services and products. It's the turn for the manufacturer, who must close “greed” and “mortal sin” in his mind in order to burn out greed. The most prominent economists clearly state that an increase in the quality of goods is not causally related to an increase in price. Positive changes in the quality of goods require qualitative changes in technique, technology, organization and production management. Production must improve, which does not mean becoming more expensive. And I would also like to draw attention to one phenomenon that usually escapes in the bustle of problems - the historicity of the economy. The economy has not always been the way we perceive it now and will never remain so. Economic life changes over time, which forces us to tune in to its changing existence. The modern economy is built on a market foundation and the laws of the market dictate its own rules. In the foreground are profit, competition, efficiency, unity of command. How long will this continue? Analysts say symptoms of a new economic order are already growing. The next round of the economic spiral will also spin around the market core, but the significance of the market will not remain total. The priority of market competition, which aggressively pushes the “social sphere” to the margins, is not compatible with the prospect of economic development, which is confirmed by the steady desire of social democracy in the West to turn the economy towards social security and fair distribution of profits. The new economy is called temporarily “lean.” The current principle: “survival of the fittest, the fittest” will be replaced by “social-production partnership - the manager and the

manufacturer will become members of the same team. Mass production will give way to an organization that corresponds to the implementation of the principle - “the manufacturer produces exactly what the consumer needs.” A “lean” economy will be focused on resource-saving production technologies. It will require a new look at fundamental concepts. The quality philosophy will also change. We must be prepared for future events. To the best of our competence and interests, we tried to share our thoughts with you, entrusted you with our judgments about the past, present and future of the business to which we dedicated our lives, our research in order to answer the main question: What dominates in quality - advertising or the manufacturer and will the revolution in quality unite them or will it be impossible to do this? But life will judge both of them.

One of the tasks in the system of increasing the competitiveness of regions is to identify the potential of innovative technologies in these regions. The traditions of the footwear industry in the regions of the Southern Federal District and North Caucasus Federal District and the trends in its development provide a chance for success in the event of interaction between all participants in the process - suppliers, manufacturers, government officials, trading and service companies. The first step towards such interaction must be taken through an exchange of opinions and clarification of mutual positions. Do participants in the footwear market in these regions clearly perceive the problems that they face? What is the vector of structural changes in the Russian leather and footwear market leading to development or stagnation of the industry? What are the conditions and real opportunities for the development of competitive production in the region? What should be the support of the authorities at the federal and regional levels? Is it possible in modern conditions to rely on interaction and cooperation as a real factor of competitiveness? How to solve the problem of training and retaining personnel in production?

For the shoe business, the topic of developing innovative technologies is very relevant. Their use is one of the most effective tools for increasing the competitiveness of territories. The need for such an approach to managing the competitiveness of enterprises, which consists in developing a new industrial policy for stimulating the organization and development of innovation based on the formation of relationships of network cooperation and public-private partnership (innovation policy) and includes the study of clusters, cluster strategy and methods for ensuring it are a lifesaver for Today. From the point of view of the management process, the cluster approach is considered as a set of stages and activities for the organization of clusters and their development, i.e. clustering. This approach will allow small and medium-sized light industry enterprises to

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successfully compete not only in the domestic but also in the international market.

The role of regional and municipal authorities in launching and coordinating cluster projects is very important; in this regard, it was possible to create an effective mechanism for representing business interests in relations with the authorities. An element has been proposed that performs the function of a “coordinator and communicator”. To develop this element, we need a substantive dialogue based on mutual trust and interest, first of all, between the industry entities themselves; both the authorities and business are interested in this. It is necessary to develop joint proposals on directions, forms and methods of state support for the development of an industry cluster, namely:

- Implementation new construction, expansion and reconstruction of production facilities, housing, social-cultural purposes, public utilities and consumer services, administrative management, the Ministry of Emergency Situations, Environmental Protection and Environmental Safety at the regional level;
- assistance in increasing the competitiveness of products of industrial enterprises and their promotion in the domestic and foreign markets;
- organization and implementation of projects in the field of software production;
- update material and technical base of the cluster production, introduction of new technologies;
- preservation and development of accumulated potential in the field of science and scientific services; improving mechanisms for financing science; implementation of scientific results in the industrial and social spheres of the region;
- achievement quality of education corresponding to the state educational standard; implementation of a regional order for the provision of additional education services; achieving a dynamic balance between the labor market and training of professional personnel; development of higher and secondary vocational education.

A set of measures for anti-crisis management of the light industry is proposed, including the following priority areas:

- promotion competitiveness of enterprises/light industry;
- development industry information services; continued modernization of fixed assets;
- mitigation lack of working capital;
- promotion efficiency of public administration;
- jointing non-payments.

An action plan has been formed for the implementation of the anti-crisis program in the light industry, including:

- normative-legal and scientific-methodological support of anti-crisis activities;

- development of anti-crisis support infrastructure/light industry enterprises;
- expansion of business opportunities/light industry enterprises;
- financial mechanisms for supporting and developing anti-crisis activities/light industry enterprises;
- development of interregional and international cooperation/light industry enterprises in the anti-crisis sphere.

To further improve the legal regulation of anti-crisis activities, it seems appropriate to formulate an action plan for the implementation of the anti-crisis program in light industry, namely: specification and detailing of the goals of sustainable development of light industry enterprises should be built within the framework of the development line of the industrial sector of the economy, which is based on structural transformations of the economy and the introduction of anti-crisis technologies for the development of production and export of consumer goods. Within the framework of development, three stages can be distinguished, the terms of which are presented rather conditionally and can be adjusted in the process of implementing the sustainable development of light industry enterprises:

2021-2025 Anti-crisis development, which involves overcoming crisis phenomena and restoring crisis losses of light industry enterprises and finding resources for the subsequent modernization transformation of light industry;

2026-2030 Investment renewal of fixed assets of light industry enterprises, including a qualitative increase in competitiveness;

2031-2035 Innovative development - the beginning of the mass development of new types of equipment and technologies, the transition to expansion into foreign markets of domestic light industry goods:

The use of developed and proposed methodological provisions for increasing the competitiveness of regions based on the cluster theory will make it possible to make decisions on attracting and rationally allocating investment funds aimed at implementing the necessary measures to improve the efficiency of the activities of subjects of attractive innovative technologies and increase their competitiveness.

To solve this problem, a competitive assortment of men's, women's and children's shoes is proposed, taking into account factors influencing consumer demand: compliance with the main fashion trends, taking into account the economic, social and climatic characteristics of the regions of the Southern Federal District and North Caucasian Federal District. As part of the developed strategy, the production of competitive products will be organized using modern mechanized innovative technical processes. In addition, footwear will be produced to meet the

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demand of the elite consumer using a greater proportion of manual labor to give the footwear a targeted focus and high demand.

To implement the developed range of men's, women's and children's shoes, innovative technological processes for its production using modern technological equipment based on advanced nanotechnologies have been proposed, forming the basis for reducing the cost of shoes and thereby increasing their competitiveness in comparison with a similar range of shoes from the world's leading companies with the ability to produce a wide range of footwear not only by type, but also by fastening methods, which will give it demand and increased competitiveness. Layouts of technological equipment are proposed, which provide the opportunity to form a technological process for both the production of men's and children's shoes in volumes, which are determined by the production areas available in the regions and the forms of organization of production used, but of course taking into account demand to ensure its implementation in full.

At the same time, the financial well-being and sustainability of newly created enterprises in the regions of the Southern Federal District and North Caucasian Federal District largely depends on the influx of funds to cover their obligations. Lack of the minimum required cash reserves can cause financial difficulties for enterprises. In turn, excess cash may be a sign that the company is suffering losses. The reason for these losses may be associated both with inflation and depreciation of money, and with the missed opportunity for their profitable placement and receiving additional income. In any case, it is the constant analysis of cash flows that will allow the company to control its real financial condition and prevent bankruptcy. Cash flows from financial activities are largely formed during the development of a financing scheme and in the process of calculating the effectiveness of an investment project.

If the manufactured shoes are not fully sold, the company loses part of the profit, which is necessary for the further development of production. To reduce losses, the manufacturer must have daily information about product sales and make effective decisions, namely: either promptly change prices for the range of shoes being manufactured, or, what is more effective and justified, begin production of a new range of shoes that is more in demand on the market. Sales managers or marketers who control the sales process for a specific range of shoes must daily calculate the cash flow from their operating activities. As a result of tracking the receipt of funds, we will have information about their net inflow from our operating activities. A decrease in sales volume will result in a decrease in cash flow and will require a reduction in the selling price of the product in order to increase sales volume. If such an event does not lead to an increase in cash flow, then it is necessary to make a timely decision on

the advisability of further production of this range of shoes.

For this calculation, it is important to differentiate the data involved in the calculation. To calculate the cost of a specific manufactured model, the initial data are fixed and variable costs, which depend on production equipment, the composition of basic and auxiliary materials, the number of employees, etc. The main initial data that are used in the monitoring process are the selling price of a unit of production and sales volume. Thus, the calculation can be performed daily, or in a selected time range, and by specifying only the sales volume and unit price of a product for a certain period, we will receive an increase in cash flow for this period.

Calculations are carried out on the basis of assessing the degree of implementation and dynamics of production and sales of products, determining the influence of factors on changes in the value of these indicators, identifying on-farm reserves and developing measures to reduce them, which should be aimed at accelerating product turnover and reducing losses, which will allow achieving significant economic effect. Of great importance in managing product output is the assessment of actual output and sales within the limits of production capacity, that is, within the boundaries of "minimum - maximum" production volume. Comparison with the minimum, break-even volume allows you to determine the degree or zone of "safety" of the organization and, if the value of "safety" is negative, remove certain types of products from production, change production conditions and thereby reduce costs or stop producing these products.

Comparing the achieved output volume with the maximum volume determined by the production potential of the organization allows us to assess the possibilities of profit growth with an increase in production volumes if demand or the share of footwear sales on the market increases. For a shoe company seeking a strong position in the market, setting the selling price of shoes is key to the success of the chosen strategy. Price is a tool for stimulating demand and at the same time represents the main factor in the long-term profitability of its activities.

In this regard, it is necessary to conduct a break-even analysis. Various relationships between sales volumes and prices for manufactured products are considered. Price reduction occurs when a company uses a system of discounts to increase sales volumes. This event leads to an increase in sales revenue and additional profit. However, the area of income is not unlimited - once a certain volume of production is reached, its further expansion becomes economically unprofitable. The effectiveness of all these measures in creating a cluster is possible only with active interaction between the branches of government and necessarily with support at the federal level - the Southern Federal District and North Caucasus Federal

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District can fully or partially relieve shoemakers from infrastructure costs when creating new production facilities within the cluster. But only the federation can resolve issues of tax preferences; closing the borders to gray and black imports is again the competence of Moscow, and given that the industry is in a severe depressed state, changes for the better require a very powerful set of tools and government decisions, and joint actions of all interested parties.

Perhaps now, when the Don shoemakers see how quickly their ranks are thinning under the pressure of competition, their readiness for joint action will be more effective. Otherwise, Rostov will very soon cease to be the shoe capital of southern Russia. Finally, the institutional-organizational scenario presupposes an answer to the question: how should the cluster be organized, how should it be formed and grown? For us, a cluster involves the co-organization of at least four large technology groups that form the technological basis of the cluster:

- breakthrough scientific laboratories - pilot production facilities where the foundations of new technologies are created;
- development centers, on the basis of which prototypes and samples of technologies will be created for testing in pilot production;
- industrial and technological groups capable of equipping production for the production of pilot series;
- marketing groups capable of promoting a new type of product to the market and creating sustainable demand.

The management superstructure that ensures the interconnection of these four large technology groups with each other can be:

- investor council who decides on priority funding for a particular project;
- expert council, reviewing various projects as they prepare for implementation;
- creative center, preparing materials for decision-making by the expert council and the investor council.

Achieving the goal in the field of cluster development is possible only through comprehensive technological modernization of the real sector of the regional economy. In relation to the Southern Federal District and North Caucasian Federal District, it is possible only if the interests of all participating business entities are taken into account. We are talking about such areas as:

- increase shares of the innovation sector and the introduction of technological innovations at enterprises forming clusters;
- development entrepreneurial activity in the field of large, medium and small businesses and mutual cooperation for the purpose of introducing innovations, which leads to the expansion of existing clusters and the creation of new ones;

– gain connections and interdependence of industrial enterprises and research and educational centers and schools;

– improvement territorial location of industrial enterprises.

In conclusion, considering the process of formation and implementation of cluster policy in the region, we point out that this is a complex task, the development and implementation of which should be scientific in nature. Its success depends on many factors and conditions, and the central place here belongs to the scientific principles of management and the desire for the dynamic development of the region, the interest of all branches of government, both municipal and regional, as well as federal branches of government.

However, the weakest point of enterprises is the low level of information support specifically for technological preparation of production. This is explained by Automated systems of the Chamber of Commerce and Industry are specialized and depend on the nature of production, the type of products produced, and the serial production. In addition, the ASPP application software is heterogeneous in purpose; it is formed from a set of products, each of which ensures the development of a separate type of technological processes. Therefore, there is a need to create information support in the form of a universal database in order to reduce labor intensity and increase the efficiency of work at the stage of technological preparation of production through their use.

For the technological process of assembling shoes using the adhesive fastening method, the authors have created information support, the purpose of which is to generate a model passport and automated selection of the technological process. To create information support, the authors completed the following tasks:

– highlighted criteria that determine the structure of the technological process for assembling shoes using the adhesive fastening method based on the methods of a priori ranking and rank correlation;

– developed classifier and block diagram for coding a shoe model for automated design of a technological process;

– compiled matrix of coincidences of technological operations depending on the design, materials and methods of processing upper blanks, insole and sole units, heels and intermediate parts to objectively substantiate the procedure for drawing up a technological process diagram and the algorithm for its selection;

– developed structural and logical model of shoe assembly using the adhesive fastening method based on the principles of a systems approach, ensuring the development of optimal technological solutions;

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– developed information support for automated design of the shoe assembly technological process in the form of a set of databases that contain information about various options for performing the same technological operations, depending on the equipment and capacity of the enterprise;

– built algorithm of the program, according to which the exact instructions defining the computational process leading from varied initial data to the original result;

– developed software that allows to formulate a technological process for assembling shoes using the adhesive fastening method while simultaneously determining the labor intensity and number of workers to produce a given number of models.

The developed software meets the main quality indicators of information systems, such as:

– flexibility- ability to adapt and further develop, the ability to adapt the information system to new conditions, new needs of the enterprise;

– reliability- functioning without distortion of information, loss of data for “technical reasons” by creating backup copies of stored information, performing logging operations, maintaining the quality of communication channels and physical storage media, using modern software and hardware;

– efficiency- the ability to solve the tasks assigned to it in the shortest possible time is ensured by optimizing data and methods of processing it, using original developments, ideas, design methods and is confirmed by its ability to minimally depend on equipment resources: processor time, space occupied in internal and external memory, bandwidth ability used in communication devices;

– safety- the property of the system, due to which unauthorized persons do not have access to the organization’s information resources, is ensured setting launch parameters in such a way that the user, when launching the application, sees only the main button form and a menu and toolbar in which he cannot use the buttons intended for the application developer.

The software, in accordance with the algorithm, processes the selected conditions and prints a ready-made version of the technical process for a given shoe model with calculations of labor intensity and the number of workers, as well as a model passport. When using the developed information support, the technologist’s task in creating a technological process comes down to choosing the design features of the model and the main limitations, which include production capacity, availability of equipment, and production space; analysis of results; adjusting the selected conditions (if necessary) and choosing the optimal technological process option. Regarding the effectiveness of information support implementation, any enterprise can be assessed from various aspects,

namely: economic, financial, organizational, time, environmental, social.

The result of calculations for any separately applied method for assessing the effectiveness of the proposed solution can reflect only part of their positive aspects. Meanwhile, the numerical values of various criteria that can be used can vary significantly, and sometimes even be in conflict. In such a situation, it is justified to use a synergetic (comprehensive) assessment of the effectiveness of solutions that involve determining advantages not according to one criterion, but according to a set of criteria. The effectiveness of the implementation of the presented information support can be assessed by two strategies: social and economic.

The social effect of introducing information support for automated process design is as follows:

1. As a result of implementation in the educational process, the level of training of specialists is increased through the use of innovative technologies in education.

2. As a result of introduction into production, a change in the nature and improvement of working conditions, resource availability of labor activity, increasing professionalism, increasing the average duration of time free from “paper work” for a technologist.

Assessment of the economic efficiency of implementing information technologies often occurs either at the level of intuition or is not carried out at all. On the one hand, this is due to the reluctance of suppliers to invest significant effort in conducting detailed preliminary analysis, on the other hand, there is probably a significant degree of consumer distrust in the results of such studies. However, both of these problems stem from the same source, namely the lack of clear and reliable methods for assessing the economic efficiency of IT projects.

The full economic efficiency of using software for computer-aided design of production and production processes consists of savings in the field of technological preparation of production, which is a consequence of increasing the productivity of technologists due to the automated selection of a list of technological operations with the calculation of labor intensity and the number of workers.

In the production sector, savings are achieved through the selection of the optimal technological process due to the typification and unification of the technological solutions adopted. In addition, production preparation time is significantly reduced, and this factor is difficult to overestimate in our time, when competitiveness can only be achieved with a frequently changing range of products, and for this it is necessary to achieve good technical and economic indicators of the enterprise. These and other benefits of automated process selection, although many are difficult to determine through direct economic calculations, contribute to significant improvements

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in shoe manufacturing performance. The results obtained allow us to speak about the achievement of a synergistic effect both in terms of technology (due to a significant reduction in the time for technological preparation of production, selection of the optimal technological process, reduction of changeovers of the technological process when changing the assortment, selection of the correct sequence for launching samples), and from the point of view of efficiency production as a whole due to the simultaneous achievement of social and economic effects. Today, a light industry enterprise striving not only to survive, but also to develop, is required to be able not only to competently exploit existing technologies, but, first of all, to actively position itself in the market, delivering in a short time high-quality products that meet the requirements and expectations of consumers. at the lowest price. In other words, at present, the one who will survive is the one who is the fastest to bring to market products that most fully meet the requirements of consumers, while ensuring the minimum cost of its production.

What should an enterprise do to ensure that the listed indicators become its competitive advantages?

1. Understand not only current, but also future customer preferences and be able to develop types of products that meet these preferences.

2. Provide setting up technological production processes that guarantee their minimum cost by identifying and eliminating all types of costs that do not bring value to the product.

3. Withdraw products to market faster than competitors.

The implementation of the listed tasks will depend on how smoothly and efficiently all departments work in the enterprise. How can this smooth and efficient operation be ensured?

1. By defining a set of processes or activities that ensure the production of products with quality characteristics that satisfy the requirements, demands and expectations of consumers.

2. Establishing clear and understandable interaction between processes.

3. Defining quality goals at the enterprise and departmental levels, providing an understanding of the results that must be achieved by departments, and which ensure the achievement of the overall goals of the enterprise.

4. Planning the resources needed to achieve goals.

5. Defining procedures to ensure that departmental work is performed in the most efficient manner.

6. Measuring results and comparing them with set goals.

7. Analyzing and making decisions about what needs to be improved within each department.

That is, a set of processes is presented, through the functioning of which an enterprise management

system is formed, orienting it towards the production of products that meet the requirements, demands and expectations of consumers in their characteristics and adjusting all types of activities related to ensuring production to an efficiency indicator, namely:

- a system is being built to identify sources of costs and develop adequate measures to reduce them,

- Reliable data is generated demonstrating the effectiveness of using investments, which can help attract new investors;

- the cost of production is reduced, which makes it possible to reduce prices, expand the market and increase production volumes;

- cost reduction is usually associated with a reduction in the amount of scrap and other types of waste, which has a positive effect on such enterprise performance indicators as environmental impact and industrial safety; the image of a socially oriented enterprise is formed;

- clear setting of goals and objectives for each employee, defining the result that should be obtained when performing work;

- identifying and providing resources needed to complete the job;

- providing the knowledge and skills necessary to understand how work should be done to ensure maximum effectiveness;

- measuring performance at the level of employees, departments and the organization as a whole and comparing results with goals;

- analysis of results and adequate response to them through a system of corrective and preventive actions.

As practice shows, the ability to implement these processes at the level of top management creates the conditions necessary for the formation of a competitive enterprise, that is, all this can be adopted by a manager today to ensure this very economic stability for his enterprises.

In addition, it is important that there are not too many product names. For most Russian enterprises, the main reserve for assortment optimization still lies in a significant reduction in the assortment range. Too large an assortment has a bad effect on economic indicators - many positions appear that, in terms of sales volumes, cannot even reach the break-even level. As a result, overall profitability drops significantly. Only the exclusion of unprofitable and low-profit items from the assortment can give the company an increase in overall profitability by 30 - 50%. In addition, a large assortment scatters the enterprise's strength, makes it difficult to competently offer goods to customers (even sales department employees are not always able to explain the difference between a particular item or name), and distracts the attention of end consumers.

Here it would be appropriate to recall the psychology of human perception of information. The

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reality is that the average person is capable of simultaneously perceiving no more than 5-7 (less often up to 9) semantic constructive solutions. Thus, when making a choice, a person first selects these same 5-7 options based on the same number of criteria. If the seller offers a larger number of selection criteria, the buyer begins to experience discomfort and independently eliminates criteria that are insignificant, from his point of view. The same thing happens when choosing the product itself. Now imagine what happens if a person has a hundred practically indistinguishable (for him) goods in front of him, but he only needs to buy one. People in such a situation behave in the following way: either they refuse to buy at all, because they are not able to compare so many options, or they prefer what they have already taken (or what seems familiar). There is another category of people (about 7%), lovers of new products, who, on the contrary, will choose something that they have already tried.

Thus, from the buyer's point of view (to ensure a calm choice from perceptible options), the assortment should consist of no more than 5-7 groups of 5-7 items, i.e. From a perception point of view, the entire assortment should optimally consist of 25-50 items. If there are objectively more names, then the only solution is additional classification. It is generally accepted that the buyer needs a wide range. This widest range is often even referred to as a competitive advantage. But in reality, it turns out that for the manufacturer a wide assortment means hundreds of product names, but for the consumer, 7 items are more than enough. And thus, the consumer does not need a wide range at all, but the variety he needs. This is possible if the components of Russia's development strategy until 2025 are implemented, namely: the task of transferring Russia's economic development from an inertial energy scenario to an alternative innovative social scenario is solved. –oriented type of development, in the formation of an effective industrial policy, for which it is necessary:

–develop and legislate the foundations of effective state industrial policy as a system of agreed goals, priorities and actions of government bodies, business and science to improve the efficiency of industry, ensure high competitiveness of products, goods and services and steady growth of production. When forming it, provide for accelerated growth in all sectors of high-tech products with an increase in its share in total industrial production by at least 50% by 2035, equality of subjects of industrial policy, guarantees of property rights;

–provide implementation of special measures to support priority high-tech industries in order to create conditions for the effective development of all Russian industry;

ensure an increase in the volume of investments, the creation of economic and legal prerequisites for the introduction and use of high technologies and new

materials, primarily developed in Russia; to achieve this, legislate the foundations of the national innovation system in the Russian Federation; establish a multiplying factor for R&D expenses included in the cost price;

reduce VAT to 12%; exempt from taxation the profits of enterprises invested in production; create institutions for long-term lending for modernization and technical re-equipment of industry at low interest rates; improve the VAT administration system, change the procedure and deadlines for paying taxes to replenish industrial enterprises with their own working capital; implement a transition to a differentiated mineral extraction tax rate depending on natural conditions, the degree of depletion of deposits, etc.;

–develop and implement measures to combat price monopoly, to stabilize tariffs for the services of natural monopolies, prepare and adopt the federal law “On Price and Tariff Policy”; to promote the creation and promotion of domestic national, regional and corporate brands of domestic products for the development of a competitive environment in order to create competitive products, for which to introduce a quality system, promote the implementation of programs aimed at identifying, independent quality assessment and promotion of domestic products, intensify work on standardization, including the costs of scientific research in this area to develop new and adjust existing national standards;

– y read, that mechanical engineering is a system-forming complex, to ensure its modernization and restoration of the technological basis of the national mechanical engineering complex in a short time–machine tool industry. For these purposes, use both domestic developments and the purchase of foreign equipment and technologies, using the international division of labor, and make wider use of the leasing mechanism. In addition to general measures to support industry, it is necessary to additionally prepare and adopt a state strategy for the development of the machine tool industry for the period until 2025, including the implementation of special targeted programs aimed at financing promising scientific developments;

–modify the size and procedure for collecting customs duties to stimulate the import of the latest technological equipment while promoting the revival of domestic production of such equipment, in particular, abolish customs duties and VAT on the import of new imported technological equipment not produced in the country;

–develop and take a set of special measures to provide the mechanical engineering and machine tool industry with scientific and engineering personnel, highly qualified workers, especially in the field of scientific research and applied development, to form a system of employment of young specialists; develop and adopt amendments to the Tax Code (Chapter 25)

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establishing accelerated depreciation regimes and preferences (bonuses) that allow depreciation of the active part of fixed assets in an amount exceeding their book value;

–take action to stimulate the system of state and commercial leasing of technological equipment for the purpose of technical re-equipment of mechanical engineering industries; consider the possibility of preliminary 100–percentage payment from the federal budget for the cost of supplies to enterprises of unique imported equipment, including on a leasing basis, necessary for the purpose of technical re-equipment of mechanical engineering and machine tool manufacturing;

–introduce into practice a systematic all-Russian census of metalworking equipment, which will make it possible to have objective data on the state of the machine tool stock of machine-building enterprises;

–develop and implement a set of measures to solve the problem of the lack of qualified personnel in industry, to improve the quality of personnel training in higher educational institutions, to provide young specialists with housing on preferential terms, to introduce state-order training of specialists, to provide modern equipment and dormitories on the basis of public-private partnership professionally–technical schools, allow enterprises to allocate funds spent on personnel training to production costs in full, adopt special legislative and regulatory documents aimed at ensuring the industrial development of Siberia and the Far East;

– Rdevelop and legislate consolidate a set of measures to ensure the interest of business entities in active participation in projects to increase resource– and energy efficiency, including elements of monetary policy, foreign exchange and investment regulation, subsidy mechanisms, special tax and depreciation regimes;

–implement a set of measures aimed at the massive development of small and medium-sized enterprises in industrial–production, innovation and service sectors, primarily in terms of providing small and medium-sized enterprises with access to production facilities, purchasing equipment, including on a leasing basis, developing microfinance and credit cooperation;

– Ptake action to create equal competitive conditions for the Russian processing industry with importers, accelerate the development and adoption of the federal law “On Trade” and related regulations on organizing the effective functioning of Russian wholesale and retail trade;

–develop a strategy regional industrial development of the constituent entities of the Russian Federation, including the territorial location of productive forces for the long term, linking the development of regional infrastructure with the location of industrial facilities;

–clearly define the system implementation of the

fundamental goals of state industrial policy, ensuring the solution of systemic problems of the real sector of the economy, correlate the need for investment, sources of investment and realistically achievable socio-economic results.

The Strategy for the Development of Light Industry for the period until 2025 and the action plan for its implementation take into account the national interests of Russia (increasing the level and quality of life of the population, the health of the nation, the strategic and economic security of the state), proposals from the constituent entities of the Russian Federation, public organizations and associations on the necessary measures supporting the industry in priority areas of its development. The Strategy was based on the transition of light industry to an innovative development model. Particular attention is paid to the issues of protecting the domestic market from shadow trade, technical re-equipment and modernization of production, import substitution and export. Today, the light industry of the Russian Federation is the most important diversified and innovatively attractive sector of the economy.

The contribution of light industry to industrial production in Russia today is about 1% (in 1991 this figure was 11.9% and corresponded to the level of developed countries such as the USA, Germany and Italy, which have maintained this figure at 8–12% throughout), in export volume – 1.3%. Currently, there are 14 thousand large, medium and small enterprises operating in light industry, located in 72 regions of the country. About 70% of enterprises are city-forming. The average number of industrial production personnel employed in the industry is 462.8 thousand people, 75% of whom are women. Scientific support for the industry is provided by 15 educational, research and design institutes, many of whose developments meet and even exceed the world level.

The main territories for the location of enterprises that determine the industrial and economic policy of the industry are the Central (55 enterprises), Volga (30) and Southern (17) federal districts, which have the largest share in the total volume of production and are the most socially significant. The industry's performance results for 2020 showed that, in times of crisis, it is able to increase production volumes in sub-industries oriented directly to the market. It should be noted that during the crisis, the range of goods supplied to Russia is sharply narrowing. This gives the domestic light industry strategic opportunities to occupy vacated niches and strengthen its position in the market.

In 2019, the retail trade turnover of light industry products amounted to 2.0 trillion. rub., its share in the country's retail turnover is 14.5%, and in the retail turnover of non-food products 26.3%. In terms of consumption, light industry products are second only to food products, far ahead of the markets for

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consumer electronics, cars and other goods. Taking into account macroeconomic indicators and development trends, the market for light industrial goods by 2035 could reach over 3.3 trillion. rub. Existing preferences and problems being solved to one degree or another at the federal and regional levels are not yet sufficient to eliminate the influence of negative factors on the development of the industry and transform it into a competitive and self-developing sector of the economy, and for domestic producers to strengthen their positions in the domestic market and compete on equal terms in global market not only with manufacturers from China, Turkey, India and a number of other developing countries, but also with the EU countries and the USA.

The situation in the industry was further aggravated by the global financial crisis. In a crisis, even those enterprises that have achieved positive results in innovative development in recent years, paying significant attention to the modernization of production, are already forced and will be forced in the coming years to reduce production volumes and abandon long-term investments. This is due to the difficulties encountered in attracting bank loans (the share of borrowed funds in working capital in recent years has reached 40%), on the one hand, an increase in the volume of official imports, counterfeit and smuggled products, a drop in demand and a slowdown in the sale of many types of consumer and industrial goods. - technical purposes, reduction of workers and specialists - on the other hand. The absence of drastic measures to solve the identified problems will significantly affect the economy of the industry; its technological lag in the foreseeable future may become an irreversible process, which will lead to the degradation of high-tech industries, increased commodity dependence on foreign countries, state losses will grow geometrically, which will increase the strategic and national danger to Russia. The current situation can only be changed by developing and implementing anti-crisis measures and activities aimed at boosting the economy of light industry, giving it new impetus in innovative, social and regional development, in increasing competitiveness and production efficiency at a new technology level. Today, the industry provides with its products only a quarter of the effective demand of the population, and the mobilization needs of the country— by only 17–36%, which contradicts the law on state security, according to which the share of domestic products in the volume of strategic products must be at least 51%. Therefore, today the light industry faces new challenges and tasks, the solution of which requires new approaches not only for the short term, but also for the long term.

This determined the purpose of the Strategy— creating conditions for accelerated innovative development of the Russian light industry, ensuring effective compliance of production volumes, quality

and range of products with the aggregate consumer demand, increasing the national significance of the industry and its image in the world community. The goals and objectives of the Strategy correspond to the ongoing state policy in the field of innovative and socio-economic development of Russia in the medium and long term. The strategy is intended to become: one of the main tools in solving the problems of the industry and to interconnect the task of its economic growth with meeting the needs of the country's citizens, law enforcement agencies and related industries in high-quality and affordable consumer goods, in products for technical and strategic purposes.

The implementation of the Strategy will enable the light industry of Russia to become an industrially developed industry that will provide jobs for many thousands of people, improve the well-being of workers, and strengthen the strategic and economic security of the country.

Main result of the Strategist- this is the transition of light industry to a qualitatively new model of innovative, economic and social development, the basis of which is a new technological and scientific base, new methods of production management, the relationship of science, production and business. This is to ensure effective compliance of production volumes, quality and product range with the total demand of the Russian and world markets. Once again, I would like to draw attention to the fact that all this will become a reality if one condition is met, namely, light industry products will be produced of high quality and taking into account the interests of this very consumer. One has to begin the study classically with the formulation and general characteristics of the problem. It is surprising, but nevertheless, it is a fact that, despite the numerous literature on the proposed topic, and no less clear applications for its comprehensive analysis, the problem of a comprehensive study of quality management remains a “hedgehog” in a thick fog.

The reason is simple, except for the work of B.S. Aleshina and co-authors, the promise of a comprehensive study of the problem remains a wish. The content of research usually does not go beyond one or two aspects of considering quality and the possibility of quality management. The remaining angles are either declared or applied in such a sequestered state that their presence is perceived as a kind of burden for the pleasure of joining the author's reasoning on a topic that is, of course, relevant for all times and for any activity. The noted drawback is also inherent in our works devoted to the problem of quality. We are to some extent excused only by the fact that we have so far avoided making an application for a comprehensive study of quality in the context of management. A harsh reaction from our critics is quite possible and even predictable. They, apparently, will overturn our conclusions on us, finding a weak link in

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our opus. And they will do the right thing. Others - and we with them, taking into account the criticism, will step further, forward, collectively solving what individual researchers cannot do, even in the case when they combine their various cognitive resources and when, for example, in our case, industry groups come together specialist, systems economist and philosopher.

The theory of quality management is based on the philosophical development of this concept. "Quality" is a philosophical category, and the solution to the stated problem depends on how well the philosophical component is represented in the theory of quality management. In philosophy, there has never been a single interpretation of quality, and there is no mutual understanding in our time. An important conclusion follows from this: before building a quality management strategy, you need to decide which philosophical "shore" you are going to land on. Quality is a general and fairly stable certainty of the objective set. More stable than quality are the forms of being and its substance - the only thing that is unchangeable by definition. Quality, however, also flows along the river of time and changes. The quality changes within itself, changing its states, and radically, losing its definition, turning into another quality.

Differences in the philosophical understanding of quality are due to the complexity of quality as a subject of research, but to an even greater extent they are a consequence of the philosophical worldview and the methodology on which it is formed. "Materialism", "idealism", "metaphysics", "dialectics" are philosophical concepts fairly battered by class ideology. Conservative philosophers did well in Soviet times by erecting barricades from behind which they shot arrows of anger at their enemies, absolutizing the political background of philosophical movements. The critics, triumphant in the embrace of liberal democracy and dealing with the restless legacy, do not look in the best light. Inspired by "noble anger," they essentially turned to the past and not so much "trample" this hated past as mark time, slowing down the progress of the cognitive process.

"materialism", "idealism", "metaphysics", "dialectics" must not be abandoned, but they must be cleared of pseudo-ideological "husk", thereby revealing the underlying rational meaning in these phenomena. These concepts are a kind of "border pillars" of philosophical and scientific knowledge, warning, on the one hand, about the need to adhere to certain guidelines in knowledge, on the other, requiring the development of conditions for border interaction. Boundaries in knowledge are not intended to limit, to isolate one thing from another. Their rationality lies in the fact that they regulate the cognitive process. K. Marx, who wrote that the idealism of G. Hegel is "materialism turned on its head," is not responsible for his followers who

simplified Marxism and, in particular, the philosophy of Marxism - dialectical materialism. The idealist G. Hegel is equally not to blame for the fact that E. Mach brought the idealistic idea to solipsism, and with his philosophical exercises caused damage to the rationality inherent in the highest achievements of idealistic philosophy.

The history of philosophy warns anyone who has embarked on the path of knowledge: most of all, be afraid of one-sidedness. It inevitably leads to absolutization, a state of knowledge in which the natural connection in it between the ideal and the material is broken, and the movement towards truth is closed. Quality management begins with a philosophical, that is, ideological and methodological orientation of the theory. There are no alternative options. In developing management theory, it makes no sense to evade philosophical foundations. Cooperation with philosophy, rationally interpreted, must be actively sought. The question: where is it, this rational philosophy, has long become rhetorical, since the time of the first philosophers. It was not, no, and will not be in finished form as a "magic wand", "self-assembled tablecloth", "philosopher's stone".

Rationally interpreted philosophy is an exclusive product of the interaction of professional thinking with philosophical heritage. Objections like "not everyone can do this" are quite appropriate to the situation. It's true, this is given to everyone, but not everyone takes on the responsibility of building a quality management system. The majority are awaiting instructions and regulatory materials in full. According to the current fashion: a briefcase with documents. Our Russian market not only ugly tore apart the national economy, giving some fat pieces, but left others with a ghostly hope that someday their Lenten life will change and a holiday will come to their street. The Russian market has deprived us of national unity, devaluing what is widely known as the "mysterious Russian soul," or, simply put, our inherent desire to think "about life in general," including personal and national problems. A German is distinguished by law-abidingness, an American from the United States by adventurism, an Italian by spontaneity. Our ancestors were distinguished by responsibility that was fading before our eyes.

The philosophy of quality is a collective concept, synthetically constructed. The understanding of quality in various philosophical theories differs significantly, because it is "tailored" to the system and method used in its development. In such an ambiguous situation, you need to start with a conclusion: everyone is right and no one is wrong. "What kind of gobbledygook," says someone accustomed to thinking according to the "either-or" formula laid down by nature, "We don't need riddles, we want everything to be according to the principle: "to each his own." The task is precisely to put everything "on the shelves". It's simpler, clearer, and you can't go wrong. The

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formal logic of thinking develops spontaneously, reflects the world of things in a first approximation, roughly. F. Engels rightly compared it with elementary mathematics, which is not capable of describing a process and is therefore limited to actions with finite quantities. "What is good and what is bad" is the lot of formal logical reasoning, for which "every cloud has a silver lining," or "two different sides of the same coin" are judgments that do not follow the rules, are forbidden.

Political ideology also introduces prohibitions on thinking, dividing thoughts into friendly and hostile, right and wrong, forcing public consciousness to work according to the simplified rules of the formal logic of individual thinking. Logical blinders are justified, pseudo ideological ones have no justification, just like the actions of those who are stunned by views different from their ideology, unwilling or unable to critically comprehend them. The Marxist and Hegelian concepts of quality have more in common than differences. The main thing is that the most essential thing in the understanding of quality coincides. K. Marx and F. Engels, distancing themselves from Hegelian idealism, in every possible way protected his dialectical understanding of thinking, developed the positions he put forward, and defended them from criticism. They were more aware than anyone else of the reserve inherent in the Hegelian dialectic of knowledge. The quality for both Hegel and the founders of dialectical materialism who worked after Hegel was:

- firstly, a set of essential properties of phenomena connected in a certain way;

- secondly, they understood quality as an objective state, even in the case when it is created by human consciousness, since consciousness creates quality according to the objective order of the world. Quality is invariant objectively;

- thirdly, in their understanding, quality changes in accordance with the dialectics of world development. It has a concrete historical way of expression.

All three of the above quality characteristics form a methodological framework: quality theories and quality management strategies. The famous predecessor of G. Hegel, the English philosopher J. Locke, also made his contribution to the philosophy of quality. J. Locke divided quality into two groups: the objective qualities of things, which are inherent in them significantly, and the qualities that arise in the process of cognition. The latter are absent in things, but are formed through the interaction of things and human feelings. Things excite certain feelings and they react by forming qualities corresponding to the received signal - sensations. Only the laziest did not criticize Locke's theory of duality of quality. He got it from the materialists for his concessions to idealism: the idealists did not spare him for the group of objective qualities.

Does such active criticism of the beliefs of the English thinker mean that he was wrong in everything, having gotten lost in the jungle of the philosophy of quality? Not at all. An intelligent person's ideas cannot be stupid unless they are a joke, and Locke was not joking. The philosopher tried to find a solution to the contradictions in the development of the doctrine of quality. He was not satisfied with the view of the quality of either simplified materialism or subjective idealists, whose judgments led to a dead end. Locke was far from uniting the ideas of his opponents and overcoming the existing conflict with such a primitive technique. He wanted to emphasize the role of consciousness in the history of the formation of quality, the activity of the subject, but was unable to consistently implement his plan. The essence of his initiative deserves special attention - the desire to include the activity of the subject in the theory of quality. Time passed, the idea matured under the influence of practical factors. Philosophers have returned, not to Locke's philosophy, to his idea of the activity of the subject and the role of his activity in shaping the quality of things. Not to mention the fact that the problem of the uniqueness of the quality of the activity itself, which creates the quality of things, has also become relevant.

Suffice it to recall the modern, international quality control system ISO-9001. The basic idea in it is the idea of quality of activity. It would be a mistake to identify quality and thing. As a special combination of properties, quality, by definition, is not the same as a thing. G. Hegel defined the quality of a phenomenon simply and, within the limits of philosophical understanding, which in the conditions of market relations is consistent with consumer assessment, the concept: "quality is something, deprived of which, an object ceases to be itself." "Ceases to be itself," but does not cease to exist at all. Without meeting the quality requirements, the phenomenon turns from one state to another, or into another phenomenon. The examination concluded that the product did not comply with technical (and consumer) parameters. The product was transferred to the category of substandard, defective product, but the item remained and along with it some prospect of its disposal remained: elimination of non-compliance with the standard, recycling. You can't wear shoes, you can try to bail out water from a leaking boat, tamp down tow, work, but you never know what a failed boot can be useful for in a large farm - you can even put it on a samovar.

It is a mistake to separate quality from the subject not only from a philosophical position, but also from the point of view of non-philosophical comprehension, otherwise quality will turn into something independent, like "The Nose" from the story by N.V. Gogol, and quality management will lose its subject definition. F. Engels emphasized: "There are not qualities, but only things that have

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quality, and, moreover, infinitely many qualities.”

Experts note a shift in market needs towards quality products. The market is maturing. This is confirmed by demand monitoring. In this long-awaited situation, it is important not to lose philosophical ground when developing a business plan according to new circumstances. Quality is the highest and permanent goal at the same time, so you need to have one for the future, and give the other a today’s image. Only correct orientation in a specific time as a life interval, when this is exactly relevant, guarantees the success of the sale of a product. The manufacturer and seller must be modern. Their modernity is due to the ability to find the optimal product range and match a specific product with the expected level of quality in order to fall into the optimal price range dictated by the effective demand of the consumer of the product, expressing his need for the product.

Quality for the consumer is not an abstraction created by the professional thinking of the manufacturer. The consumer looks at quality through the lens of his wallet. As long as the market exists, price remains its calling card. If the buyer first asks to see the product and only then asks how much it costs, then rearranging the behavioral elements does not change the result. The client will definitely ask his sacramental question, the answer to which will determine how the act of purchase and sale will be resolved. Quality is not adapted to independent existence. The quality of a thing is presented when it appears on the market - a commodity. And this is where the main thing in the theory of quality begins, so let’s stop and look at the problem in more detail.

The quality of things that make up nature arose naturally, spontaneously, according to a complex combination of natural laws. It follows that the quality of such naturally created phenomena is unambiguously objective in all respects. The history of the quality of phenomena created by human activity turns out to be different. The spiritual component of a person is realized in social practice. A person builds a house, sews shoes, clothes, coordinating his actions with the mechanical, physical, chemical, biological properties of natural things, but we are making the final product not for nature - we will omit special cases. We realize our goals, needs, interests in the created thing, its properties, in its quality: we either materialize or objectify

As things produced by human practical activity, as this activity itself, the objective properties of things and the subjective forms of human existence are intertwined and fused. The quality of things made by man is objective, but their objectivity expresses the rationality (or irrationality) of a person. And here lies the knot of contradictions between producer and consumer. It can only be resolved by coordinating the views on the consumer properties of the manufacturer’s product with a real assessment of

consumer needs and capabilities. The quality of goods should be developed exclusively taking into account careful marketing monitoring, accordingly tightening production reserves. We continue to observe a divided market mechanism. Hence the problems with the sale of domestic products.

Professional activity, like a sculptor, sculpts the quality of a thing, relying on the natural properties of the material, elevating them through talent and work to a state that awakens the specific interest of consciousness. Things of natural origin also attract human interest by their ability to evoke aesthetic feelings, have a healing effect, be a material or a condition for the production of everyday life, which is understandable - man “emerged” from nature, remaining a special part of it. However, their quality retains its “natural purity”. Professional activity is a systemic factor in ensuring the quality of goods with added value. According to the regulations, it should also be the initial link in the development of the quality management ideology.

A high-quality item can only be produced by high-quality professional activity - this is the first and fundamental law of production quality. Natural disasters can do a lot. They help people purchase precious stones, metals, and building materials. Diamond is a creation of natural elements. The mineral has an initial unique natural quality, but diamond products build on the natural quality with so many new qualities in which people are interested that the natural quality remains essentially important only for natural stone processors. The final diamond product, be it jewelry or a technical element, is the result of professional activity. In the gemstone market, there is a difference in interest in the source material - what deposits it comes from, but, most importantly, there is something else: who will turn rough diamonds into polished diamonds. The quality of a diamond is determined by the combination of raw materials and craftsmanship in the product. And since the master chooses the raw materials, the contribution of his professionalism to the quality of the product is decisive.

Hence the second law of production quality: to ensure the quality of the product, high-quality training of specialists who are able to maintain and increase professional skills is necessary. The third law of production quality requires the focus of professional activity on improving the technological process through integration with science and technical progress.

The concept of “quality,” reflecting the objective diversity of the world, must thereby reproduce in itself an objective difference. This is possible through quality structuring. The structuring of quality is a particularly significant factor in the theory of quality management. It is advisable to divide quality into the following seven structural levels according to the level of significance of the contribution of the “human

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factor”:

- quality of natural objects;
- quality of natural material;
- quality of recycled natural material;
- quality of technical equipment;
- quality of the software product;
- quality of production activities;
- quality of organization and production management.

Organizational and management activities aimed at producing a high-quality marketable product themselves require quality control. An audit of the quality of an organization and production quality management involves structuring the relevant activities. Our research experience of the problem suggests that the process of organization and management must be decomposed into four components.

The logic of creating the quality of things created by man pushes the quality of activity to the fore, close-up, and focuses research attention on the signs of quality activity and the need to build their systemic relationships. Philosophical literature on the highlighted issues is more “silent”. Philosophers are still at war. Supporters of the objectivity of quality prove the inconsistency of the views of their opponents, instead of looking at quality not only in the context of the objective reality of the world, but also in the context of human, professional activity that transforms the material world. In the spirit of pre-Marxist materialism, it is impossible to develop a scientific and philosophical doctrine of quality, because the old materialism was, in essence, a philosophy of contemplation, and not of transformation of the world. It is not for nothing that K. Marx taught: it is necessary not only to reflect the world, but also to change it. Dialectics - a materialistic worldview based on the practical interaction of man and nature. Activity, primarily creative, is the credo of dialectical philosophy and science.

The universal model of relations between the systemic properties of professional activity is explained by the diagram already presented and proposed by us. The signs of professional activity included in the diagram are well known. They are usually associated with professionalism in both scientific and practical consciousness. The novelty does not lie in the features themselves, but in their presentation by a systemic education, which gives them a new level of meaning. When presenting a system, researchers usually refer to the effect discovered by Bertollanffy of the systemic connection of properties: the discrepancy between the sum of the characteristics of the system and the sum of the characteristics of the elements forming the system. The effect described by Bertollanffy allows us to judge the systemic organization of properties, actions, phenomena as the most effective form of

relationships, which is important for the effectiveness of management, on the one hand, and the perfection of the organization, on the other.

Quality management, tuning in to its philosophical interpretation, takes the next step along the path of systemic organization of the activity program, understanding the arrangement of systemic features of activity so that the built system is vitally stable, relevant and moderately safe. A systematic approach is currently the highest quality way of learning and organizing the management of any complex activity. There are probably no longer any doubts about the greatest effectiveness of the systems approach. There are those who inadequately perceive and evaluate the undeniable advantages of the systems approach, absolutizing its importance to the detriment of other methods, in particular, the integrated approach. An integrated approach in theory and practice has not lost its value in competition with the systemic one. They combine very well, complementing each other and increasing the efficiency of both organizational, managerial and cognitive activities.

It is more convenient to analyze the quality of activity from the standpoint of a systems approach. It seems to us that it is more reasonable to build the theory of quality management on the foundation of a comprehensive consideration.

The situation that has developed in special - not philosophical - knowledge (in practice too) forces us to return to the difference that exists between complex and systemic methods, because substitutions of these methods have become too frequent. The systems approach is fundamentally distinguished by the way of constructing knowledge, in which the relationships of the elements and characteristics that form the phenomenon are built depending on the basic relationship, called the system-forming factor. The system is formed similar to the crystallization process through the successive increment of its constituent parts. It is systematically advisable to build, for example, products from leather, fur, textiles, when a certain agreed state of material quality is taken as a system-forming factor and the entire range proposed for production is “tied” to it. Quality and market place in this case will be determined by the quality of the corresponding state of the material used in the manufacture of each specific series of products. An integrated approach is based on a certain qualitative basis and requires a comprehensive analysis of the quality of the phenomenon, and aspects of research can be both equivalent and act in some rating dependence. A good example of using an integrated approach is the construction of quality management. Schematically, it looks approximately as shown in Figure 1.

The above diagram demonstrates the relationships and role responsibilities of the main elements of preparation and implementation of the

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production quality management process. It shows quite clearly the key relationships: the connection between the philosophical aspect and technical regulation, which allows us to concretize methodological and theoretical studies to the level of regulatory and technical specifications; technical regulation with the right aspect, including in the latter the use of patent and licensed elements: philosophical and economic analysis, giving the first a specific subject orientation in market conditions, and the second a methodological perspective, the dependence of production quality on the technological state of production and scientific equipment Complete the philosophical analysis of quality at the level In order to use this knowledge in the practice of economic management of production quality, a schematic diagram of the relationship between philosophical concepts describing quality and linked with economic categories will help. It was developed by us several years ago. Our return to her is forced. The reason is that we had no choice. Philosophers continue to analyze quality, abstracted from specific forms of

economic practice, in the light of their professional interests. Economists present quality narrowly empirically within the framework of mercantile interest. Philosophy warns that the objectification of quality has real meaning exclusively in the epistemological aspect of its consideration: when deciding the question of the nature of quality. Indeed, from the perspective of the “object - subject” relationship, quality is primary - it is objective in nature. Even when designing quality, we are deprived of absolute freedom in our creativity. Professional creativity is limited by the objective roots of the quality created by creativity. The quality of both things and theories is objective, with the only difference being that the quality of a thing is objective in material terms, while the quality of a scientific theory is objectified by the adequacy of its reflection of the objective quality of a thing, the relationships of which are reproduced in a scientific theory. The quality control system is shown in Figure 2.

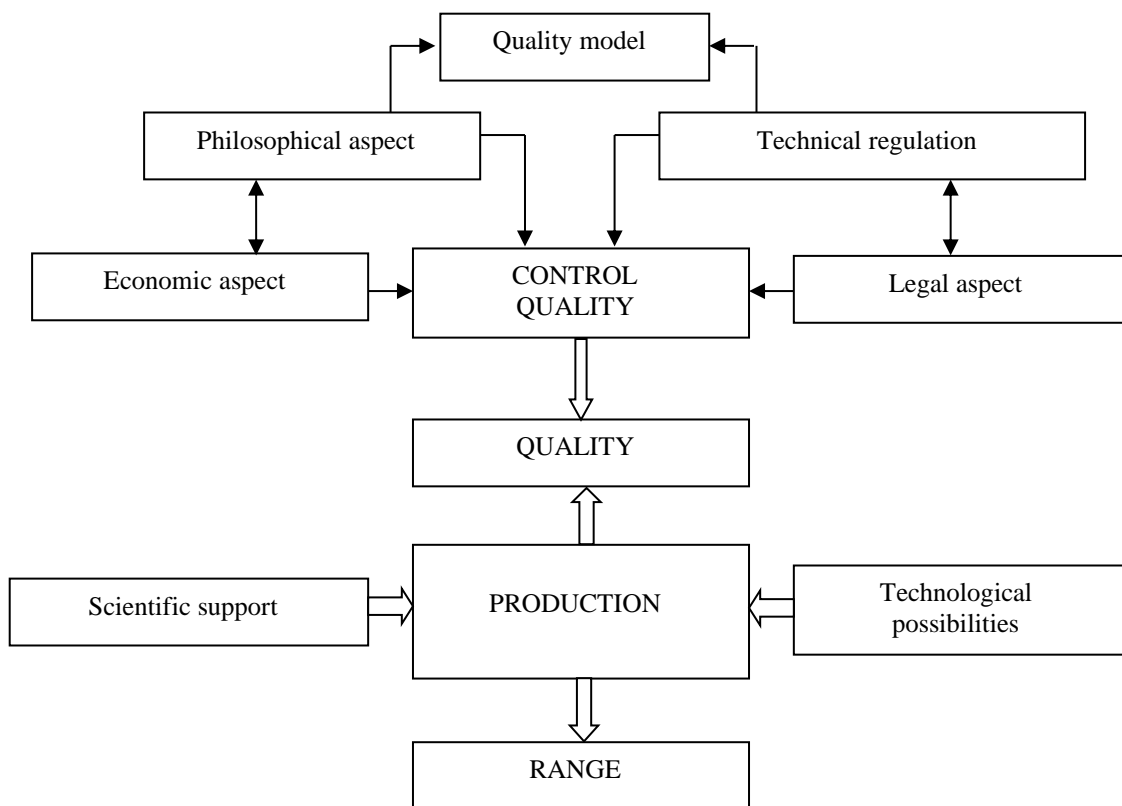


Figure 1 - Schematic diagram of integrated quality management production

In the theory of quality management, it is important to correctly understand the dialectics in the quality of production organization; as an activity organized by production, and finally, as a produced commodity, objective and subjective. Prominent

domestic scientist, public figure L.P. Krasavin, in order to emphasize the active nature of quality associated with the subjective creativity of a professional, coined the term “quality”. The subjective side of product quality is revealed on the

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market through the complex relationships between creators, intermediaries and consumers. The uniqueness of the national mentality intersects with them - in the USA and Western European countries, a pragmatic, utilitarian approach dominates in the

interpretation of quality on the market; in Russia, the traditional side of the attitude to the quality of goods was contemplation, quality goods and these days for most Russians more than something intended exclusively for consumption.

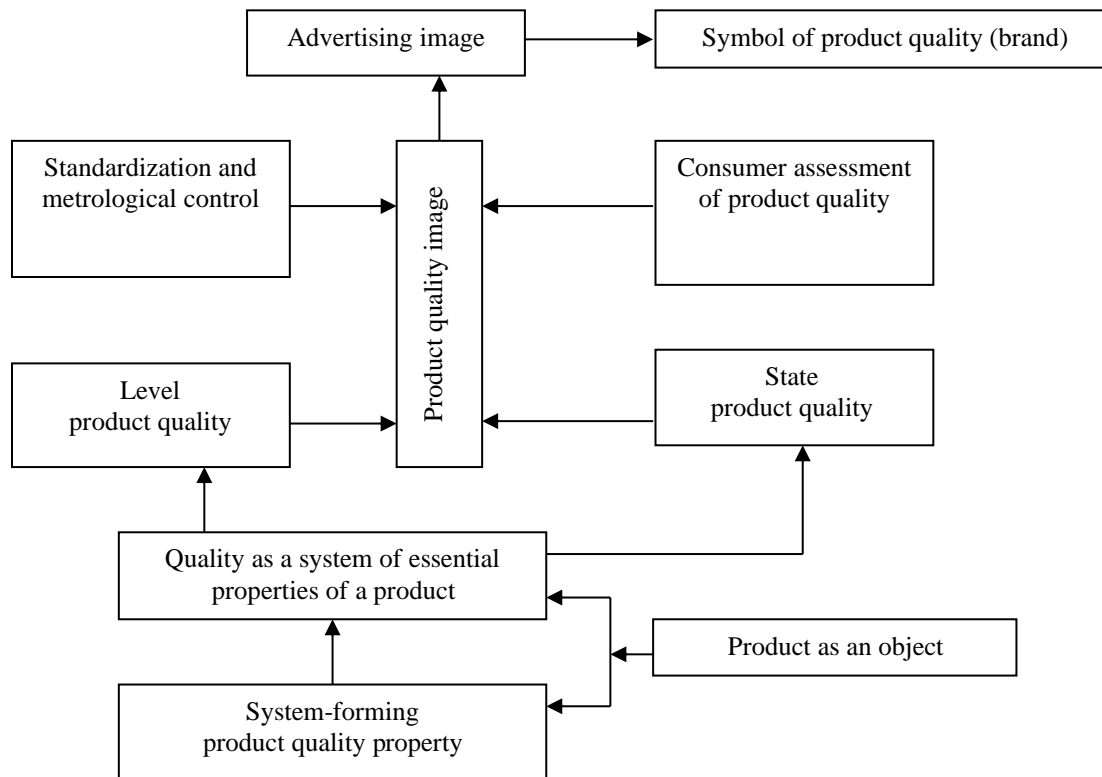


Figure 2 - Quality control system

Creators and producers of quality goods need to educate the consciousness of potential consumers of their products, based on the fact that in market conditions, the quality of a product is a collective image. The image of the quality of a product, branded production, of course, can be promoted with the help of advertising, but such one-sidedness is uninhibited and dangerous. The sustainability of the reputation of a quality product is ensured by the entire market mechanism, including its extensive infrastructure. An enlightened consumer is actively involved in the process of “struggle” for quality. The market needs it like a pike in a pond so that the crucian does not sleep. The reluctance to spend decent money to educate the consumer, the desire to “shoe” him with false, superficial advertising will inevitably turn into a boomerang. Unfortunately, many Russian manufacturers are not afraid of the boomerang. They know that they will not stay in this sector of production for long. Until the market puts everything in its place and reacts appropriately to pseudo-quality, they will be different and this “crap” will lose relevance for them. Although experts believe that the

Russian market has swung towards product quality, objectively the situation on the market has not changed significantly. Those small percentages on which encouraging conclusions are based are far from being qualitative characteristics.

The effective demand of the overwhelming majority of Russian citizens does not allow them to focus on the quality of goods. A shift towards interest in the quality of goods must go through the obligatory stage of expanding the range of available goods for the mass buyer, and this stage has not been passed by the Russians, which, in other words, does not mean a de-actualization of the quality of the goods. Integrating the above, we present formula (1), which allows us to reveal the components of the qualities of a product, that is, a product produced by a person to satisfy certain needs. It can also include phenomena of natural origin included in market relations: clean air, mineral springs, healing mud, clay, warm sea, etc., as well as those whose production is not intended for sale, considering these cases as simplified option.

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$$K_T = \underbrace{\sum ec + D}_{\text{objective compound}} + \underbrace{C_{II}}_{\text{subjective compound}} + P \quad (1)$$

Where CT – product quality;
 $\sum c$ – the sum of the natural properties of the material;
D– activity, natural prerequisites are transformed into goods;
JV– buyer consciousness;
R– advertising support.

This formula also describes the quality of an intellectual product. Why is it necessary to expand the interpretation of the concept of “natural properties” by including in its content the intellectual and psychophysiological prerequisites of creative activity. Economic understanding of quality, on the foundation of which all known concepts of production quality management were directly developed { }. It evolved according to dialectical laws, despite the fact that economists themselves were not always aware of the dialectics of the process. The development of economic awareness of quality was carried out “under the influence of contradictions between the internal and external goals of the manufacturer - ensuring the quality of products and, accordingly, strengthening the position of the manufacturer in the market (external goal), as well as increasing production efficiency, that is, increasing company profits (internal goal). At each stage of production, market and society, this contradiction had its own specifics and was resolved differently.”

The history of economic quality management dates back to the era of workshop production. In medieval cities, guild organizations were necessarily created, one of the most important functions of which was the certification of craftsmen. To become a recognized master, it was necessary to undergo serious testing of their products for quality. All products of the workshop craftsmen had the author’s “stamp” and were unique in their kind. Quality management was simplified by production itself, its manufacturing nature, which did not allow production to develop on a large scale. Of course, no agreed-upon quality standards existed at that time due to the difficulty of comparing strictly individual products of masters, much less trying to develop some kind of model to follow. The uniqueness of the master’s work precluded imitation of anything in principle.

Only a long time later, standardization of product quality appeared at S. Colt’s arms factories. This unusual decision was prompted by the fact that in conditions of mass production, the final product began to be assembled not from specially made and fitted parts, but from parts randomly selected from the corresponding batch. For the first time, production

was equipped with special gauges, and trained inspectors checked parts on them before assembly. The heyday of the idea of standardization occurred during the era of the development of automobile production in the United States. G. Leland, the creator of the Cadillac company, came up with a pair: a “pass” and a “non-pass” caliber. G. Ford, having built an assembly line, went further. He replaced input control of components with output control, thanks to which calibrated, high-quality parts were delivered to the main production - assembly, which significantly increased labor productivity and significantly improved the quality of the final product. At Ford factories, a technical control service independent of production was also created for the first time.

H. Ford’s like-minded man F. Taylor, who worked in creative conjunction with his patron, did serious work on the scientific understanding of innovations in production. As a result, he managed to formulate the principles of scientific management focused on quality of production: a systematic approach; personnel management; mandatory division of responsibility between performers and organizers in achieving high-quality and effective work; the need for scientifically based labor regulation. UGH. Taylor, indisputably the founder of scientific management. It was he who first discovered the “depletion” of the effectiveness of the main principle in management practice: “initiative - encouragement” for the quality of work. “In contrast to this,” Taylor argued, the development of the scientific organization of labor suggests the development of numerous rules, laws, formulas that will replace the personal judgment of the individual worker and which can be usefully applied only after systematic accounting, measurements, etc. have been made their actions.”

One cannot but agree with the summary of D.M. Gvishanina: what Taylorism has in the strict sense of the term boils down to the following:

1. Creation of a scientific foundation that replaces old, traditional, practically established methods of work, scientific research of each individual element.
2. Selection of workers based on scientific criteria, their training and education.

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3. Cooperation between administration and workers in the practical implementation of a scientifically developed labor organization system.

4. Equal distribution of labor and responsibility between the administration and workers.

F. Taylor himself represented guarantees of production quality and its efficiency: "Science instead of traditional skills; harmony instead of contradictions; collaboration instead of individual work; maximum performance instead of limiting performance; development of each individual worker to the maximum available to him productivity and maximum well-being." Try to argue with F. Taylor in a reasoned manner. It is not surprising that his view of the organization and management of machine production hypnotized his contemporaries. There is an opinion according to which the concept of F. Taylor, G. Ford, A. Foyle and M. Weber "In its main features has existed to the present day and has become a model for organizing production of most modern enterprises. Only in the 70s did another concept begin to replace it - the Toyota Production System."

The ideology of the "rejection phase" was simple and clear: the output of production should be only high-quality products; a meeting between the consumer and defective products should not be allowed. The main efforts of managers should be focused on quality control of components and assembly of finished products. The relative simplicity of the concept of the "rejection phase" was its reliability and the relativity of its reliability, leading to the need for innovation in the future. Reliance in the ideology of production quality on the "rejection phase" has had a practical effect. It would be surprising if the result were not positive. Increased attention to quality control is logically preconditioned as a condition for the functioning of production. This requirement at the market level of understanding accompanied the development of production activity throughout its existence.

The sustainability of the economic (and, to a certain extent, social) effect achieved by the pioneers in developing a scientific solution to the problem of managing the quality of production is surprising. And yet, the side of the "culling phase" that had been hidden for a while was about to emerge. The shift of management to the phase of high-quality production preparation - essentially towards the special status of control functions - signaled an increase in the corresponding costs for ensuring quality products. The quality of production and the quality of manufactured products form a single whole, but not the same thing. The development of production is undoubtedly determined by the quality of manufactured goods. E. Deming rightly put at the top of the list of the "seven deadly diseases" of modern production "production planning that is not focused on such goods and services for which the market is in demand."

Production, during the transition from an industrial to a post-industrial society of mass consumers, is increasingly becoming a function of the market "The buyer is always right" - no matter how the well-known judgment may be contrary to the seller, who is forced to adapt to the buyer's demand, he has no choice. The manufacturer, for whom the "seller" is the "buyer," has no choice either. The quality of the product is a special "song" of production. Only a "concert" cannot consist of one song. The quality of production is also characterized by its economic efficiency. The pursuit of product quality cannot be an end in itself for production, otherwise a good deed will turn into a fatal disease. The quality of the product is not able to compensate for the inefficiency of production as a whole. Improving the quality of the final product always requires costs to ensure it, which becomes a problem for developers of efficient production strategies. The goals of increasing production efficiency and improving the quality of manufactured products were not combined in the concept of the "rejection phase," so it was replaced in the 20s of the last century by the "quality management phase." Its developers attempted to overcome the critical cost of product quality evident in the "rejection phase." They were unable to resolve the contradiction that arose. We managed to soften it. Among the innovators of the reconstruction of the "rejection phase," V. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better known as "W. Shewhart chart control."

To a first approximation, the initiative of the American specialist looks quite radical. W. Shewhart abandons the key quality control scheme of F. Taylor and G. Ford. Instead of the pre-production stage, where it is necessary to reject low-quality products, the production process itself is at the center of quality management. W. Shewhart's system of methods was aimed at improving the technological process, which was intended to help increase the output of finished high-quality products.

In W. Shewhart's concept, a dialectical approach to business is initially felt. His predecessors tried to "decompose production into shelves" and load the "shelves" in such a way as to obtain the desired result. As a result, they overloaded one of the flank "shelves" and the entire structure became distorted. The stage of preparation - control - became the most costly, while the main stage - technological - became dependent on it and was pushed to the periphery of the management process, undeservedly suffering. V. Shewhart called "things" by their proper names and arranged the stages according to rank, highlighting the technological rank. By simplifying the pre-production stage, he risked reducing the quality of components. In return, he expected to receive a gain in the main part of production. By investing priority in improving

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technology, the manufacturer strengthens the production process, making it, in principle, more efficient due to organization and technical equipment. As for defects, it is more expedient to monitor it precisely when organizing relations in production itself, relying on scientific developments and timely introduction of new technical process products, complete with measures for preparing the quality of readiness of performers.

The main object of quality management in W. Shewhart's concept is the production process. The output from it is a flow of measurements of quality parameters of individual products. W. Shewhart sends Ford's former goal of "getting admitted" into "retirement." H. Ford's idea has worked and awakened new thinking. To replace it, V. Shewhart forms a tandem of goals: ensuring the stability of the process and reducing variations in stability. V. Shewhart considered the presence of variations to be a natural formation. He even developed a criterion for the quality of the process - the stability of the process should be considered in a statistical sense. Variations in product parameters are nothing more than the implementation of a stable random process, the distribution function of which remains constant for a certain time. V. Shewhart believed that variations in product parameters are a consequence of two groups of reasons: special and general. Particular ones are rooted in disruption of the production process. They are identified using a control card and eliminated based on the readings of such a card. General reasons are embedded in the depths of the process itself. There are many of them, but individually they are not significant. The danger lies in the sum of the effects of such causes. The general causes of variation in product parameters are a matter of concern for managers, often of high level and qualification. By their research and action they are able to limit the action of general causes. At the same time, V. Shewhart made two very valuable conclusions that should be followed by production managers:

firstly, searching for the culprits is necessary, however, having found the culprits, we are rarely able to influence the situation. It is necessary to look for the causes of inconsistency and eliminate them, involving all participants in this process;

secondly, process variations become the source of defects and inconsistencies.

Reducing variations in W. Shewhart's quality management system is a comprehensive goal. Linking the number of variations with the organization of the production process, W. Shewhart was clearly aware that in order to reduce variations, a new configuration of relations between people involved in production was necessary. The essence of such a new configuration should be comradely cooperation. People are united into teams by the very nature of production.

W. Shewhart's system is a serious step forward

in comparison with F. Taylor's system. F. Taylor focused on the mechanism of action, and V. Shewhart - on the mechanism of interaction between people in the entire spectrum of their relationships: technical, economic, psychological. B.S. is absolutely right. Aleshin and co-authors, arguing: "Such a concept as "tolerances" (one of the most important inventions of F. Taylor) undoubtedly remains in practice. "Tolerances" are the form, the language of quality requirements, the result of quality planning. Something else is changing: the opposition of the tasks of planning, execution, control and corrective actions. Such tasks are performed by teams."

At the same time, we note that the ideas and methods of V. Shewhart continue the desire of F. Taylor to put quality management on a scientific basis, to use scientific methods in organizing production. But here too, W. Shewhart is "ahead" of F. Taylor. Science (and scientific methods) for F. Taylor and G. Ford boiled down to those concepts that make it possible to quantitatively measure the mechanical actions of an individual performer, find the optimal route of movement and take it under effective control, having previously loaded it with a full program of tasks. The "classical" (Taylor) theory of quality management was based on centrifugal forces and movements and production: division of labor, specialization of actions, individuality of the performer. Critics understood this one-sidedness. W. Shewhart considered the mechanistic view of production development in general and quality management in particular to be a clear simplification. The production process not only results from the interaction of centrifugal and centripetal forces - individual and collective actions: it does not allow the reduction of what is happening in it to relationships of a mechanical type.

A person participates in production as a subject of actions and relationships. Moreover, a person as a subject of labor is a decisive factor of production. The development of production must be based on the development of the subject and the relations of the subject and the relations of subjects. Subjective potential in the form of individual knowledge, skills and aspirations is the main reserve of production efficiency, which science helps to activate and organize properly. In this understanding, science includes social and humanitarian components.

An organic defect of the "classical" theory of production quality management is a simplification of the understanding of the nature of human behavior in an organization. V. Shewhart understood this, explained it as best he could, and expected to be understandable and in demand by practical management. W. Shewhart's new ideas did not go unnoticed by business, but, apparently, the inertial forces of business movement are so great that ideas begin to affect it only over time and completely. Out of habit, the short path to profit was thought to be the

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simplest. Any complication involves additional costs. Will they be justified? In addition, it is much easier to measure the mechanics of action than the motivation of activity.

It is not surprising that, almost half a century later, J. March and G. Simon noted: in the United States, two views on the position of people in an organization are widespread: “considering the employee as an inert instrument fulfilling his assigned purpose, and treating personnel as something something given, and not as a variable in the system.” Another authoritative scientist M. Hair agrees with them: “There are implicit assumptions about a person, on which, as it seems to me, the classical theory of organization and management is based: he is lazy, short-sighted, selfish, prone to mistakes, does not know how to judge sensibly and even can be a little dishonest.” M. Hare's text explains that the classical interpretation of management organization is still very popular in practical management.

The three main provisions of the “classical” theory of quality management have not been eliminated to this day. They continue to impress, warming the souls of their patrons, caressing their self-awareness, reinforcing self-confidence in their chosenness. Everything is so well laid out in its place: the worker is a performer, essentially a “rational animal” with a clearly defined dominant to maximize economic outputs; “each individual responds to economic incentives as an isolated individual”; “people, like machines, can be treated in a standardized way.” W. Shewhart had many supporters who left their own noticeable and appreciated mark: M. Follett, E. Mayo, C. Barnard, F. Roethlisberger, G. Simon. The thirties of the last century were marked by a “humanistic challenge” to the “preaching of administrative responsibility.” In theory, events unfolded according to a logical scenario. Practice was not so susceptible to changes in views, so the effectiveness of the new approach to economic quality management left room for reflection on the complexity of the relationship between theory and practice.

The construction of the economy itself slowed down the total implementation of progressive ideas. In order for a person to develop as a subject of production - to mobilize his knowledge abilities, it is necessary that the economy turn its “face” to a person, acquire a “human face”. Otherwise, it is impossible to fit the individual's talents into the interior of production, to make them interested colleagues. Dialectics warns: truth is concrete. The theory is effective within a specific historical framework. Her life may be long or short, but it is always finite. The elements of the theory and the experience of its

operation, expressed in historical lessons, continue to work, being embodied in other, relevant theories and practical actions.

Today's economic composition of quality cannot fail to take into account the acquisitions of W. Shewhart, M. Follett, G. Simon and all those who argued the need to involve the subject's ability to think and get involved in the work in the struggle for quality. In particular, in our opinion, the power of W. Shewhart's “control cards” remains. They are simple and make it possible to monitor the quality of the process and the activities of performers. And for performers they are more understandable than the manager's displeasure, which is far from always understandable, so we present a sample of them (Figure 3).

Having developed a model of a sustainable process, W. Shewhart significantly expanded the possibilities of scientific analysis of production quality, thanks to which those aspects and stages of production that remained in the shadows in the “classical” concept were revealed. He introduced into the characteristics of production quality the concept of “adjusting the process according to its measurement data,” which can be considered as a specification of the concept of “feedback” in relation to quality management.

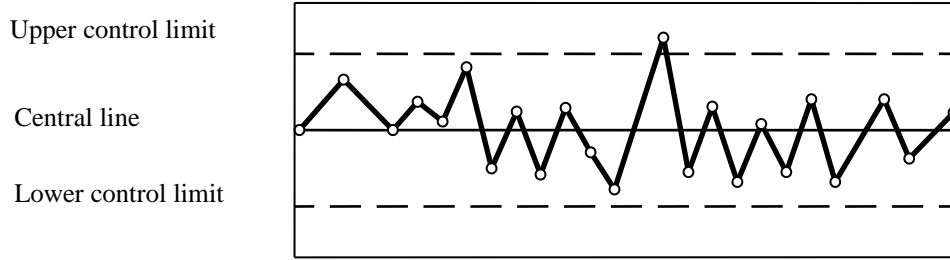
In the theory of random processes, a quantitative measure of the dependence of a sequence of random variables is the autocorrelation coefficient, which takes values from 0 to 1. When its values are close to 0 for neighboring observations (in practice <0.2-0.3), the process is considered “white noise”. If the values of the autocorrelation coefficient are close to 1, then various feedback control systems should be used for this process.

It is not difficult to see in W. Shewhart's concept a desire to theoretically comprehend the specific state of mass production of his time. He tried to look at the conveyor through the eyes of science. And he managed to do a lot. At least, W. Shewhart's ideas are still viable today, although they have aged. With a creative approach they give good results.

A remarkable contribution to the practice of quality management was the creation of a quality audit service, the function of which was significantly different from the tasks facing F. Taylor's technical control departments. She was not engaged in sorting, but in checking the performance of the quality assurance system by monitoring small productions from batches of products. Thus, W. Shewhart found a way to reduce quality costs, which had increased disproportionately when organizing production according to the recommendations of F. Taylor.

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- DATA COLLECTION: Collect data and plot it on a map
- CONTROL: Calculate trial control limits from process data. Identify and address specific causes of variation
- ANALYSIS AND IMPROVEMENT: Evaluate special cause variations and take action to reduce them

Repeat these three phases for continuous process improvement.

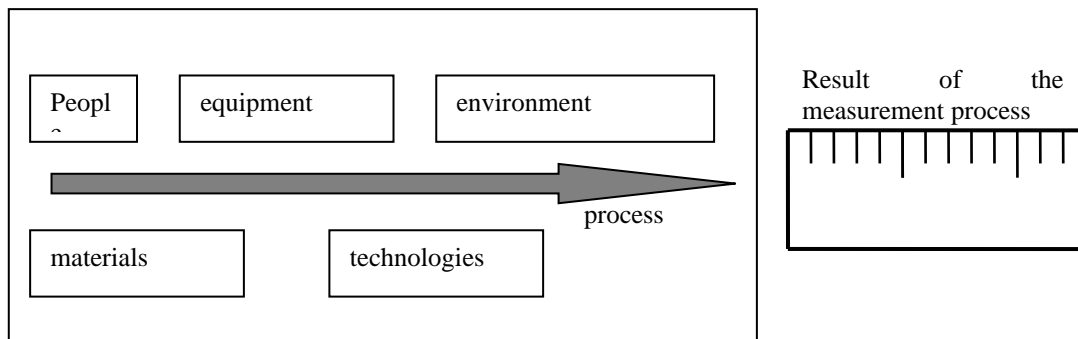


Figure 3 - W. Shewhart's control chart

However, the original thinking of W. Shewhart and his organizational talent did not resolve the old contradiction between the need to ensure production efficiency and the market's need for a quality product, and the production itself for quality raw materials and components. Each production process has a limit on the yield of quality products. This limit is not inherent in the process. It is an attribute of the system practiced at the enterprise, a product of all cumulative activities, features of labor organization and production management, including the quality of production. Approaching the limit leads to an increase in the main contradiction. Ensuring quality requires more and more money, which leads to a decrease in production efficiency. In the fifties, a new concept of quality management was formed. Its inspiration was E. Deming. The name of the next stage in the development of the philosophical and economic understanding of production quality management emphasizes its essence "phase of continuous quality improvement." The version of production quality

assurance proposed by E. Deming turned out to be long-lived, existing "in authority" for almost half a century, until the mid-nineties. This duration of practical relevance of E. Deming's concept is explained, as it seems to us, by the fact that it was skillfully "planted" on the foundation prepared by W. Shewhart, and is already a software product in form. E. Deming's management program is built on three axioms focused on industrial practice:

*the first practical axiom states that any activity must be defined as a technological process, from which the conclusion follows about the possibility of its improvement;

*the second practical axiom was formed by E. Deming as follows: production has two forms of state - it is in a stable or unstable state. In both cases, it is not enough to solve individual problems; fundamental changes are necessary;

*E. Deming's third practical axiom is this: the highest level of enterprise management in all cases must take responsibility for the result.

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The practical specificity of E. Deming's axioms is achieved within the framework of a special management program that summarizes the theoretical and real experience of organizing production quality management. The program is represented by several levels of comprehension and practical implementation of ideas: "Fourteen Points", "Seven Deadly Diseases", "Difficulties and False Starts", "Chain Reaction according to E. Deming", "The Principle of Constant Improvement (Deming Cycle)". Of particular interest for the practice of improving quality management at enterprises are the penultimate and last sections of the program. The "Deming cycle" is essentially a scheme proposed by W. Shewhart, which Deming also recognized. "Chain Reaction" is a product of E. Deming's own creativity. There are four stages in the Deming-Shewhart cycle:

observation;
development of measures to improve the situation;
implementation;
analysis.

The task of the quality manager at the first of them is to collect information and identify weak links in production that require restructuring. At the second stage, the manager develops organizational measures aimed at changing the situation. This includes connecting all performers through motivation. The next stage is the implementation and monitoring of the modernization process. The cycle is completed by the stage of analyzing the results obtained from implementation, building up experience to repeat the cycle. Probably, graphically, the Deming-Shewhart cycle best demonstrates the spiral of development; each turn of the spiral is a relatively closed cycle of actions. The next round "relies" on it, continuing the general process. If it weren't for the tradition of naming such discoveries after their authors, the Deming-Shewhart cycle would be called the "spiral cycle" of quality management. The Deming-Shurkhat cycle is undoubtedly relevant even now for improving the organization of production, since it reflects the universal law of management construction.

In it, he linked economic and social actions, emphasizing the nature of historical time. The flourishing of E. Deming's creativity is associated with the revival of the Japanese economy. The government and industrialists of the country believed Deming's argument and he deservedly shared with them the glory of the "Japanese miracle." His contribution is also obvious in the achievements of Japanese specialists in the field of improving production quality, which are clearly highlighted in the study of B.S. Aleshina:

* long-term, consistent and purposeful solution of quality problems based on everything advanced that theory accumulates and practice creates in this area;

* consistent and persistent establishment of a system for studying consumer requests - (prevention

of the main "deadly disease of the economy" according to the classification of E. Deming - ed.), the formation of a respectful attitude towards the consumer and his requirements up to the cult of the consumer - (the consumer is always right - ed.) consumer (at the same time) is understood in a broad sense as the next link in the technological chain;

* the desire for everyone to participate in achieving quality, from senior managers to performers of specific work;

* understanding that even a well-functioning labor organization system loses effectiveness without constant checks and improvement;

* organization of quality assurance work directly by foremen and foremen. Training including national television specials, national conferences for foremen and foremen;

* special attention is paid to mobilizing the physical and intellectual potential of workers. Quality circles - group analysis of the state of affairs at a specific site and development of proposals for improving quality and increasing the efficiency of processes and production;

* broad development of a permanent system of promoting the importance of high quality products to ensure high rates of economic growth;

* state influence on the radical improvement of quality, primarily of export products, including mandatory state certification. An attempt to sell uncertified products for export is considered smuggling. State support for exports, assistance in promoting goods to the markets of other countries."

We deliberately did not shorten the fragment describing the Japanese practice of creating a quality management system, because in it, like a mirror, Russian miscalculations are visible, specifically Russian, since, having declared the Russian Federation as the successor of the USSR, Russian politicians and economists close to them in the 90s The 1980s systematically destroyed the socialist experience in building quality production instead of rationally modifying it. In the 90s, none of those who were responsible for it needed quality. The economy was reoriented towards raw materials, the quality of which is either determined by natural origin or "compensated" by realized quality.

Comparing the economic policy of Japan in the 50s and subsequent years with the economic policy of the Russian Federation in the 90s, announced by the revival of Russia, leads to a sad conclusion: loud statements rarely correspond to deeds. During the period of Yeltsin's democratic reforms, politicians were least concerned about the interests of the Fatherland, and they did not care about quality at all, having squandered previous national acquisitions. However, a political assessment of this stage of our history was given long ago, and we are interested in that part of the theory that directly works on the country's economy. In this context, it is appropriate to

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“go through” a number of Japanese achievements, keeping in mind the opportunity to draw practical political and economic lessons from them. The overall conclusion is beyond doubt: the efficiency of the economy is determined not by the quality of the goods produced, but by its range and quality. The transition from quantity to quality could only be expected by those who simplified dialectics to the point of stupidity. It is not quantity that turns into a new quality, it is quality and only that.

The Japanese’s teachers were Americans, but the Japanese learned very seriously from Soviet experience, both positive and negative. We still haven't decided yet. The whole world views our current declarations and certifications with skepticism. Those who do not know how to appreciate and use their own achievements are not able to properly master those of others. In Japan, the attitude towards quality became a national idea, and was embodied in a form of “struggle”, in which everyone from the janitor to the general director had a prestigious participation. A system of mutual interests has developed, supported financially, organizationally (career building) and spiritually. We continue a protracted search for an idea that would unite the nation. The quality is not visible even next to what is offered. It is not included in the candidates for the national idea. Only enthusiasts are serious about quality, wading through the thicket of democracy, apathy, etc. Our “helmswomen” have no time for quality. The “Captains” are still paving the way to the West and investing in countries other than their native economy. Paradox: foreign investments in the Russian economy will soon exceed the contribution of compatriots.

Having lost the prospect of becoming an oligarch and feeling pressure from the fiscal services, candidates for oligarchs are looking for happiness in distant countries.

The Japanese concentrated their capital in their home country. Patriotism meant more to them than personal gain. This is the reason (not the only one) of the “Japanese miracle”. The Allies in 1945 destroyed everything on the Japanese islands except national self-respect. And it became the launching pad for the revival of the country. We emphasize that the Japanese actively looked for specific mechanisms for transforming quality into the total interest of the nation in the practice of organizing a quality service in the USSR: “cards decide everything!”, “Quality is the main focus!”, “Everything is in the service of quality!” - these are slogans from Soviet history. And behind them there was strict party and state control. The Japanese submitted to the struggle for quality all national and state (municipal) reserves, forcing even television to work for quality. Significantly, the media did not limit themselves to advertising quality. They organized schools, courses, and universities teaching quality to key players: foremen and foremen. National

finances were allocated to education and training in quality work and its organization. What do we have? Quality is left to everyone who makes a profit from training and education. What they did was shoehorn the problem into an advertising product.

We do not have a national quality assurance program. We also do not have a state priority project (along with well-known national projects). It seems that, having officially declared support for international quality systems, the top political management of the Russian Federation considered its mission accomplished, deciding that the rest would be regulated by the market. E. Deming’s ideas were continued in the concept of another American who worked for the “Japanese miracle,” J. Juran. J. Juran shifted the emphasis in the development of a quality management system from statistical methods towards the absolute importance of the customer, dividing emerging problems into random and chronic. Randomly (suddenly) arising quality problems of one-time (single) origin. They are not inherent in production. Random problems should be resolved routinely within the framework of current management. For this purpose, it is necessary to clearly allocate the responsibility of managers for taking control measures and timely introduction of corrective measures.

Chronic problems are a different matter. They are present in the process and, as it were, “planned” from the beginning. J. Juran understood chronic problems as the result of assumptions made in the previous phase of the process. Up to a certain point, such tolerances do not significantly affect the quality; then, under the influence of implementation conditions and their own movement, they acquire significant significance and become unacceptable. It was chronic problems that J. Juran “blamed” for stagnation or loss of quality indicators. The company's management should not be complacent from good performance compared to the previous period. You need to look forward, not back, otherwise it’s easy to get into a crisis situation. Management complacency is a “deadly disease” for production.

There is no point in trying to solve chronic problems with orders. We need to start by identifying their main causes and sources. Knowing the reasons, J. Juran, is usually beyond the capabilities of line managers. This requires a collegial form of analysis of what happened - “brainstorming”. The second half of the twentieth century was marked by an intensive invasion of quality management by mathematical methods of process research. A new scientific discipline has emerged - the theory of management decisions, which is a development of operations research. In decision theory, the focus is on decision making. It was interpreted by a process accessible to quantitative measurement. The work was carried out in two directions. Proponents of the first of them tried to find mathematical models suitable for use in real

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production situations (Fogal, Luce). The developers of the second turned to statistics and game theory, widely using statistical testing methods (“Monte Carlo method”). The one-sidedness of both approaches gave rise to the third school; its founders wanted to “link” mathematical research as much as possible to the problems of quantifying economic phenomena. As a result, the so-called “econometric” approach to the analysis and management, first of all, of economic processes, efficiency and quality of production appeared. According to the above concept, the economic-mathematical model should have four components:

- * it must include economic phenomena of qualitative content, expressed in certain units of measurement. Such quantities are model parameters;

- * it must include certain quantitative relationships and dependencies between parameters. These may be balance relationships or more complex dependencies that connect the results of processes with the causes that cause them;

- * the model must determine the area of permissible changes in model parameters in time, space and volume - “restrictions placed on quantitative dependencies”;

- * it must be a system of interconnected parameters, dependencies and restrictions with certain inputs and outputs.

Control of such a system, that is, obtaining certain results at the output, must be carried out by influencing only the input. Without interfering with its internal structure. The most famous economic models are credited to L. Klein and A. Goldberg. V. Leontiev, who received the Nobel Prize for his work, also made his contribution to the mathematical modeling of economic activity. The effectiveness of economic and mathematical modeling of relatively large-scale economic phenomena is not high. Without denying the importance of such modeling, the prominent economist T. Haavelmo wrote: “It is quite possible that as more and more sophisticated methods develop, we will come closer to realizing one unpleasant fact: economic “laws” are difficult to accurately measure, and that is why we live in fact, in a world of large but largely superficial or spurious correlations. You can, of course, refer, as always, to bad statistics. However, I think we can find explanations in something else, namely, in the imperfection of economic theories.”

Quality management is a bit of an exception. In contrast to the low efficiency of using mathematical tools when studying the economy as a whole or individual industries, the application of mathematics to quality management turned out to be a completely acceptable action. Both Deming and Juran actively used its capabilities.

Analysis of the economic strategy in the field of quality management shows that the effectiveness of quality management depends on coordinated macro and microeconomic views. Real Japanese experience

also teaches this. The solution to the quality problem itself involves a step-by-step process from identifying problems, through diagnosing their condition and finding solutions to implementing the decisions made, maintaining and developing the results achieved. At the first stage, J. Juran called “a problem in which a solution is programmed”, problems are identified, priorities are identified, and a ranking order is established; the performers and their powers are determined. At the diagnostic stage, the optimal symptoms of the condition are determined; hypotheses are built and tested; a search for causes is carried out. The solution search stage involves finding optimal solutions; development of necessary activities; implementation of adopted decisions.

The final stage consists of checking the effectiveness of the implementation results, comparing the dynamics of the achieved results with the planned ones. The high efficiency of the concepts of Deming and J. Juran provoked F. Crosby to combine their systems with the quality management experience accumulated in the USA. F. Crosby's "Zero Defects" program was not something fundamentally new in the theory of quality management, but it contained interesting ideas. For example, a statement about the prevention of defects; the need to develop a “quality policy”, the requirement to involve non-production departments in the quality of activities.

F. Crosby believed that each technological site should have an engineer responsible for quality. His professional responsibilities include presenting a daily list of problems causing significant and frequent defects; systematizing them according to the degree of importance for quality; determining corrective actions; attracting personnel employed on site. The “Continuous Quality Improvement Phase” helped overcome the tension between spending on quality and achieving production efficiency. The consumer began to receive quality goods at an affordable price, and the realization of the idea of a “consumer society” came closer. From the manufacturer's point of view, an ideal situation has developed. But the assessment of the situation was one-sided, only from the consumer's position; The quality parameters were not set by the person who consumes the product, or for whom the product is made.

Quality was standardized in the manufacturer's standards and, naturally, primarily reflected his own interests. The consumer was left with a choice: purchase a product of a certain quality or refuse. This again led to the “overheating” of production, to an increase in its costs, since there were frequent miscalculations in determining consumer demands. A high-quality (according to the manufacturer) product, affordable, did not find the necessary demand among consumers. The new form of contradictions had to be eliminated taking into account the interests of the consumer. The “Continuous Quality Improvement

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Phase” has given way to the “Quality Planning Phase.” The work of G. Taguchi is considered the beginning of the next phase. It was he who introduced the concept of “loss function” into the theory of quality management and developed a modern methodology for planning industrial experiments. The goal of G. Taguchi's research was to overcome the contradiction between ensuring quality and production efficiency in its existing forms. The foundation of the quality planning concept was formed by four new ideas:

- * conclusion that product defects are mainly explained by poor quality actions at the design stage;

- * conclusion on the need to focus the main products not on full-scale testing of product models, but on mathematical modeling of both goods and their production process. Due to this, they hoped to promptly detect and eliminate the reasons for the increase in defects. It was proposed to take control of design and technological processes until the stage of actual production;

- * the idea that the concept of “zero defects” should be replaced by the idea of “satisfied customers”;

- * emphasize the high quality of the product with an acceptable price and constant price reduction, thereby ensuring stable market demand for quality goods.

A new round in the development of quality management has overcome the noted form of the fundamental contradiction between quality and production efficiency, but not the contradiction itself. Currently, its next “ecological” form is taking shape. Including environmental friendliness in the quality characteristics of a product requires significant costs.

The uniqueness of the modern stage of quality management is that all known formulas (phases) are practiced at enterprises. In the seventies, A. Feigenbaum summarized the accumulated intellectual and practical experience in developing the problem of economic quality management and laid the foundation for what is now known as TQC-Total Quality Control (total quality management). Essentially, TQC is not a quality management system, but a system of sufficient conditions for a quality process. The development logically led to the development of TQC. All previous steps along the path to quality management, despite the progressive movement, were of the same type. They “tied” the solution to the problem of economic quality management to some fragment(s) of the process. Thus, the improvement of quality management “bypassed” the essence of the production process - its unity and the systemic nature of its unity as a certain way of built connections and dependencies.

E. Deming, K. Ishikawa, F. Crosby and A. Feigenbaum came closest to understanding the quality system as a reflection of the production system.

The main conditions of TQC can be considered the following:

- *ensuring the total participation of all employees in solving the quality problem;

- *awareness of total responsibility for the quality of all participants in the process, understanding that not a single specialized department (QC, QCD, etc.) is capable of coping with the task;

- * compliance of the quality of activities with all stages of the “life cycle” of the product: from the development of the product concept and marketing research to the method of disposal of the product and its packaging. In the context of increasing environmental requirements in a number of countries, for example, Japan, product certification requires the mandatory development of a method for recycling even packaging;

- *the totality of improving the knowledge and skills of performers and managers; regularity of specially organized forms of advanced training; planning related costs;

- * achieving a total understanding that the quality of work is achieved not so much by equipment and technology, but by focusing on the quality of the work of motivating employees, and motivation should not be one-sided, focused only on financial returns. Then it will be stable;

- *the totality of activity structuring, its differentiation into operations, interconnected technological processes, transitions, and each link of the process should be clear in purpose to all performers. Studies of eliminating the causes of defects have shown that up to 90% of problems submitted for consideration are resolved, while 75% of them are able to be solved by the controllers themselves (direct performers and organizers);

- *totality in consumer understanding; the consumer is not someone outside the production process, the consumer is each subsequent link in the production itself - the “internal consumer”, therefore, awareness of responsibility to the consumer throughout the production cycle is required;

- *total cultivation of the special status of the consumer and his interest in the quality of the product;

- *continuous quality engineering;

- *understanding the importance of defect prevention, its economic advantages over defect elimination;

- *team spirit of all participants in the process; corporate culture;

- *leading position in activities that ensure quality, senior management, understanding of quality as the goal of entrepreneurship.

Quality management in the 21st century relies on the reciprocity of total quality management (TQM) and quality system standards (ISO 8402; ISO 9000; ISO 9001). The main difference between quality system standards is that in many countries, including Russia, they have acquired state registration and are

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enshrined administratively. Therefore, clarity in the definition and content of the concept of “standard” is important. In the USSR and the Russian Federation, it is customary to assign a “quality mark”, officially indicating that the product meets certain agreed upon parameters. “Standard” in Russia and most other countries is a set of rigidly fixed, often administrative, characteristics of products, services, and activities. Analogues of our “quality marks” are found in European countries, in particular in Sweden (TCO 92; TCO 95; MPR for monitors). The concept of a “standard of technological modernity” (industrial standard) was developed and the Bologna Protocol was built on its basis.

From the perspective of consumer interests, the “standardized” concept of “standard” is not as relevant as for the manufacturer. The latter, taking advantage of the starting advantage, taking into account first of all his interests. Hence the conventionality, the relativity of any standard and “standard sign” until the standard balances the mutual interests of both parties: the manufacturer of the product and its consumer. The most common quality system standard, ISO 9000, is based on a specific organization system. The basis of this idea is the thesis about the documentation of all processes related to production: procurement of raw materials, components; preparation of production of his organization; delivery of products to the consumer; providing warranty support; scientific and technical equipment of production; personnel management.

As a result, the concept of “quality” acquires new facets and expands; the traditional understanding of quality is modified. The content of the concept of “quality” is loaded with knowledge corresponding to the changed situation. A classic example of the dialectics of concept development. The most obvious illustration of this is the fairly frequent reports that reputable companies Ford, Toyota, and others are recalling their products due to the discovery of a technical inconsistency in just one component. It would seem that it would be easier and cheaper to instruct service centers to replace low-quality components. In reality, businesses are doing the right thing by considering the competition in the market and where their brand fits into it. In a complex system, a design and technological defect in one node inevitably affects the entire system, so it is not easy to replace a node or block. It is necessary to comprehensively test the product as a whole so that the manufacturer’s guarantees work according to the declared standard.

ISO 9000 and its modifications ISO 9000-2000 do not guarantee product quality. They are “set up” to provide such production conditions that allow us to count on the “most likely” high-quality reserve of productive activity.

Another “weak” side of these systems is that they explain “what should be done,” but there is practically no explanation of “how to do it.” The ISO 9000 ideologists say: “What should be done?” – the

question is “standard” and subject to standardization. The question is: “How should it be done?” – is determined by the specific production conditions in each individual case. Therefore, “how to do it” must be decided by manufacturers on site. With the introduction of ISO 9000-2000, the concept of “QS” (quality system) became outdated, giving way to QMS defined by the International Organization for Standardization:

- *continuous monitoring of consumer interests;
- *systemic leadership of the manager, ensuring the unity of the goals and directions of the company’s activities, as well as a stable internal environment based on cooperation and comprehensive motivation;
- *maximum involvement of employees’ abilities, knowledge and skills in the production process;
- *using a process approach in managing activities and resources;
- *the need for a systematic approach to management;
- *striving for continuous improvement of the company’s activities;
- *making decisions only taking into account a comprehensive analysis of the entire possible volume of “information for thought”;
- *development of mutually beneficial relationships with suppliers.

From now on, international quality standards require the presentation of a “quality mark” not on goods, but on the method of their production. “Quality” is the compliance of the organization and management of the enterprise’s activities with the quality management system (QMS). The modern history of the economic aspect of quality management reveals a very instructive relationship between concrete scientific, special and philosophical approaches to solving socially pressing problems of production activity. Philosophical teachings about quality, undoubtedly, have always had an effect on economic knowledge. K. Marx started with G. Gogol, took a “course” of economic analysis and founded a historical-materialist view of social development. Then he returned to the analysis of economics and left an impressive mark on social philosophy and economic theory. Something similar can be said about the creative paths of O. Proudhon, J. St. Mill.

History repeats itself in a new round. Thinking economists move from practice to philosophy to use philosophical knowledge and method to develop a deeper understanding of the subject of their research. All modern concepts of quality management owe no less to philosophy than to economic theory. A philosophical analysis of the social process led to the conclusion about the increasing role of the “subjective factor” in it. The “human factor” in philosophical humanism has always been represented as the decisive condition of history. This was the opinion of the leading thinkers of Antiquity, the Renaissance, and the Enlightenment. But the “human factor” and the

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“subjective factor,” contrary to the widespread practice of bringing them closer together to the point of identification, are far from the same thing.

“Human factor” is a concept that characterizes the entire complex of human capabilities. The concept of “human factor” expresses the duality of our nature - the combination of biological and social in it; organization and individuals; physics, physiology, psychology, intelligence, behavior and activity. As advertising likes to present it: “all in one” or “in a package”. The human factor is essentially the person himself in the context of his ability to realize his own potential. Smart, educated Oblomov, lying on the sofa, as well as active Stolz are examples of contrasts along with the name “Human Factor”. The concept of “human factor” does not express a preference that is neither biological nor social. I think it's correct. To define a “person in action” - no matter in which form: Oblomov turning over with a newspaper in his hands, or the active enterprising Stolz - a synthetic concept is necessary.

They proposed calling an abstract person in a state of abstract activity a “human factor,” thus including an abstract person in an abstract historical process. In theory, the main thing is to find a conceptual equivalent to describe the object of study. The object of research in our case is social progress. The task is to understand the factors that set history in motion and give progressiveness to the movement of history. The logic of the reasoning is not complicated. The history of humanity is either an objectification outside of human substance (objective idea, World Mind, World Will, God, etc.), or a product of the activity of people themselves: their mind, feelings, will and practical activity.

The problem can be simplified, because in both options human activity is provided, with the only difference being that in the first case, history is made by him according to a program developed outside of human life, and in the second, man paves the historical path, guided by his own ideas and motives. In history, no matter how you look at it, you cannot move away from human participation. History is “tied” to a person just as he is “tied” to history. It is then that it becomes relevant to “disassemble” the “human factor” into its component qualities, to divide what exists in the person himself exclusively in unity. Divide conditionally, depending on the contribution to historical progress of the two “halves” of a person: biological and social.

The concept of “subjective factor” appears. And its components are the “individual” form of the subjective factor, and the “collective form of the subjective factor.” Politics emphasizing the historical nature of human activity and the collective essence of this activity. In relation to production and production quality, the “subjective factor” is specified to the level of “performer”, “manager” and “team”. To those who object to us, considering that we have narrowed the

understanding of man in the structure of the economic form of his activity to the size of a “subjective factor”, ignoring his biological status, which is also represented in production and affects its quality, we will answer: no, modern production, that is production is knowledge-intensive, high-tech, relying on the power of knowledge, not muscles; on responsibility and organization depends, precisely, on the “subjective factor” of a person.

The logic of the development of the process of economic quality management convincingly demonstrates that total quality management, to which in general everything was heading, is possible with the total mobilization of subjective human forces: knowledge, beliefs, desires, will of interests, upbringing, education, concentrated in the professional form of culture. The classics of the economic theory of quality management from Taylor to Crosby and Freiegenbaum were seriously concerned with mobilizing the motivation of participants in production, correctly believing that it was the lifeblood of quality work. But they were realists and realistic experience told them: do not absolutize the moral factor, no matter how significant it is. Quality is created by free will, but is controlled administratively and legislatively. The legal aspect of achieving TQC objectives is very significant and requires constant attention.

Is it possible to imagine a situation where quality will be achieved only through the self-organization of the manufacturer, thanks to the team spirit, social dedication of each and every individual, and a high level of professional qualifications? The answer is at the discretion of the reader, but the hint suggests itself: it is possible. What happens? Is legal regulation unnecessary or unnecessary? No. A test fantasy does not take into account the production goal, which, by the way, is very competently spelled out in TQC. The goal of production is not the quality of the product (this is a crafty goal, self-deception). The goal of production is not the quality of production (this is also deceit). The goal of production is consumer satisfaction! Production, even in a natural economy, in which the producer and consumer are one and the same person, does not exist in itself and for itself. As for the commodity form of production, the consumer is the main figure in it.

Therefore, understanding quality is not the responsibility of the manufacturer alone. It is formed in the mutual interest of the manufacturer and consumer in the properties of the product (and its price) intended for sale. The manufacturer has one small advantage in relations with the consumer. It is not easy to use, but the chance is quite real. A manufacturer of technically complex products that require knowledge and qualifications to operate may try to shape the consumer's taste for it through educational and advertising activities. The mechanism is, of course, expensive, but it is unlikely to win the

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intense competition in the market any other way. The interests of the producer and the consumer do not always coincide, not immediately and not for long, because these are the interests of production subjects separated by the barricade of the market. The market is a ring for them. The manufacturer is interested in profit. The consumer is in preserving finances. One strives to fill the cash register, the other does not empty the wallet. At the same time, both look at quality as a reward for winning a battle. Legal regulation helps to give the fight a civilized character. Avoid deception.

The state cannot be aloof from events taking place in the market, because economics gives birth to politics; the movement of the market determines the movement of large social groups. And if today the class struggle has lost its relevance, then tomorrow the place of the proletariat and peasants will be taken by dissatisfied consumers - some with quality, some with price - the number of which will be no less, and the desire to win will be even greater. The state cannot deal with the fate of each citizen individually, and it is hardly advisable, but the fate of social groups should be in the zone of special attention of any state and always, unless, of course, the state itself wants to be in the zone of special attention of that main part of society. which in calm times is called the electorate, and in turbulent times - the people.

Quality is a policy, firstly, and only; secondly, it is a product of the intricacies of relationships in the market. Supporters of absolute market liberalization are "scientific" provocateurs of tension in social relations and "disruptors" of national security. All modern social experience confirms that participation in quality management is a function of the state and even interstate cooperation. An example is the Bologna Agreement. It was prepared by a social movement, but in order to give it real power as a controller of the quality of education, legitimized by the collective political will. "The state's attention should be focused on:

*intensification of the import substitution process by improving the quality of domestic products;

*increasing the production potential of enterprises, creating advanced technologies and new types of high-quality products, so that as the domestic market develops and integrates into the world economy, the share of Russian products in the domestic and foreign markets expands."

Updating the legal resources of the state throughout the vertical of political power in the field of quality management will undoubtedly contribute to the achievement of the following most important results:

*ensuring a high-quality standard of living for the population, without which there is clearly no way out of the demographic collage. In order to be among the leaders, it is not an absolute indication - a reserve

fund, a loan paid ahead of time, a loan, a part written off even for those who are not able to pay it in the foreseeable future - it is necessary to improve the quality of products and services in the social sphere;

*strengthening security, territorial integrity, preventing military aggression;

*strengthening Russia's position in international relations, greater agreement in economic partnerships;

*creating the image of Russia as a truly great, and not just a huge country;

*developing environmentally sound policies and economic practices.

Integrating the analysis of the real consequences of the intensification of state behavior in the quality market, we note the most important thing. This is the only effective way to ensure national security, that is, what stands in the ranking of the state's tasks above everything else, since achieving everything else is possible only in conditions of national sovereignty. A systematic approach to solving the quality problem in the USSR began to take shape in the 50s. The Saratov system of defect-free manufacturing of products, the NORM, KANARSPI, KS UKP systems were quite a successful experience in the socialist embodiment of the need to manage production quality. In the mid-60s, the Lvov initiative became widespread in the domestic industry, and was recognized as a "defect-free labor system" - STB. The highest achievement of the "struggle for quality", apparently, was the creation, based on a combination of a serious experiment (VNIIS) and a comprehensive generalization of practical work to improve the quality of work at leading Lviv enterprises, of an Integrated Product Quality Management System (KS UPK).

This system was the first where enterprise standards became the organizational and technical basis for product quality management. Unfortunately, the effectiveness of applying best practices was low. By the beginning of the 90s, only 10% of technical products for civilian use corresponded to the best foreign analogues. The state has large and different levels of influence on the quality of production and product quality. The legal mechanism in the hands of the state can influence both directly and indirectly the improvement of the quality of the production process. With the help of tax policy, it is possible to stimulate high-quality production and block low-quality production. By protecting consumers from low-quality products, the state actively prevents unscrupulous manufacturers from entering the market.

The basis for legal support for the quality of production in our state is the Constitution of the Russian Federation. The 1993 Constitution was developed in the midst of the redistribution of property and therefore its creators did everything to ensure that the provisions (articles) of the Supreme Law were extremely abstract and declarative. But in its abstract format, the Constitution of the Russian Federation did not ignore the rights of Russian citizens

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to quality goods. The corresponding articles are formulated to match the time of her birth, however, in this form, some certainty is present. Article 41 of the Constitution of the Russian Federation states: “Everyone has the right to health care.” Of course, it would be better to add “and a healthy lifestyle.” And even better: “the right to health protection and a healthy lifestyle of Russian citizens is guaranteed by the state.” However, in this option the “legitimate” interests of future oligarchs would suffer, so we settled on what we have. This article does not seem to have a direct relationship to legal quality management. There is an indirect one, mediated by the protection of the country’s population’s right to health.

Goods for immediate and long-term consumption must have the required level of quality so as not to cause harm to health. Otherwise, serious legal and financial sanctions are imposed on the manufacturer and seller. In order to ensure the protection of the right to health protection, all possible tolerances (MPC), sanitary and hygienic requirements, state standards for products, services, industry standards were developed, in combination with which the enterprises’ own “standards” (TU) were found. Control structures were created or

modernized ones inherited from socialist times. On the basis of the rights of citizens to quality goods proclaimed by the Constitution, a modern structure of legal support for quality management has been built. The state does not interfere in the technology of production quality management. Its activities are aimed at controlling the production method to eliminate the possibility of harm to the health of citizens (and non-citizens) and harm to the natural environment of human activity, as well as to prevent the appearance on the market of dangerous low-quality goods, consumer deception and legal regulation of relations between the seller (manufacturer) and the buyer in those situations that require such a measure.

The market is intended for environmental activities within the framework of normalized relations. Prices, priorities, demand, supply, advertising - all these are market mechanisms as long as they remain within the boundaries of economic relations that are moral to the same markets.

The scheme of legal support for quality management is shown in Figure 4.

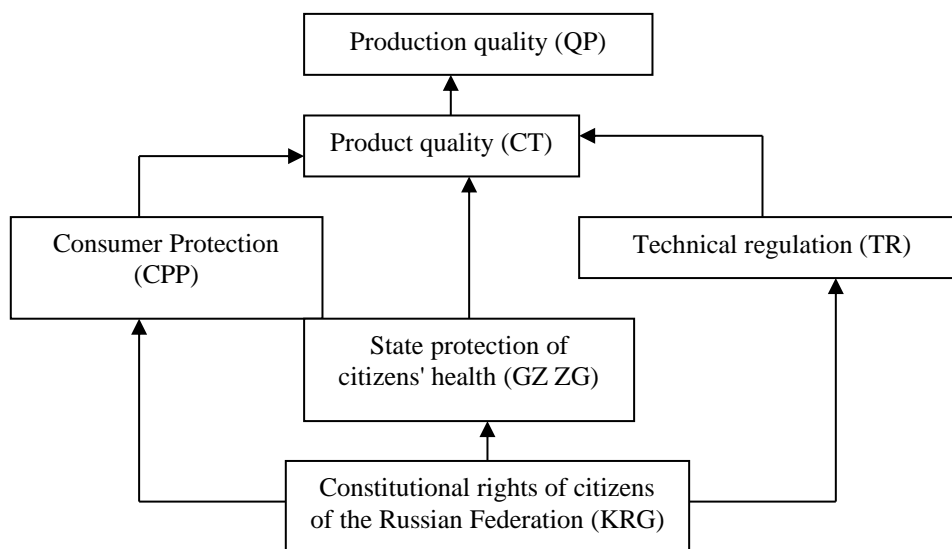


Figure 4 - Scheme of legal support for quality management

Many violations of economic relations necessarily lead to the intervention of law enforcement agencies designed to protect the affected entity within the framework of current legislation. Any act of “purchase and sale” is a subordinate action and the legislator or the executor must be involved in the process. Otherwise, the rights of the owner will suffer and the violator of market relations under jurisdiction will not receive punishment. The situation with legal support for quality management is complex. The market has divided the producer and the consumer, squeezing an intermediary (and more than

one) between them. In this connection, it is necessary to differentiate the concepts: “production quality”; “quality of goods produced”; and “quality of goods purchased” by the consumer. An intermediary – a “speculator” – is quite capable of violating technical conditions when delivering goods to the place of sale, storing goods, and preparing them for sale. As a result, the quality parameters of the product will change. The legal protection of consumers spells out all possible situations and measures of liability for the seller.

Legislation protecting consumer rights appeared in European countries and North America a long time

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ago and was polished over centuries. In its current state, it is quite effective that it forces violators to take it into account in order to avoid serious financial sanctions from deadly-like anti-advertising. Russian experience of legal regulation of relations in this area is much poorer, moreover, it developed in the specific conditions of the socialist market. The Law of the Russian Federation “On the Protection of Consumer Rights” was adopted in 1992 and was repeatedly edited (01/09/96; 12/17/99; 12/30/01) in order to make it more adequate to the developing economic situation. The subject whose interests are protected by this law is the consumer who purchased the product, or more precisely, the product that does not meet the entire set of consumer and technical characteristics. And the object of legal relations is the quality of the product. Thus, the Law has a double effect: it protects the buyer from low-quality products and protects the market from low-quality goods. The manufacturer (and intermediary) received a legal signal about the need to present quality products for market sale.

In the peripheral zone of interest of legislators there was also the intensification of the activities of a number of federal bodies: standardization, metrology and certification, sanitary and epidemiological supervision, environmental and natural resource protection. The categorical apparatus of the Law on the Protection of Consumer Rights consists of the following concepts: “consumer”, “manufacturer”, “seller”, “standard”, “defect of goods”, “significant defect of goods”, “product safety”. As we see, in the categorical apparatus of the law there is no mention of “quality”, despite the fact that it protects the consumer from low-quality goods, and in a doublet tries to protect the market from defects and counterfeit products. The developers of the ideology of the Law acted logically. They divided the content of the concept of “product quality” into components: “product manufacturer”, “executor”, “seller”, “standard”, “consumer”, building a system from them, the forming factor of which was “standard”.

The relationship between consumer and producer is regulated in the Law using the concept of “standard”, which is subject to change in a certain system of units. “Standards” are meant to exist at two levels: universal, state-controlled, and industry-specific, private, established independently by manufacturers, and having passed the necessary certification procedures. According to the logic of building subordination relations, the requirements of a higher level of organization are guidelines for the rest of the “pyramid”. In case of a contradiction, the advantage belongs to the one (or what) is higher, i.e. more important. It was unnecessary to introduce the concept of “quality (of a product)” into the conceptual apparatus of the Law. It was successfully replaced by the more verifiable concept of “standard”. At the same time, reminding all market participants from the manufacturer and performer to the consumer who is

boss. From a philosophical and economic point of view, the main drawback of the law is the locality of its purpose. The state is still hypnotized by the effectiveness of the economic liberalism of the American model, overly delicate in expressing its economic interests, forgetting that these interests are not of government, but of the people of Russia. The state, especially the executive branch as the top manager, should realize the interests of the people, instead of fearing being misunderstood by foreign partners. Foreign partners tighten the screws tightly when necessary.

The state should introduce an economic policy regarding quality on a larger scale, then its effect will be more significant and the private judicial practice that has examined private claims against the seller regarding low-quality goods will be sharply reduced. A private lawsuit for a manufacturer of low-quality products and a wholesaler who runs it on the market is as early as a mosquito squeak. It is necessary to protect the market from low-quality goods, as H. Ford Sr. once did when he entrusted the “rejection phase” to special production, taking quality control out of the main production process. As a result, the assembly line no longer received low-quality components. The state does not need to strive to be a subject of the market, it needs to be above the market, stimulating producers of quality goods, and not allowing low-quality goods into the market. In the first case, economic incentives are required, in the second, administrative and criminal sanctions. Now the state approaches the problems of quality management, as if in a half-turn, modestly distancing itself. It is necessary to turn your face to it and take on quality, “rolling up your sleeves.” Only then will a time come when ministers will not be able to use their power to postpone the execution of the president’s instructions for years.

The modern economy is increasingly called “smart,” “lean,” and innovative. This is a more understandable definition in comparison with “post-industrial”, but how adequately it characterizes its state is not an idle question. Character is manifested in development and determines economic policy planning. The latest crisis clearly shows:

firstly, that planning is not just compatible with the market method of economic management, it is necessary to prevent and mitigate the negative phenomena generated by undivided economic freedom, bordering on arbitrariness;

secondly, the ongoing crisis has revealed the limitations of the desire to present the built economy as “smart”. There must be a smart economy; it is impossible to build it with just the mind.

The central figure of commodity production is not finance, as many politicians, including domestic ones, believe. Money is just the equivalent of a commodity and will forever remain so. A commodity creates labor, which in turn is also a commodity.

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Consequently, the movement of production is rooted in the total expression of human activity, first of all, the work of consciousness, its potential. The mind is not equivalent to consciousness. The mind is a tool for constructing consciousness. "Smart consciousness is knowledgeable, cunning, mobile - but nothing more. The mind, like any force, needs a vector that directs the application of the mind, the construction of consciousness. The role of the vector is played by values: professional, national, universal. Consciousness fuses them into a unique personal expression. There is no "smart" economy if it is not placed on a value foundation. The main thing in personality - the decisive factor in social reproduction - is its morality. Not everyone is given the opportunity to be top managers, general designers, or VIPs in politics. Someone must work with their brains, someone with their hands. Trouble comes when the "brains" and "hands" become sticky and things that are not supposed to stick to them. Immorality undermines the foundations of professional culture and professional activity is transformed from a creative force into its opposite - it destroys what has been created. The smart economy could be a scary reality if it continues to be immoral. We are not utopians or idealists; we understand well the concrete historical situation of morality. Now we are not talking about equality and brotherhood - exclusively about conscience and responsibility. The economy can and should be, first of all, responsible and "conscientious", then "smart".

While free competition is subject to calculations - how to more effectively deceive a partner, consumer, competitors and... the state; is built on corruption and lobbying, manipulation of the work of media sources, which are natural for the development of the market. Cyclical, economic crises will grow unnatural - systemic. The system-forming factor of the latter is the dishonesty and irresponsibility of the largest producers. A classic of the genre: "greed ruined the fraternity" - looks like a child's prank compared to what American and multinational companies have created.

But what should the state, called upon to be the social guarantor of a democratic society and protector of the rights of citizens, undertake? It was forced to "add fuel to the fire" - to subsidize businesses that had gone bankrupt due to scams in order to avoid economic and social collapse. True, European leaders simultaneously sent "firemen" to the "sources of the fire"; they made the further work of the companies at fault dependent on moral principles; they introduced moral and financial regulations designed to sober up the businessmen who had lost all measure. It is symptomatic: it was France and Germany - the initiators of strict moral and financial monitoring - that were the first to feel signs of economic recovery. England and the United States, more affected by corruption and less prone to moral dictates, continue

to reap the benefits of freedom from conscience and social responsibility of their tycoons.

Russia, as one would expect, missed a real opportunity to use the crisis to revitalize national industry. First they poured funds into the banks, then they took very vague actions in order to awaken the conscience and responsibility of bankers. As if he had forgotten that a banker without liquidity and with liquidity are "two big differences." There was a chance, at the expense of national funds, to force banks to be a financial lever for the rise of industrial production, science, and technical creativity in the country. It was necessary not to pray for the banks - to raise the banks with rubles (currency). Naively hopes that, having had enough, the "wolves", instead of continuing to rob, will begin to serve their savior. As a result, the currency earned on the world market flowed back and we had to "start all over again."

How many more opportunities do we have to step on the same rake standing in the same corner? Of course, there is a margin of safety. The situation can be changed by uniting the mind - we have plenty of it - and conscience - the deficit of which has grown surprisingly quickly over the years of democratic reforms. The reason for this situation should be sought in economic chaos and the disproportionate growth of the administrative apparatus. It turns out strange: the more officials there are, the less effective the management is - the dynamics are obvious, but the course remains the same. Our lag behind someone is natural. In the historical peleton, subjects have their place, change places - this is how it should be. It is a tragedy for national development to lag behind the times, to lose a place in the "peleton." In the "eight" we were eighth, but in the "eight".

Time will tell what we will be like in 5-10 years in the G20. Economically, we are no longer eighth there, but still maintain our place in the top ten. But in the memory of most Russians, it's time when the USSR was second in the world economic rankings. History does not return, but this is not a reason to forget history. Whatever the continuation of the story, it is its continuation. By abandoning national traditions, you can end up with nothing. Not only the Second World War is falsified, the scientific, technical and industrial achievements of the country are distorted and hushed up. Faith in national forces and the ability of the people to regain lost positions are being undermined. The current situation is extremely complex, however, it is no more critical than those turning points in Russian history that seemed without origin: the devastation after the civil war, the loss of the most developed territories in the first years of the Great Patriotic War, aggravated by the colossal casualties among the working-age population and specialists.

Back then there was no finance available as start-up capital today. Therefore, the solution to the problem of creating a modern economy technically

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rests on the need to develop an effective system of management and control over the implementation of adopted programs. The program replaced the plan. And what came to replace responsibility for the failure of the plan? The lack of an effective control system is the most serious defect of the current economic policy, which allows amateurs to lead while feeling in control. Reviving the economy under the current conditions of professional irresponsibility is impossible. Only professionalism and the associated responsibility for the business you serve are capable of making the necessary transition to a new economic quality, building an economical and mobile economy on the basis of the comprehensive development of science, stimulating technical progress and improving professional training. The economy of the 21st century can be called differently. The essence of the definition is not in the name - in the content of the concept. The diversification of names shows the versatility of the modern economy. It is methodologically significant to identify the leading link or links in this set. Undoubtedly, the quality of the economy is among the obvious contenders.

The presence of quality in the characteristics of any phenomenon is invariant, since quality combines its most essential features. At the same time, it should be clearly understood that the quality itself changes - it is historically specific. Accordingly, the idea of quality is changing - and must change. From the first attempts of A. Fayol, G. Ford and F. Taylor to put the quality of goods under control, which were crowned with serious success, it became theoretically clear: the future of the quality of the economy lies in activity. The determining factor for the economy will be not so much the quality of the goods accepted for production, but the quality of the organization and management of its high-quality production. For crafts and small-scale production, the quality of the sample and commercial product is combined with technology, which is usually unchanged. Here, quality depends entirely on mastery of equipment and adherence to the declared technology in conditions of limited production scale. Often the master, technologist, manager and marketer are one and the same person.

G. Ford was the first to put the production of a complex product on stream, dividing operations and responsibility, and thereby determined a turn in the fate of quality. From now on, the fate of quality was determined by "introduced" factors - production organization, management and control. What came to the fore was not the skill of the direct producer, but the ability to skillfully organize production, including its expanded reproduction, that is, supply, marketing, and personnel management. Diversification of activities revealed its special position in achieving quality results. The Second World War confirmed: personnel and management decide everything!

Since the 1950s, the search for quality management programs through the quality of

activities has sharply intensified. If at the beginning of the twentieth century the technical regulation of the product and components became relevant, then half a century later there was a qualitative clarification of the meaning of technical regulation. The focus of interest is now the technical regulation of the organization and management of production, which is confirmed by the modern international system of quality regulation. The shift in the center of gravity in the understanding of economic policy aimed at ensuring the qualitative sustainability of production towards technical regulation of activities did not come without costs and dead-end routes, which in principle was expected. Activities united by production are not homogeneous and not autonomous, therefore the solution of problems is "buried" in methodological and theoretical "deficiencies" of professional thinking.

The concept of "key activities" was first substantiated by A. Feigenbaum. His book Total Quality Control was published in 1951. ISO 9000 and ISO 14000 were developed on the basis of proposals by A. Feigenbaum. It was assumed that both series of international standards would help move from "enterprises-conglomerates" to "enterprises-systems".

In the process of development of industrial production, under the influence of scientific and technological progress, a contradiction in the rate of change in the material side and the evolution of management thought regarding the organization and harmonization of the production process has accelerated and intensified. The latter clearly did not keep up with the former, slowing down progress and increasing risks and costs. The rigidity of central planning only made the situation worse, which explains the stagnation of the 1970s and the decline of the 1980s. The organizational chart of the "enterprise-conglomerate" did not fit well into the transition to a systematic organization of the enterprise's work, primarily because it did not activate initiative and creative potential. It is no coincidence that the "shock workers," "innovators," and "rationalizers" in the USSR were predominantly engaged in party, Komsomol, and trade union organizations, which essentially stood outside the framework of direct production and formed a superstructure over it.

A simplified organizational chart of such an enterprise looks like this (Figure 5).

A management design scheme in which the main production units are functionally autonomous and connected indirectly through a common manager, in an anti-system manner. When someone designs something, others must produce it, others must control the quality, and others must sell the product on the market, it divides the production participants, and blocks the creative alliance. Everyone is a nominal participant in the process and has little idea of who is doing what and why. There is no team spirit, everyone

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acts on their own, at their own peril and risk, often at the expense of colleagues, exposing the latter.

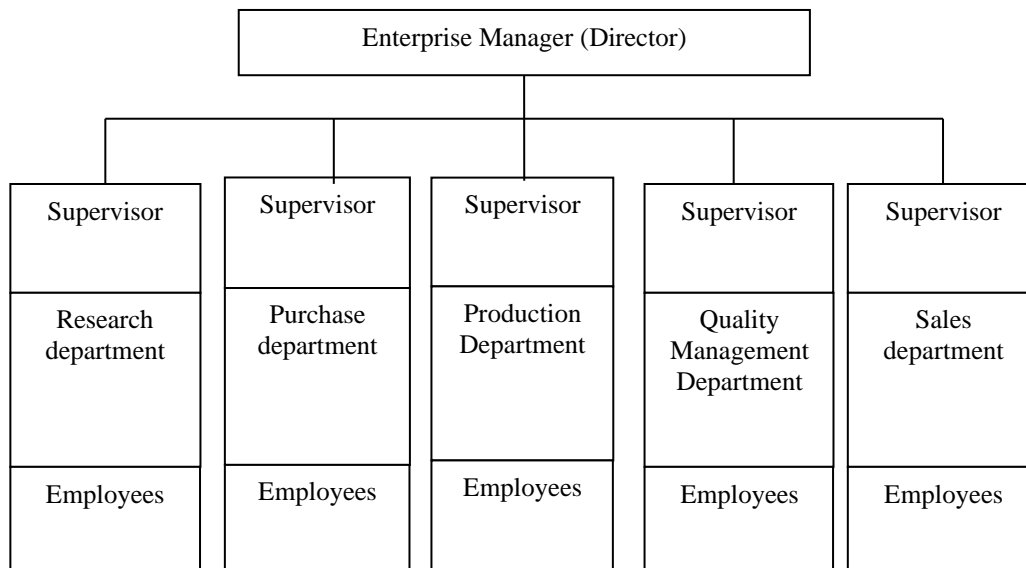


Figure 5. Organizational chart of the enterprise

The fundamental misconception of managers of “conglomerate enterprises” is the belief that their “brains” should be enough to timely recognize and correct force majeure in the production process. The management scheme of an “enterprise-conglomerate” essentially coincides, despite the presence of a specialized department, with the quality management scheme, because the functions of the quality management department are reduced mainly to control activities.

In 1924, W. Shewhart proposed optimizing this method of management using the principles of the theory of statistical variation, providing managers with a statistical control chart. The improvement in work did not take long to affect the results, but the matter was limited to partial changes for the better. The “philosophy of the theory of variation”, rather than being used as a basis for management, has been reduced to the level of statistical tools used by technicians with limited and very specialized areas of responsibility. Ignorance of the theory of behavior of industrial processes made management unable to correctly recognize situations that did or did not require action. This made management extremely vulnerable to three types of costly management mistakes:

- * treating all variations in the output parameters of the process as unexpected behavior and suppressing, in fact, their imaginary causes, which leads to destabilization of the process;

- *attitude to all variations in the output parameters of the process as natural manifestations and inaction regarding the detection and suppression

of the causes that cause them, which leads to unstable behavior;

- *the assumption that process optimization and stabilization are technical solutions that are entirely the responsibility of a specific department, rather than a solution to an organizational problem that requires the full support of management and the efforts of several departments.”

Restructuring enterprise management to the principles of systemic organization ensures:

- * interconnection of key activities so that various departments of enterprises are consistently involved in coordinating actions, for example, to review product quality taking into account specific comments from consumers, improving staff training, advertising campaigns, etc.;

- *integrating other processes into key activities;
- *integration of new key activities into existing ones.

A dangerous misconception when constructing the management of an “enterprise-system” is the interpretation of optimality as the sum of optimal restructuring of individual divisions. In this case, the enterprise is still considered as a conglomerate, a sum of departments playing their own special role. There is no view of activity as an integration of all its components. A new term “quality revolution” is increasingly being used in European literature. We will not discuss how adequately it captures the dynamics of policies aimed at improving the quality of production; we will only note that involving the concept of “revolution” in the study seems quite natural. Comparing modern quality management

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practices with the not so distant past clearly indicates a radical restructuring of the understanding of quality technology. The “quality revolution” differentiates into four stages:

- 1960s – the stage of self-determination of the quality of goods as the main factor of market competition;
- 1970s – a shift from the dominance of product quality to the quality of technology and production;
- 1980s – transition from the quality of technology and production to the quality of the “quality system” or “quality management system”;
- 1990s – ascent to the quality of education, the quality of intellectual resources.

The Europeans' path to the Bologna agreements was long and difficult. He exposed many shortcomings and contradictions. In particular:

*the obvious gap between the requirements of society in industrialized countries to the education system and its capabilities;

* the discrepancy between the fact that the most significant discoveries and inventions are made mainly at the intersection of sciences; and education is based on the division of subjects;

* insufficient mobility of the organization of retraining of specialists, its increasing lag behind the acceleration of changes in technology, technology, science;

*inertia in the development of new educational paradigms, programs, methods, lag in the development of new educational literature.

However, there has been serious progress - three levels of ensuring the quality of education have been identified and balanced: university, national and European. The intellectualization of the economy, enhanced by the transformation of science into a direct force of production, which experts of the 21st century love to talk about, has exposed the fundamental contradiction of human consciousness between intelligence and decency. Philosophers sought its resolution in the rationality of homo sapiens, emphasizing the basic function of morality. Hypertrophying the activity of consciousness due to the actualization of intellectual abilities, emphasizing the creative powers of the mind, reducing consciousness to thinking, supporters of the “smart” economy do not see or do not want to see the dependence of the mind on morality, and contrast the role of the mind with the meaning of moral values. We have already noted that the power of knowledge can only have its own vector on a private scale. In systemic terms, the power of knowledge is directed by the indigenous, and not by the private and corporate interests of the manufacturer. Morality was formed as the first derivative of labor as a way first of survival, then of development of humanity. The main criterion of social progress cannot be production efficiency - this is a purely economic parameter. Man is a social

being and the degree of his achievements is determined by how much the movement strengthens human relations - first of all, moral ones.

Economic activity should be wise when the mind is closed not on itself, but on aggregate, personal, national and universal interests. It's time to understand that it is dangerous to hold humanity for masses of idiots and build corporate happiness with someone else's “hands.” Without strict moral regulations that subordinate all other aspects of human existence, there is no historical perspective. The mind is valid only in the form of an operator, clearing the path to the economy of the future. If someone likes to call the economy of the future smart, intellectual, then it is necessary to clarify that by smart we mean a reasonable economy, built not on cunning and private benefits. The current crisis has shown the vulnerability of democratic relations. The freedom to act that led to the crisis was opened up by the amorphous nature of democratic postulates, not by intelligent worship of the regulatory abilities of the market, or by inadequate perception of the actions of the “powers that be.” Innovations in economic construction express the new thinking of humanity, merging intelligence and morality.

The Chinese and Indians will be the first to build an innovative economy, that is, those peoples who have retained the authority of moral values in their minds, subordinating scientific and technological achievements to national interests. It is they who in the near future will “shod” both Europeans and Americans, and, apparently, us too! One hundred and fifty years ago, K. Marx wrote: “In our time, everything seems to be fraught with its opposite. Even the pure light of science cannot, apparently, shine except against the gloomy background of ignorance. All our discoveries and all our progress seem to lead to the fact that material forces are endowed with intellectual life, and human life, deprived of its intellectual side, is reduced to the level of simple material force. This antagonism between modern industry and science, on the one hand, modern poverty and decline, on the other, this antagonism between the productive forces and social relations of our era is a tangible, inevitable and indisputable fact.”

One may not share the communist conclusion of K. Marx, but one thing is indisputable - he is absolutely right in assessing the socio-economic situation of the mid-19th century. A restructuring in public consciousness was and remains necessary. Money should not rise above morality, otherwise the main citadel - homo sapiens - his wisdom will collapse. The validity of K. Marx's conclusions is confirmed by the socio-economic situation that has developed today in the Russian footwear industry. The liberalization of foreign economic relations played a fatal role in the disaster that occurred. On the one hand, a flood of better quality imported shoes poured in, as a result of which Russian shoes ceased to be in

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demand. On the other hand, taking advantage of the right to set any prices, our manufacturers raised them to the level of prices for imported shoes, but the quality level remained the same. And for this reason they also stopped buying it. The government should have intervened to protect its producers (with cheap loans and customs barriers), but this was not done. The government did not help due to the prevailing erroneous beliefs: our light industry is uncompetitive, there is nothing to invest in it, it will cost less if it is imported from abroad. In general, the government considered the light industry, like agriculture, a “black hole” unworthy of investment. Both here and there we got what we have today.

When we hear about the protection of Russian manufacturers of anything: machines and cars, clothing and shoes, food and furniture, etc., we always think about the shadow side of the coin from such innovations: the quality of goods. Shoe companies lose the incentive to improve and update their range of shoes, since in the absence of imports people will take whatever they want. But manufacturers have something else in mind: decriminalization of clothing and footwear entering the domestic market. The demand of the Russian light industry market with a total volume of 1250 billion rubles is formed from the following sources: 230 billion rubles (18.4%) - Russian legal manufacturers; 240 billion rubles (19.2%) – legal imports; 780 billion rubles (62.4%) are illegally imported and produced counterfeit goods, the same picture is typical for the shoe market. Today, the population of Russia purchases about 600 million pairs of shoes, the domestic industry produced only 52 million pairs (46 million pairs in 2021), 100 million pairs are officially imported. Where do the remaining four hundred plus million come from? Imported through all sorts of illegal routes, i.e. There remains a huge volume of shoes that would be in demand if domestic shoe companies were provided with financial support and legal protection.

Why is there no end to those who want to invest in the oil and gas industry? Why are car companies coming to Russia? Why are there people willing to invest even in agriculture? And why, against the backdrop of all these “why don’t investors go into light industry?”

The general answer is: there is no favorable environment for investors. That’s why everything is fine with the creation of joint ventures in the oil and gas and automotive industries, because ministers and governors monitor each enterprise there. And here officials will be afraid to take bribes and will not chase investors around the bureaucratic circle. And the opening of light industry enterprises, due to their small volumes, is entirely in the hands of officials. In addition, foreign Firms argue: why create enterprises in Russia, take risks, when our goods are already sold well there? And Russian and Western companies go to China, where there are ideal conditions for investment; where there is cheap,

disciplined labor; where there is a stable favorable tax system.

Today, equipment at light industry enterprises is extremely worn out. The renewal rate in recent years has been 0.4 – 0.6% per year. While at foreign enterprises, technological equipment is replaced every 5–7 years, that is, 15–20% annually. How can you compete here? Funds are needed for technical re-equipment of the industry. They can either be earned by the enterprises themselves, or provided in the form of loans, or come from foreign investors. The capabilities of the enterprises themselves are very limited. Loans from commercial banks are expensive, the government does not encourage preferential lending, and foreign investors, as already mentioned, are not coming into the industry. Hence the answer to the question, what to do?

Firstly, provide loans to enterprises at minimal interest, or even better - without it (as for food-producing farms under the national project “Development of the Agro-Industrial Complex”).

Secondly, to create such conditions so that foreign companies enter the light industry, bringing, in addition to capital, their design, production culture, management, etc.

It should be noted that the last twenty years have shown: light industry enterprises are very responsive to the slightest attention from the authorities to them, to changes in market conditions. Take 2008, for example, which was famous for its default. Imports became more expensive, and light industry immediately revived. There was growth for three years. Another example. Exceptionally low export duties on raw hides led to their massive export abroad. Leather and shoe factories found themselves without raw materials. In 2009, a protective duty was introduced on the export of leather up to 500 euros per ton (instead of 100 euros). As a result, the production of finished leather in Russia increased from 1.1 to 2.2 billion square meters. decimeters. Instead of importing leather goods, they began to export them. In favor of the fact that the resuscitation of light industry is not only necessary, but also possible, as evidenced today by examples of the successful work of individual industry enterprises in the Southern Federal District and North Caucasian Federal District, both old and newly created. Let's name at least a few. Novorossiysk shoe factory "Breeze - Bosphorus" (General Director - I.K. Zykov), the enterprise was created in a "naked place", produces 16 million pairs of shoes per year and all shoes are in demand. Rostov enterprise "Gloria Jeans" (general director - V.V. Melnikov). It is also new, it started as a cooperative. It produces products worth 7 billion rubles (up to 10% of all Russian sewing goods and up to 30% of children's goods). His products are sold abroad, including to the USA.

So, as soon as “Rodina” lends its shoulder, its light industry, which finds itself in such a difficult situation, will start working, especially in the Southern Federal District and North Caucasus Federal District.

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We are not even talking about the fact that the revival of the light industry would help solve the social problems of the small towns of the Southern Federal District and North Caucasian Federal District, where more than 16 million people live today. Here, with the beginning of the reform, small factories (branches of associations) were the first to die. But they seem small on a national or industry scale. While for a regional center of 10–20 thousand people, some shoe factory with 300 employees is a large, city-forming enterprise that not only provided money to the budget and produced goods necessary for the population, but also provided a decent life for many residents of a small town or a regional center, and the factories are not became. It is unlikely that automobile factories or branches of defense factories will ever be built in these cities, but light industry ones are welcome. But so far, as far as we know, the government is not even discussing this problem.

There is no concern about yet another problem, or even a threat, that has arisen in connection with the collapse of the light industry. Previously, every light industry enterprise, like any other, had mobilization reserves (equipment, tools, materials, etc.), which made it possible within 24 hours in the event of the outbreak of war to switch to producing the products necessary for the army. Instead of dress shoes, sew tarpaulin boots, instead of suits and coats - tunics and overcoats, instead of "fashionable sheepskin coats" - soldier's sheepskin coats, etc. God forbid this happens - we will have nothing to dress and shoe our army in, especially since the Southern Federal District and the North Caucasus Federal District, a border district with a difficult situation. This is another reason why it is necessary to take the light industry seriously. A very acute situation has arisen regarding the provision of children's shoes. The majority of Russian shoe factories continue to reduce the production of children's shoes due to high price increases caused by the abolition of subsidies from the Federal budgets, and some shoe factories, including those in the Southern and North Caucasus districts, have stopped production altogether. In 2022, compared to 2021, the production of children's shoes decreased by 21%.

In the consumer market of the Southern Federal District and North Caucasian Federal District, domestic manufacturers of goods for children have been actively replaced by foreign suppliers who can afford to transfer shoes for sale with the condition of payment after their actual sale. However, the flow of beautiful and fashionable children's shoes that has poured into our markets from abroad, most of them do not have certificates of conformity, not to mention hygiene certificates, which is a crime against children. Consumer demand acts as the main factor influencing the formation of the assortment, which, in turn, is aimed at maximizing expansion and satisfying the demand of the population. Consumer demand

combines a whole group of indicators that will form their own niche for domestic footwear, namely:

taking into account age characteristics and work activity:

- children's footwear;
- shoes for the elderly;
- leisure shoes;
- special purpose footwear;
- office shoes.

for a socially vulnerable group of people:

- shoes for unemployed people receiving social benefits;
- shoes for pensioners;
- shoes for people with chronic diseases.

taking into account the characteristics of the regions:

- national footwear;
- exclusive shoes;
- elite shoes.

Thus, the implementation of the requirements of the main parameters that shape consumer demand will make it possible to form distinctive features that the new range of shoes will have to satisfy. The parameters that determine demand include:

- comparative competitive advantages: the product must have distinct features or distinct advantages compared to existing analogues, products, or services of competitors on the market;

- social orientation: it is necessary that the product fits into the existing social conditions, so that the proposed product corresponds to the existing lifestyle and value system of the consumer;

- ability to satisfy the consumer: the product must perform all functions to satisfy the key needs and requests of the buyer. The following set of measures is proposed:

- *Creation* regional program for the development and maintenance of domestic shoe production in the district;

- *Adoption* measures to reduce imported footwear into the region. These measures should include, first of all, the suppression of trade in footwear imported through smuggling and without permission for its sale on local markets;

- *help* in the employment of young specialists and university graduates at existing and newly created shoe enterprises;

- *help* enterprises in the process of promoting domestic shoe brands in local markets. First of all, it is necessary to develop a competent marketing strategy for regional shoe enterprises;

- *Creation* a special lending program for regional light industry enterprises, taking into account the specifics of production: the seasonal nature of the products sold and the peculiarities of the turnover of working capital by enterprises in the industry.

In our opinion, for the successful implementation of all of the above measures, the

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interest of both federal and regional branches of government in the organization and development of the footwear cluster is necessary, which will provoke a reduction in prices for component materials, energy costs and transport, providing the manufacturer with a price niche to offer to domestic consumers popular and competitive shoes. All this together will ensure this formation a long life and stable positions not only in domestic, but, most importantly, in foreign markets. All that is needed is the good will and interest of all participants in the implementation of the proposed activities. Such progress has been made; what is now required is the strong will and desire of the interested parties.

And again, the quality of domestic goods is the main base, the basis for the success of modern domestic enterprises. This conclusion has the right to life, because quality is the most ancient value of humanity. And it is precisely because of the quality of Russian goods, services, and the quality of management that we are losing in global competition. Have you seen complex products anywhere in the world with the inscription made in Russia? We didn't see it either. We have long hoped for a worldwide ISO system. Alas, in Russian conditions it has slipped into crisis. Sorry, dear colleagues from the world of quality certification, but it's time to publicly list what it has become and what almost everyone recognizes among themselves:

- an immense number of documents, to navigate in which there is no strength;
- the meaninglessness of many of them (for example, according to the conditions ISOs require job descriptions and everyone is rushing to do what—then sketch them out, and then forget them without a trace);
- one entrepreneur once said: “We are certified inISO”. And then he added: “Don't think about it, we were certified by such and such a Norwegian company.” Can you guess what we're talking about? Yes, selling certificates. Not everyone sells, of course, but reputation is not accidental.

So now, you say, why not deal with quality? No, you just need to understand that the light has not converged like a wedge on ISO. Let's agree on terms. Quality – what is it? Compliance with standards, the majority will answer. Of course, where standards are possible, this is the case. Although the standards have tolerances. And the difference between the upper and lower divisions in these tolerances can be significant. And there are also limits to standardization. Let's say contact with a client. Everyone knows that the quality of such contact is critically important for the success of a business when prices, assortment, and terms are aligned under the pressure of competition. A certain set of friendly words, a dress code, etc. can be considered a standard. Although we know very well what they cover. The current passion for describing business processes is also gradually approaching

absurdity. And where—then it has already reached it: at different companies we already encounter a strict description of the interview not only when applying for a job, but even the standard for meetings and negotiations.

Now a different approach is emerging: quality is meeting the needs of the client, the user. Whoever buys evaluates it. You just need to understand more precisely what exactly he values. If you hit—here it is, the required quality, i.e. the degree of consumer satisfaction with the properties of the product.

But this approach is limited and dates back to the last century. Then the formula was considered indisputable: the buyer is always right. In our time, another imperative is much more correct: the buyer does not know our capabilities. What are we leading to? The understanding of quality as compliance (with a standard, with a need) is becoming outdated. Today, it becomes much more meaningful to understand it as a comparison with another product or with the same, but the same one. Comparison gives the superiority of a product over a product, a service over a service, a specialist over a specialist, an organization over an organization. Comparison with a standard or need does not imply superiority. Only equality is possible there. Standard and need indicate the minimum. And who needs the minimum? Few. But excellence is interesting to everyone, because the law of increasing needs is inexorable. In practice, this means switching the quality assessment system to levels.

This is the quality vertical. It may allow more degrees. And one more thing: it's time to abandon the idea that any quality can be measured. Everything can be assessed, but little of what is important to us can be measured.

Figure 6 presents a model of an integrated process for managing the quality of products and services produced both in individual regions and in the footwear industry as a whole. The model is a closed control (regulation) system that implements the “deviation” regulation principle. In our case, the function of the regulator is performed by the “Measures to ensure a given level of quality of products and services” link, which models the enterprise's quality management system, the production quality service, the actions of which take into account the assessment of product quality and the recommendations of the competition commission.

As can be seen from Figure 6, the quality Q of products produced and supplied to the market is formed in the process of their production as a result of measures to improve production, improve the quality of products and services carried out by the quality service and quality management units, targeted actions, which in turn are determined by the results of the assessment products in the process of their sale.

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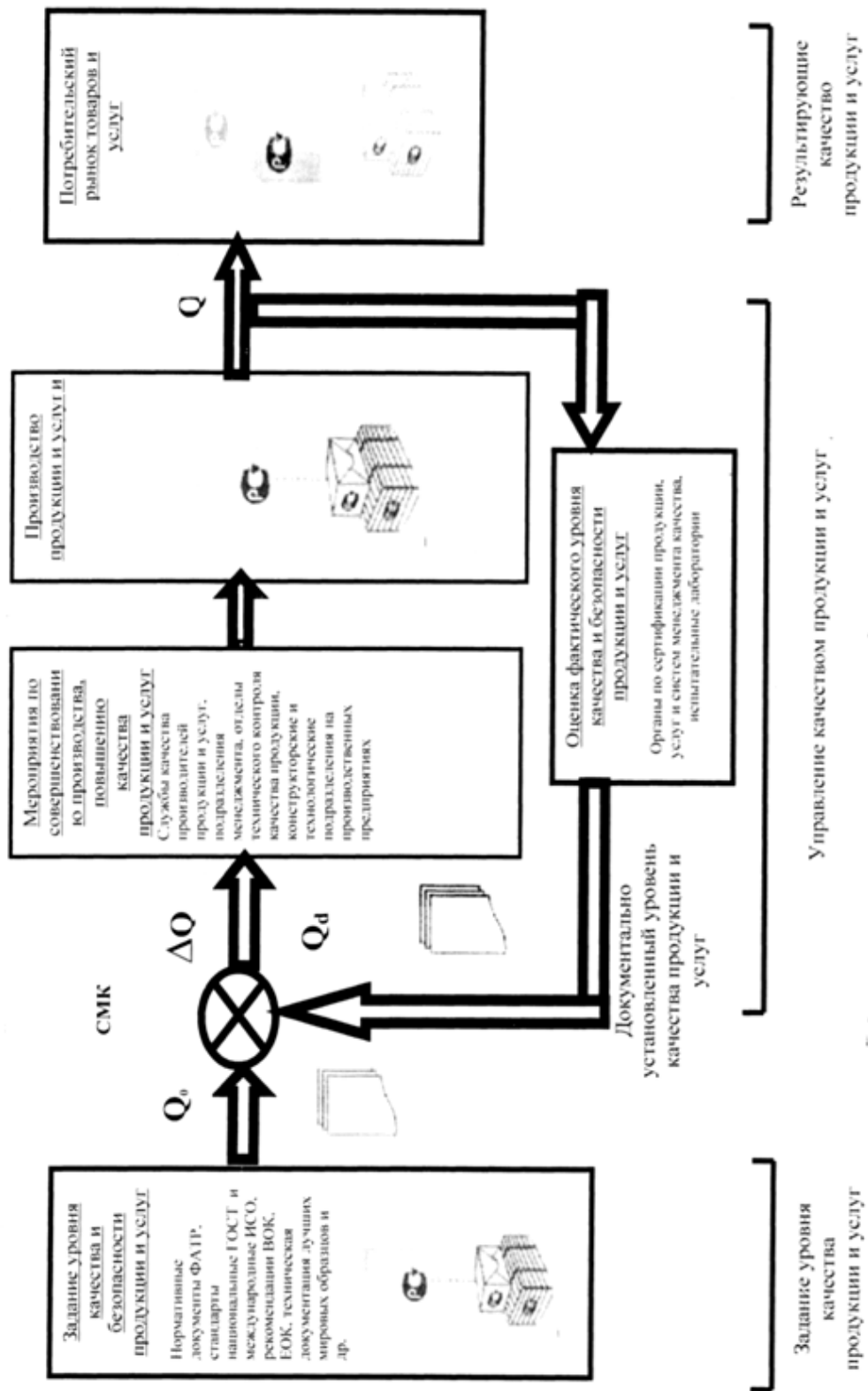


Figure 6. Model of an integrated process for managing the quality of products and services in the region

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In the new economic conditions, only production that actively and dynamically responds to emerging problems is progressive. The principle of “producing only what is needed, when needed, and as much as needed” requires adaptation of shoe factories to the conditions of producing products in small batches with frequent changes in the assortment of shoes, i.e. to the conditions of a wide range of small-scale production. The efficiency of a shoe company, and in many ways its ability to survive in competition, depends on the ability to quickly and cost-effectively adapt to the production of shoes in accordance with fluctuations in demand. Great opportunities for this open up the development and implementation of flexible production systems.

Technological and organizational flexibility of production systems determines the variable potential of enterprises, their ability to quickly and adequately respond to changes in market conditions and acts as a mechanism for optimizing the structure of the technological system in order to reduce the cost of footwear. Thus, the development of flexible technological processes for the production of leather goods ensures high efficiency in the multi-product production of footwear and will provoke a sharp increase in demand for the products of shoe enterprises in the Southern Federal District. The same problems are typical for other sectors of light industry. The diseases are common, and their treatment may have some slight differences, but the consciousness and desire to get them out of this swamp is only possible if Rodina lends a helping hand and the light industry starts working successfully again, because the basic values in society:

- professional;
- national;
- universal.

Conclusion

It is necessary to revive the role and importance of a quality-oriented strategy, since only in this case will enterprise managers be subjectively and objectively forced to improve their production using nanotechnology and innovative processes so that competitive and in-demand materials and products fully satisfy the needs of domestic consumers. At the same time, the assertion that the consumption of domestic materials and products is regulated by the market is justified. In this case, market requirements should be dictated to manufacturers by the need to increase the role of the state and consumers in creating sustainable demand for domestic materials and products, namely: maintaining a range of goods, regulating it with federal, regional and municipal orders; stimulate price stability; increase consumer power and gradually improve their quality. The implementation of these tasks will create the basis for the consumer to realize the need to pay for the benefits of high-quality materials and products, and for the

manufacturer to realize that improving the quality of materials and products cannot be associated only with rising prices, but also through technical innovations aimed at the use of new technological and engineering solutions, including making a quality revolution, either through the quality of advertising, or through real quality. It is equally important to understand the role and significance of quality activities, that is, to what extent managers have penetrated into the essence of things, learned to manage things, change their properties (assortment), form, forcing to serve people without significant damage to nature, for the benefit and in the name of man, that is, in accordance with the requirements of the Federal Law “On Technical Regulation”. Both political leaders and the government have recently spoken about the need for a competent industrial policy. However, if we carefully examine the regulatory and methodological documents on the structural restructuring of industry, the thought arises whether we are not stepping on the same rake that we have been stepping on all the years of reforms, namely: we did not care about our manufacturer. World-renowned quality specialist E. Deming, who at one time was a scientific consultant to the Japanese government and led Japan out of the economic crisis, in his book “Out of the Crisis” says: “... managing paper money, not a long-term production strategy - the path to the abyss.”

Regarding whether the state needs to pursue an industrial policy, one can cite the statement of the outstanding economist of the past, Adam Smith, who 200 years ago laid the foundations for the scientific analysis of a market economy. He said about the role of the state: “... only it can, in the interests of the nation, limit the greed of monopolists, the adventurism of bankers and the selfishness of merchants.” You can't say more precisely. What are the results of economic activity today, what are the achievements in this area? Growth in gold and foreign exchange reserves, reduction in inflation, budget surplus and other financial and economic achievements. But what, is this the end result of public administration, and not the quantity and quality of goods and services sold on the domestic and foreign markets and the solvency of the population to purchase these goods and services? And, ultimately, not the quality of life of the country's population?

Therefore, it is quite natural that today the task is being set for all levels of the executive and legislative authorities - improving the quality of life of Russian citizens. Let us conduct an enlarged factor analysis of the “quality of life” problem. The quality of life of citizens depends on the quality of consumed goods and services in the full range - from birth to ritual services, as well as on the solvency of citizens, which allows them to purchase quality goods and services. The above two factors (quality and solvency) depend on the state of the country's economy, which in turn depends on the efficiency of enterprises in various

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sectors of the economy, including light industry. The efficiency of enterprises depends on the state of management, on the level of application of modern management methods, on the implementation of production quality requirements.

The problems of improving the quality and competitiveness of materials and products at the present stage of development of the Russian economy are becoming increasingly important. As the experience of advanced countries that at one time emerged from similar crises shows (the USA in the 30s, Japan, Germany in the post-war period, later South Korea and some other countries), in all cases the basis for industrial policy and recovery The economy was based on a strategy to improve the quality and competitiveness of products that would be able to conquer both domestic and foreign markets. All other components of the reform - economic, financial and credit, administrative - were subordinated to this main goal. Positive changes in the quality of goods imply qualitative changes in technique, technology, organization and production management. Production must improve, which does not mean becoming more expensive.

It was absolutely correct that attention was drawn to one phenomenon that usually escapes in the bustle of problems - the historicity of the economy. The economy has not always been the way it is perceived now and will never remain so. Economic life changes over time, which forces us to tune in to its changing existence. The modern economy is built on a market foundation and the laws of the market dictate its own rules. In the foreground are profit, competition, efficiency, unity of command.

The problem of ensuring the quality of activities is not just universally relevant, it is strategic. The dilemma in relation to quality is reasonable only within the limits of contrasting the relationship between "direct" and "indirect" actions. The saying "it's all about him" owes its origin to quality. It is possible to "forget" about the quality problem solely because every fruitful and luminous activity is ultimately aimed at improving quality. Quality is either "in the mind" or "implied". From the relationship in the dynamics of these projections, quality problems in creative thinking are arranged in an appropriate schedule, reflecting the relevance and profitability of activities aimed at developing production.

The most significant and global standards are international quality management standards. The use of modern methods in them makes it possible to solve not only the problem of improving quality, but also the

problem of efficiency and the problem of productivity. That is, today the concept of "quality management" is moving into the concept of "quality management". Thus, solving the problem of increasing the efficiency and competitiveness of the economy, and ultimately the quality of life, is impossible without the implementation of a thoughtful and competent industrial policy, in which innovation and quality should become a priority.

It is believed that by understanding nature, its quality, state of quality, quality levels are revealed, translating new knowledge into production. Post-classical economic thought shifted quality towards consumption, trying to give production a "human face" - a person alienates himself in the production process, but this measure is forced and, in a systemic sense, temporary, conditional.

Researchers fill these quality properties with criteria, namely:

- quality ideology - the prospect of production development;
- quality management is an integrated approach to solving quality problems;
- fashion and technical regulation are components of the quality of manufactured shoes;
- quality systems "ORDERING/5 S" and "THREE "NOT"" are not only the basis for stability and safety of production, but also a guarantee of quality;
- quality in the market is a paradigm for the formation of production that satisfies the needs of the market;
- advertising is always at the service of quality;
- an excursion into the past as a guarantee of quality in the future;
- model for assessing product quality – these are production priorities;
- forecasting quality costs when developing a new range of shoes is the key to their demand and competitiveness;
- methodology for business visual assessment of a product - a means of assessing quality effectiveness;
- improving the quality and competitiveness of domestic specialties shoes;
- about indicators for assessing the quality of shoes - as a tool for creating in-demand products;
- quality and market: marriage of convenience and this is indisputable;
- the stability of the enterprises is a guarantor of the quality of the shoes they produce - all these aspects together provide a revolution in quality, guaranteeing the manufacturer stable success in a market with unstable demand;

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OAJI (USA) = 0.350

References:

- (2019). *On the possibilities of regulatory documentation developed within the framework of the quality management system (QMS) for the digital production of defect-free import-substituting products*: monograph / A.V. Golovko [and others]; under general ed. Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.227). Novochoerkassk: Lik.
- (2022). *On the priority of the territory of rapid socio-economic development of small and medium-sized cities in the regions of the Southern Federal District and North Caucasus Federal District in the production of in-demand and competitive products by market consumers*; with the participation and under the general ed. Master A.A. Blagorodova, Dr. Tech. sciences, prof. V. T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University, Doctor of Economics, prof. G. Yu. Volkova, LLC TsPOSN "Ortomoda". (p.544). Moscow: Editus.
- (2022). *On the importance of forming a territory of rapid socio-economic development on the basis of the mining towns of the Rostov region for the production of in-demand products by consumers of the Russian Federation and the regions of the Southern Federal District and North Caucasian Federal District*; with the participation and under the general ed. bachelor A.A. Blagorodova, Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University, Doctor of Economics, prof. G.Yu. Volkova, LLC TsPOSN "Ortomoda". (p.668). Moscow: Reglet.
- (2021). *Methodological and sociocultural aspects of the formation of effective economic policy for the production of high-quality and affordable products in the domestic and international markets*: monograph /O.A. Golubeva [and others]; with the participation and under the general ed. candidate of philosophy sciences, prof. Mishina Yu.D., Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.379). Novochoerkassk: Lik.
- (2020). *Features of quality management in the production of import-substituting products at enterprises in the Southern Federal District and North Caucasian Federal District using innovative technologies based on digital production*: monograph /O.A. Golubeva [and others]; with the participation and under the general ed. Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.463). Novochoerkassk: Lik.
- (2018). *Managing the real quality of products and not advertising through the motivation of the behavior of the team leader of a light industry enterprise*: monograph / O.A. Surovtseva [and others]; under general ed. Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.384). Novochoerkassk: SURGPU (NPI).
- (2018). *The competitiveness of an enterprise and the competitiveness of products is the key to successful import substitution of goods in demand by consumers in the regions of the Southern Federal District and North Caucasian Federal District*: collective monograph / V.T. Prokhorov [and others]; under general ed. Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.337). Mines: ISOiP (branch) DSTU.
- Aleshin, B.S., et al. (2004). *Philosophy and social aspects of quality*. (p.437). Moscow: Logos.
- Porter, M. (2005). *Competition* / trans. from English. (p.608). Moscow: Publishing house. Williams House.
- (n.d.). "GOST R ISO 9001-2015. National standard of the Russian Federation. Quality management systems. Requirements" (approved by Order of Rosstandart dated September 28, 2015 N 1391-st) (together with "Explanation of the new structure, terminology and concepts", "Other international standards in the field of quality management and quality management systems developed by ISO/TC 176") [Electronic resource], Retrieved from http://www.consultant.ru/document/cons_doc_LAW_194941/
- (2015). *GOST ISO 9000-2015. Interstate standard. Quality management systems. Basic provisions and dictionary* [Electronic resource]. Retrieved from <http://www.consultant.ru/>
- (2019). *Quality management system - the basis of technical regulation for the production of import-substituting products*: monograph / A.V. Golovko [and others]; under general ed. Dr. Tech. sciences, prof. V.T. Prokhorova; Institute of Service Sector and Entrepreneurship (branch) of Don State Technical University. (p.326). Novochoerkassk: SURGPU (NPI).