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ON THE EFFICIENCY OF MANAGEMENT OF THE QUALITY OF THE TECHNOLOGICAL PROCESS OF PRODUCTION OF PRIORITY AND DEMANDED PRODUCTS

Abstract: The article considers the possibilities of producing competitive and in-demand products, which are possible only if there are managers who are professionally trained and motivated for the results of their activities. The authors believe that the motivated responsibility of the leaders of light industry enterprises is the highest measure of expression of their professionalism. But if they do not fulfill promises and statements, this is evidence either of their inability to engage in economic policy, or the use of economic management is carried out by them in interests alien to the interests of society, provoking the impoverishment of the people, characterizing the immorality of leaders, which, of course, is unacceptable. The results of the research justifiably assert the feasibility of an integrated approach in managing the quality of the technological process for the production of demanded and competitive products, which will allow manufacturers to guarantee themselves a stable financial condition, and provide consumers with preferences in the purchase of domestic products.

Key words: preference, demand, quality control, quality assessment, set of properties, product, product, object, satisfaction of requirements, market, competitiveness, priority, defects, their classification.

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Introduction

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A new economic reality emerged in the 1970s under the direct influence of the scientific and technological revolution. The technical complexity of the product has increased, the warranty period has increased. The changes that have taken place forced us to abandon the simplified model for determining the cost of quality. The concept of the cost of quality was born, based on reducing the cost of quality through more rational financing and reducing the overall cost of producing a product. They tried to make the economy economical:

The first is that the emphasis in quality management has shifted towards solving the general problems of developing production, its standardization. G. Taguchi generally called its cost a measure of quality and gave the following calculations: one wash of a shirt costs 250 yen, usually a shirt is washed 80 times during the service. Laundry costs are 20,000 yen. If they can make a shirt that wrinkles and gets dirty twice as fast, the consumer can save up to 10,000 yen. Suppose a new shirt costs the manufacturer 1,000 yen more, and sales increase by 2,000 yen, the manufacturer will receive 1,000 yen in revenue, and the consumer will benefit 8,000 yen. Society will save 9,000 yen plus reduced

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environmental spending because there will be less laundry waste. We are not against quality manipulation. Within certain limits, this is a forced measure, indicating the limitations of cognitive and other possibilities. The theory need not be conservative, but quality manipulation is a tactical level of management as opposed to the strategic value and significance of quality management. Manipulation is one of the management tools, and it must remain a private, changing matter in the quality management system.

The second thing to keep in mind when analyzing the perspective of private self-quality control. Private initiative is conditioned by the general political and economic situation. Socialism could be built in a single country, but it turned out to be impossible at this historical time to ensure the competitiveness of socialism. Capitalism is still strong. The same situation awaits private producers. He delivers a quality product. Will he be able to work sustainably in an environment that is not ripe for such a practice.

Quality represents a system essential for the product properties - it is commonplace and well-known, which is actively used, replacing properties, or their consistency in a quality product. Essential properties are those that are not just inherent in the product, they determine its functionality. Such properties, as a rule, are revealed in the process of "work" of the product for its intended purpose, they are hidden from the unprofessional view of the consumer. In its "pure" form, the market is an intermediary and should not be interested in the quality of products. The task of the market in the theory of the organization of commodity production is the organization of exchange between the producer and the consumer. The development of the market stimulates the increase in production in the interests of the consumer within the infrastructural status of the market.

Surprisingly, but, nevertheless, the fact that the study has to start classically with the formulation and the general problem of a comprehensive study of quality management, which remain a "hedgehog" in a dense fog. The reason is simple, because the promise of a comprehensive study of the problem remains a wish. The content of studies 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 certainly relevant at all times and for any activity.

The noted shortcoming is also inherent in our works devoted to the problem of quality. To some extent, we are 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, having found a weak link in our opus. And they will do it right. Others - and we, taking into account criticism, will step further, forward, collectively solving what is beyond the power of individual researchers, even when they combine their various cognitive resources and when, for example, in our case, industry specialist, systems economist and philosopher.

The basis of the theory of quality management is the philosophical development of this concept. "Quality" is a philosophical category, and the solution of the task put forward depends on how 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 even in our time. An important conclusion follows from this: before building a quality management strategy, you need to decide on which philosophical "shore" you are going to land.

Quality is a general and fairly stable certainty of the subject set. More stable than quality is only the form of being and its substance - the only thing that is invariable by definition. Quality, however, also flows along the river of time and changes. The quality within itself changes, changing its states, and radically, losing its certainty, 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 that have been fairly battered by class ideology. Philosophers-conservatives in Soviet times settled down quite well, erecting barricades, because of which they shot arrows of anger at their enemies, absolutizing the political background of philosophical movements. The critics triumphing in the arms of liberal democracy, cracking down on a restless legacy, do not look in the best light either. Encouraged by "noble anger", they have essentially turned to the past and are not so much "trampling" this hateful past as they are marking time, slowing down the movement of the cognitive process.

"Materialism", "idealism", "metaphysics", "dialectics" should not be abandoned, but they should be cleared of pseudo-ideological "husk", thereby revealing the inherent rational meaning in these phenomena. These concepts are a kind of "boundary pillars" of philosophical and scientific knowledge, warning, on the one hand, of the need to adhere to certain guidelines in cognition, and on the other, requiring the development of conditions for boundary interaction.

Boundaries in knowledge are designed not to limit, but to isolate one from the other. Their rationality lies in the fact that they regulate the

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cognitive process. K. Marx, who wrote that G. Hegel's idealism is "materialism put 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 idealist idea to solipsism, and with his philosophical exercises damaged the rationality inherent in the highest achievements of idealist philosophy.

The history of philosophy warns everyone who has embarked on the path of knowledge: most of all be afraid of one-sidedness. It inevitably leads to absolutization, a state of cognition, in which the natural connection between the ideal and the material in it is broken, and the movement towards truth is closed.

Quality management begins with a philosophical, that is, philosophical and methodological orientation of the theory. There are no alternative options. In the development of management theory, it is pointless to deviate from philosophical foundations. Collaboration with a rationally interpreted philosophy must be actively sought.

The question: where is it, this rational philosophy, has long become a rhetorical one, since the time of the first philosophers. It was not ready-made, no, and will not be like a "magic wand", "self-made tablecloth", "philosopher's stone".

Rationally interpreted philosophy is an exclusive product of the interaction of professional thinking with the philosophical heritage. Objections like "not everyone can do this" is quite suitable for the situation. True, this is given to everyone, but not everyone takes the responsibility of building a quality management system. Most are waiting for instructions and regulatory materials in a complete set. According to the current fashion: a briefcase with documents.

Our Russian market not only ugly tore the national economy, giving some fatty pieces, leaving others 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 craving for reflection "for life in general", including personal and national problems. The German is distinguished by law-abidingness, the American from the USA is adventurism, the Italian is spontaneity. Our ancestors were distinguished by responsibility, fading before our eyes.

The philosophy of quality is a collective concept, synthetically built. The understanding of quality in various philosophical theories differs significantly, because it is "tailored" to the system and the method used in its development.

In such an ambiguous situation, one must begin with the conclusion: everyone is right and no one is

right. What kind of abracadabra, - one who is accustomed to thinking according to the formula laid down by nature "either - or", will say, - We do not 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 easier, clearer, you can't go wrong.

Main part

A new economic reality emerged in the 1970s under the direct influence of the scientific and technological revolution. The technical complexity of the product has increased, the warranty period has increased. The changes that have taken place forced us to abandon the simplified model for determining the cost of quality. The concept of the cost of quality was born, based on reducing the cost of quality through more rational financing and reducing the overall cost of producing a product. They tried to make the economy economical:

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Quality represents a system essential for the product properties -it is commonplace and well-known, which is actively used, replacing properties,

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or their consistency in a quality product. Essential properties are those that are not just inherent in the product, they determine its functionality. Such properties, as a rule, are revealed in the process of "work" of the product for its intended purpose, they are hidden from the unprofessional view of the consumer. In its "pure" form, the market is an intermediary and should not be interested in the quality of products. The task of the market in the theory of the organization of commodity production is the organization of exchange between the producer and the consumer. The development of the market stimulates the increase in production in the interests of the consumer within the infrastructural status of the market. As a result of the research, it was confirmed that the interaction of the assortment policy with innovative technological processes, formed on the basis of the use of universal and multifunctional equipment, allows the heads of light industry enterprises to form such a price niche that guarantees them the replacement of imported products in the sales markets in the regions of the Southern Federal District and the North Caucasus Federal District with domestic, demanded products, and the population of these regions - to create new jobs and provide them with social protection from the economic crisis.

In addition, the authors analyzed the possibilities of the company's policy and goals in the field of quality within the framework of the QMS in order to fight for defect-free production, to reduce defects and guarantee consumers high quality of manufactured products. The use of software for assessing the validity of the choice of innovative technological solutions for the production of priority products by domestic enterprises creates the prerequisites for its demand and competitiveness not only in the domestic market, but, most importantly, in its export. The need to improve the quality management system at domestic enterprises is due to the following important reasons:

firstly, it is an increase in the confidence of potential consumers in the products that will be produced by domestic enterprises;

secondly, it is an opportunity to significantly strengthen one's position in existing markets, as well as significantly expand spheres of influence by entering new domestic and foreign markets;

and thirdly, this is a significant increase in labor productivity of any industrial enterprise, which is supposed to introduce a QMS using participatory management.

The choice of light industry enterprises as an object for assessing the effectiveness of the socio-psychological factor in the implementation of the QMS is due to the fact that these enterprises are characterized by the presence of highly qualified workers and specialists. Thus, the Policy of goals and objectives of the QMS will be implemented much more professionally and at a lower cost due to three

main aspects: employee involvement, process approach and systematic approach. In addition, the personnel of light industry enterprises are more effectively able to realize the goals and objectives of the QMS also because control activities are more professionally carried out to fulfill the following situations: persuasion, execution of delegated powers, creation of conditions for increasing productivity and effective use of the business qualities of employees.

The authors of most studies justifiably paid attention to solving the problem of combining state and market mechanisms for managing competitiveness because it becomes a strategic resource for the economy of these regions. Today, and even more so tomorrow, in the global economy, the place of price competitiveness will be taken by the competitiveness of quality levels, which has widely increased its importance in connection with Russia's accession to the WTO and the need to use the ISO 9000 series. In this regard, the increasing importance of the quality factor of the results of the domestic light industry in the strategy of competitive struggle in the world markets will become a priority and will be a long-term trend.

The task of increasing competitiveness is especially urgent for those enterprises that, due to external factors (increased competition due to globalization, the global financial crisis) and internal factors (inefficient management), have lost their competitive positions in the domestic and foreign markets. In response to negative processes in the external environment, the processes of regionalization and the creation of various network structures are intensifying, one of which is the formation of a union of producers and the state.

The formal logic of thinking, formed spontaneously, reflects the world of things in the first approximation, roughly. F. Engels rightly compared it with elementary mathematics, which is not capable of describing the process, therefore it is limited to actions with finite values. "What is good and what is bad" is the lot of formally logical reasoning, for which "there is no silver lining", or "two different sides of the same coin" - judgments that are not according to the rules, forbidden.

Political ideology also imposes prohibitions on thinking, dividing thoughts into own and hostile, right and wrong, forcing the public consciousness to work according to the simplified rules of the formal logic of individual thinking. Logical blinkers are justified, pseudo-ideological justifications have no just as well as the actions of those who have views that are different from their ideology, deafening, 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 understanding quality is the same. K. Marx and F. Engels, distancing themselves from Hegelian idealism, protected his dialectical understanding of

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thinking in every possible way, developed the positions put forward by him, and protected them from criticism. They were better than anyone aware 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 in a certain way, related essential properties of phenomena;

- 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 invariantly objective;

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

All three of the above characteristics of quality 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 the quality into two groups: the objective qualities of things that are significantly inherent in them, and the qualities that arise in the process of cognition. The latter are absent in things, but are formed during the interaction of things and human feelings. Things excite certain feelings and they react with the formation of qualities corresponding to the received signal - sensations. The duality theory of quality by J. Locke was not criticized only by the laziest. He got it from the materialists for concessions to idealism: the idealists did not spare him for a group of objective qualities.

Does such an active criticism of the English thinker's beliefs mean that he was wrong in everything, getting lost in the wilds of the philosophy of quality? Not at all. The ideas of an intelligent person cannot be stupid if they are not a joke, and J. 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.

J. Locke was far from being able to combine the ideas of opponents, and to overcome the existing conflict with such a primitive method. He wanted to emphasize the role of consciousness in the history of the formation of quality, the activity of the subject, but he could not consistently implement his plan. The essence of his initiative - the desire to include the activity of the subject in the theory of quality - deserves special attention.

Time passed, the idea matured under the influence of practical factors. Philosophers returned, but not to the philosophy of J. Locke, 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 originality of the quality of the activity itself, which creates the quality of things, has also become topical.

Suffice it to recall the modern, international quality control system ISO-9001. It is the idea of the quality of activity that is basic in it. It would be a mistake to equate quality and thing. As a particular combination of properties, a quality is, by definition, 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 fits in with consumer assessment, the concept: "quality is that, losing something, the object ceases to be itself." "Ceases to be itself," but does not cease to exist at all.

Not meeting the requirements of quality, the phenomenon turns from one state into another, or into another phenomenon. The examination gave a conclusion about the non-compliance of the goods with technical (and consumer) parameters. The goods were transferred to the category of out of condition, defective product, but the thing remained and along with it some prospect of its disposal was preserved: elimination of non-compliance with the standard, processing. You can't wear shoes, you can try to bail water out of a leaking boat with it, tamp down tow, chat, but you never know what a failed boot can fit in a big household - you can even put it on a samovar.

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

Experts distinguish the shift in market needs towards quality products. The market is maturing. This confirms the monitoring of demand. In this long-awaited situation, it is important not to lose the philosophical ground, 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 modern image. Only the correct orientation in a specific time as a life interval, when it is relevant, guarantees the success of the sale of goods.

The manufacturer and seller must be modern. Their modernity is due to the ability to provide an optimal product range and match a specific product with the expected quality level in order to fall into the optimal price range dictated by the effective demand of the product consumer, expressing his need for the product.

Quality for the consumer is not an abstraction created by the professional thinking of the

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manufacturer. The consumer looks at quality through the sight of the wallet. As long as the market exists, the price remains its hallmark. If the buyer first asks to see the product and only then asks how much it costs, then the result does not change from the rearrangement of behavior elements. The client will definitely ask his sacramental question, the answer to which will determine how the act of sale and purchase will be resolved.

Quality is not adapted to independent existence. As a thing is presented, when it is on the market - a commodity. And here the main thing in the theory of quality begins, so let's stop and analyze the problem in more detail.

The quality of things that form nature arose naturally, spontaneously, according to a complex combination of natural laws. It follows that the quality of such naturally created phenomena is unequivocally objective in all respects.

The history of the quality of phenomena created by human activity turns out to be different. In public practice, the spiritual component of a person is realized. A person builds a house, sews shoes, clothes, coordinating his actions with the mechanical, physical, chemical, biological properties of natural things, but we are not making the final product 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. Differences in the objectivity of the quality of a natural phenomenon and that created by man is the formation of the quality of a thing in a thing in the nature of social practice. Quality is built consciously, aimlessly and unconsciously, in order to "humanize" a thing, to give the objectivity of quality to it the necessary meaning,

As things produced by the practical activity of man, as this activity itself, the objective properties of things and the subjective forms of human being are intertwined, fused. The quality of things made by man is objective, but in their objectivity the reasonableness (or unreasonableness) of a person is expressed. And here is precisely the knot of contradictions between the producer and the consumer.

It can only be unleashed by coordinating views on the consumer properties of the manufacturer's goods with a real assessment of consumer needs and opportunities. The quality of goods should be developed solely with regard to careful marketing monitoring, respectively, pulling up 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 labor to a state that awakens the specific interest of consciousness. Things of natural origin also attract human interest by the ability to evoke aesthetic

feelings, have a therapeutic effect, be a material or a condition for the production of everyday life, which is understandable - a person "came out" of 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 a value-added product. According to the position, it should also be the initial link in the development of the ideology of quality management.

A quality thing can be produced exclusively by high-quality professional activity - this is the first and basic law of production quality. Natural disasters can do a lot. They are people acquiring gems, techniques, building materials. Diamond is the brainchild of the natural elements. The mineral has an original unique natural quality, but diamond products build on natural quality so many new qualities in which people are interested that natural quality remains essentially important only for natural stone processors.

The end product of a diamond, be it a piece of jewelry or a technical element, is the result of professional work. In the gemstone market, there is a difference in interest in the source material - what deposits it comes from, but most importantly, in who will turn diamonds into polished diamonds. The quality of a diamond is due to the combination of raw materials and craftsmanship in the product. And since the master chooses raw materials, the contribution of his professionalism to the quality of the product is of decisive importance.

Hence the second law of production quality: to ensure the quality of the product, it is necessary to have high-quality training of specialists capable of maintaining and increasing professional skills.

The third law of production quality requires the focus of professional activity on improving the technological process through integration with science and technological progress.

The concept of "quality", reflecting the subject diversity of the world, is thereby obliged to reproduce in itself an objective difference. This is done through quality structuring. Structured quality is a particularly significant factor in the theory of quality management. It is advisable to divide the quality into the following seven structural levels according to the level of significance from the contribution of the "human factor":

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

Organizational and managerial activities aimed at producing a high-quality salable product itself require quality control. Audit of the quality of the

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organization and quality management of production involves the structuring of the relevant activities. Our research experience of the problem suggests that the process of organization and management should 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, focuses research attention on the signs of quality activity, the need to build their systemic relationships. Philosophical literature on the selected 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-philosophical doctrine of quality, because the old materialism was, in essence, a philosophy of contemplation, and not of transformation of the world. No wonder 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 creed of dialectical philosophy and science.

The universal model of relations between the system properties of professional activity is explained by the scheme already given and proposed by us: The signs of professional activity included in the scheme are well known. Professionalism is usually associated with them both in scientific and practical consciousness. The novelty does not lie in the signs themselves, but in their representation by a systemic formation, which gives them a new level of significance. When presenting a system, researchers usually refer to the discovered by Bertollanffy effect of the system connection of properties: the discrepancy between the sum of the system's features and the sum of the features of the elements that form the system. The effect described by Bertollanffy makes it possible to judge the systemic organization of properties, actions, phenomena as the most effective form of relations, which is important for the effectiveness of management, on the one hand, and the perfection of the organization.

Quality management, building on its philosophical interpretation, takes its next step along the path of systemic organization of the activity program, sorting out the location of systemic signs of activity so that the built system would be vitally stable, relevant and reasonably safe.

A systematic approach is currently the most qualitative way of knowing and organizing the management of any complex activity. There are probably no more doubts about the greatest efficiency of using a systematic approach. There are those who inadequately perceive and evaluate the indisputable advantages of a systematic approach, absolutizing its

importance to the detriment of other methods, in particular, an integrated approach. An integrated approach in theory and practice has not squandered its value in competition with a systematic approach. They are not very badly combined, complementing each other, and increasing the efficiency of both organizational and managerial and cognitive activities. It is more convenient to analyze the quality of activity from the standpoint of a systematic approach. The theory of quality management, it seems to us, is more reasonable to build on the foundation of a comprehensive consideration.

The system approach is fundamentally distinguished by the way of building knowledge, in which the relationships that form the phenomena of elements, features, are built depending on the basic relationship, called the system-forming factor. The system is formed like a crystallization process by successive increments to its constituent parts.

It is systematically expedient to build, for example, products made of leather, fur, textiles, when a certain, agreed state of the quality of the material is taken as a system-forming factor and the entire series proposed for production is "attached" to it. The quality and place in the market in this case will be determined by the quality of the corresponding state of the material used in the manufacture of each specific range 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 equivalent, and act in some rating dependence. A good example of using an integrated approach is the construction of quality management.

The above scheme demonstrates the relationship and role responsibility of the main elements of the preparation and implementation of the production quality management process. It quite clearly shows the key relationships: the connection of the philosophical aspect with technical regulation, which makes it possible to concretize methodological and theoretical studies to the level of normative and technical tasks; technical regulation with a right aspect, including 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 the quality of production on the technological state of production and scientific equipment

To complete the philosophical analysis of quality at the level necessary for the use of this knowledge in the practice of economic management of production quality, a schematic diagram of the relationship between philosophical concepts describing quality, docked with economic categories, will help. It was developed by us several years ago. Our return to it is forced. The reason is that we didn't have a choice. Philosophers continue to analyze quality abstracted

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from specific forms of economic practice in the light of their professional interests. Economists represent quality narrowly empirically within the framework of mercantile interest.

Philosophy warns that the objectification of quality has real meaning only in the epistemological aspect of its consideration: when deciding on the nature of quality. Indeed, in terms of the relationship "object - subject", the quality is primary - it is objective in nature. Even constructing 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 that the quality of a thing is objective in material terms, while the quality of a scientific theory is objectified by the adequacy of the reflection in it of the objective quality of a thing, the relations of which are reproduced in a scientific theory.

In the theory of quality management, it is important to correctly understand the dialectic as the organization of production; as an activity organized by production, and finally, as an objective and subjective commodity produced. 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 the quality of goods is revealed on the market through complex relationships between creators, intermediaries and consumers. The originality of the national mentality intersects with them - in the United States and Western European countries, a pragmatic, utilitarian approach dominates in the interpretation of quality on the market; use.

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 goods 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 stability of the reputation of a quality product is ensured by the entire mechanism of the market, including its extensive infrastructure. An enlightened consumer is actively involved in the process of "struggle" for quality. It is necessary for the market, like a pike in a pond, so that crucian does not doze off.

Unfortunately, many Russian manufacturers are not afraid of the boomerang. They know that they will not stay in this sector of production for a long time. As long as the market puts everything in its place, reacts appropriately to the pseudo quality, they will be different and this "crap" will lose its relevance for them. Although experts believe that the Russian market has swung in the direction of 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 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 deactivation of the quality of the goods.

Integrating what has been said, we will give a formula that allows us to reveal the terms of the quality of a product, that is, a product produced by a person to meet certain needs. Phenomena of natural origin included in market relations can also be summed up under it: clean air, mineral springs, therapeutic mud, clay, warm sea, etc., as well as those whose production is not designed for sale, considering these cases as a simplified option. Why is it necessary to expand the interpretation of the concept of "natural properties" by including in its content the intellectual and psychophysiological prerequisites for creative activity. An economic understanding of quality, on the basis of which all known concepts of production quality management were directly developed. Evolved according to dialectical laws, moreover,

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 the profits of companies (internal goal). At each stage of production, market and society, this contradiction had its own specifics and was resolved in different ways.

B.S. Alyoshin and co-authors distinguish four phases in the development of the modern philosophical and economic interpretation of quality: the "rejection phase", the "quality management phase", the "continuous quality improvement phase" and the "quality management program".

The history of economic quality management goes 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 pass a serious test of their products for quality. All products of shop craftsmen had the author's "brand" and were unique in their kind. Quality management was simplified by the production itself, its manufacturing nature, which did not allow production to unfold on a scale. No agreed quality standards at that time, of course, did not exist due to the difficulty of comparing strictly individual products of masters and, even more so, trying to develop some kind of model to follow. The uniqueness of the work of the master ruled out imitation of anything in principle.

Only much later, at the arms factories of S. Colt, standardization of the quality of products appeared.

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Such an unusual decision was prompted by the fact that in the conditions of mass production, the final product began to be assembled not from specially made and fitted parts, but from randomly selected parts from the corresponding batch. For the first time, production was equipped with special calibers, and trained inspectors checked parts on them before assembly.

The heyday of the idea of standardization fell on the era of mastering the production of cars in the United States. G. Leland, the creator of the Cadillac company, came up with a pair: "through" and "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. For the first time, a technical control service independent of production was also created at Ford factories.

Like-minded H. Ford F. Taylor, who worked in a creative connection with his patron, did a serious job of scientific understanding of innovations in production. As a result, he managed to formulate the principles of scientific management focused on the quality of production: a systematic approach; personnel management; mandatory division of responsibility between performers and organizers in achieving high-quality and efficient work; the need for science-based labor rationing.

UGH. Taylor, the undisputed founder of scientific management. It was he who first discovered the "exhaustion" of the effectiveness of the main provision in management practice: "initiative - encouragement" for the quality of work. "In contrast, F.W. Taylor, 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 a systematic accounting of measurement has been made, etc. their actions."

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

creation of a scientific foundation that replaces the old, traditional, practically established methods of work, scientific research of each of its individual elements.

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

Equal distribution of labor and responsibility between management and workers.

F. Taylor himself imagined the guarantees of the quality of production and its efficiency as follows: "Science instead of traditional skills; harmony instead of contradictions; cooperation instead of individual

work; maximum performance instead of performance limitation; development of each individual worker to the maximum available to him productivity and maximum well-being.

Try to reasonably object to F. Taylor. 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 "Basically has existed to this day and has become a model for organizing the production of most modern enterprises. It was only in the 1970s that another concept began to replace it - the Toyota Production System.

The ideology of the "rejection phase" was simple and clear: only high-quality products should be at the output of production; a meeting between the consumer and defective products cannot be allowed. The main efforts of managers should be focused on quality control of components and assembly of finished products. In the relative simplicity of the concept of "rejection phase" was its reliability and the relativity of its reliability, led to the need for innovation in the future.

The reliance in the ideology of production quality on the "rejection phase" has had a practical effect. It would be surprising if the result was not positive. Increased attention to quality control is logically presupposed 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 stability of the economic (and, to a certain extent, social) effect achieved by the pioneers in the development of a scientific solution to the problem of managing the quality of production is surprising.

And yet, the side of the "rejection phase" hidden until the time had to emerge. The shift of management to the phase of high-quality pre-production - in fact, towards the special status of control functions, signaled an increase in the corresponding costs for providing high-quality products.

The quality of production and the quality of manufactured products are a single whole, but not the same thing. The development of production is undoubtedly due to the quality of manufactured goods. E. Deming rightly placed at the head 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 in the transition from an industrial to a post-industrial society of a mass consumer is increasingly becoming a function of the market "The buyer is always right" - no matter how the well-known judgment is contrary to the seller, who is forced to adapt to the demand of the buyer, he has no choice.

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There is no choice for the manufacturer, for which the "seller" is the "buyer".

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 the end in itself of production, otherwise a good deed will turn into a deadly disease. The quality of the goods is not able to compensate for the inefficiency of production as a whole.

Improving the quality of the final product always requires the cost of its provision, 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 conflict that had arisen. Managed to soften it up. Among the innovators of the reconstruction of the "rejection phase" stood out an employee of the technical control department of the American company "Western Electric" W. Shewhart, who proposed a method for constructing diagrams, better known as "W. Shewhart's chart control".

In the first approximation, the initiative of the American specialist looks quite radical. W. Shewhart abandons the key quality control scheme of F. Taylor, G. Ford. In the center of quality control, instead of the pre-production stage, at which it is necessary to reject low-quality products, the production process itself turns out to be.

The system of W. Shewhart's methods was aimed at improving the technological process, which was intended to help increase the output of finished quality products.

In the concept of V. Shewhart, a dialectical approach to business is initially felt. His predecessors tried to "sort out the production on the shelves" and load the "shelves" in such a way as to get the desired result. As a result, they overloaded one of the flank "shelves" and the entire structure was skewed. The stage of preparation - control became the most costly, while the main stage - the technological one - became dependent on it and was pushed to the periphery of the management process, undeservedly suffered.

W. Shewhart called "things" by their proper names and arranged the stages according to the rank, highlighting the technological one. He risked, simplifying the pre-production stage, reducing the quality of components. In return, he expected to receive a win in the main link of production.

By investing primarily in the improvement of technology, the manufacturer strengthens the production process, making it, in principle, more efficient through organization and technical equipment. As for marriage, it is more expedient to

track it precisely when organizing relations in the production itself, relying on scientific developments and the timely introduction of novelties in the technical process, complete with measures to prepare the quality of the readiness of performers.

The main object of quality management in the concept of W. Shewhart is the production process. The output from it is a flow of measurements of the quality parameters of individual products.

V. Shewhart sends Ford's former goal of "getting into admission" to "retirement". G. Ford's idea worked out its work, awakened new thinking. To replace her, V. Shewhart forms a tandem of goals: ensuring the stability of the process and reducing variations in stability. W. Shewhart considered the presence of variations to be a natural formation. He even derived 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.

W. Shewhart believed that variations in the parameters of products are the result of two groups of reasons: special and general. Special ones are rooted in disruption of the production process. They are identified using a control chart and eliminated based on the readings of such a card.

The common causes lie 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 action of such causes. The common causes of variation in product parameters are the concern of managers, often of a high level and qualification. By their investigations and actions, they are able to limit the actions of general causes. At the same time, W. Shewhart made two very valuable conclusions that should guide the production manager, namely:

firstly, the search for the guilty is necessary, however, having found the guilty, we are rarely able to influence the situation. It is necessary to look for the causes of non-compliance and eliminate them, involving all its participants in this process;

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

Reducing variations in W. Shewhart's quality management system is a complex goal. Associating the number of variations with the organization of the production process, W. Shewhart clearly realized that in order to reduce variations, a new configuration of relations between people involved in production is necessary. The essence of such a new configuration should be comradely cooperation. By the very peculiarity of production, people are united into teams.

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 W. Shewhart

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- on the mechanism of interaction between people in the whole spectrum of their relations: technical, economic, psychological.

B.S. is absolutely right. Alyoshin and co-authors, arguing: "Such a concept as "tolerances" (one of the most important inventions of F. Taylor) undoubtedly remains in the practice of work. "Tolerances" is 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 W. Shewhart continue the desire of F. Taylor to put quality management on a scientific basis, to use scientific methods in the organization of production. But here, too, W. Shewhart is "ahead" of F. Taylor.

Science (and scientific methods) for F. Taylor, G. Ford was reduced to those of her ideas that make it possible to quantitatively measure the mechanical actions of a single performer, find the optimal route of movements and take it under effective control, having previously loaded it with tasks in full. 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. This one-sidedness was understood by critics.

W. Shewhart considered a clear simplification of the mechanistic view of the development of production in general and quality management in particular. The process of production not only combines the interactions of centrifugal and centripetal forces - individual and collective actions: it does not allow the reduction of what is happening in it to relations of a mechanical type.

Man participates in production as a subject of actions and relations. 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 the 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, simplification of the representation and nature of human behavior in an organization.

W. Shewhart understood this, explained it as best he could, and expected to be understandable and in demand by practical management. The new ideas of W. Shewhart did not go unnoticed by business, but, apparently, the inertial forces of the movement of business are so great that ideas begin to act on it only with time and on a total basis.

The short way to profit out of habit was thought to be the simplest. Any complication is associated with additional costs. Will they be justified? In

addition, it is much easier to measure the mechanics of an action than the motivation of an activity.

But it is surprising that, after almost half a century, J. March and G. Simon noted: in the United States, there are two widespread views on the position of people in an organization: "considering an employee as an inert tool that fulfills the purpose indicated to him, and something given, and not as a variable in the system. Another authoritative scientist, M. Hare, agrees with them: "There are implied assumptions about a person, on which, 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.

Three main provisions of the "classical" theory of quality management have not been obsolete so far. They continue to impress, warming the soul of the patrons, caressing their self-consciousness, reinforcing self-confidence in their chosenness. Everything is so well laid out in its place: the worker-executor, in fact, is a "rational animal" with a clearly defined dominant to maximize economic conclusions; "each individual responds to economic incentives as an isolated individual"; "People, like machines, can be treated in a standardized way."

In theory, events unfolded according to a logical scenario. Practice, however, was not so receptive 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 hindered the totality of the introduction of progressive ideas. In order for a person to turn around as a subject of production - to mobilize his abilities of knowledge, it is imperative that the economy turns "face" to a person, acquires a "human face".

In another way, it is impossible to enter the talents of the individual into the interior of production, to make them interested colleagues. Dialectics warns: truth is concrete. The theory is effective in a concrete historical framework. Her life may be long or short, but always finite. The elements of the theory and the experience of its exploitation, expressed in historical lessons, continue to work, being embodied in other, relevant theories and practical actions.

Today's economic component of quality cannot but take into account the acquisitions of W. Shewhart, M. Follet, G. Simon and all those who proved the need to involve the subject's abilities to think and get involved in the struggle for quality. In particular, in our opinion, the power of W. Shewhart's "control charts" remains. They are simple and make it possible to monitor the quality of the process and the activities of the performers. And for performers, they are more

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understandable than the far from always understandable displeasure of the manager, so we give their example (Figure 1).

Having developed a model of a sustainable process, W. Shewhart significantly expanded the possibilities of scientific analysis of the quality of production, thanks to which those aspects and stages of production that remained in the shadows in the "classical" concept were revealed. He introduced the concept of "correcting the process according to its measurement data" into the quality of production, which is quite fashionable to consider as a specification in relation to quality management of the concept of "feedback".

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. With its values 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 systems of feedback regulation should be used for this process.

It is not difficult to see in Shewhart's concept the 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 did a lot. At least, the ideas of W. Shewhart are still viable today, although they have grown old. With a creative approach, they give a good result.

A remarkable contribution to the practice of quality management was the creation of a quality audit service, the function of which differed significantly from the tasks facing the technical control departments of F. Taylor. She was not engaged in sorting, but in checking the performance of the quality assurance system by monitoring small developments from batches of products. Thus, W. Shewhart found a way to reduce the cost of quality, which increased disproportionately when organizing production on the recommendations of F. Taylor. However, W. Shewhart's original thinking 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 high-quality raw materials and components. Each production process has a limit to the output of quality products. This limit is not set in the process. It is an attribute of the system practiced at the enterprise, the product of all aggregate activities, features of the organization of labor and production management, including the quality of production. Approaching the limit leads to an increase in the main contradiction.

Quality assurance requires more and more funds, which leads to a decrease in production efficiency.

In the fifties, a new concept of quality management was formed. Her 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 "the phase of continuous quality improvement".

The version of production quality assurance proposed by E. Deming turned out to be a long-liver, having existed "in authority" for almost half a century, until the mid-nineties. Such a duration of the practical relevance of E. Deming's concept is explained, as it seems to us, by the fact that it was able to become skillfully "planted" on the basis 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 particular problems, fundamental changes are needed;
- E. Deming's third practical axiom is as follows: the top management of an enterprise in all cases is obliged to take responsibility for the result.

The practical concreteness 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", "Deming's Chain Reaction", "The Principle of Continuous Improvement (Deming's Cycle)".

Of particular interest to the practice of improving quality management in enterprises are the penultimate and last sections of the program. The "Deming cycle" is, in fact, a scheme proposed by W. Shewhart, which Deming also recognized. "Chain Reaction" is a product of E. Deming's own creativity.

The Deming-Shewhart cycle loops through four stages: observation, development of improvement measures, implementation, and analysis.

The task of the quality manager:

on the first of them - the collection of information and the identification of weak links in production that require restructuring;

at the second stage, the leader develops organizational measures aimed at changing the situation.

Among them is the connection of all performers due to motivation.

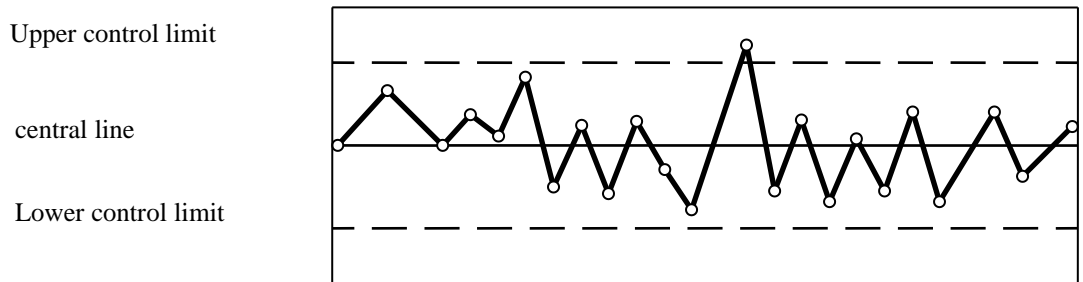
The next stage is the implementation and monitoring of the modernization process. The cycle ends with the stage of analyzing the results obtained from the implementation, building up experience to repeat the cycle.

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Perhaps 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 not for the tradition of naming such discoveries by the names of the authors, then the Deming-Shewhart cycle would be called the "cycle of

the spiral" of quality management. The Deming-Shurhat cycle is undeniably relevant even now for improving the organization of production, since it reflects the universal law of building management. In it, he linked economic and social actions, emphasizing the nature of historical time (Figure 1).



- 0 DATA COLLECTION: Collect data and map it
- 2 CONTROL: Calculate the trial control limits from the process data. Identify specific causes of variation and act on them
- 3 ANALYSIS AND IMPROVEMENT: Assess variation for specific causes and take action to reduce it

Repeat these three phases for continuous process improvement

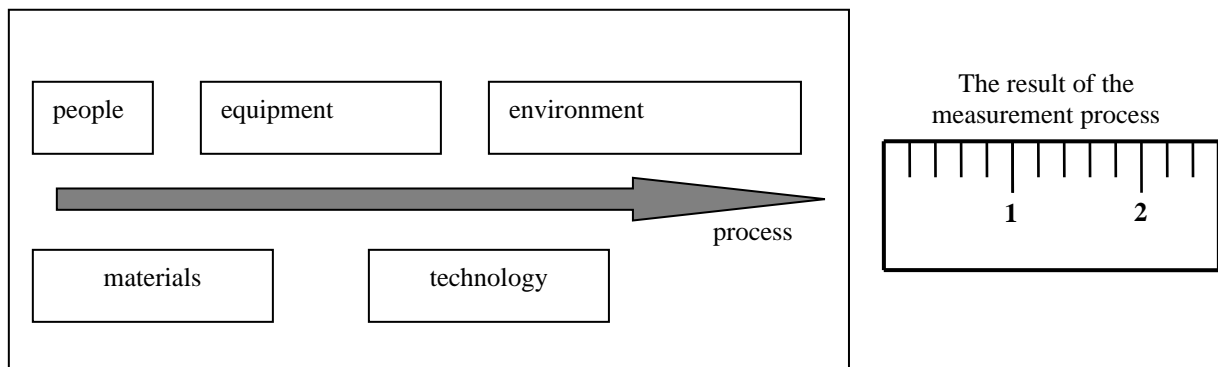


Figure 1. W. Shewhart's control chart

The heyday of E. Deming's creativity is associated with the revival of the Japanese economy. The government and industrialists of the country believed the arguments of E. Deming and he deservedly shared with them the glory of the "Japanese miracle". His contribution is also obvious in the achievement of Japanese specialists in the field of improving the quality of production, which are clearly highlighted in the study by B.S. Alyoshin with co-authors:

1. Long-term, consistent and purposeful solution of quality problems based on everything advanced that accumulates theory and creates practice in this area.
2. 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.), Formation of a respectful attitude towards the consumer and his requirements up to the cult of the

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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.

3. Striving for everyone to participate in the achievement of quality, from senior managers to performers of specific works.

4. Understanding that even a well-functioning system of labor organization without constant checks and improvement loses its effectiveness.

5. Organization of quality assurance work directly by foremen and foremen. Training, including special programs on national television, national conferences for foremen and foremen.

6. Particular attention is paid to the mobilization of the physical and intellectual potential of workers. Quality circles - a group analysis of the state of affairs in a particular area and the development of proposals for improving the quality and increasing the efficiency of processes and production.

7. Widespread development of a permanent system of propaganda of the importance of high quality products to ensure high rates of economic growth.

8. State influence on the cardinal improvement of the quality, primarily of export products, including mandatory state certification. An attempt to sell non-certified products for export is considered as 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, namely Russian ones, since, having declared the Russian Federation the successor to the USSR, Russian politicians and economists close to them in 90 years systematically destroyed the socialist experience in building the quality of production instead of rationally modifying it. Quality in the 1990s was not necessary for anyone who should be responsible for it. The economy was reoriented towards raw materials, the quality of which is either determined by natural origin or "compensated" by realized quality.

Comparison of 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 the least concerned about the interests of the Fatherland, and they did not care about quality at all, squandering 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 for the country's economy. In this context, it is appropriate to "walk through" a number of Japanese achievements, keeping in mind the opportunity to draw practical political and economic lessons from them. There is no doubt about

the total conclusion: the efficiency of the economy is determined not by the quality of the goods produced, but by its assortment and quality. The transition of quantity into quality could be expected only by those who have simplified the dialectic to the point of stupidity. In a new quality, it turns not into quantity, but into quality and only into it.

The Japanese teachers were Americans, but the Japanese learned very seriously from the experience - both positive and negative - of the Soviet Union. We still haven't really made up our minds. The whole world perceives our current declarations and certifications with skepticism. Those who do not know how to appreciate and use their own achievements are not able to adequately master other people's.

In Japan, the attitude to quality has become a national idea, and embodied in the form of a "struggle", in which it was prestigious to participate in everything from the janitor to the general director. A system of mutual interests has developed, supported by finances, organizational (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 they offer. It does not appear in the candidates for the national idea. Enthusiasts deal with quality seriously only, wading through the "thickets" of democracy, apathy, and so on.

Our "helmsman" is not up to quality. The "Captains" are still paving the way to the West and investing in a non-native economy. It is a paradox that 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, oligarch candidates seek their fortune in distant countries. The Japanese concentrated capital in their native 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 that was on the Japanese islands, except for national self-respect. And it became a launching pad for the revival of the country. We emphasize that the Japanese were actively looking for specific mechanisms for turning quality into the total interest of the nation in the practice of organizing a quality service in the USSR: "cadres decide everything!", "Quality is the main attention!", "Everything is at the service of quality!" These are slogans from Soviet history. And behind them stood 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. Essentially, the media were not limited to advertising quality. They organized schools, courses, universities to train the quality of key persons involved: foremen and foremen. National finances were directed to

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education and training in quality work and its organization.

What do we have? Quality is at the mercy of everyone who makes a profit on training and education. What they did was squeeze 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 announced the support of international quality systems, the top political management of the Russian Federation considered its mission accomplished, deciding that the market will regulate the rest.

The ideas of E. Deming were continued in the concept of another American who worked for the "Japanese miracle", Y. Juran. Y. Juran shifted the focus in the development of a quality management system from statistical methods towards the absolute value of the customer, dividing the emerging problems into random and chronic. Randomly (suddenly) emerging quality problems of a one-time (single) origin. They are not inherent in production. Problems should be solved randomly in the working order within the framework of current management. To this end, it is necessary to clearly allocate the responsibility of managers for the adoption of control measures and the timely introduction of corrective measures.

The problem of a chronic order is another matter. They are present in the process and, as it were, "planned" from the very 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 the implementation conditions and their own movement, they become significant and become unacceptable. It was the chronic problems that J. Juran "accused" of stagnation or loss of quality indicators.

The company's management should not be complacent about good performance compared to the previous term. It is necessary to look not backward, but forward, otherwise it is easy to get into a crisis situation. The complacency of management is a "deadly disease" for production.

It is pointless to try to solve chronic problems by orders. We must begin by identifying their main causes, sources. Knowing the causes, Y. 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 20th century was marked by an intensive intrusion into quality management of mathematical methods for studying the process. A new scientific discipline emerged - the theory of managerial decisions, which was the development of operations research. In decision theory, the focus is on

decision making. It was interpreted by the process, available for quantitative measurement.

The work was carried out in two directions. Supporters of the first of them tried to find mathematical models suitable for use in real production situations (Fogal, Luce). The developers of the second one turned to statistics, 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 "tie" mathematical research to the problems of quantifying economic phenomena as much as possible. As a result, the so-called "econometric" approach to the analysis and management of economic processes, first of all, the efficiency and quality of production, appeared. According to the above concept, the economic-mathematical model should have four components:

1. It should include economic phenomena of qualitative content, expressed in certain units of measurement. Such quantities are model parameters;

2. It should include certain quantitative relationships and dependencies between parameters. These can be balance ratios or more complex dependencies that link the results of processes with the causes that cause them;

3. The model should determine the area of permissible changes in the model parameters in time, space and volume - "limitations placed on quantitative dependencies";

4. It should be a system of interrelated parameters, dependencies and restrictions with certain inputs and outputs.

The management of such a system, that is, obtaining certain results at the output, should be carried out by influencing only the input. Without interfering with its internal structure.

The most famous economic models are those of 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 advanced methods develop, we will come closer to realizing one unpleasant fact: economic "laws" are difficult to accurately measure, and therefore 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 somewhat of an exception. In contrast to the low efficiency of using the mathematical apparatus in the study of the economy as a whole or individual industries, the

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application of mathematics to quality management turned out to be quite an acceptable action. Both Deming and Juran actively used its capabilities.

An analysis of the economic strategy in the field of quality management shows that the effectiveness of quality management depends on the agreed macro and microeconomic views. Real Japanese experience also teaches this. The solution of the quality problem itself is supposed to be a step-by-step process from identifying problems, through diagnosing their condition and finding solutions to implementing the decisions made, retaining and developing the results achieved.

At the first stage, J. Juran called "a problem in which a solution is programmed", problems are singled out, priorities are identified, a rating order is established; performers and their powers are determined.

At the diagnostic stage, the optimal symptoms of the condition are determined; hypotheses are built, tested; causes are being sought.

The solution search stage involves finding optimal solutions; development of necessary measures; implementation of the adopted decisions.

The final stage consists of checking the effectiveness of the implementation results, comparing the achieved results with the planned ones in the dynamics.

The high efficiency of the concepts of Deming and J. Juran provoked F. Crosby to combine their systems with the experience of quality management accumulated in the United States.

The Zero Defects program by F. Crosby did not become 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 connect to the quality of the activities of non-production units.

F. Crosby believed that each process site should have an engineer responsible for quality. His professional duties include presenting a daily list of issues causing major and frequent defects; systematizing them according to their importance for quality; determination of corrective actions; attraction of personnel employed on the site.

The 'continuous quality improvement phase' helped bridge the tension between spending on quality and achieving production efficiency. The consumer began to receive a quality product at an affordable price, the implementation of the idea of a "consumer society" has come closer.

From the manufacturer's point of view, this is an ideal situation. But the assessment of the situation was one-sided, only from the position of the consumer; quality parameters were set not by the one who consumes the goods, for whom the product is made.

Quality was standardized in the manufacturer's norms and, of course, reflected primarily his own

interests. The consumer was left with a choice: to purchase a product of a certain quality or refuse.

This again led to the "overheating" of production, to an increase in its cost, as there were frequent miscalculations in determining the needs of consumers. A high-quality (according to the manufacturer's estimate) product, affordable, did not find the necessary demand among consumers.

It was necessary to eliminate the new form of contradictions taking into account the interests of the consumer. The "continuous quality improvement 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 purpose of G. Taguchi's research was to overcome the contradiction between quality assurance and production efficiency in its existing forms.

The foundation of the concept of quality planning was formed by four new ideas:

1. Conclusion that product defects are mainly due to poor-quality actions at the design stage;

2. Conclusion on the need to focus the main products not on full-scale testing of product models, but on mathematical modeling of both products and the process of their production. Due to what they expected to timely detect and eliminate the reasons for the increase in marriage. It was proposed to take control of the design and technological processes up to the stage of actual production;

3. The idea that the concept of "zero defects" should be replaced by the idea of "satisfied customer";

4. The high quality of the goods should be emphasized by an acceptable price and a constant price reduction, thereby ensuring a stable, market demand for quality goods.

A new turn in the development of quality management, overcame the noted form of fundamental contradiction between quality and production efficiency, but not the contradiction itself. At present, its next "ecological" form is being formed.

Inclusion in the characteristics of the quality of goods of ecological cleanliness requires significant costs.

The peculiarity of the modern stage of quality management is that all known formulas (phases) are practiced at enterprises. B.S. Alyoshin and co-authors, reflecting this unusual way of existence of history and modernity, built the "Tower of Quality". It is of not only theoretical but also practical interest.

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 known today as TQC-Total Quality Control (general quality management).

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Essentially, TQC is not a quality management system, but a system of sufficient conditions for a quality process. Development logically led to the development of TQC. All previous steps on the way to quality quality management, despite the progressive movement, were of the same type. They "tied up" the solution of the problem of economic quality management to some fragment (fragments) 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 links and dependencies built in a certain way.

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 as follows:

1. Ensuring total participation in solving the quality problem of all employees;

2. Awareness of the total responsibility for the quality of all participants in the process, the understanding that not a single specialized unit (QC, OUK, etc.) is able to cope with the task;

3. Correspondence of the quality of activities to all stages of the "life cycle" of the product: from the development of the concept of the product 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 implies the mandatory development of a method for recycling even packaging;

4. The totality of improving the knowledge and skills of performers and managers; the regularity of specially organized forms of advanced training; appropriate cost planning;

5. Achieving a total understanding that the quality of work is achieved not so much by technology and technology, as by focusing on the quality of the motivation of employees, and motivation should not be one-sided, closed only to financial returns. Then it will be stable;

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

7. Totality in the understanding of the consumer; the consumer is not someone who is outside the production process, the consumer is each next link of the production itself - the "internal consumer", therefore, an awareness of responsibility to the consumer throughout the entire production cycle is required;

8. Total cultivation of the special status of the consumer and his interest in the quality of the product;

9. Continuous quality engineering;

10. Understanding the importance of defect prevention, its economic advantage over the elimination of defects;

11. Team spirit of all participants in the process; corporate culture;

12. Leading position in the activities that ensure quality, top management, understanding quality as the goal of entrepreneurship.

Quality management in the 21st century is based on the reciprocity of total quality management (TQM) and quality system standards (ISO 8402; ISO 9000; ISO 9001). The main difference between the quality system standards is that in many countries, including Russia, they have acquired state registration and are fixed 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 parameters. "Standard" in Russia and most other countries is a set of rigidly fixed, often administrative, characteristics of products, services, activities. Analogues of our "quality marks" are found in European countries, in particular in Sweden (TCO 92; TCO 95; MPR for monitors).

From the point of view of the interests of the consumer, 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, their own interests. Hence the conditionality, the relativity of any standard and the "sign of the standard" as long as the standard does not balance the mutual interests of both parties: the manufacturer of the product and its consumer.

The most common quality system standard ISO 9000 is built on Dei's special organization system. The basis of this idea is the thesis about the documentation of all processes related to production: the purchase 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, expands; the traditional understanding of quality is being modified. The content of the concept of "quality" is loaded with knowledge corresponding to the changed situation. A classic example of the dialectic of concept development.

The most obvious illustration of what has been said is the rather frequent reports that the reputable firms Ford, Toyota, etc. recall their products due to the discovery of a technical inconsistency in just one node.

It would seem that it would be easier and cheaper to instruct service centers to replace low-quality

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components. In fact, firms are doing the right thing, given the competition in the market and the place of their brand in it.

In a complex system, a structural and technological defect of one node inevitably affects the entire system, so it is not easy to replace the node, block. The product as a whole must be thoroughly tested in order for the manufacturer's warranties to work according to the declared standard.

ISO 9000 modifications of ISO 9000-2000 do not guarantee product quality. They are "tuned" to provide such production conditions that allow them to count on the "most likely" quality reserve of productive activity.

Another "weak" side of these systems is that they explain "what should be done", but they practically do not explain "how to do it".

The ideologues of ISO 9000 say: "What should be done?" - the question is "standard" and is subject to standardization. The question is: "How should I do it?" - due to the specific conditions of production in each individual case. Therefore, "how to do" should be decided by manufacturers on the spot.

With the introduction of ISO 9000-2000, the concept of "QS" (quality system) has become obsolete, giving way to the QMS defined by the International Organization for Standardization:

1. Constant monitoring of consumer interests;
2. System leadership of the head, ensuring the unity of goals and activities of the company, as well as a stable internal environment based on cooperation and comprehensive motivation;
3. Maximum involvement of the abilities, knowledge and skills of employees in the production process;
4. Using a process approach in managing activities and resources;
5. The need for a systematic approach to management;
6. Striving for continuous improvement of the company's activities;
7. Making decisions only taking into account a comprehensive analysis of the entire possible amount of "information for thought";
8. Development of mutually beneficial relationships with suppliers.

From now on, international quality standards require that not goods be presented to the "quality mark", but the method of their production. "Quality" is the compliance of the organization and management of the enterprise with the quality management system (QMS).

The modern history of the economic aspect of quality management reveals a very instructive relationship between specific scientific, special and philosophical approaches to solving socially relevant problems of production activity.

Philosophical doctrines of quality have undoubtedly always had an effect on economic

knowledge. K. Marx began with G. Gogol, went through 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 on a new turn. Thinking economists move from practice to philosophy in order to use philosophical knowledge and method to develop a deeper understanding of the subject of their own research. All modern concepts of quality management owe philosophy no less than economic theory.

Philosophical analysis of the social process led to the conclusion about the growing role of the "subjective factor" in it. The "human factor" in philosophical humanism has always been presented as the decisive condition of history. Such was the opinion of the leading thinkers of Antiquity, the Renaissance, and the Enlightenment. But the "human factor" and "Subjective factor", contrary to the common practice of their convergence up to identification, are far from being the same thing.

"Human factor" is a concept that characterizes the whole range of human capabilities. The concept of "human factor" expresses the duality of our nature - a combination of biological and social in it; organization and personality; physics, physiology, psychology, intelligence, behavior and activity. As advertising likes to present: "all in one" or "in a package."

"The human factor" is, in fact, the person himself in the context of his ability to realize his own potential. Smart, educated Oblomov, lying on the couch, as well as active Stolz are examples of contrasts along with the title "Human Factor".

In the concept of "human factor" is not an expression of preference for either biological or social. Think it's right. To define a "man in action" - no matter in which one: Oblomov turning over with a newspaper in his hands, or an active enterprising Stolz - a synthetic concept is needed. It was proposed to call 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 progress to the movement of history.

The logic of reasoning is not complicated. The history of mankind is either an objectification outside of human substance (an objective idea, the World mind, the World Will, God, etc.), or a product of the activity of the people themselves: their mind, feelings, will and practical activity.

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The problem can be simplified, because in both cases human activity is envisaged, with the only difference that in the first case, history is made by him according to a program developed outside of human life, and in the second, a person paves the historical path, guided by his own ideas and motives. In history, whatever one may say, one cannot move away from human participation. History is "attached" to man just as he is "attached" to history.

It is then that it becomes relevant to "disassemble" the "human factor" into its component parts, to divide what exists in the person himself exclusively in unity. Divide conditionally, depending on the contribution to the historical progress of the two "halves" of man: 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". Politicians who emphasize the historical nature of human activity note the collective essence of this activity. With regard to production and production quality, the "subjective factor" is concretized to the level of "performer", "manager" and "team".

To those who object to us, considering that we have narrowed the understanding of a person 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, but modern production, then there is science-intensive, high-tech production, based on the power of knowledge, not muscle; 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 indicates that total quality management, to which everything went, is possible with the total mobilization of the subjective forces of a person: 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 Freigenbaum were seriously concerned with the mobilization of the motivation of the 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 may be. Quality is created by free will, but controlled administratively and legally. 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 one individually, and a high level of professional qualification? The answer is up to the reader, but the hint suggests itself: it is possible.

What happens? Is legal regulation an optional, superfluous matter? No. Trial fantasy does not take into account the purpose of production, which, by the way, is very well spelled out in TQC.

The purpose of production is not the quality of the goods (this is a crafty goal, self-deception). The goal of production is not the quality of production (this is also craftiness). The goal of production is customer satisfaction with the quality!

Production, even in a subsistence economy, in which the producer and consumer are one and the same person, does not exist by itself and for itself. As for the commodity form of production, the consumer is the main figure in it.

Therefore, the understanding of quality is not in the competence 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 producer in relations with the consumer has one small advantage. Using it is not easy, but the chance is quite real. A manufacturer of technically complex products that require knowledge and skills in operation can try to shape the consumer's taste for it through educational and promotional activities. The mechanism, of course, is expensive, but it is unlikely to win fierce competition in the market in another way.

The interests of the producer and the consumer do not always coincide, not immediately and not for a long time, because these are the interests of the subjects of production, separated by the barricade of the market. The market is a ring for them. The manufacturer is interested in profit. The consumer is in saving finances. One seeks 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 duel a civilized character. Avoid cheating.

The state cannot be aloof from the events taking place in the market, because the economy gives rise to politics; the movement of the market causes 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 occupied by dissatisfied - some with quality, some with price - consumers, the number of which will be no less, and the desire to win is even steeper.

The fate of each individual citizen cannot be dealt with by the state, and it is hardly advisable, but the fate of social groups should be in the zone of special attention of any state and always, if, of course, the state itself does not want to be in the zone of special attention of that main part of society, which in calm times is called the electorate, and in not calm times - the people.

Quality is a policy, firstly, and only, secondly, it is a product of the intricacies of relations in the market. Supporters of absolute market liberalization

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are "scientists" provocateurs of tension in public relations and "subversers" 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 attention of the state should be focused on:

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

- building up the production potential of enterprises, creating advanced technologies and new types of high-quality products in order to expand the share of Russian products in the domestic and foreign markets as the domestic market develops and integrates into the world economy.

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 quality standard of living of the population, without which it is definitely impossible to get out of the demographic collage. In order to be among the leaders of a non-absolute indication - a reserve fund, a loan paid off ahead of time, a partial write-off even to 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 the position in Russia in international relations, greater accommodating in economic partnership;

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

- development of environmentally sound policies and economic practices.

Integrating the analysis of the real consequences of the intensification of the behavior of the state in the quality market, we note the most important thing. This is the only effective way to ensure national security, that is, what is in the ranking of the tasks of the state above everything else, since the achievement of everything else is possible only under conditions of national sovereignty.

A systematic approach to solving the problem of quality in the USSR began to take shape in the 1950s. The Saratov system of defect-free manufacturing of products, the NORM, KANARSPI, KS UKP systems were quite successful experience in the socialist embodiment of the need to control production quality.

In the mid-1960s, the Lvov initiative became widespread in the domestic industry, and was recognized as a "system of defect-free labor" - SBT.

The highest achievement of the "struggle for quality", apparently, was the creation on the basis of a combination of a serious experiment (VNIIS) and a comprehensive generalization of practical work to improve the quality of work at the leading Lviv enterprises of the Integrated Product Quality Management System (CS CPC).

This system turned out to be the first where the enterprise standards became the organizational and technical basis for product quality management. Unfortunately, the effectiveness of the application of best practices was not high. By the beginning of the 90s, only 10% of civilian technical products corresponded to the best foreign analogues.

The state has large and different levels of opportunities to influence the quality of production and product quality. The legal mechanism, which is in the hands of the state, can affect both directly the improvement of the quality of the production process, and indirectly.

With the help of tax policy, it is possible to stimulate high-quality production and block low-quality production. By protecting the consumer from a low-quality product, the state actively prevents unscrupulous manufacturers from entering the market.

The basis of the legal provision of the quality of production in our state is the constitution of the Russian Federation. The Constitution of 1993 was developed at the height of the redistribution of property, and therefore its creators did everything to ensure that the provisions (articles) of the supreme Law were extremely abstract, declarative. But in its abstract format, the Constitution of the Russian Federation did not ignore the right of Russian citizens to quality goods. The relevant articles have been 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 care and a healthy lifestyle of Russian citizens is guaranteed by the state." However, in this scenario, the "legitimate" interests of the 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, mediated protection of the right of the country's population to health.

Goods for direct and long-term consumption must have the necessary level of quality so as not to be harmful to health. Otherwise, there are serious legal and financial sanctions against the manufacturer and the 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 in the company with which there were also their own

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"standards" of enterprises (TU) were developed. Management structures were created, or modernized inherited from the socialist time.

On the basis of the rights of citizens to quality goods proclaimed by the Constitution, a modern structure of quality management has been built.

The state does not interfere in the technology of production quality management. Its activities are aimed at controlling the method of production in order to exclude the possibility of harm to the health of citizens (and non-citizens) and harm to the natural environment of human life, as well as to prevent the appearance of dangerous low-quality goods on the market, deceiving consumers 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 ecological activities within the framework of normalized relations. Prices, priorities, demand, supply, advertising - all these are market mechanisms as long as they remain within the limits of economic relations moral to the same markets.

Pay special attention to the intangible, outwardly unperceivable aspects of the organizational environment. Deeply ingrained assumptions and value orientations in people may require long and difficult changes in the system and structure of management. Culture is the path that helps to understand the organizational "Through the Looking Glass".

Be skeptical of proposals calling for rapid transplantation or crop transformation.

Try to understand the importance of important organizational symbols (company name, logo, slogans).

Listen to the stories told in the enterprise team, analyze who their heroes are and what these stories reflect in the culture of the organization.

Introduce organizational rites periodically to transmit basic ideals and enhance culture.

Practice abstract ideals directly and directly in your daily activities. The manager is required to understand what ideals he must adhere to and

what actions should be taken to convey these ideals down the levels of the enterprise.

Organizational culture is a set of the most important assumptions, values and symbols shared by the members of the enterprise team. There are different levels of organizational culture: superficial, subsurface, deep.

Depending on the predominance of elements of one level or another, subjective and objective culture is distinguished in the enterprise team. The first is the basis for the formation of a managerial culture or leadership style.

Organizational culture is not a monolith, but consists of the dominant culture, group subcultures, and countercultures that reinforce or weaken the culture of the organization as a whole. The strength of culture depends on the extent and sharing of its main

attributes by the members of the enterprise team, as well as on the clarity of its priorities.

The development of organizational culture involves its formation, maintenance and change. The formation of culture takes place in the conditions of solving two important problems by the enterprise: external - adaptation and internal - integration. The formation of culture in the team of the enterprise is influenced by the culture of the society / people within which the enterprise operates.

Organizational culture is supported by what attention is paid to, how the activities of members of the enterprise team are evaluated and controlled, ways of responding to critical situations - role modeling and staff training, motivation criteria, as well as criteria in personnel work. Compliance with rituals, rituals and traditions also contributes to the maintenance of organizational culture.

Changing organizational culture is, to a certain extent, the opposite action in relation to its maintenance. Changes in behavior can lead to changes in the culture of the enterprise team, and vice versa. Three combinations of changes in behavior and culture in the enterprise team are possible:

- 1) culture change without behavior change;
- 2) changing behavior without changing culture;
- 3) change in behavior and culture.

The study of the influence of culture on organizational performance is associated with the choice of approach and variables.

Success in business implies a high degree of strategy compatibility and culture in the enterprise team. The following situations may arise: a culture is ignored that strongly impedes the effective implementation of the chosen strategy; the management system adjusts to the existing culture in the enterprise team; an attempt is made to change the culture in accordance with the chosen strategy; the strategy adjusts to the existing culture.

Conclusion

Quality represents a system essential for the product properties - it is commonplace and well-known, which is actively used, replacing properties, or their consistency in a quality product. Essential properties are those that are not just inherent in the product, they determine its functionality. Such properties, as a rule, are revealed in the process of "work" of the product for its intended purpose, they are hidden from the unprofessional view of the consumer. In its "pure" form, the market is an intermediary and should not be interested in the quality of products. The task of the market in the theory of the organization of commodity production is the organization of exchange between the producer and the consumer. The development of the market stimulates the increase in production in the interests of the consumer within the infrastructural status of the market.

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The monopolization of production led to the accumulation of financial capital, the automation of the latter, and the control of the market. As a result, the market has turned from an intermediary into a key subject, trying to replace the indicator function - to show the demand for goods - with the role of the organizer of economic activity as a whole, which distorts the economic system.

The economy of commodity production was created by the production of a product and the need for a mass product. The system-forming factor here is the production of goods as a product necessary for consumption by others, that is, the process of alienation of consumption. With natural production, the quality of the product was hardly an actual problem. Quality "dissolved" in the conservatism of technology and technology, traditional assortment. The question of quality was raised by the consumer when he got the opportunity to compare at the fair. The market, which grew out of fair gatherings, gradually enriched the representative status with the advertising business, taking control of the relationship between the producer and the consumer. Management levers - financial policy, directions - the main ones - two: the impact on quantity and quality.

The quality of the product has become relevant in commodity production. It became clear that in the understanding of quality there are sensual and rational thinking (the latter in the form of calculation). The subjective factor is objectified and fetishized. The market is not capable of influencing the objective properties of a product directly (using its own mechanisms), but it can very well influence the objectivization of subjective ideas. Thus, the manipulation of quality was first included in the functions of the market, then became an element of economic policy.

A sound and healthy economic policy is called upon to work on improving quality in two interrelated directions: technical and technological, completed by a rigid legal block of support, and socio-cultural - to provide comprehensive support for the formation of conditions for the subjective perception of quality, to block the negative effect of advertising influence, which has long and thoroughly become an attribute of market speculation on the importance of quality for the buyer. The presence of choice and solvent opportunities do not serve as a basis for the indisputability of a quality acquisition.

In the existing market, price and quality are divorced even at auctions, famous for the thoroughness of the organizational culture. The buyer is turned into an expert and this grimace of the market is not so bad as illogical. The market forces the consumer to develop as a person. From a layman with a wallet, in order not to turn out to be suckers, we unwittingly try to learn more about the subject of interest, we improve our "purchasing qualifications". The term is not new, it is used by journalists, but for

them it is a passing, verbal number, and for us it is no longer a new combination of common words, but the most important concept, without which the modern theory of quality does not have a systemic, holistic form.

"Purchasing qualification" includes, along with certain knowledge that helps to determine the location of the store, the price range for the goods, requires basic information about the manufacturer, quality features of the product, the manufacturer's market reputation, company traditions, scale of activity. Today, in the consumer market, the naive buyer runs the risk, beyond any reasonable measure, of being the victim not only of deceit, but also of his own carelessness, and therefore without any right to compensation.

The buyer in Russia is formally protected. In real life one has to be guided by the famous rule "saving the drowning ("buying") is the work of the drowning themselves, read "buying".

Raising the "purchasing qualifications", if there is a desire, is a mutually beneficial matter for the state, activating the cultural national heritage and the patriotic mood of the mass consumer. Although there is another way, tested under Mao in China - "the worse, the better."

Imported consumer goods - not Chinese - in the 1980s-90s. was with us Hurrah! The assortment, packaging, external features of the product were impressive. And what is the result? After 10 years, the manufacturer returns Soviet brands, naturally in the absence of effective control, not of Soviet quality.

We know how to make high-quality products and are quite able to regain "our" market. The question is not even the price, the problem is the loss of control over the consumer (and not only consumer, judging by failures in rocketry, aircraft operation, etc.) market. They explain to us: we need economic measures. True, however, it is a half-truth. If you need them, then take them. The government should have power that is not nominal. It's time to understand that economics has always been politics, economics has always been political economy.

Many violations of economic relations necessarily lead to the intervention of law enforcement agencies designed to protect the affected entity within the framework of the current legislation.

Any act of "purchase and sale" is a by-law and the legislator or the performer must be included in the process. Otherwise, the rights of the owner will suffer and the violator of market relations under jurisdiction will not be punished.

The situation with legal support of quality management is complex. The market 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"; "the quality of the

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goods produced"; and "the quality of the product purchased" by the consumer.

An intermediary - a "speculator" - is quite capable of violating the technical conditions when delivering goods to the place of sale, in storing goods, and preparing them for sale. As a result, the quality parameters of the product will change. In the legal protection of the consumer, all possible situations and measures of responsibility of the seller are prescribed.

Consumer protection legislation has been around for a long time in European countries and North America and has been polished for centuries. In its current state, it is quite effective, which forces violators to reckon with it in order to avoid serious financial sanctions of death-like anti-advertising.

The Russian experience of legal regulation of relations in this area is much poorer, moreover, it was formed 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 a consumer who has purchased a product, more precisely, a product that does not meet the entire set of consumer and technical characteristics. And the object of legal relations is the quality of the goods.

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 to the market.

In the peripheral zone of interest of legislators was the activation of a number of federal bodies: on standardization, metrology and certification, sanitary and epidemiological surveillance, environmental protection and natural resources.

The categorical apparatus of the Law on the Protection of Consumer Rights was made up of the concepts: "consumer", "manufacturer", "seller", "standard", "lack of goods", "significant lack of goods", "safety of goods". As you can see, there is no mention of "quality" in the categorical apparatus of the law, despite the fact that it protects the consumer from low-quality goods, and doubles trying to protect the market from marriage and counterfeit products.

The developers of the ideology of the Law acted logically. They divided the content of the concept of "quality of goods" into components: "manufacturer of goods", "performer", "seller", "standard", "consumer", building a system out of them, the forming factor of which they made "standard".

The relationship between the consumer and the producer is regulated in the Law with the help of the concept of "standard", which is subject to change in a certain system of units.

"Standards" are understood to exist at two levels: universal, controlled by the state, and sectoral, private, set independently by manufacturers, and having passed the necessary certification procedures.

According to the logic of building subordination relationships, the requirements of a higher level of organization are guidelines for the rest of the "pyramid". In the case of a contradiction, the advantage belongs to who (or what) is higher, i.e. more important.

It was superfluous to introduce the concept of "quality (of goods)" into the conceptual apparatus of the Law. It has been successfully replaced by the more verifiable concept of "standard". At the same time, reminding all market participants from the manufacturer and contractor to the consumer who is the boss in the house.

From a philosophical and economic point of view, the main drawback of the law is the locality of the destination. The state is still under the hypnosis of the effectiveness of the economic liberalism of the American model, super-delicately in expressing its economic interests, forgetting that these interests are not the interests of the government, but the people of Russia. The state, especially the executive power as the top manager, should realize the interests of the people, instead of being afraid of being misunderstood by foreign partners. Foreign partners, when necessary, tighten the screws tightly.

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 considered private claims against the seller regarding low-quality goods will sharply decrease. A private lawsuit for a manufacturer of low-quality products and a wholesaler who fills it in the market is still early that a mosquito squeak.

It is necessary to protect the market from low-quality goods, as G. Ford, Sr., did in his time, when he entrusted the "phase from rejection" to special production, removing quality control from the main production process. As a result, low-quality components stopped coming to the assembly line. The state does not need to strive to be a subject of the market, it needs to be above the market, stimulating manufacturers of quality goods, and not allowing low-quality goods to enter the market. In the first case, economic incentives are required, in the second, administrative and criminal sanctions.

Now the state is facing the problems of quality management, as if, half-turned, modestly distancing itself. It is necessary to turn to face him and take up the quality, "rolling up your sleeves". Only then will the time come when ministers will not be able by their power to postpone the deadlines for the implementation of the president's instructions for years, but also bear stricter personal responsibility.

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References:

- (2017). *The concept of import substitution of light industry products: prerequisites, tasks, innovations*: monograph. Prokhorov V.T. [and others]; under total ed. doctor of technical sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.334). Novochoerkassk: Lik.
- (2018). *The competitiveness of the enterprise and the competitiveness of products is the key to successful import substitution of goods demanded by consumers in the regions of the Southern Federal District and the North Caucasus Federal District*: collective monograph. Prokhorov V.T. [et al.]; under general ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.337). Novochoerkassk: Lik.
- (2018). *Managing the real quality of products and not advertising through the motivation of the behavior of the leader of the team of the light industry enterprise*: monograph. O.A. Surovtseva [i dr.]; under general ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.384). Novochoerkassk: YuRGPU (NPI).
- (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. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.326). Novochoerkassk: YuRGPU (NPI).
- (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. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.227). Novochoerkassk: Lik.
- (2005). *Imai Masaaki. Kaizen: a way to reduce costs and improve quality*. transl. from English. (p.346). Moscow: Alpina Business Books.
- Porter, M. (2005). *Competition*. per. from English. (p.608). Moscow: Ed. house "Williams".
- Pande, P. (2004). *What is Six Sigma. Revolutionary method of quality management*. lane. from English. (p.158). Moscow: Alpina Business Books.
- Vume, D. (2005). *Lean production: how to get rid of losses and achieve prosperity for your company*. transl. from English. (p.473). Moscow: Alpina Business Books.
- Michael, G.L. (2005). *Lean Six Sigma: Combining Six Sigma Quality with Lean Speed*. from English. (p.360). Moscow: Alpina Business Books.
- Imai, M. (2005). *Kaizen: the key to the success of Japanese companies*. transl. from English. (p.274). Moscow: Alpina Business Books.
- (2016). *Research and analysis of innovative processes for the production of import-substituting products at enterprises in the regions of the Southern Federal District and the Siberian Federal District*: monograph. Korablina S.Yu. [and etc.]; under total and scientific ed. Dr. tech. sciences, prof. V.T. Prokhorova, ISOiP (branch) of DSTU in Shakhty, (p.358).